



FILED

07/15/24

04:59 PM

A2305010

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Application of Southern California Edison
Company (U 338-E) for Authority to
Increase its Authorized Revenues for
Electric Service in 2025, Among Other
Things, and to Reflect That Increase in
Rates.

Application 23-05-010

OPENING BRIEF OF THE PUBLIC ADVOCATES OFFICE

SELINA SHEK
MARYBELLE ANG
JOSEPH LAM

Attorneys for

Public Advocates Office
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
Telephone: (415) 703-2423
E-mail: selina.shek@cpuc.ca.gov

July 15, 2024

TABLE OF CONTENTS

	<u>Page</u>
TABLE OF AUTHORITIES	xvii
SUMMARY OF RECOMMENDATIONS	xix
I. INTRODUCTION	1
II. LEGAL STANDARD.....	2
III. POLICY	4
IV. AFFORDABILITY & EQUITY	5
V. RISK-INFORMED STRATEGY AND BUSINESS PLAN	8
A. Climate Change Policy	8
B. Environmental and Social Justice Goals	8
C. Quantitative Risk Modeling	8
1. The Commission should require SCE to revise its Integrated Wildfire Mitigation Strategy to more effectively prioritize and locate its undergrounding projects.	10
2. The Commission should direct SCE to revise its IWMS so that SCE prioritizes and locates its undergrounding projects in areas with the greatest overall utility risk.....	12
a) SCE does not account for the likelihood of risk events when prioritizing and proposing risk-mitigation projects that comprise undergrounding.....	12
b) SCE’s planned undergrounding scope is not where overall utility risk is most concentrated	14
3. The Commission should require SCE to modify its mitigation selection process for its Severe Risk Areas to analyze alternatives to undergrounding	15
4. The Commission should require SCE to locate and plan its undergrounding projects for this GRC period in areas with the greatest wildfire and PSPS risk.	16
5. The Commission should require SCE to submit an annual System Hardening Accountability Report (SHAR) on its progress in achieving risk reduction goals in its undergrounding and covered-conductor programs.....	17
6. The Commission should require SCE to provide risk-reduction goals for its Targeted Undergrounding program and for its covered-conductor risk-mitigation program.	18
7. The Commission should require SCE to submit its evaluation of the combined effectiveness of Rapid Earth Fault Current Limiter (REFCL).....	19

VI.	DISTRIBUTION OF GRID	21
A.	Infrastructure Replacement	24
1.	Underground Cable Replacement Program	25
2.	Cable-In-Conduit Replacement Program.....	30
3.	Underground Switch Replacement Program.	35
4.	Overhead Conductor Program.	36
a)	Proactive replacement of overhead cable	36
b)	Accelerated Overhead Conductor Program.....	40
5.	Capacitor Bank Replacement Program.....	42
6.	4-kV Remediation Program.	42
B.	Inspection and Maintenance, and Capital-related Expense.....	48
1.	Activities that affect distribution-transformer forecasts	48
2.	Adjustments to SCE’s distribution-transformer spreadsheet.....	51
a)	Adjustments to Average Usage	51
b)	Adjustments for Float Percentages	54
c)	Adjustments to Indirect Miscellaneous Costs	56
3.	Conclusions about Inspection and Maintenance, and Capital-related Expenses.....	56
C.	Safety and Reliability Investment Incentive Mechanism.....	57
D.	Inspection & Maintenance, and Capital-Related Expense	57
1.	Cal Advocates does not object to SCE’s Inspections & Maintenance request.	58
2.	Cal Advocates adjusts SCE’s Capital-Related Expense and Other request substantially under Electric Asset Data.	58
a)	Electric Asset Data.....	60
b)	Reliability Operations Center	61
VII.	METER ACTIVITIES.....	61
A.	Meter O&M.....	62
B.	Meter Capital.....	62
1.	SCE Has Failed to Support Its Requests for Substantial Increases in Meter System Maintenance Design	64
2.	SCE Wrongly Uses a Three-Year Average (2020-2022) In Its Meter Engineering Request	69
a)	Cal Advocates recommends minor adjustments to SCE’S Routine Meter Work.	70

b)	SCE has not demonstrated why it has included deferred projects in its Non-Routine Meter Work.	71
VIII.	TRANSMISSION GRID.....	75
A.	Transmission Grid O&M.....	75
B.	Transmission Grid Capital Expenditures	75
1.	Transmission Line Rating Remediation (TLRR).....	75
a)	Overview.....	75
b)	Forecasted expenditures should reflect project delays	77
c)	SCE’s requested contingency for the Gorman-Kern River Project is unreasonably high.	79
d)	A line item in SCE’s RO model inputs is unsupported by SCE’s workpapers and should be excluded.	80
C.	Transmission Infrastructure Replacement.....	81
a)	SCE has not justified the significant cost increase to the Transmission Infrastructure Replacement (TIR) program.	82
b)	SCE’s proposed contingency for the Pothead Replacement Program is too high.....	83
IX.	SUBSTATION.....	85
A.	Substation O&M.....	85
1.	Substation Grid Monitoring and Operability	85
a)	Monitoring and Operating Substations.....	86
b)	Monitoring the Bulk Power System	87
(1)	Increased Labor Expenses.....	87
(2)	Increased Non-labor Expenses.....	88
(3)	Other Expenses.....	89
c)	Substation Inspections and Maintenance.....	90
(1)	Relay Inspection and Maintenance	90
(2)	Other Substation Equipment Inspections and Maintenance .	91
B.	Substation Capital.....	93
1.	SCE should continue its Substation Transformer Bank Replacement Program at historical levels.....	93
2.	Within the Substation Preventative Maintenance Programs, the Edison Training Academy Should Be Completed Prior To More Funding Being Approved.	95

X.	GRID MODERNIZATION, GRID TECHNOLOGY, & ENERGY STORAGE...	96
A.	Grid Modernization	96
B.	Grid Technology Assessments, Pilots, & Adoption	98
1.	Capital	98
a)	Cal Advocates does not oppose SCE’s capital expenditure proposals for Grid Technology Assessment Programs.	99
b)	SCE has failed to demonstrate that all its capital pilot projects will benefit ratepayers.....	103
c)	The Commission should reject SCE’s Smart City Pilot because SCE has not demonstrated the Smart City Pilot will be used and useful during this GRC period nor that ratepayer benefit exceeds the costs.	106
d)	SCE’s Virtual PAC Pilot should be rejected because SCE has not demonstrated the Virtual PAC Pilot will be used and useful during this GRC period nor that ratepayer benefit exceeds the costs.	110
e)	The Commission should reject SCE’s Virtual Protection Pilot Project because SCE has not demonstrated the Virtual Protection Pilot will be used and useful during this GRC period nor that ratepayer benefit exceeds the costs.....	113
f)	The Commission should reject SCE’s Adaptive Protection Pilot Project because SCE has not demonstrated the Adoptive Protection Pilot will be used and useful during this GRC period nor that ratepayer benefit exceeds the costs.	115
g)	The Commission should reject SCE’s DC Link Pilot Project because SCE has not demonstrated SCE’s DC Link Pilot Project will be used and useful during their GRC period nor that ratepayer benefit exceeds the costs.....	118
h)	The Commission should reject SCE’s Service Center of the Future Pilot Project because SCE has not demonstrated SCE’s Service Center of the Future Pilot Project will be used and useful during this GRC period nor that ratepayer benefit exceeds the costs.	121
2.	O&M	124
C.	Energy Storage	126
1.	Capital	126
a)	Background on SCE’s Energy Storage Pilots.....	128

b)	Cal Advocates adjusts SCE’s DESI Pilot Program because of its pending decommission.	131
c)	SCE’s problematic LDES pilot should not be funded in this GRC.	133
2.	O&M	135
XI.	LOAD GROWTH, TRANSMISSION PROJECTS, AND ENGINEERING	137
A.	Load Growth.....	137
1.	Overview of Transportation Electrification Grid Readiness (TEGR)	137
2.	Baseline Forecast Recommendations	139
3.	Load Growth Methodology.....	144
a)	SCE’s Baseline Forecast.....	144
b)	SCE’s TEGR Forecast	145
c)	Cal Advocates Forecast (2022 IEPR)	146
4.	TEGR LOAD GROWTH PROGRAMS	148
a)	Background on TEGR Load Growth Projects and Programs... ..	148
b)	SCE’s EV forecast is aggressive in the near term.	149
c)	SCE is frontloading capital investments for EVs.	151
d)	SCE’s internal load shapes may be overestimating peak load associated with EVs.	152
e)	CEC AB2127 Report’s use of the CARB MSS and SCE’s TEGR Forecast.....	155
f)	SCE’s use of external consultant studies and an internally developed DER forecast methodology prevents public transparency.	157
g)	Cumulative Peak Load for TEGR is Higher than both the Baseline and the 2022 IEPR.	158
h)	CEC 2022 IEPR is based on the most up to date information and matches observations and trends more closely than SCE’s Baseline and TEGR.	158
i)	CEC 2022 IEPR is better aligned with SCE’s recent observations of MDHD charging behavior and, therefore, load shapes.	159
j)	Cal Advocates recommends aligning SCE’s forecast with the 2022 IEPR.....	160
5.	Baseline Load Growth Programs	162

a)	SCE’s Baseline Load Growth Projects and Programs	162
b)	Cal Advocates’ Baseline Load Growth Methodology	164
c)	Methodology for Aligning Forecast with 2022 IEPR.....	165
d)	Cal Advocates’ Recommendation.....	167
B.	Transmission Projects.....	174
1.	The Commission should not fully approve SCE’s Grid Reliability Projects request	175
2.	The Commission should decrease SCE’s Renewable Transmission Projects request	179
3.	SCE's Dynamic Line Ratings project should be submitted as a separate application.....	182
C.	Engineering O&M.....	186
1.	Distribution Substation Plan (DSP)	186
a)	SCE has not demonstrated the need for a significant increase in its mobile energy storage units under its DSP Distributed Energy Resources.....	187
b)	Cal Advocates no longer opposes SCE’s \$1.9 million request under SCE’s DSP Substations.	188
2.	Transmission Substation Plan	189
a)	The Commission should not fully approve SCE’s TSP Subtransmission Lines Plan.....	190
b)	The Commission should reject SCE’s full requests under its TSP A-Bank Plan when the Commission has not approved recovery.	192
3.	SCE should file a separate System Improvement Programs application for Approval	192
4.	SCE has not demonstrated the need for Climate Driven Circuit Ties.	193
XII.	NEW SERVICE CONNECTIONS & CUSTOMER REQUESTED SYSTEM MODIFICATIONS	196
A.	New Service Connections	199
1.	SCE has not demonstrated why its Rule 20A Conversion forecasts have increased substantially.....	199
2.	SCE has not substantiated its Residential New Service Connections Forecast.	202
B.	Customer Requested System Modifications	210

1.	Cal Advocates does not object to SCE’s Rule 20B and Rule 20C Conversions in general, but adjusts SCE’s 2023 Transmission Rule 20B & 20C Conversion.....	210
XIII.	POLES	214
A.	Poles O&M.....	214
B.	Poles Capital.....	214
XIV.	VEGETATION MANAGEMENT	220
A.	Inspections Program	224
B.	Routine Line Clearing	227
C.	Dead, Dying, Diseased Tree Removal	229
D.	Hazard Tree Management Program.....	229
E.	Seasonal Patrols/AOC/ Emergent Work.....	232
F.	Structure Brushing.....	233
G.	Environmental Support for Vegetation Management.....	235
H.	Wildfire Mitigation Vegetation Management Technology Solutions.....	235
XV.	WILDFIRE MANAGEMENT	235
A.	Overview	235
B.	Grid Hardening.....	240
1.	SCE’s Targeted Undergrounding requests should be based on difficulty in calculating average costs versus applying a weighted average of \$4.03 million per mile for all forecasted miles of undergrounding projects.	244
2.	The Commission should adopt Cal Advocates’ recommendations for Wildfire Covered Conductor because Cal Advocates utilizes more current information and a five-year cost average.	251
C.	Emergent Technology & Inspections & Remediations	258
1.	SCE’s High Fire Risk Inspection request is reasonable, but the Commission should reject its unreasonable Remediations request. .	258
2.	The Commission should not adopt SCE’s full Wildfire Mitigation and Vegetation Management Technology Solutions request.	265
3.	SCE did not demonstrate the reasonableness of its Aerial Suppression request and did not account for the time various California counties will be responsible for costs.....	268
4.	The Commission should not approve SCE’s full request for Enhanced Situational Awareness, particularly for High Definition cameras where SCE did not base its request on recorded data.....	272
D.	PSPS & Other Wildfire Activities	275

1.	Public Safety and Power Shutoff (PSPS) Execution	275
a)	SCE's 2025 Forecast is Inadequately Supported.....	277
2.	SCE fails to demonstrate how its PSPS Execution Incident Management Team (IMT) is reasonable when it is 60% above its 2022 recorded amount.....	279
3.	SCE's Line Patrols request is unreasonably high despite costs decreasing.....	280
4.	SCE's PSPS Customer Support request is unreasonably high when the PSPS forecast is decreasing.	281
5.	SCE's AFN Customer Enhancements request is unreasonable because of its overly-broad AFN program definition.....	283
6.	SCE fails to demonstrate why ratepayers should fund Disability Disaster & Access Resources (DDAR).....	285
XVI.	T&D OTHER COSTS AND OTHER OPERATING REVENUE	286
A.	T&D Other Costs.....	286
B.	T&D Other Operating Revenues.....	286
XVII.	CUSTOMER SERVICE OPERATIONS	286
A.	Billing and Payments.....	286
1.	Billing Services	286
2.	Capital Costs in Billing and Payments Activities.	286
B.	Customer Contacts	286
1.	Customer Contact Center.	286
C.	Customer Service Re-Platform.....	286
D.	Customer Service-Related Other Operating Revenues.	286
1.	Overview of SCE's Request.....	287
2.	New Paper-bill Fee for Residential and Non-Residential Customers.	289
3.	Cal Advocates opposes SCE's Paper-bill Fee.....	290
4.	Cal Advocates Alternative Proposal.....	294
E.	Billing Practices and Policies.	294
XVIII.	BUSINESS CUSTOMER SERVICES	295
XIX.	CUSTOMER PROGRAMS AND SERVICE	295
XX.	BUSINESS CONTINUATION	295
A.	Planning, Continuity, and Governance.....	296
B.	All Hazards Assessment, Mitigation, and Analytics	296
1.	General Office Project 1 of Seismic Non-Electric Program.....	296

2. New Starts + Carryover 2024 and 2025 Project	297
XXI. EMERGENCY MANAGEMENT	297
A. Training, Drills and Exercises	298
B. Emergency Preparedness and Response.....	298
C. Storm Response	298
XXII. CYBERSECURITY	301
XXIII. PHYSICAL SECURITY	303
XXIV. GENERATION.....	303
A. Overview	303
B. Hydro	304
1. Overview	304
2. Hydro Generation O&M Expenses.....	305
3. Hydro Labor	305
C. Hydro Non-Labor	307
1. Overview	307
2. Forecast Methodology - Cal Advocates Recommends a Five-Year Average Forecast Method	307
3. Hydro Non-Labor Adjustments.....	309
4. Hydro Generation Capital Expenditures	311
a) Dams and Waterways.....	311
b) Prime Movers.....	314
c) Licensing and Implementation	316
(1) Big Creek Rehabilitation and New Facility Construction ..	316
(2) Infrastructure Modifications	319
d) Decommissioning	320
D. Fossil Fuel (including Mountainview and Peakers).....	322
E. Fuel Cell	322
F. Solar.....	322
G. Catalina.....	322
H. Nuclear	322
XXV. ENERGY PROCUREMENT	323
A. Energy Procurement O&M	323

B.	Energy Procurement Capital	326
XXVI.	ENTERPRISE TECHNOLOGY	326
A.	Technology Planning, Design, and Support	326
B.	Technology Delivery.	327
C.	Digital and Process Transformation.	327
D.	Service Management Office and Operations.	327
1.	Technology Planning, Design, and Support.....	328
2.	Technology Delivery Expense	328
3.	Digital Process and Transformation.....	330
4.	Service Management Office & Operations (SMOO) – Fixed Price Technology.	331
5.	SMOO – Software Maintenance & Replacement.....	331
a)	Cloud-Based Subscriptions.....	332
b)	Perpetual License.....	335
c)	Application Refresh.	338
(1)	O&M Projects	339
(2)	Consulting and Professional Services	341
(3)	Ongoing Maintenance.	343
6.	Technology Infrastructure Maintenance and Replacement.....	344
XXVII.	OPERATING UNIT CAPITALIZED SOFTWARE.	344
XXVIII.	ENTERPRISE PLANNING AND GOVERNANCE (NON-INSURANCE)	
344		
A.	Financial Oversight and Transactional Processing.	345
B.	Legal.....	346
1.	Law.....	346
a)	In-house Legal	346
b)	Outside Counsel.....	348
2.	Claims	349
a)	Claims - Injuries & Other Damages	350
b)	Claims - Write-Offs	353
C.	Business and Financial Planning.....	355
1.	Business Planning.	356
2.	Corporate Services	358

3.	Modeling, Analysis, and Forecasting.....	360
D.	Supply Chain Management and Supplier Diversity and Development	362
XXIX.	INSURANCE	365
A.	Liability Insurance (Wildfire).....	365
B.	Liability Insurance (Non-Wildfire)	365
C.	Property Insurance.....	366
XXX.	EMPLOYEE BENEFITS, TRAINING AND SUPPORT	366
A.	Employee Support	366
B.	Employee Benefits & Programs	366
1.	Short-Term Incentive Program (STIP).....	368
2.	Long-Term Incentive Plan (LTI).....	372
3.	Executive Compensation.....	374
4.	Medical Programs	375
5.	Executive Benefits	376
6.	Recognition	378
C.	Employee Training	379
1.	Employee Training and Development	379
2.	Transmission & Distribution – Training Seat Time	379
3.	Transmission & Distribution – Training Delivery and Development	384
XXXI.	TOTAL COMPENSATION STUDY	386
XXXII.	ENVIRONMENTAL SERVICES	386
A.	Environmental Services O&M	387
1.	2025 O&M Labor for Environmental Management and Development	387
2.	2025 O&M Non-Labor for Environmental Programs	387
B.	Environmental Services Capital	387
1.	2023-2025 Capital for Environmental Programs.....	387
C.	SCE Request for SONGS-Related Cost Recovery re: Marine Mitigation	388
XXXIII.	AUDIT SERVICES	390
XXXIV.	ETHICS & COMPLIANCE.....	393
A.	Cal Advocates adjusts SCE’s Ethics & Compliance requests.....	393
XXXV.	SAFETY PROGRAMS	395

A.	Safety Operations & Maintenance (O&M)	395
1.	Cal Advocates adjusts SCE’s Safety Programs Request by \$3.088 million.	396
2.	Cal Advocates does not object to SCE’s Employee and Contractor Safety.....	397
3.	Cal Advocates adjusts SCE’s Safety Strategy Transformation request by \$0.264 million.	399
4.	Cal Advocates adjusts SCE’s Safety Activities-Transmission and Distribution by \$5.049 million.....	401
B.	Safety Programs Capital.....	404
1.	Cal Advocates adjusts SCE’s request for its Automated External Defibrillator Replacements.	404
XXXVI.	ENTERPRISE OPERATIONS.....	406
A.	Transportation Services Department.....	406
B.	Facilities and Land Operations.....	407
1.	Infrastructure Upgrades.....	407
a)	Edison Training Academy	408
b)	Vehicle Maintenance Facilities	410
c)	GO4 Workplace Upgrades	411
d)	Fleet Charging.....	412
e)	Covina CSAS (Customer Service Automated System Facility)	414
f)	Barstow Service Center Expansion	415
2.	Facility Repurpose Projects	416
a)	Alhambra Regional Operations Facility Renovations	416
b)	Westminster Combined Facility Renovations	416
3.	Substation Reliability Upgrades	417
a)	Antelope Maintenance and Test Building, Pardee Maintenance and Test Building, and Santa Clara Maintenance and Test Building	417
4.	Projects Less than \$3 Million.....	418
a)	Arrowhead Service Center Land Purchase	418
5.	Land Operations.....	419
a)	San Jacinto Laydown Yard.....	419
XXXVII.	POLICY AND EXTERNAL ENGAGEMENT	420

A.	Develop and Manage Policy and Initiatives.....	420
B.	Education, Safety, and Operations	420
C.	Professional Education and Development.....	420
D.	Ratemaking Cost Recovery Business Planning Element	422
XXXVIII.	RESULTS OF OPERATIONS	423
A.	Results of Operations	423
B.	CPUC-Jurisdictional Revenue Requirement	425
C.	GRC Ratemaking Proposals, including Memorandum and Balancing Accounts	425
1.	SCE’s proposed modification of balancing and memorandum accounts	427
a)	Z-Factor Memorandum Account (ZFMA).	427
2.	SCE’s proposed new balancing and memorandum accounts.....	428
a)	Establishment of the General Liability Insurance Balancing Account (GLIBA).....	428
b)	Establishment of the NextGen ERP SAP Memorandum Account (NGESMA).....	428
c)	Establishment of the Historic Sporting Events Cost Tracking Memorandum Account (HSECTMA).	428
d)	Establishment Cybersecurity Compliance Memorandum Account (CCMA).....	428
3.	SCE’s Proposed Recovery of Memorandum-Account Balances.....	428
a)	Cal Advocates’ Review of SCE’s Memorandum-Accounts Expenses.	429
b)	Cal Advocates’ recommendation on SCE’s request for recovery of memorandum-accounts balances that are based on forecasted costs.	431
4.	SCE’s proposed elimination of memorandum accounts.....	433
a)	Customer Service-Re-Platform Memorandum Account (CSRPMA).	433
b)	Seismic Retrofit for Non-Electric Facilities Memorandum Account (SRNEFMA).	434
c)	NEM Online Application System Memorandum Account (NEMOASMA).	434
5.	Compliance requirements.	434

D.	Forecasts of Sales, Customers, and New Meter Connections.....	435
1.	Overview of SCE Residential Customer and New Meter Connection Models.....	435
a)	SCE Housing Starts Forecast as Main Driver	435
b)	Cal Advocates' Recommendation for SCE's Residential Customers and New Meter Connection Forecasts.....	437
E.	Present Rate Revenue	438
F.	Cost Escalation	438
G.	Other Operating Revenue (Excluding Non-Tariffed Products And Services)	438
H.	Other Operating Revenues – Non-Tariffed Products and Services	438
I.	Operation and Maintenance Expense Forecast	438
J.	Overhead Allocation.....	438
K.	Reinvestments in Utility-Owned Generation Resources.....	438
XXXIX.	RATE BASE.....	439
A.	Plant in Service, Reserves, and Depreciation Expense	439
B.	Working Capital (Excluding Customer Deposits).....	439
1.	Materials and Supplies	440
2.	Mountainview Emission Credits.....	440
3.	Working Cash: Operational Cash.....	442
4.	Lead-Lag Working Cash	443
a)	Revenue Lag	443
b)	Expense Lag.....	446
(1)	Goods and Services Lag Day	446
(2)	Federal Income Tax Lag Day	447
(3)	California State Corporation Franchise Tax Lag Day	448
5.	Customer Advances.....	450
6.	Unfunded pension reserves	451
C.	Customer Deposits	451
D.	Taxes.....	452
1.	Taxes Based on Income.....	452
a)	Basis for Regulated Income Tax Expense	453
b)	Overview of SCE's Request	455

c)	Cal Advocates’ Analysis	455
2.	Payroll and Other Taxes	455
a)	Overview of SCE’s Request	456
b)	Cal Advocates’ Analysis	456
3.	Property Taxes.....	456
a)	Overview of SCE’s Request	456
b)	Cal Advocates’ Analysis	457
4.	Tax Accounting Memorandum Account (TAMA 2018)	457
XL.	SCE ASSET DEPRECIATION STUDY	458
A.	T&D Net Salvage	459
1.	FERC Account 362 (Distribution Station Equipment)	463
2.	FERC Account 365 (Distribution Overhead Conductor and Devices)	464
3.	FERC Account 366 (Distribution Underground Conduit)	464
4.	FERC Account 367 (Distribution Underground Conductors and Devices)	464
5.	FERC Account 368 (Distribution Line Transformers)	465
B.	T&D Average Service Life.....	465
C.	Small Hydro Decommissioning	465
1.	Borel.....	469
2.	Rush Creek (Agnew, Rush Meadows)	469
D.	Generation Decommissioning Escalation	470
E.	Solar PV	470
F.	Fuel Cell Generation	471
G.	Miscellaneous/Other.....	471
XLI.	POST TEST YEAR RATEMAKING.....	471
A.	Overview of SCE’s Post Test Year Ratemaking Proposals	471
B.	Post-Test Year Revenue Increases	473
C.	SCE’s Post-Test Year Ratemaking Proposals	474
1.	GRC Term	474
2.	SCE’s Proposed PTYR Mechanism.....	475
3.	Revenue Requirement Impact.....	475
4.	Adjustments for Expenses, Capital, and Rate Base	476
a)	Labor and Non-Labor Adjustments	477

b)	Proposed Capital Adjustment to Mitigate Lag	477
c)	Proposed Capital Adjustments for Uneven Spend.....	478
(1)	Wildfire Mitigation Capital Costs	478
(2)	Discrete Capital Projects	478
5.	Z-Factor Mechanism	479
D.	Cal Advocates' Post-Test Year Recommendations.....	479
1.	GRC Term	479
2.	Cal Advocates' Proposed Mechanism Provides SCE with 7 Reasonable Post-Test Year Revenue Increases	480
3.	Cal Advocates' Proposed Productivity Factor	480
4.	Cal Advocates' PTYR Proposals are Consistent With Those Adopted in SCE's 2021 GRC	483
5.	Z-factor Mechanism	485
6.	PTYR Mechanism Implementation	486
XLII.	RESIDENTIAL DISCONNECTIONS AND ARREARAGES	487
XLIII.	COMPLIANCE REQUIREMENTS	487
XLIV.	ACCESSIBILITY ISSUES	487
XLV.	RESULTS OF FINANCIAL EXAMINATION BY CAL ADVOCATES.....	487
A.	Overview of financial examination.	488
B.	Purpose of financial examination.	488
C.	Scope of financial examination.	489
D.	Examination Procedures' Control Assessment.....	489
E.	Examination procedures' compilation assessment.	490
F.	SCE's Administrative & General expenses.	491
1.	Transactional testing.	491
2.	Purported attorney-client and privileged internal audit reports.	493
3.	Employee and contractor safety costs.	495
XLVI.	GRC UPDATE PHASE	497

TABLE OF AUTHORTIIES

	<u>Page(s)</u>
<u>Commission Decision</u>	
D.84-05-036.....	462, 463
D.84-09-089.....	3
D.93-12-043.....	2
D.02-02-043.....	476
D.03-05-076.....	434
D.04-07-022.....	passim
D.07-03-044.....	76
D.09-03-031.....	4
D.09-03-025.....	496, 497
D.10-04-001.....	434
D.12-01-032.....	302
D.12-11-051.....	487
D.15-11-021.....	passim
D.14-08-032.....	372, 379, 464, 465
D.18-02-004.....	159
D.18-12-014.....	14
D.19-05-020.....	passim
D.20-01-002.....	5
D.20-08-046.....	196, 363
D.21-05-010.....	7
D.21-08-036.....	passim
D.22-12-027.....	13
D.23-11-069.....	passim
D.23-11-096.....	257
D.24-05-064.....	13

California Public Utilities Code

309.5	427, 489
314	427, 489
314.5	427, 489
399.11 et seq.	18
399.11	18

Commission Rules of Practice and Procedure

Rule 13.1	1
-----------------	---

Evidence Code

Section 412	2
-------------------	---

SUMMARY OF RECOMMENDATIONS

For SCE's Distribution Grid operations and maintenance (O&M) expenses for 2025, Cal Advocates recommends:

1. \$189.408 million for Distribution Inspections & Maintenance and Capital-Related, which is \$12.126 million lower than SCE's Test Year forecast of \$201.534 million;
2. \$131.465 million for Substation, which is \$43.522 million lower than SCE's Test Year forecast of \$174.987 million;
3. \$14.642 million for Grid Modernization, Grid Technology, and Energy Storage, which is \$22.925 million lower than SCE's Test Year forecast of \$37.567 million; and
4. \$523.682 million for Vegetation Management, which is \$130.710 million lower than SCE's Test Year forecast of \$654.572 million.

For SCE's Distribution Infrastructure Replacement, Distribution Inspections & Maintenance for 2023-2025, Cal Advocates recommends:

1. \$190.127 million for 2023, \$190.976 million for 2024, and \$661.749 million for 2025 for SCE's Distribution Infrastructure Replacement capital programs, which are lower than SCE's by \$0.070 million for 2023, \$14.447 million for 2024, and \$139.288 million for 2025.
2. \$589.611 million for 2023, \$658.190 million for 2024, and \$717.544 million for 2025 for SCE's Distribution Inspection and Maintenance and Capital Related capital programs, which are lower than SCE's by \$39.464 million for 2023, \$41.112 million for 2024, and \$42.294 million for 2025.

For SCE's for Meter Activities, New Service Connections, and Customer Requested System Modification activities, and Poles Activities for 2023-2025, Cal Advocates' recommendations include forecasts, which are \$84.861 million lower than SCE's 2023-2025 capital expenditures forecasts. Cal Advocates recommends:

1. \$26.892 million in 2023, \$40.259 million in 2024 and \$38.269 million in TY 2025 for Meter Activities, which are \$3.259 million lower than SCE's request of \$30.151 million in 2023, \$7.747 million lower than SCE's request of \$48.006 million in 2024, and \$7.854 million lower than SCE's request of \$46.123 million in TY 2025;

2. \$521.487 million in 2023, \$592.539 million in 2024 and \$573.021 million in TY 2025 for New Service Connections, and Customer Requested System Modification Activities, which are \$12.108 million lower than SCE's request of \$533.595 million in 2023, \$17.042 million lower than SCE's request of \$609.581 million in 2024, and \$24.884 million lower than SCE's request of \$597.905 million in TY 2025.
3. \$335.522 million in 2024 for Poles Activities, which is \$11.967 million lower than SCE's request of \$335.522 million in 2024.

For SCE's Grid Modernization, Grid Technology, & Energy Storage for 2023-2025, Cal Advocates:

1. does not oppose SCE's requests for Distribution Grid capital expenditures associated with Grid Modernization.
2. recommends that the Long-Term Planning Tool (LTPT), System Modelling Tool (SMT), and Distribution Resources Plan External Portal (DRPEP) use the Blanket-Specific in-service date designation in the RO model.

For SCE's Grid Modernization, Grid Technology, & Energy Storage for 2023-2025, and attrition years 2026 - 2028 Cal Advocates recommends:

1. \$0 for capital expenditures for Capital Pilot Projects, which is \$46.954 million lower than SCE's request of \$46.954 million.
2. \$38.647 million for capital expenditures for Energy Storage in 2023-2028, which is \$82.555 million lower than SCE's request of \$121.202 million.
3. Cal Advocates does not oppose SCE's request of \$24.714 million for capital expenditures for Grid Technology Laboratories in 2023-2028.

For SCE's Load Growth, Transmission Projects, & Engineering for 2023- 2025, and attrition years 2026-2028, Cal Advocates recommends:

1. Baseline capital expenditure of \$96.8 million in 2023, \$143.6 million in 2024, \$165.8 million in 2025, \$286.9 million in 2026, \$265.2 million in 2027, and \$215.4 million in 2028, which are \$116.7 million lower than SCE's forecast in 2023, \$122.6 million lower than SCE's forecast in 2024, \$108.8 million lower than SCE's forecast in 2025, \$122.8 million lower than SCE's forecast in 2026, \$138.9 million lower than SCE's forecast in 2027, and \$143.5 million lower than SCE's forecast in 2028

2. \$21.1 million in 2023, \$44.3 million in 2024, and \$38.6 million in 2025 for Transmission Projects, which are \$8.7 million lower than SCE's forecast in 2023, \$8.1 million lower than SCE's forecast in 2024, and \$5.7 million lower than SCE's forecast in 2025.

For SCE's Load Growth, Transmission Projects, & Engineering for 2023- 2025, and attrition years 2026 - 2028, Cal Advocates recommends:

1. \$0 million in 2023, \$0 million in 2024, \$0 million in 2025, \$0 million in 2026, \$0 million in 2027 and \$0 million in 2028 for Transportation Electrification Grid Readiness (TEGR) compared to SCE's forecasts of \$0 million for 2023, \$32.7 million for 2024, \$131.9 million for 2025, \$168.8 million for 2026, \$242.2 million for 2027, and \$240.5 million for 2028.

For SCE's Transmission Grid, Substations for 2023- 2025, Cal Advocates recommends:

1. \$18.339 million for the Transmission Infrastructure Replacement (TIR) Program for TY 2025, which is \$43.330 million less than SCE's request of \$61.668 million; and SCE be required to demonstrate the cost effectiveness of the new approach via a Tier 2 Advice Letter for further recovery.
2. Memorandum-account treatment for incremental costs arising from the shift to a proactive approach in the TIR program.
3. If the Commission does not adopt Cal Advocates' primary recommendation regarding the TIR program mentioned above, Cal Advocates recommends \$778,977 for the Pothead Replacement Program in TY 2025, which is \$175,831 lower than SCE's TY 2025 request of \$954,808. If the Commission adopts this recommendation for the TIR program, this adjustment should instead be considered in the recommended Advice Letter process.
4. An in-service date for the Gorman-Kern-River (GKR) TLRR project of August 2028; an in-service date for the Control-Silver Peak (CSP) TLRR project of April 2029; and an in-service date for the Ivanpah-Control (IC) TLRR project of August 2030, to reflect the most recent, up-to-date timelines.
5. A TY 2025 expenditure of \$30.047 million for the TLRR program, which is \$43.043 million lower than SCE's request of \$73.090 million.
6. \$17.656 million as the contingency for the Gorman-Kern River (GKR) TLRR project, which is \$41.641 million less than SCE's request of \$59.297 million.

7. A TY 2025 expenditure of \$55.024 million for the Transformer Bank Replacement Program, which is \$6.891 million lower than SCE's request of \$61.915 million; and
8. Memorandum-account treatment for capital expenditure associated with T&D Equipment for the Edison Training Academy. This results in a recommended expenditure of \$41.611 million for TY 2025 Substation Preventative Maintenance, which is \$3.482 million lower than SCE's \$45.093 million request, but provides the potential for cost recovery of the adjusted amount in future rate cases.

For SCE's Wildfire Management operations and maintenance (O&M) expenses for 2025, Cal Advocates recommends:

1. \$109.247 million for High Fire Risk Inspections and Remediations which is \$21.771 million lower than SCE's Test Year forecast of \$131.018 million.
2. \$4.240 million for Wildfire Mitigation and Vegetation Management Technology Solutions which is \$2.501 million lower than SCE's Test Year forecast of \$6.741 million.
3. \$16.107 million for PSPS Execution which is \$4.834 million lower than SCE's Test Year forecast of \$20.941 million.
4. \$29.741 million for PSPS Customer Support which is \$6.354 million lower than SCE's Test Year forecast of \$36.095 million.
5. \$26.516 million for Aerial Suppression which is \$8.484 million lower than SCE's Test Year forecast of \$35 million.
6. \$6.454 million for Enhanced Situational Awareness which is \$3.602 million lower than SCE's Test Year forecast of \$10.056 million.

SCE's Wildfire Management capital expenditures for 2023- 2025 and attrition years 2026-2028, Cal Advocates:

1. Does not oppose SCE's request of \$25.6 million in 2023 and \$48.9 million in 2024 for the Targeted Undergrounding Program.
2. Recommends \$197.8 million in 2025 compared to SCE's request of \$305.0 million, \$608.1 million in 2026 compared to SCE's request of \$851.6 million, \$928.4 million in 2027 compared to SCE's request of \$1,143.4 million, and \$831.4 million in 2028 compared to SCE's request of \$966.7 million for the Targeted Undergrounding Program.

3. Recommends \$604.8 million in 2023 compared to SCE's request of \$840.5 million, \$681.9 million in 2024 compared to SCE's request of \$879.8 million, \$557.8 million in 2025 compared to SCE's request of \$638.5 million, \$190.4 million in 2026 compared to SCE's request of \$222.9 million, \$24.0 million in 2027 compared to SCE's request of \$29.7 million, and \$23.7 million in 2028 compared to SCE's request of \$30.0 million for the Wildfire Covered Conductor Program.

For SCE's Customer Service Operations O&M expenses for 2025 and capital expenditures for 2023- 2025, Cal Advocates recommends:

1. \$46.13 million for Billing Services, which is \$2.02 million lower than SCE's Test Year forecast of \$48.15 million.
2. \$49.80 million for Customer Contact Center which is \$8.0 million lower than SCE's Test Year forecast of \$57.8 million.
3. Opposes SCE's proposed New Paper-bill Fee.
4. Does not oppose SCE's Uncollectible factor of 0.191%.

For SCE's Business Customer Services, Customer Programs and Services O&M expenses for 2025 and capital expenditures for 2023- 2025, Cal Advocates recommends:

1. \$22.760 million for Business Customer Services, which is \$3.380 million lower than SCE's Test Year forecast of \$26.140 million.
2. Cal Advocates recommends \$29.308 million for Customer Programs & Services, which is \$5.270 million lower than SCE's Test Year forecast of \$34.578 million.

For SCE's Business Continuation and Emergency Management O&M expenses for 2025 and capital expenditures for 2023- 2025, Cal Advocates recommends:

1. \$27.299 million for Emergency Management O&M expenses, which is \$0.884 million less than SCE's request of \$28.183 million.
2. capital expenditures of \$105.271 million for 2023, \$117.229 million for 2024 and \$122.868 million for 2025 for SCE's Business Continuation and Emergency Management.

For SCE's Cybersecurity and Physical Security O&M expenses for 2025 and capital expenditures for 2023-2025, Cal Advocates recommends:

1. \$31.501 million for Cybersecurity O&M expenses, which is \$10.063 million lower than SCE's TY forecast of \$41.564 million.

For SCE's Energy Procurement and Generation O&M expenses for 2025 and capital expenditures for 2023- 2025, Cal Advocates recommends:

1. \$26.763 million for TY 2025 for SCE's Energy Procurement O&M expenses, which is \$2.948 million lower than SCE's request of \$29.711 million.
2. \$45.067 million for TY 2025 for SCE's Hydro O&M expenses, which is \$8.408 million lower than SCE's TY 2025 request of \$53.475 million.
3. Does not oppose SCE's requests for Fossil Fuel O&M expenses of \$44.109 million, Solar O&M expenses of \$4.347 million, and Nuclear (Palo Verde) O&M expenses of \$83.104 million.
4. For Hydro capital expenditures, \$32.072 million for 2023 which is \$72.260 million lower than SCE's request of \$104.331 million for 2023; \$38.684 million for 2024, which is \$40.852 million lower than SCE's request of \$79.536 million, and \$73.646 million for 2025, which is \$6.455 million more than SCE's request of \$67.191 million.
5. Does not oppose SCE's request for Fossil Fuel capital expenditures, Solar capital expenditures, and Nuclear (Palo Verde) capital expenditures for 2023, 2024, and 2025.

For SCE's Enterprise Technology, Enterprise Technology – OU Capitalized Software, Enterprise Planning & Governance O&M expenses for 2025 and capital expenditures for 2023- 2025, Cal Advocates recommends:

1. \$227.1 million for Enterprise Technology O&M expenses, which is \$61.1 million lower than SCE's forecast of \$288.2 million.
2. \$431.0 million for Enterprise Planning & Governance O&M expenses, which is \$13.0 million lower than SCE's forecast of \$444.0 million.
3. \$736.9 million for capital expenditures for Enterprise Technology in 2023-2025, which is \$204.6 million lower than SCE's request of \$941.5 million.

SCE's Enterprise Planning & Governance O&M expenses for 2025, Cal Advocates recommends:

1. \$28.338 million, which is \$1.368 million lower than SCE's Test Year forecast of \$29.706 million for its In-House Legal.
2. \$13.231 million for SCE's Outside-Legal expenses, which is \$1.687 million lower than SCE's forecast of \$14.918 million.
3. \$11.655 million for SCE's Claims, Injuries & Other Damages, which is \$4.245 million lower than SCE's forecast of \$15.900 million.
4. \$9.621 million for SCE's Claims Write-Offs, which is \$1.486 million lower than SCE's forecast of \$11.107 million.
5. \$32.751 million for SCE's Business Planning, which is \$4.482 million lower than SCE's forecast of \$37.233 million.
6. \$23.994 million for SCE's Corporate Services, which is \$0.356 million lower than SCE's forecast of \$24.350 million.
7. TY forecast of \$5.908 million, which is \$2.494 million lower than SCE's forecast for Modeling, Analysis and Forecasting.
8. \$3.275 million for SCE's Supplier Diversity Development, which is \$0.321 million lower than SCE's forecast of \$3.596 million.

SCE's Employee Benefits and Programs O&M expenses for 2025, Cal Advocates recommends:

1. \$43.195 million for SCE's Short-Term Incentive Program (STIP), which is \$71.991 million lower than SCE's TY request of \$115.186 million.
2. No ratepayer funding for SCE's Long-Term Incentive Program (LTI), which is \$22.017 million lower than SCE's TY request of \$22.017 million.
3. \$14.394 million for SCE's Executive Compensation, which is \$3.044 million lower than SCE's TY request of \$17.438 million.
4. \$126.312 million for SCE's Medical Programs, which is \$16.703 million lower than SCE's TY request of \$143.015 million.
5. \$8.336 million for SCE's Executive Benefits, which is \$8.336 million lower than SCE's TY request of \$16.672 million.
6. No ratepayer funding for SCE's Recognition Programs, which is \$0.411 million lower than SCE's TY request of \$0.411 million.

SCE’s Employee Support and Employee Training O&M expenses for 2025, Cal Advocates recommends:

1. \$35.078 million for Operating Unit Support Services, which is \$5.990 million lower than SCE’s TY forecast of \$41.068 million.
2. \$10.758 million for Talent Solutions, which is \$1.502 million lower than SCE’s TY forecast of \$12.260 million.
3. \$17.997 million for Employee Training and Development, which is \$7.595 million lower than SCE’s TY forecast of \$25.592 million.
4. \$25.309 million for Transmission & Distribution – Training Seat Time which is \$11.714 million lower than SCE’s TY forecast of \$37.023 million.
5. \$16.431 million for Transmission & Distribution – Employee Training Delivery and Development, which is \$6.767 million lower than SCE’s TY forecast of \$23.198 million.

For SCE’s Environmental Services, Audit, Ethics & Compliance (E&C), and Safety Programs O&M expenses for 2025 and capital expenditures for 2023-2025, Cal Advocates recommends:

1. \$34.834 million for Environmental Services, which is \$8.201 million lower than SCE’s Test Year forecast of \$43.035 million.
2. \$25.615 million for Safety Programs, which is \$5.546 million lower than SCE’s Test Year forecast of \$31.161 million.
3. \$21.614 million for Audit, Ethics & Compliance, which is \$3.592 million lower than SCE’s Test Year forecast of \$25.206 million.
4. Programmatic Permits: Cal Advocates recommends \$0.268 million for 2023, which is \$3.997 million lower than SCE’s 2023 request of \$4.266 million, \$1.223 million for 2024, which is \$3.129 million lower than SCE’s 2024 request of \$4.351 million, \$1.247 million for 2025, which is \$3.191 million lower than SCE’s request of \$4.439 million.
5. Safety Strategy & Transformation: Cal Advocates recommends \$0.700 million for 2025, which is \$2.099 million lower than SCE’s 2025 request of \$2.799 million.

For SCE's Enterprise Operations O&M expenses for 2025 and capital expenditures for 2023-2025, Cal Advocates recommends:

1. For Facility and Land Operations Total capital expenditures recommends \$128.035 million in 2023, \$166.674 million in 2024, and \$220.307 million in 2025, respectively. Cal Advocates' recommendation is lower than SCE's request by \$23.681 million in 2023, \$35.229 million in 2024, and \$67.347 million in 2025. SCE requests \$151.716 million, \$201.903 million, and \$287.654 million in 2023, 2024, and 2025, respectively.

For SCE's Policy, External Engagement and Ratemaking O&M expenses for 2025, Cal Advocates recommends:

1. \$0.220 million for Professional Development & Education, which is \$1.893 million lower than SCE's Test Year forecast of \$2.113 million. This represents a 100% reduction to SCE's Edison Electric Institute (EEI) dues.
2. Not opposing SCE's O&M forecasts of \$19.838 million for Develop and Manage Policy & Initiatives, \$7.723 million for Education, Safety and Operations, and \$5.361 million for Implement Ratemaking Cost Recovery activities.

For SCE's depreciation expense and asset depreciation study for 2025, Cal Advocates recommends:

1. No change to the currently authorized negative net salvage rates for FERC Accounts 362, 365, 366, 367 and 368.
2. Forecasts an annual small hydro decommissioning accrual of \$26.95 million, in contrast to SCE's proposed \$62.1 million.

For SCE's Rate Base and Working Capital for Test Year 2025, Cal Advocates' adjustments include:

1. Applying a 5-year compound annual growth rate of 2.24% to develop the forecast for the TY 2025 Mountainview Emission Credit balance.
2. A revenue lag day of 49.5 days instead of 57.5 days as SCE proposes.
3. A payment order lag day of 45 days instead of 42 days as SCE proposes.
4. A Federal Income Tax lag day of 365 days instead of 54 days as SCE proposes.

5. A California State Corporation Franchise Tax lag day of 328.5 days instead of 40 days as SCE proposes.
6. Apply a Non-Labor O&M Escalation Rate to SCE's Customer Advances from the base year to develop the test year forecast.
7. Treat SCE's Customer Deposits consistent with the requirements set forth under the Commission's original Standard Practice U-16.

For SCE's Summary of Earnings for 2025, Results of Operations, Other Operating Revenues and Payroll, Property and Income Taxes, RO Model, Cal Advocates:

1. Used SCE's December 15, 2023 version of the RO model with some manual inputs and modifications.
2. Does not oppose SCE's forecast for Other Operating Revenue.
3. Does not oppose SCE's method by which SCE calculates state and federal income taxes, payroll and other taxes, and Ad Valorem Taxes.
4. Does not oppose SCE's proposal to continue the Tax Accounting Memorandum Account in this rate case cycle.

For SCE's Sales, Customers, and New Meter Connections for 2025, Cal Advocates recommends:

1. 4,561,585 for 2023, 4,588,897 for 2024, and 4,616,850 for TY 2025 for Residential Customers.
2. 33,084 for 2023, 31,142 for 2024, and 31,798 for TY 2025 for the New Meter Connections forecast.
3. SCE be directed to provide all raw data for all variables in workpapers and the monthly forecasted results from EViews for all equations as part of its workpapers in its next GRC.
4. Not objecting to SCE's Mobilehome Park Costs for TY2025.

For SCE's Post Test Year Ratemaking proposals for 2026, 2027 and 2028, Cal Advocates recommends:

1. Post-test year revenue increases of \$479 million (5.16%) in 2026, \$502 million (5.14%) in 2027 and \$507 million in 2028 (4.93%), compared to SCE's requested increases of \$608 million (5.93%), \$654 million (6.02%) and \$645 million (5.61%), respectively.

2. Proposing a productivity factor of 1% be implemented each year beginning in the test year and in the post-test years. Given the increased pressure on rates, SCE's management should be expected to operate more efficiently.
3. Opposing SCE's request to apply Z-factor adjustments in the test year.

For SCE's results of examination and recommendations on SCE's financial and accounting records, Cal Advocates recommends:

1. Removing the audit costs to perform the internal audits that SCE asserts are protected by attorney-client privilege. Cal Advocates recommends the removal of \$731,000 in 2018; \$2.257 million in 2019; \$587,000 in 2020; \$219,000 in 2021; and \$601,000 in 2022 from SCE's recorded Audit costs for GRC forecasting purposes.
2. An adjustment of \$3.088 million to 2021 recorded A&G non-labor expenses to SCE's Employee and Contractor Safety for transactions that are one-time expenses for GRC forecasting purposes.
3. Not opposing SCE's requested recovery of actual recorded costs through December 31, 2022 of \$55.671 million but opposes the recovery of SCE's forecast of 2023 and 2024 costs of \$39.899 million which are not actually incurred and recorded in the memorandum accounts. Specifically, SCE requests recovery of \$95.570 million in eleven memorandum accounts while Cal Advocates recommends recovery of \$55.671 million. SCE proposes to recover the December 31, 2024 balances for costs recorded through December 31, 2022 and forecast 2023 and 2024 costs yet to be actually incurred and recorded in the memorandum accounts to be approved in this TY 2025 GRC proceeding. The forecast 2023 and 2024 memorandum costs that SCE proposes to recover are estimates and are not actual recorded costs. SCE can request recovery of actual recorded 2023 and 2024 memorandum account costs in the next GRC proceeding or other appropriate application.
4. Customer Service Re-Platform Memorandum Account, the Seismic Retrofit for Non-Electric Facilities Memorandum Account, and the NEM Online Application System Memorandum Account remain open.

For SCE's policies and processes pertaining to Enterprise Risk Management:

1. The Commission should direct Southern California Edison to revise its Integrated Wildfire Mitigation Strategy (IWMS) to: Prioritize and locate its undergrounding projects in areas with the greatest wildfire and Public Safety Power Shutoff (PSPS) risks; Modify its mitigation selection process

in its designated Severe Risk Areas to analyze alternatives to undergrounding. SCE's current mitigation selection process fails to analyze, compare, and select more cost-effective alternatives to undergrounding when available.

2. The Commission should direct SCE to identify and plan its undergrounding projects in areas with the greatest wildfire and PSPS risk. SCE currently proposes to select costly undergrounding wildfire mitigation even in areas with relatively low likelihood of wildfire and PSPS events. In these areas alternatives to undergrounding are likely more cost-effective.
3. The Commission should establish a reporting requirement to allow Commission evaluation of SCE's wildfire mitigation program risk reduction effectiveness to support Commission oversight and utility accountability.
4. The Commission should require SCE to submit its evaluation of the combined effectiveness of Rapid Earth Fault Current Limiter (REFCL) + Covered Conductor at reducing ignitions to Safety Policy Division and the current GRC service list. This information is necessary for the Commission to evaluate the cost, risk reduction, and mitigation effectiveness of this wildfire mitigation.

I. INTRODUCTION

Pursuant to Rule 13.11 of the Rules of Practice and Procedure of the California Public Utilities Commission (Commission), and the schedule set by Administrative Law Judges (ALJs) Seybert and Park in the electronic ruling on May 24, 2024, the Public Advocates Office at the Commission (Cal Advocates) submits this Opening Brief on the *Application of Southern California Edison Company (SCE) For Authority To Increase Its Revenue For Electric Services In 2025, Among Other Things, And To Reflect That Increase In Rates* (Application (A.) 23-05-010). SCE proposes a four-year term (2025-2028) for this Application and requests authorization for a base revenue requirement increase effective January 1, 2025 for SCE's Electric Operations including distribution, generation, and new system generation.¹

SCE filed its application on May 12, 2023.² SCE requests \$10.267 billion for 2025, which represents a \$1.896 billion, or 22.65 percent³ increase over its 2024 authorized base revenue requirement (ABRR) of \$8.371 billion.⁴ On December 15, 2023, SCE issued an errata that revised its requested ABRR to \$10.246 billion⁵ for 2025, which represents a \$1.875 billion or 22.40 percent increase over its 2024 ABRR of \$8.371 billion. However, SCE's \$21 million decrease was more than offset by its concurrent request for a \$95.57 million one-time memorandum account recovery.⁶

¹ Ex. CA-01 at 1.

² In SCE's Application filed on May 12, 2023, Cal Advocates noted that there were frequent references to "a number of errors in its forecast" that SCE had discovered, prior to filing its GRC, and presumably had not corrected. This uncertainty regarding the accuracy of SCE's data added to the complexity of analyzing SCE's forecasts. (SCE's Application at 19.).

³ SCE's Application at 6 and Ex. SCE-07, Vol. 01 at 9.

⁴ SCE's Application at 7, Table 1. Note that SCE's tables included in its Results of Operation errata (SCE-07, Volume 01) for December 15, 2023 show ABRR for 2024 as \$8.371 million. SCE's Track 4 Decision (D.23-11-096) shows an authorized 2024 base revenue requirement of \$8.425 billion. SCE's Advice Letter 5178-E (U 338-E) issued on December 28, 2023, shows an updated 2024 ABRR of \$8.382 billion. SCE's supplemental data request response to PubAdv-SCE-295-TLG, Q.5, state that "SCE will provide updated RO Model support tables in SCE-07, Vol. 01 during the Updated Testimony phase of the proceeding, consistent with prior GRCs."

⁵ SCE's Supplemental data request response to PubAdv-SCE-295-TLG, Question 5.

⁶ SCE's Application at 6.

Cal Advocates recommends \$9.288 billion⁷ for 2025 ABRR, \$958 million less than SCE's \$10.246 billion request.

II. LEGAL STANDARD

The Commission is charged with ensuring that all rates demanded or received by a public utility are just and reasonable, and that "...no public utility shall change any rate... except upon a showing before the Commission, and a finding by the Commission that the new rate is justified."⁸ Thus, in ratemaking applications like this one, the burden of proof is on the applicant utility.⁹ SCE has not met its burden of proof with respect to the costs Cal Advocates disputes in SCE's application.

The duty to make an affirmative showing requires that SCE present evidence that supports all elements of the Application.¹⁰ SCE can neither rely on any paucity of evidence by interveners nor fail to reasonably respond to challenges to its prima facie showing. As the Commission has noted, however, a GRC like SCE's is often so demanding that the Commission generally relies on intervening parties to identify proposals or funding requests that should be the subject of scrutiny by the Commission.¹¹

Yet, the utilities have control over the regulatory data and the Commission necessarily relies on them for such data. The utilities gain unfair advantage where they fail to (either timely, completely, or otherwise) provide information and then claim that interveners are unable to present information or evidence that shows the utilities requests are unreasonable.

Both the Commission and the courts have acted to discourage such tactics.¹² The Evidence Code section 412 states: "If weaker and less satisfactory evidence is offered

⁷ Ex. CA-01 at 2.

⁸ 1980 Cal. PUC LEXIS 1023, *18 (Cal. P.U.C. December 5, 1980).

⁹ D.93-12-043, 1993 Cal. PUC LEXIS 728, *12 (Cal. P.U.C. December 17, 1993).

¹⁰ 1980 Cal. PUC LEXIS 1023, *18 (Cal. P.U.C. December 5, 1980).

¹¹ D.93-12-043, 1993 Cal. PUC LEXIS 728, *12 (Cal. P.U.C. December 17, 1993).

¹² A.22-07-001, California American Water Company 2022 General Rate Case for Test Years 2024-2026: <https://docs.cpuc.ca.gov/SearchRes.aspx?docformat=ALL&docid=520423611>

when it was within the power of the party to produce stronger and more satisfactory evidence, the evidence offered should be viewed with distrust.” Utilities must always present their strongest available evidence when making requests for approval. If they choose to provide weaker material, the Commission should view it with distrust.

Beyond embracing this provision of the evidence code, the Commission has repeatedly frowned upon this tactic and taken steps to ensure that utilities are held responsible to affirmatively meet their burden. For instance, where a less costly alternative to a project or program may be the just and reasonable selection for approval, but the utility selects a costlier alternative and withholds the information about the less costly alternative, the Commission has held that the utility has not met its burden of proof.¹³ Thus, the utility’s burden to affirmatively establish the reasonableness of all aspects of its application means that “other parties do not have the burden of proving the unreasonableness of [the utility’s] showing.”¹⁴

Accordingly, SCE cannot claim to meet its burden of proof where it acts (or fails to act) in ways that compromise the proceeding’s record. These include delays in producing DRs as well as the late or repeated submission of errata and revisions to SCE’s filings and testimonies (especially where SCE could have produced full and/or correct information in the first instance). Here, SCE’s submission of several errata as well as several supplemental data request responses, all adversely impacted Cal Advocates’ discovery process in properly evaluating SCE’s requests. This created uncertainty on the accuracy of SCE’s data and its forecasts.

Therefore, the Commission should weigh such delays and revisions against the credibility of the SCE witnesses charged with establishing the burden of proof on those requests or issues.

¹³ D.19-05-020, Decision on Test Year 2018 General Rate Case for Southern California Edison Company, at 7.

¹⁴ Decision on Test Year 2012 General Rate Case for Southern California Edison Company, D.12-11-051, at 8. D.10-05-023, Order Denying Rehearing of Decision (D.) 09-08-028, at 7.

III. POLICY

California's current progress in renewable energy procurement and integration is such that emergency procurements of the sort authorized in D.09-03-031 is now a thing of the past. Currently, there is an abundance of renewable resources under development and waiting to be connected to SCE's service territory on the California Independent System Operator's generation interconnection queue.¹⁵ Notwithstanding the greater availability of renewable resources (and substantial improvements in delivery technology that have reduced the unit cost of electricity from renewable resources), the utilities maintain that the future of electricity demand in California is one of increasing costs for ratepayers. The proponents of this position fail to identify any substantive resources that drive these costs; they only identify policy implementation as the culprit. For instance, SCE states that:

[[I]t has proposed improvements in this rate case]'that will ready the grid to support the widespread electrification and decarbonization needed to meet California's greenhouse gas (GHG) reductions. These GHG-reduction goals are not just "stretch targets" – they are deeply embedded in the fabric of California's most important legislative and policy frameworks. To help ensure that we fulfill our role in assisting the State in meeting these requirements, there is simply no time left to waste."¹⁶

Thus, rather than identify any substantive resources that drive these costs, SCE argues that haste justifies the disputed costs it seeks to impose on ratepayers in this rate case. However, the State has been preparing for its GHG reduction systematically for some time now. SCE has not demonstrated a necessary emergency requiring such increased costs that must be placed on ratepayers.

¹⁵ CAISO Generation Interconnection Public Queue - report generated as of July 10, 2024 <https://rimspub.aiso.com/rimsui/logon.do> - CAISO Interconnection Queue Applications (as of 7/10/24) for projects in the Inland Empire (i.e., Kern, Riverside and San Bernadino counties) totals 87.
- SCE Active Generation Interconnection Projects in the Inland Empire (i.e., Kern, Riverside and San Bernadino counties) totals 38

¹⁶ Ex. SCE-01, Vol. 01, SCE 2025 General Rate Case, Policy at 2.

The GRC proceeding is also the “embodiment” of a “contract between the utilities’ investors and its customers. As such, it establishes the rights, obligations, and benefits for both sides of the bargain.”¹⁷ The regulatory compact¹⁸ requires that the GRC deliver benefits for both shareholders and ratepayers contemporaneously for both sides. As the CPUC has noted, the regulatory compact is only realized when the “Commission fulfills its responsibility and quantifies this balanced outcome in its decision in general rate cases.”¹⁹ Thus, the Commission must ensure that SCE’s ratepayers and shareholders both secure benefits in the 2023 GRC decision.

Cal Advocates has identified numerous instances where SCE improperly seeks funding. For example, Cal Advocates has identified numerous instances where SCE seeks funding for projects that had been funded by ratepayers as part of a prior GRC.²⁰ In addition, some of SCE’s expense forecasts are substantially and unreasonably out of proportion to what SCE spent for the same work since the last GRC.²¹ Finally, Cal Advocates identified projects that will not be used and useful during the GRC cycle.²² Similarly, projects that are not well-planned, or are not supported by historical data, technical experience, or sound economic judgment, do not provide benefits under the regulatory compact. SCE’s improper attempts to seek recovery from ratepayers for these projects is unjustified and should be rejected.

IV. AFFORDABILITY & EQUITY

The Commission must consider the impact of SCE’s TY 2023 GRC revenue requirement increase on the ability of SCE’s customers to afford SCE’s services. In the decision on SCE’s TY 2018 GRC, D.19-03-020, the Commission emphasized that “a key

¹⁷ D.20-01-002, *Decision Modifying the Commission’s Rate Case Plan For Energy Utilities* at 10-11.

¹⁸ D.20-01-002, *Decision Modifying the Commission’s Rate Case Plan For Energy Utilities* at 11.

¹⁹ D.20-01-002, *Decision Modifying the Commission’s Rate Case Plan for Energy Utilities* at 11.

²⁰ Public Advocates Office California Public Utilities Commission, Report on the Results of Operations for Southern California Edison Company General Rate Case Test Year 2025 Enterprise Operations, Ex. CA-22 at 13. Ex. CA-06 at 35 & 38-39, Figure 6-14.

²¹ Ex. CA-04-E at 16-20; Ex. CA-06 at 13, Figure 6-05; Ex. CA-02 at 13-16.

²² D.84-09-089; 1984 Cal. PUC LEXIS 1013, *72.

element of finding a charge or rate is just and reasonable is whether that charge is affordable.”²³ The Commission again emphasized this requirement in D.23-11-069, the decision on the Pacific Gas and Electric Company TY 2023 GRC.²⁴ Specifically, the Commission noted that affordability must be considered in context, “particularly regarding low-income ratepayers.”²⁵ As that decision notes:

[T]he law states: ... [A]ll residents of the state should be able to afford essential electricity and gas supplies, [and] the commission shall ensure that low-income ratepayers are not jeopardized or overburdened by monthly energy expenditures.²⁶

Here, SCE acknowledges that its TY 2025 revenue request poses a challenge for affordability to ratepayers where it states: “[O]ur Test Year 2025 revenue requirement request represents a substantial increase to ensure we are meeting our customers’ electricity needs.”²⁷ Rather than attempt to address or ameliorate these challenges, SCE proposes that the Commission view affordability as a trade-off between the importance of policies SCE claims it’s revenue requests seek to achieve, and the imposition of exorbitant costs on ratepayers.²⁸

The Commission has defined affordability as “the degree to which a representative household is able to pay for an essential utility service given its socioeconomic status.”²⁹ Consistent with this definition, rather than a trade-off between affordability and the high costs of necessary services, the Commission must view each request in SCE’s application with an eye towards the increase it adds to the whole and towards its necessity for providing safe and reliable services in this particular rate cycle. The Commission should

²³ D.19-05-020, *Decision on Test Year 2018 General Rate Case for Southern California Edison Company* (May 16, 2019) at 11.

²⁴ D.23-11-069 at 20.

²⁵ D.23-11-069 at 20.

²⁶ D.23-11-069 at 20, citing Pub. Util. Code Section 382(b).

²⁷ Ex. SCE-01, Vol. 01, SCE 2025 General Rate Case, Policy at 31.

²⁸ Ex. SCE-01, Vol. 01 at 32.

²⁹ D.23-11-069 at 21 citing D.20-07-032, *Decision Adopting Metrics and Methodologies for Assessing the Relative Affordability of Utility Service* (July 16, 2020) at 2, 9, and Conclusion of Law 6.

therefore approve only those requests that SCE has demonstrated are reasonable and necessary to provide safe and reliable service.

The Commission should reject SCE's revenue increases that are not justified or that do not provide at least minimal benefits to ratepayers. Cal Advocates' recommendations balance SCE's need to receive sufficient funds in order to provide safe and reliable service with the need to make ratepayers' future rates more affordable. Cal Advocates recommends that the Commission authorize \$9.288 billion in 2025 GRC base revenues for SCE compared to SCE's request for \$10.246 billion. Cal Advocates' proposed 2025 GRC revenue requirement is \$917 million (10.95%), which is higher than SCE's currently-authorized level.³⁰ Also, Cal Advocates' test year and post-test year forecasts result in a 4 year cumulative increase which is \$4.659 billion less than SCE's \$11.275 billion cumulative increase.

With Cal Advocates' forecasts, customers will experience smaller bill impacts between 2025-2028.³¹ This is especially important to those customers who are vulnerable. The Commission emphasized in 2021 how "All residential customers (including low-income customers and those who receive a medical baseline or discount) should have access to enough electricity to ensure that their essential needs are met at an affordable cost".³²

The importance of affordability cannot be overstated. In this currently challenging economic environment, utilities cannot be allowed to goldplate their requests. The Commission stated in SCE's last GRC Decision 19-05-020:

Therefore, in every instance where SCE cannot establish by a preponderance of the evidence that a request is necessary to provide safe and reliable service, we deny their requests. We do so with a goal of limiting the annual increase in SCE's revenue requirement

³⁰ Ex. CA-01 at 7.

³¹ Ex. CA-01 at 28.

³² *Decision Adopting Electric Rate Design Principles and Demand Flexibility Design Principles*, D.21-05-010 at 2.

during this GRC period to,...It is only by endeavoring to meet that goal, that we can begin to strive for greater affordability.³³

The Commission notes that it is during a GRC that “the Commission can actually mitigate the root of the problem by weeding out spending requests that provide minimal benefit from a safety and reliability perspective.”³⁴ Thus, D.23-11-069 concludes that “[a]lthough the Commission is still assessing the specific application of affordability metrics in ratesetting proceedings, the Commission has committed to begin considering them in GRCs.”³⁵

Finally, the Commission should consider SCE’s requests in an equitable way to all communities, including Disadvantaged Communities, tribal lands, and low-income households and census tracts, pursuant to the Environmental & Social Justice (ESJ) Action Plan. The Commission’s decision in A.23-05-010 should also apply to the goals of the ESJ Plan 2.0,³⁶ including integrating equity and access considerations throughout CPUC regulatory activities and increasing investment in clean energy resources to benefit ESJ communities.

V. RISK-INFORMED STRATEGY AND BUSINESS PLAN

A. Climate Change Policy

B. Environmental and Social Justice Goals

C. Quantitative Risk Modeling

Southern California Edison Company’s (SCE’s) Integrated Wildfire Mitigation Strategy (IWMS) fails to properly consider the probability of ignition when assessing whether to use undergrounding or covered conductor in its wildfire-mitigation efforts. This failure to consider probability of ignition results in a flawed undergrounding scope, and does not conform to the Commission’s adopted framework for assessing risk and analyzing the cost-effectiveness of mitigations. Further, SCE’s IWMS defaults to

³³ D.19-05-020 at 20.

³⁴ D.19-05-020 at 18-19.

³⁵ D.23-11-069, at 21.

³⁶ *Environmental & Social Justice Action Plan 2.0* at 4, April 7, 2022.

undergrounding in areas where it may be unnecessary, and fails to consider more cost-effective alternatives in such locations.

Cal Advocates recommends that the Commission take steps to ensure that SCE scopes its undergrounding program in accordance with the Commission's adopted risk framework, and that SCE undergrounds only in locations where it is truly necessary based on that specific location's identified risk.

First, the Commission should direct SCE to revise its IWMS to prioritize and locate its undergrounding projects in areas with the greatest wildfire and Public Safety Power Shutoff (PSPS) risks (hereafter referred to as "Overall Utility Risk").³⁷ Such a directive is necessary because (1) SCE does not take into account the probability of an ignition from utility equipment when deciding where to perform undergrounding projects, and (2) the locations where SCE plans to perform undergrounding in the 2025-2028 GRC period are not where the most overall utility risk is present.

Relatedly, the Commission should order SCE to modify its mitigation-selection process in its designated Severe Risk Areas so that SCE will analyze alternatives to undergrounding.³⁸ Of note, SCE's current mitigation-selection process fails to analyze, compare, and select more cost-effective alternatives to undergrounding when available.³⁹

Second, the Commission should direct SCE to identify and focus its undergrounding projects in areas with the greatest wildfire and PSPS risk.⁴⁰ For wildfire mitigation, SCE currently wants to select undergrounding for wildfire mitigation even in areas with a relatively low likelihood of wildfire and PSPS events.⁴¹ In these lower-risk areas, alternatives to undergrounding are likely more cost effective.⁴²

³⁷ Ex. CA-30 at 1.

³⁸ Ex. CA-30 at 1.

³⁹ Ex. CA-30 at 1.

⁴⁰ Ex. CA-30 at 1-2.

⁴¹ Ex. CA-30 at 1-2.

⁴² Ex. CA-30 at 1-2.

Third, to support Commission oversight and utility accountability, the Commission should establish a reporting requirement that allow it to evaluate the effectiveness of the risk-reduction efforts in SCE's wildfire-mitigation program.⁴³

Fourth, to support the Commission's evaluation of SCE's wildfire-mitigation approach going forward, the Commission should require SCE to submit the following to Safety Policy Division and to the parties on this GRC's service list once it is complete: an evaluation of SCE's own assessment of the combined effectiveness of Rapid Earth Fault Current Limiter (REFCL) + Covered Conductor at reducing ignitions based on actual field data.⁴⁴ This information is necessary for the Commission and relevant parties to evaluate the cost, risk reduction, and effectiveness of SCE's proposed approach to wildfire mitigation.⁴⁵

1. The Commission should require SCE to revise its Integrated Wildfire Mitigation Strategy to more effectively prioritize and locate its undergrounding projects.

To ensure that SCE prioritizes its \$3.3 billion⁴⁶ undergrounding program where a wildfire or PSPS event is likely to occur, the Commission should require SCE to revise its IWMS to (1) prioritize and locate its undergrounding projects in areas with the greatest wildfire and PSPS risks; and (2) modify SCE's mitigation-selection process in SCE's designated Severe Risk Areas so that SCE analyzes alternatives to undergrounding.⁴⁷ Adopting these recommendations would compel SCE's capital-expenditure budget for its Targeted Undergrounding program to focus on the riskiest areas.⁴⁸

⁴³ Ex. CA-30 at 1-2.

⁴⁴ Ex. CA-30 at 1-2.

⁴⁵ Ex. CA-30 at 1-2.

⁴⁶ Ex. SCE-04, Vol. 05, Part 2A at 19. This \$3.3 billion is SCE's proposed figure. See Ex. CA-11 for Cal Advocates' cost recommendations regarding SCE's Targeted Undergrounding program.

⁴⁷ Ex. CA-30 at 2-3.

⁴⁸ Ex. CA-30 at 3.

SCE's flawed proposed IWMS prioritization process for mitigating wildfire risk leads SCE to plan costly undergrounding in low-risk areas.⁴⁹ SCE's IWMS prioritization process fails to account for the probability of ignition events or PSPS events. Instead, SCE's IWMS prioritization process defaults to undergrounding in areas that SCE defines as "Severe Risk Areas." SCE has failed to show that undergrounding in these areas is necessary to mitigate risk of wildfire from utility equipment.⁵⁰

Furthermore, SCE uses a manual review process (termed by SCE as the "Review and Revise" process) to designate risk for SCE's circuit segments; this manual review process results in hundreds of circuit miles' being moved around between risk categories.⁵¹ This moving around between risk categories shows that SCE's current IWMS criteria for risk designation and mitigation deployment are inadequate and unreliable by themselves.⁵² SCE's IWMS criteria needs revision so that subject-matter experts do not have to intervene to this degree in order to fix SCE's flawed risk categorizations.⁵³

⁴⁹ Ex. CA-30 at 2, 10.

⁵⁰ Ex. CA-30 at 2, 5-6.

⁵¹ Ex. CA-30 at 2-3. For SCE's response to Cal Advocates' data request PubAdv_SCE_MGN_310, Q.2 a-c, see Ex. CA-30, Appendix D at 1-2. See Ex. SCE-04, Vol. 05, Part 1A at 20-21, for an overview of the Review and Revise process.

⁵² Ex. CA-30 at 2-3. For SCE's response to Cal Advocates' data request PubAdv_SCE_MGN_310 Q.2 a-c., see Ex. CA-30, Appendix D at 1-2. See Ex. SCE-04, Vol. 05, Part 1A at 20-21, for an overview of the Review and Revise process.

⁵³ Such a high degree of intervention by subject-matter experts introduces additional biases into the process and has the potential to further skew SCE's undergrounding workplan away from the areas where it is most needed. See Ex. CA-30 at 2-3. For SCE's response to Cal Advocates' data request PubAdv_SCE_MGN_310 Q.2 a-c., see Ex. CA-30, Appendix D at 1-2. See Ex. SCE-04, Vol. 05, Part 1A at 20-21, for an overview of the Review and Revise process.

2. The Commission should direct SCE to revise its IWMS so that SCE prioritizes and locates its undergrounding projects in areas with the greatest overall utility risk.

a) SCE does not account for the likelihood of risk events when prioritizing and proposing risk-mitigation projects that comprise undergrounding.

SCE's IWMS fails to account for the probability that an ignition or PSPS event will occur in any given location; and this failure leads SCE to plan undergrounding projects in areas with low overall utility risk.⁵⁴ SCE might account for historical-high-wind events, but looking at historical-high-wind events is not the same as examining the likelihood of PSPS events in a quantitative fashion.⁵⁵

SCE's IWMS divides SCE's High Fire Risk Areas (HFRAs) into three groups—"Severe Risk Areas," "High Consequence Areas," and "Other HFRA"⁵⁶—based on varying levels of wildfire consequence and other factors,⁵⁷ such as heightened egress risk. If an HFRA falls under "Severe Risk Area," SCE would do undergrounding there when feasible.⁵⁸ In order for an HFRA to count as a "Severe Risk Area," it only need meet one of SCE's chosen factors. According to SCE, "Meeting any of the criteria would mean that the location is considered a Severe Risk Area." This stance is problematic because it leads to SCE's planning undergrounding projects in areas where alternatives such as Covered Conductor + REFCL are likely sufficient to cost-effectively mitigate the risk of wildfire from utility equipment to ratepayers.

SCE's proposed approach is poorly tailored as it fails to consider the probability of ignition or PSPS events.⁵⁹ SCE's ill-fitted proposed approach tends to take away from

⁵⁴ Ex. CA-30 at 3, 10.

⁵⁵ Ex. CA-30 at 3, 10.

⁵⁶ Ex. CA-30 at 3-4.

⁵⁷ These other factors include heightened egress risk, historical high wind events, significant wildfire consequence potential, and whether a community is of elevated fire concern. See Ex. CA-30 at 5.

⁵⁸ Ex. CA-30 at 3-4.

⁵⁹ Ex. CA-30 at 6-7.

areas with high wildfire and PSPS risk. SCE's approach directs ratepayer funds to costly undergrounding projects in low-risk areas, all with limited benefit to ratepayers.⁶⁰

Even though the probability of ignition has a significant impact on the risk score of a given circuit segment, SCE categorically refuses to consider it when determining which areas are Severe Risk Areas—and thus which areas should undergo an undergrounding project.⁶¹ SCE justifies its “probability of ignition”-free approach by saying that “probability of ignition changes over time due to many variables.”⁶² SCE neither documents this claim nor explains why such “changes over time” are problematic.

SCE's approach to risk lacks uniformity and consistency in part because it fails to acknowledge that consequence-related risk factors can change after events like construction and population changes.⁶³ Thus, SCE fails to justify both its use of consequence-related factors and its refusal to consider the probability of ignitions.⁶⁴

SCE's failure to consider probability of ignition also contradicts the way the Commission has defined risk, for purposes of mitigation analysis.⁶⁵ The Commission has consistently defined risk as likelihood of a risk event multiplied by the event's consequences, as set in the Safety Model Assessment Proceeding (S-MAP) Settlement agreement and most recently re-affirmed by the Phase 3 decision of R.20-07-013.^{66, 67} The Commission has also favored uniform approaches to calculating risk reduction,

⁶⁰ Ex. CA-30 at 6-7.

⁶¹ Ex. CA-30 at 7.

⁶² Ex. CA-30 at 7; For SCE's response to Cal Advocates' data request PubAdv-SCE-139 Q.4, see Ex. CA-30, Appendix G at 1.

⁶³ Ex. CA-30 at 7-8.

⁶⁴ Ex. CA-30 at 7-8.

⁶⁵ Ex. CA-30 at 7.

⁶⁶ Decision (D.) 24-05-064, *Phase 3 Decision*, at 55: “We agree with MGRA [Mussey Grade Road Alliance] that any approach to modeling tail risks must be risk-informed, meaning that all modeling approaches must be based on a product of LoRE [Likelihood of Risk Event] and CoRE [Consequence of Risk Event]. As such, a White Paper that presents justification for a model based purely on consequences will be rejected because such a model is fundamentally at odds with the RDF [Risk-Based Decision-Making Framework] as written in D.22-12-027.”

⁶⁷ Ex. CA-30 at 7. See also D.24-05-064, Appendix A, at A-11, Line 13.

which is why the Commission said that the S-MAP settlement agreement was in the public interest and was in keeping with the “adoption of a more uniform approach toward calculation of risk reduction.”⁶⁸ Unlike past approved approaches to risk, SCE's approach to risk fails to account for probability and unduly focuses on wildfire consequences.⁶⁹

SCE's IWMS criteria may also be inadequate because hundreds of circuit miles have been shifted between risk categories after the initial category designation.⁷⁰ SCE lacks any standards or goals related to minimizing the number of segments being switched between risk categories.⁷¹ The Commission should consider directing SCE to create such standards and goals to improve the IWMS criteria.⁷²

b) SCE's planned undergrounding scope is not where overall utility risk is most concentrated

SCE's IWMS fails to consider probability of an ignition or a PSPS event, resulting in a flawed planned undergrounding workplan that disproportionately focuses on low-risk areas.⁷³ Cal Advocates' analysis of SCE's current undergrounding workplan found that 217 circuit miles that SCE plans to underground are in the bottom 50% of SCE's overall utility risk.⁷⁴

To ensure that ratepayer funds are spent efficiently on the riskiest areas, the Commission should require SCE to incorporate probability of ignition and PSPS events in its risk modeling. Specifically, the Commission should require SCE to limit its Severe Risk Area to only the top 50% of overall utility risk.⁷⁵ This requirement would ensure

⁶⁸ Ex. CA-30 at 7. See also D.18-12-014, *Phase Two Decision Adopting Safety Model Assessment Proceeding (S-MAP) Settlement Agreement with Modifications*, at 43-44.

⁶⁹ Ex. CA-30 at 6-8; see also D.18-12-014, Appendix A, at A-11, Line 13.

⁷⁰ Ex. CA-30 at 8-9.

⁷¹ Ex. CA-30 at 8.

⁷² Ex. CA-30 at 8.

⁷³ Ex. CA-30 at 9-10.

⁷⁴ Ex. CA-30 at 9.

⁷⁵ Ex. CA-30 at 9-11.

that SCE factors in probability or ignition along with other relevant factors, such as wildfire consequences.⁷⁶

3. The Commission should require SCE to modify its mitigation selection process for its Severe Risk Areas to analyze alternatives to undergrounding

To ensure that ratepayers receive the most efficient and timely mitigation measures, the Commission should require SCE to consider alternatives to undergrounding in Severe Risk Areas.⁷⁷

Undergrounding is the most expensive and time-consuming mitigation measure available, but SCE insists on using undergrounding as a default whenever feasible in Severe Risk Areas. As a result, SCE fails to consider whether mitigation alternatives, such as REFCL (Rapid Earth Fault Current Limiter)/CC++⁷⁸, can achieve similar or even more effective results.⁷⁹ For example, if REFCL/CC++ mitigated most of the assessed drivers of ignition in a given area, then REFCL/CC++ would be the best choice for that location because it is quicker to implement and less expensive.⁸⁰ SCE's default-to-undergrounding approach forgoes a comprehensive analysis of mitigation alternatives that could achieve better results while saving ratepayers money.⁸¹

Indeed, California's Office of Energy Infrastructure Safety (OEIS) identifies this default-to-undergrounding approach as a deficiency.⁸² In OEIS's decision approving SCE's 2023-2025 Wildfire Mitigation Plan, OEIS states that, rather than defaulting to undergrounding simply because an area is a Severe Risk Area, "Mitigation selection should consider a variety of location-specific factors, such as how long it takes to deploy

⁷⁶ Ex. CA-30 at 10-11.

⁷⁷ Ex. CA-30 at 12-14.

⁷⁸ Ex. SCE-04, Vol. 5, Part 1A at 46: "REFCL/CC++ includes covered conductor, fast curve, vegetation management, and fusing to address contact from object; REFCL, asset inspections, and covered conductor to address equipment failure; and covered conductor to address wire to wire contact."

⁷⁹ Ex. CA-30 at 12-14.

⁸⁰ Ex. CA-30 at 12.

⁸¹ Ex. CA-30 at 12.

⁸² Ex. CA-30 at 14.

the solution, effectiveness at mitigating particular ignition drivers in a given location, feasibility given terrain and access challenges, and the cost-benefit analysis.”⁸³ OEIS added, “For example, in the absence of covered conductor installations within its severe risk areas, SCE could better analyze alternative mitigation approaches rather than prioritizing undergrounding.”⁸⁴ OEIS required SCE in the 2025 Wildfire Mitigation Plan update to “provide plans for how it [SCE] will address remaining risk in its SRA [Severe Risk Areas] demonstrating careful consideration of mitigation options through transparent decision-making.”⁸⁵

Cal Advocates recommends that the Commission take similar action, and require SCE to consider mitigation alternatives rather than default to undergrounding in Severe Risk Areas. Doing so would ensure careful stewardship of the ratepayer’s money.

4. The Commission should require SCE to locate and plan its undergrounding projects for this GRC period in areas with the greatest wildfire and PSPS risk.

SCE’s planned undergrounding scope for this GRC period contains about 217 circuit miles—out of a forecasted 611 circuit miles—that are in the bottom 50% of overall utility risk, where risk is least concentrated.⁸⁶ This proposal is unreasonable and should be rejected. Instead, the Commission should require SCE to scope its Targeted Undergrounding program for this GRC period in order to focus on the top 50% of overall utility risk.⁸⁷ This requirement will ensure that SCE’s planned undergrounding projects are in areas with reasonably high risk, while also allowing SCE to continue to utilize other factors, such as egress risk. Costly undergrounding should be undertaken in the riskiest areas.

⁸³ OEIS, *SCE 2023-25 Wildfire Mitigation Plan Approval with Cover Letter*, issued October 24, 2023 at 40, available at <https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=55857&shareable=true>.

⁸⁴ OEIS, *SCE 2023-25 Wildfire Mitigation Plan Approval with Cover Letter* at 1.

⁸⁵ OEIS, *SCE 2023-25 Wildfire Mitigation Plan Approval with Cover Letter* at 41.

⁸⁶ Ex. CA-30 at 15.

⁸⁷ Ex. CA-30 at 15-16.

Finally, SCE should be directed to re-scope any undergrounding currently scoped in the Severe Risk Area, but in the bottom 50% of overall utility risk. This re-scoping would use the mitigation suite of REFCL/CC++ or CC++, as deemed feasible and appropriate considering the risk factors in these areas.⁸⁸ REFCL/CC++ has a quicker deployment speed than undergrounding and a lower cost, as well as high effectiveness against major ignition drivers.⁸⁹

5. The Commission should require SCE to submit an annual System Hardening Accountability Report (SHAR) on its progress in achieving risk reduction goals in its undergrounding and covered-conductor programs.

The Commission should also require SCE to report on its risk-reduction progress with its undergrounding and covered-conductor programs, in order to ensure that these \$3.3 billion and \$921 million programs, respectively, are being executed effectively in areas with high risk.⁹⁰ SCE's reporting should be done in a manner similar to the System Hardening Accountability Report (SHAR) process laid out in D.23-11-069 for Pacific Gas & Electric Company's reporting of progress for its System Hardening risk-reduction goals.⁹¹ SCE should likewise be required to file an annual SHAR to the Safety Policy Division as information-only advice letters detailing how much risk it is reducing each year, beginning on July 1, 2026 (with the last report being due on July 1, 2030). Each annual SHAR should show how much risk SCE is mitigating at the project level.⁹² The annual report should also report the number of overhead miles converted to underground miles, as well as the annual overhead-to-underground conversion factor calculated for all undergrounding projects completed within the reporting year.⁹³

⁸⁸ Ex. CA-30 at 15-16.

⁸⁹ Ex. CA-30 at 15-16.

⁹⁰ Ex. CA-30 at 18.

⁹¹ D.23-11-069, *Decision on Test year 2023 General Rate Case for Pacific Gas & Electric Company*, Ordering Paragraphs 20-25 at 904-906. See also D.23-11-069, Appendix I.

⁹² Ex. CA-30 at 18-19.

⁹³ Ex. CA-30 at 18-19.

Additionally, SCE should be directed to submit an information-only advice letter sixty days after a decision is issued in this proceeding. The advice letter would present SCE's methodology for determining the baseline risk to its system.²⁴ Each of these advice letters should be served on the service lists for the present GRC (A.23-05-010) and its preceding RAMP (A.22-05-013).

Within sixty days of the decision adoption, SCE should also be required to file a preliminary Tier 1 advice letter detailing which models it uses to calculate baseline risk, how each of its models are used to calculate baseline risk, and how any changes to its baseline risk are calculated.²⁵ Doing so would provide a verifiable basis for SCE's risk-reduction reporting.

The proposed reporting requirements would provide valuable information for the Commission and parties to consider when evaluating future SCE rate-case requests. Cal Advocates recommends that SCE provide such risk-reduction information to verify whether SCE will meaningfully reduce risk with these high-cost programs and to ensure that the Commission and parties have the information necessary to make informed evaluations of future requests by SCE.

6. The Commission should require SCE to provide risk-reduction goals for its Targeted Undergrounding program and for its covered-conductor risk-mitigation program.

In an effort to ensure that undergrounding occurs in areas of highest risk, the Commission should also require SCE to set risk-reduction goals for its Targeted Undergrounding program and for its covered-conductor risk-mitigation program.²⁶ The Commission should require SCE to submit an information-only advice letter to Safety Policy Division, within thirty days after a decision is issued in this proceeding. The advice letter will provide risk-reduction goals for SCE's Targeted Undergrounding program and covered-conductor risk-mitigation program, and a rationale for these

²⁴ Ex. CA-30 at 18-19.

²⁵ Ex. CA-30 at 18-19.

²⁶ Ex. CA-30 at 20.

goals.⁹⁷ This requirement would provide valuable information to the Commission when it receives and evaluates SCE's risk-reduction progress as reported in the recommended annual SHAR advice letters and facilitate analysis of such by Safety Policy Division (SPD) and parties.⁹⁸

7. The Commission should require SCE to submit its evaluation of the combined effectiveness of Rapid Earth Fault Current Limiter (REFCL).

SCE proposes spending \$921 million to install covered conductor, and \$240 million to install REFCL. SCE also states that these two programs will be used in combination with each other when feasible.⁹⁹ SCE states that it intends to evaluate the combined effectiveness of REFCL + Covered Conductor using field data once it can do so.¹⁰⁰

To facilitate the reporting of this information once it is available, SCE should be required to submit the results of this evaluation to Safety Policy Division as an information-only advice letter.¹⁰¹

SCE presents the effectiveness of REFCL + Covered Conductor at preventing ignitions at 88%.¹⁰² However, when asked how SCE derived this value, SCE states that—rather than an independent analysis of the efficacy of REFCL + Covered Conductor at preventing ignitions on SCE's system—SCE derived its estimate from an equation of the separate effectiveness values of REFCL + Covered Conductor.¹⁰³ Because SCE

⁹⁷ Ex. CA-30 at 20.

⁹⁸ Ex. CA-30 at 20.

⁹⁹ Ex. CA-30 at 20-21.

¹⁰⁰ Ex. CA-30 at 20-21.

¹⁰¹ Ex. CA-30 at 20-21.

¹⁰² See Ex. CA-30, Appendix I, for SCE's response to Cal Advocates' data request PubAdv_SCE_139_MGN Question 1b, which contains an attachment with effectiveness estimates for Covered Conductor + REFCL versus Targeted Undergrounding.

¹⁰³ See Ex. CA-30, Appendix M, for SCE's response to Cal Advocates' data request PubAdv_SCE_257_MGN Question 8 regarding its effectiveness estimate for Covered Conductor + REFCL. The equation is: $1 - (1 - \text{WCCP ME}) \times (1 - \text{REFCL ME})$.

evaluated the effectiveness separately, it is possible that the combined effectiveness is higher than 88%.¹⁰⁴

SCE further states that it needs more data to study the combined effectiveness of REFCL + Covered Conductor,¹⁰⁵ and that SCE intends to evaluate the combined effectiveness of REFCL + Covered Conductor once it reaches 9,600 mile-years of REFCL + Covered Conductor by 2030.¹⁰⁶

Once completed, this evaluation will provide valuable information to the Commission and parties as it evaluates future rate-case requests of SCE and other utilities.¹⁰⁷ To facilitate the sharing of this information with the Commission, parties, and other utilities, the Commission should require SCE to submit its completed study to Safety Policy Division as an information-only advice letter and to serve the service list of its most recent GRC. The Safety Policy Division should subsequently host a workshop on the findings of SCE's study.¹⁰⁸

A comprehensive evaluation of the combined approaches' effectiveness in preventing ignitions at this scale would provide valuable information to the Commission and potentially other utilities as these other utilities potentially look to expand their own similar programs.¹⁰⁹ Additionally, such an evaluation would both (1) ensure that effectiveness estimates for Covered Conductor + REFCL are as accurate as possible; and (2) facilitate evaluation of this combination of mitigations versus other approaches (such

¹⁰⁴ Ex. CA-30 at 20-21.

¹⁰⁵ See Ex. CA-30, Appendix N, for SCE's response to Cal Advocates' data request PubAdv_SCE_257_MGN. Question 4, regarding data needs for assessing the combined effectiveness of Covered Conductor + REFCL from observed field data.

¹⁰⁶ See Ex. CA-30, Appendix O, for SCE's response to Cal Advocates' data request PubAdv_SCE_368_MGN. Question 1, regarding SCE's intent to evaluate the combined effectiveness of Covered Conductor + REFCL once it reaches 9,600 mile-years of Covered Conductor + REFCL on its system.

¹⁰⁷ Ex. CA-30 at 21-22.

¹⁰⁸ Ex. CA-30 at 21-22.

¹⁰⁹ SCE is the first utility to propose expanding REFCL from a pilot program to implementing it across its system in combination with a covered-conductor program. Ex. CA-30 at 21-22.

as Targeted Undergrounding) in order to ascertain the most effective and efficient methods of risk reduction.¹¹⁰

VI. DISTRIBUTION OF GRID

SCE requests \$819.272 million for 2023, \$909.725 million for 2024, and \$1,560.875 million for 2025 for the Distribution Grid¹¹¹ capital expenditures.¹¹² Cal Advocates' corresponding capital-expenditure recommendations are \$779.739 million for 2023, \$854.166 million for 2024, and \$1,380.697 million for 2025.¹¹³ Cal Advocates' recommendations are \$39.533 million less than SCE's forecast in 2023, \$55.559 million less than SCE's forecast in 2024, and \$180.178 million less than SCE's forecast in 2025.¹¹⁴

Cal Advocates' recommendations can be divided into two parts. First, in Volume 1 of Ex. SCE-02, SCE has proposed total capital forecasts of \$190.197 million for 2023, \$210.423 million for 2024, and \$801.037 million for 2025 for Distribution Infrastructure Replacement (DIR) capital programs. Cal Advocates' corresponding forecasts are \$190.127 million for 2023, \$195.976 million for 2024, and \$663.154 million for 2025. Those forecasts are lower than SCE's by \$0.070 million for 2023, \$14.447 million lower for 2024, and \$137.883 million lower for 2025.¹¹⁵

¹¹⁰ Ex. CA-30 at 21-22.

¹¹¹ Instead of "Distribution Grid," Cal Advocates also uses the more traditional phrase "Transmission and Distribution," also known as "T&D." See Ex. CA-03 Distribution Infrastructure Replacement, Distribution Inspections & Maintenance, and Capital-Related, at 1.

¹¹² Ex. CA-03 at 4.

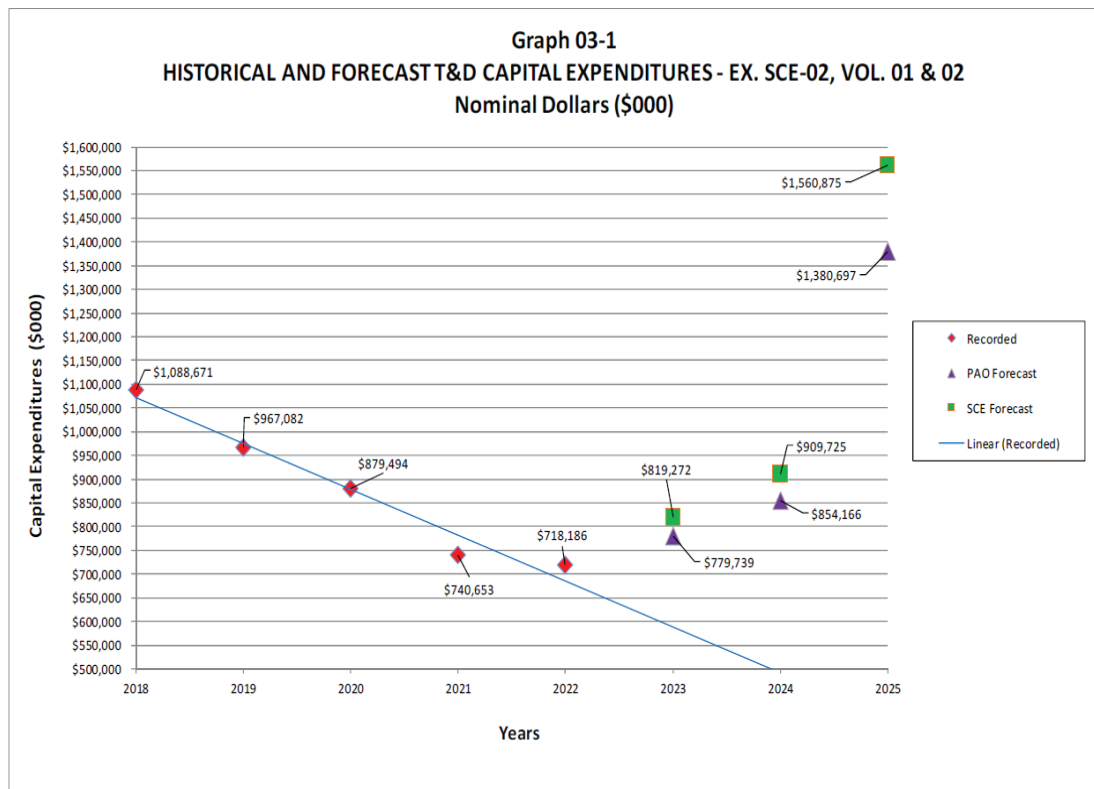
¹¹³ Ex. CA-03 at 5.

¹¹⁴ Cal Advocates' corresponding capital-expenditure recommendations are \$779.739 million for 2023, \$854.166 million for 2024, and \$1,380.697 million for 2025. Ex. CA-03 at 5.

¹¹⁵ Ex. CA-03 at 5.

Second, in Volume 2 of Exhibit SCE-02, SCE has proposed total capital forecasts of \$629.075 million for 2023, \$699.302 million for 2024, and \$759.838 million for 2025 for Distribution Inspection & Maintenance and Capital-Related capital programs. Cal Advocates' corresponding forecasts are \$589.611 million for 2023, \$658.190 million for 2024, and \$717.544 million for 2025. Cal Advocates' forecasts are lower than SCE's by \$39.464 million for 2023, lower than SCE's by \$41.112 million for 2024, and lower than SCE's by \$42.294 million for 2025.¹¹⁶

To derive its forecasts, Cal Advocates used SCE's 2022 recorded adjusted capital expenditures, as well as SCE's historical capital-expenditure levels and SCE's Test Year (TY) forecasts.¹¹⁷ Graph 03-1, taken from page 8 of Cal Advocates' Exhibit CA-03, shows the historical data, trends, and forecasts for recorded capital expenditures, SCE's forecasted capital expenditures, and Cal Advocates' forecasted capital expenditures.



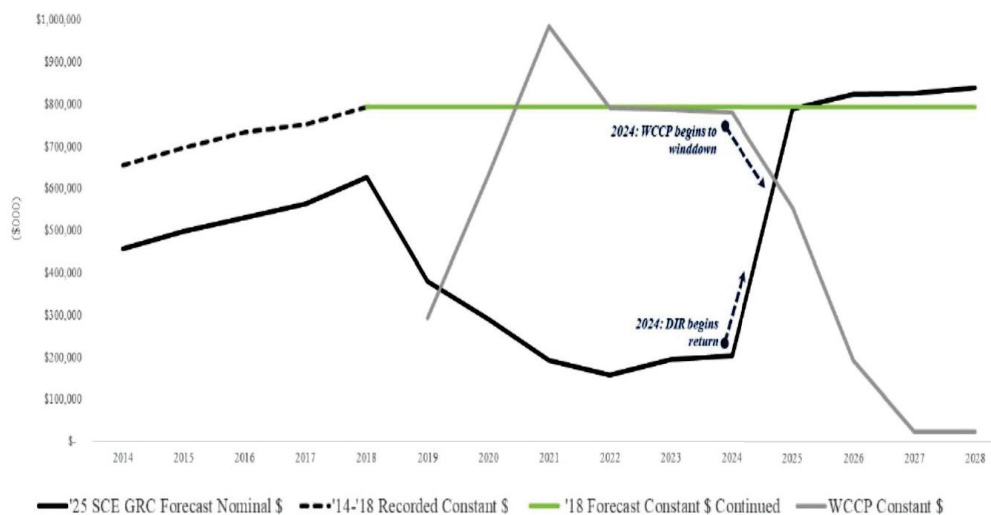
¹¹⁶ See Ex. CA-03 at 5.

¹¹⁷ Ex. CA-03 at 5.

In their rebuttal testimonies,¹¹⁸ SCE and Coalition of California Utility Employees (CUE) argue that the decline in recorded DIR capital expenditures (from 2018 to 2022) stems from SCE’s shift of spending away from DIR capital expenditures toward wildfire-mitigation expenditures; according to SCE, the DIR expenditures are forecast to supposedly return to “normal” (i.e., 2018 levels) once wildfire-mitigation levels begin to decline. Indeed, on rebuttal, in an attempt to justify that claim, SCE included Figure I-1.¹¹⁹

By solely focusing on the solid black line in that figure (which represents SCE’s DIR expenditures), and ignoring the fact that SCE is still incurring wildfire mitigation expenditures (the light gray line), SCE erroneously attempts to show that its 2025 DIR forecast is simply a return to normality.

Figure I-1¹
DIR Recorded and Forecast with Prudent Wildfire Resource Reallocation



¹¹⁸ Ex. SCE-13, Vol. 01 at 4; Ex. CUE-02 at 1.

¹¹⁹ Ex. SCE-13, Vol. 01 at 4; Ex. SCE-02, Vol. 01, Part 02, workpapers at 5.

This type of argument from SCE is unpersuasive because SCE's proposed 2025 expenditures would not be comparable to 2018 in terms of ratepayer costs, and actually would be an increase when compared with 2018 expenditures. As shown on the light gray line on SCE's Figure I-1, wildfire mitigation expenditures in 2025 are still occurring at a high level (roughly \$550 million in constant dollars) at the same time that SCE is requesting roughly \$800 million (in nominal dollars) for DIR capital. SCE's proposed 2025 DIR expenditures would therefore exceed SCE's 2018 expenditures.

Between 2024 and 2025, the graphs for DIR and the Wildfire Covered Conductor Program (WCCP) cross at the approximate \$600-million level, meaning that, at that time, SCE is proposing to spend equal amounts for both DIR and WCCP capital expenditures. The revenue requirement associated with the combined 2025 capital expenditures (i.e., both DIR and wildfire-mitigation expenditures) will be far above the revenue requirement associated with only the recorded DIR level in 2018. SCE's customers would ultimately be responsible for both of these current costs, which would pose a great financial burden on ratepayers.

Furthermore, DIR expenditures declined over the period from 2018 through 2022, with only minor increases in 2023 and 2024. Yet, SCE forecasts that DIR expenditures will be able to return to 2018 levels in a single year, during the period from 2024 to 2025.

A one-year return to 2018 DIR expenditure levels is implausible (given that it took SCE four years, from 2018 to 2022, to completely wind down DIR expenditures to compensate for increased wildfire-mitigation expenditures). And because wildfire-mitigation expenditures are still forecasted to occur at a high level in 2025, the financial burden on SCE's ratepayers would be excessive under SCE's forecasts; this combined financial obligation of DIR costs and wildfire-mitigation costs would pose a much larger burden than what ratepayers faced in 2018, as seen in SCE's Figure I-1.

A. Infrastructure Replacement

As SCE notes in its testimony, in Exhibit SCE-02, Volume 01, Part 02, at 4. the term Distribution Infrastructure refers to major pieces of equipment, such as poles, transformers, switches, capacitors, automatic reclosers, cable, and conductors that make

up the distribution system. Typically, these pieces of equipment operate for many years before they wear out.¹²⁰

For Distribution Infrastructure Replacement programs, SCE presented thirteen capital programs as part of its forecast.¹²¹ After analyzing these thirteen capital programs, Cal Advocates recommends adjustments to six of them.¹²² Regarding these six capital programs, Cal Advocates has revised SCE's original capital forecasts for the Underground Cable Replacement Program, the Cable-In-Conduit Program, the Underground Switch Replacement Program, the Overhead Conductor Program, the Capacitor Bank Replacement Program, and the 4-kV Remediation Program.¹²³

1. Underground Cable Replacement Program

For the Underground Cable Replacement (UCR) Program, SCE forecasts \$10.433 million for 2023, \$5.767 million for 2024, and \$98.632 million for 2025.¹²⁴ Cal Advocates' corresponding forecasts are \$10.433 million for 2023, \$5.551 million for 2024, and \$74.217 million for 2025.¹²⁵ Compared with SCE's forecasts, Cal Advocates' forecasts are the same as SCE's for 2023, \$0.216 million lower than SCE's for 2024, and \$24.415 million lower than SCE's for 2025.

After Cal Advocates asked SCE to use SCE's machine-learning algorithm (which SCE itself used to estimate the risk and consequences of failure for each of the 300,000+ mainline cable segments on the distribution system) to calculate risk reduction percentages for a variety of total cable replacements, Cal Advocates learned that the percentage differences between risk-reduction levels gradually diminished as the quantity of cable replacements increased.¹²⁶ For example, increasing the cable replacement

¹²⁰ Ex. CA-03 at 12.

¹²¹ Ex. CA-03 at 12; see also Ex. SCE-02, 4 Vol. 01, Part 02.

¹²² Ex. CA-03 at 12.

¹²³ Ex. CA-03 at 12.

¹²⁴ Ex. CA-03 at 14.

¹²⁵ Ex. CA-03 at 14.

¹²⁶ Ex. CA-03 at 15-16.

amount from 800 conductor-miles to 1,000 conductor-miles (a 200-mile increase) results in a 4% increase in the risk reduction (from 67% to 71%).¹²⁷ However, increasing the cable-replacement amount from 1,400 conductor-miles to 1,600 conductor-miles (also a 200-mile increase) results in only a 2% increase in the risk reduction (from 78% to 80%).¹²⁸ As SCE's own machine-learning algorithm shows, the amount of risk reduction diminishes as the quantity of cable replacements increase.¹²⁹

SCE's 2025 forecast of 400 conductor-miles of replacements is more than sixteen times as high as its 2024 forecast.¹³⁰ In lieu of a 400-mile-per-year replacement forecast, Cal Advocates concludes that a 300-mile-per-year replacement forecast, totaling 1,200 miles over the four-year period from 2025 through 2028, is more reasonable.¹³¹ According to SCE's machine-learning algorithm, a 1,200 total conductor-mile replacement will result in a safety and reliability risk reduction of 75%. Although this percentage is less than SCE's proposed 80% risk reduction, Cal Advocates' recommended 75% reduction still prioritizes safety and provides a very significant risk and reliability improvement, while simultaneously resulting in a Test Year 2025 capital expenditure reduction of \$24.415 million.¹³²

Cal Advocates disagrees with SCE's plan to replace 400 conductor-miles of underground cables in 2025. SCE noted in Figure I-1 that it is forecasting wildfire mitigation costs to begin decreasing in 2024, thereby making more capital funds available in 2024 for other projects, especially projects that SCE has concluded are urgently needed. Therefore, since SCE is only proposing to replace twenty-four conductor-miles in 2024, Cal Advocates has concluded that SCE does not perceive that there is an immediate urgency to undertake 400 conductor-miles of replacement in 2025. Cal

¹²⁷ Ex. CA-03 at 15-16.

¹²⁸ Ex. CA-03 at 15-16.

¹²⁹ Ex. CA-03 at 15-16.

¹³⁰ Ex. CA-03 at 16-17.

¹³¹ Ex. CA-03 at 16-17.

¹³² Ex. CA-03 at 16-17.

Advocates instead recommends that a 300 conductor-mile replacement level be used for 2025.¹³³ Beginning the increased use of the Underground Cable Replacement Program in 2025, and using a replacement rate of 300 conductor-miles per year, strikes the appropriate balance between risk reduction and costs.¹³⁴

SCE proposes to increase expenditures for its UCR program, but Cal Advocates does not agree with the necessity to replace 400 miles in 2025. On Figure I-1, SCE provided a written notation showing that, beginning in 2024, wildfire-mitigation costs (labeled as “WCCP,” for Wildfire Covered Conductor Program), will begin winding down, thereby making available additional capital dollars that were previously dedicated to wildfire-mitigation costs. Because of the decrease in wildfire-mitigation costs beginning in 2024, SCE has additional funds with which to increase various DIR projects (including UCR project) prior to 2025. Using its best reasonable judgment, Cal Advocates has concluded that beginning the increased UCR program in 2025, and using a replacement rate of 300 miles per year, strikes the appropriate balance between risk reduction and costs. This conclusion is further supported by SCE’s statement that it agrees that the amount of relative risk reduction decreases each year as SCE focuses in the earliest years on the highest-risk cable replacements.¹³⁵

In SCE’ rebuttal testimony, SCE has omitted any discussion regarding the negative impacts that may be associated with increased UCR spending.¹³⁶ But of note, the safety and reliability that an SCE customer experiences can also be negatively affected by utility bills that are unaffordable. People who cannot afford their utility bills run the risk of having their power cut off; or they can experience health issues by failing to run needed life-sustaining electric devices or needed air conditioning; in addition, SCE’s customers may be forced to cut back on various necessities in order to pay their utility bills.

¹³³ Ex. CA-03 at 16-17.

¹³⁴ Ex. CA-03 at 16-17.

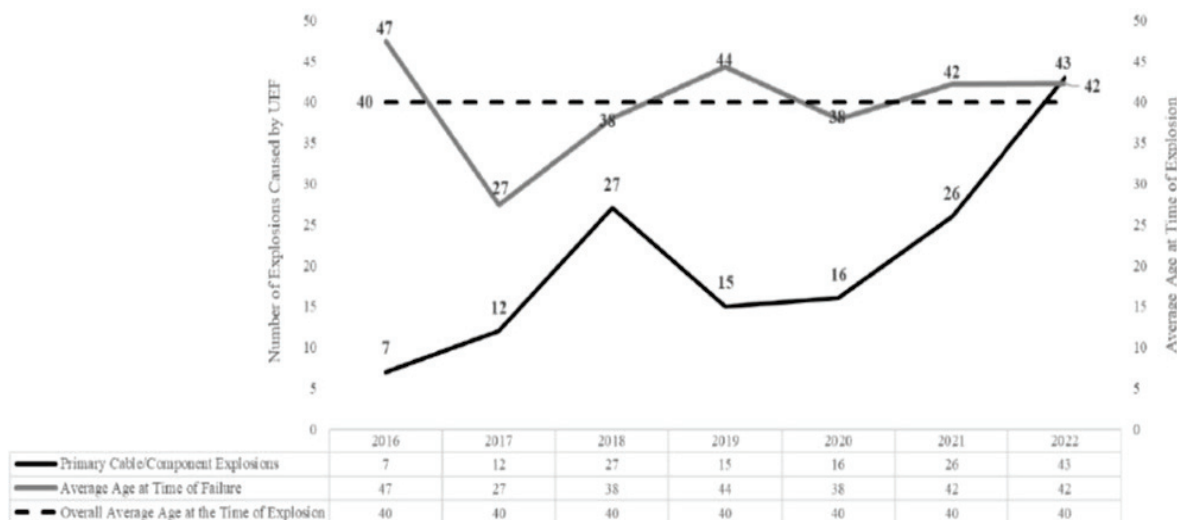
¹³⁵ Ex. SCE-13, Vol. 01 at 15.

¹³⁶ Ex. SCE-13, Vol. 01.

Beginning on page 12 of CUE’s rebuttal testimony, CUE states that, as with other DIR programs, UCR funding was diverted prior to SCE’s 2021 GRC and continued into that GRC period.¹³⁷ As a result, CUE alleges that it is not altogether surprising that the number of explosions in 2022 from underground cable-related failures almost tripled from the 2019/2020 level to 2022, and increased sixfold since 2016.¹³⁸ These statistics, as referenced by CUE,¹³⁹ originate from Figure II-12 on page 32 of Exhibit SCE-02, Volume 01, Part 02.

However, the Figure II-12 graph that is referred to by CUE does not contain all of the relevant information that is necessary to properly analyze this issue. The Commission should also consider the information in Figure II-15, found on page 34 of Exhibit SCE-02, Volume 01, Part 02:

Figure II-15
Number of Explosions Caused by UEF vs. Average Age of Cable at Time of Event⁵⁰



¹³⁷ Ex. CUE-02 at 12.

¹³⁸ Ex. CUE-02 at 12-13.

¹³⁹ See Ex CUE-02 at 12, FN 21.

As shown on Figure II-15, the upper portion of that graph contains important information—information which is not included in the Figure II-12 graph referred to by CUE—about the number of explosions. As shown in the upper portion of Figure II-15, the gray line indicates that cable age does not appear to be a primary factor for the trend of the increasing number of explosions. Indeed, the year with the fewest underground explosions (seven explosions in 2016) is also the year with the oldest average cable age (47 years). In fact, as shown on the upper portion of Figure II-15, the average cable age (at the time of explosion) has consistently hovered around 40 years since 2018, even though the lower portion of the graph shows an increase in explosions since that year. Consequently, any insinuation that the increase in underground explosions is caused by SCE’s deferral of funding to wildfire mitigation is not supported by Figure II-15.

In CUE’s rebuttal testimony, CUE also alleges that Cal Advocates’ proposal regarding yearly replacement amounts results in replacing existing underground cable by the year 2245.¹⁴⁰ CUE has calculated that cable installed this year will be 220 years old at that time. CUE alleges that Cal Advocates’ approach is unreasonable.¹⁴¹

CUE’s allegations, even if mathematically correct, are meaningless. In the study of the field of logic, there is a fallacious argument that is termed “the appeal to extremes,” which erroneously attempts to make a reasonable argument into an absurd one, simply by taking the argument to extremes. In CUE’s rebuttal, CUE has engaged in just such a logical fallacy. No one—and certainly not Cal Advocates—is recommending that UCR capital costs remain “fixed” for the next 220 years. Undergrounding methodologies, cable costs, undergrounding needs, and the like will all evolve over time, thereby affecting UCR amounts and costs. Furthermore, as shown on Figure I-1, DIR costs (including UCR expenditures) have been forecast to increase beginning in 2024, as SCE devotes less of its resources to wildfire mitigation. Thus, it is logical and reasonable to expect that DIR expenditures will increase as wildfire-mitigation costs wind down.

¹⁴⁰ Ex. CUE-02 at 15.

¹⁴¹ Ex. CUE-02 at 15.

Cal Advocates' incorporation of its recommended revision to the Underground Cable Replacement Program results in forecasts for the Underground Cable Replacement program of \$10.433 million in 2023, \$5.551 million in 2024, and \$74.217 million in 2025. Compared with SCE's forecasts, Cal Advocates' forecasts are the same as SCE's forecast for 2023, but are \$0.216 million lower for 2024, and \$24.415 million lower for 2025.¹⁴²

2. Cable-In-Conduit Replacement Program

The Cable-In-Conduit (CIC) Replacement Program focuses on rejuvenating or replacing radial underground cables and cable components in specific regions and sites based on safety and reliability risks.¹⁴³ Approximately 12,000 conductor-miles, or one-fifth of SCE's cable population, consists of CIC. The CIC Replacement Program is used to replace segments that are older than 50 years, because they do not meet the criteria for the CIC Rejuvenation process. This replacement program is also utilized to address cable segments that fail during attempted CIC Rejuvenation.¹⁴⁴ SCE's forecasts for the CIC Replacement Program are \$5.738 million for 2023, \$6.992 million for 2024, and \$62.467 million for 2025. Cal Advocates' corresponding forecasts are \$5.738 million for 2023, \$6.912 million for 2024, and \$41.823 million for 2025.¹⁴⁵ When compared with SCE's forecasts, Cal Advocates' forecasts are the same as SCE's for 2023, \$0.08 million less for 2024, and \$20.644 million less for 2025.

SCE plans on replacing a total of 480 conductor-miles of CIC cable (older than 50 years of age) from 2025 through 2028. Cal Advocates does not oppose SCE's 480-mile replacement forecast over the period 2025 through 2028, but Cal Advocates does recommend that the 480-mile replacement total be spread evenly over the four-year period.¹⁴⁶

¹⁴² Ex. CA-03 at 16-17.

¹⁴³ Ex. CA-03 at 18.

¹⁴⁴ Ex. CA-03 at 18.

¹⁴⁵ Ex. CA-03 at 18-19.

¹⁴⁶ Ex. CA-03 at 18-19.

Specifically, Cal Advocates recommends replacing 120 miles per year over the 2025 through 2028 period, totaling 480 conductor-miles, which equals the total quantity of CIC replacements that SCE requests.¹⁴⁷ Cal Advocates' recommendation evenly spreads out these additions, rather than having a replacement peak in 2025.¹⁴⁸ Previous replacement levels¹⁴⁹ in the revised CIC replacement forecasts are 18 miles and 20 miles for the years 2023 and 2024, respectively, and are 100 miles per year for each year after 2025.¹⁵⁰ However, SCE's 2025 forecast is 180 miles.¹⁵¹ Cal Advocates' recommendation strikes the appropriate balance between previous replacement levels and SCE's proposed replacement levels,¹⁵² while still providing the total quantity of CIC replacements that SCE requests.

The crux of the disagreement between Cal Advocates and SCE (and CUE) can best be discussed by examining Table II-10, which has been copied from page 52 of Exhibit SCE-02, Volume 01, Part 02.

¹⁴⁷ Ex. CA-03 at 19-20.

¹⁴⁸ Ex. CA-03 at 19-20.

¹⁴⁹ Ex. SCE-02, Vol. 01, Part 02 E at 52.

¹⁵⁰ Ex. CA-03 at 19-20.

¹⁵¹ Ex. CA-03 at 19-20.

¹⁵² Ex. CA-03 at 19-20.

Table II-10¹
Cost Breakdown of the CLE Program and the CIC Replacement Program
Forecast (2023-2028)
(Nominal \$000)

	2023	2024	2025	2026	2027	2028	Total
Cable Life Extension Program							
(1) CLE Miles Targeted for Rejuvenations ¹	-	-	120	120	120	120	480
(2) Cable Life Rejuvenation Blended Unit Cost (2022\$) (\$000)	\$ -	\$ -	\$ 117	\$ 117	\$ 117	\$ 117	N/A
(3) Escalation	-	-	1.133	1.143	1.151	1.167	N/A
(4) Employee Compensation Program	\$ -	\$ -	\$ 0.21	\$ 0.23	\$ 0.23	\$ 0.22	\$ 0.88
(5) Total (Nominal \$000)	\$ -	\$ -	\$ 15,853	\$ 15,987	\$ 16,099	\$ 16,333	\$ 64,271
Cable-in-Conduit Replacement Program							
(6) CIC Miles Between 25-50 Years of Age That Failed CLE Criteria ²	-	-	-	80	80	80	240
(7) CIC Miles Greater than 50 Years of Age Targeted for Replacement	18	21	180	100	100	100	519
(8) Subtotal CIC Replacement Miles	18	21	180	180	180	180	759
(9) CIC Replacement Unit Cost (2022\$) (\$000)	\$ 304	\$ 304	\$ 304	\$ 304	\$ 304	\$ 304	N/A
(10) Escalation	1.054	1.106	1.133	1.143	1.151	1.167	N/A
(11) Employee Compensation Program	\$ 37	\$ 194	\$ 534	\$ 529	\$ 538	\$ 590	\$ 2,423
(12) Total (Nominal \$000)	\$ 5,738	\$ 6,992	\$ 62,467	\$ 62,986	\$ 63,431	\$ 64,399	\$266,013

As shown in the above Table II-10, the calculations for the CIC Replacement Program are presented on the bottom portion of the table, with Line 8 showing that SCE's CIC Replacement mileage forecasts are 180 miles per year for the period 2025 through 2028. That yearly 180-mile total is derived by adding together the mileages shown on Line 6 (CIC miles for cables that are less than 50 years old and that have failed the rejuvenation program) and Line 7 (CIC miles for cable that is over 50 years old).

Beginning on page 20 of SCE's rebuttal testimony,¹⁵³ SCE states that Cal Advocates is silent about the remaining 240 miles of CIC replacements (shown on Line 6 of Table II-10) between the ages of 25 years to 50 years that are also in SCE's CIC Replacement forecast but are ineligible for life-extending treatment through the Cable

¹⁵³ Ex. SCE-13, Vol. 01. Beginning on page 20 of SCE's rebuttal testimony.

Life Extension (CLE) Program.¹⁵⁴ SCE goes on to allege that Cal Advocates contradicts its own recommendation of an even spread of CIC miles across the GRC cycle.

SCE's conclusions regarding Cal Advocates' silence are misplaced because SCE's conclusions ignore a critical fact. SCE has forecast that expenditures for this particular capital project are scheduled to commence in 2026. The year 2026 is part of the attrition cycle, and Cal Advocate does not typically analyze the capital-project expenditures that begin after the 2025 test year. After all, the main point of having an attrition mechanism is to avoid the necessity of conducting such post-test year investigations for specific individual capital projects.

SCE's second point (that Cal Advocates' recommendation contradicts its own proposal to evenly spread the replacement miles across the GRC cycle), while mathematically valid, is the result of SCE's unusual test year methodology. Specifically, the initial 180-mile forecast spike (in Line 7 for 2025) was derived by SCE to create a uniform Line 8 yearly total for the years 2025 through 2028. However, the 2026 through 2028 yearly (Line 8) CIC replacement amounts include, in their yearly totals, the unanalyzed Line 6 attrition replacements that will purportedly commence in 2026. In effect, SCE has developed, for 2025, a 180-mile Line 8 replacement forecast that was derived from the unanalyzed attrition-year forecasts; this methodology assumes that the Commission has accepted as reasonable the unanalyzed CIC replacements (shown on Line 6 of Table II-10) that commence in the post-test year. Boiled down, SCE's methodology for deriving its Line 7 Test Year 2025 forecast is based on its attrition-year forecasts (which have not been analyzed); SCE's methodology is the exact opposite of the usual reasonable methodology in which the attrition-year amounts are derived from the test year. Cal Advocates was unable to unearth another instance in which the Commission used an unreviewed attrition-year forecast to derive a test-year forecast.

As stated explicitly several times in Cal Advocates' testimony, Cal Advocates provided recommendations regarding only those CIC cables that were greater than 50

¹⁵⁴ Ex. SCE-13, Vol. 01. Beginning on page 20 of SCE's rebuttal testimony.

years old.¹⁵⁵ As shown on Line 6 of Table II-10, other CIC replacements do not commence until 2026. The year 2026 is part of the attrition cycle, and Cal Advocates does not routinely analyze capital projects that commence after a GRC test year. Projects that commence in the attrition period are not individually analyzed in this GRC. A main point of having an attrition mechanism is to avoid the necessity of conducting such post-test-year investigations. Cal Advocates agrees that SCE's proposed Line 7 spike in 2025 does mathematically result in the Line 8 totals equaling 180 miles/year over the 2025 through 2028 period, which was apparently SCE's goal. However, SCE's methodology would require the Commission to essentially assume that an unanalyzed capital program (in which capital expenditures begin in the attrition years) is considered to be reasonable. Cal Advocates finds SCE's approach to be a departure from the approach in previous GRC investigations, and to be sufficiently concerning that it should be specifically called to the Commission's attention. Cal Advocates does not want SCE's methodology to become a precedent for future GRC capital investigations.

Lastly, on page 21 of Exhibit SCE-13, Volume 01, SCE summarizes its CIC rebuttal arguments by stating that its yearly forecast (on Line 8) already evenly spreads the total 720 miles of total replacements at a rate of 180 miles per year; the 180 miles in 2025 that Cal Advocates calls a "replacement peak," is actually the first 180 miles of SCE's 720 CIC mile replacements, evenly spread over the period 2025 through 2028.

Cal Advocates agrees that SCE's forecasts mathematically result in a consistent 180 miles per year for CIC replacement miles, as seen on Line 8 of Table II-10. However, to be found reasonable, that forecast requires that the following two events must occur.

First, it must be determined that SCE was unable to undertake its proposed CIC replacement increase in the years prior to 2025. Because of the decline in wildfire-mitigation expenditures beginning in 2024, SCE will have an opportunity to increase DIR

¹⁵⁵ Ex. CA-03 at 18-19.

expenditures (including CIC Replacement expenditures) beyond the 18 miles and 20 miles of replacements that SCE has forecast for 2023 and 2024, respectively.

Second, SCE uses unanalyzed attrition-year forecasts to derive test-year forecasts—in effect, a so-called “reverse-attrition mechanism.” Unless both forecasts are likely and reasonable, SCE’s proposed CIC replacement forecasts must be denied. Conversely, Cal Advocates’ recommendation will avoid such analytical issues, here and in the future.

Unless both forecasts are likely and reasonable, SCE’s proposed CIC replacement forecasts must be denied. Conversely, Cal Advocates’ recommendation will avoid such analytical issues, here and in the future.

Cal Advocates’ recommended revisions to the CIC Replacement Program results in forecasts for CIC replacements of \$5.738 million in 2023, \$6.912 million in 2024, and \$41.823 million in 2025. These forecasts are the same as SCE’s forecast for 2023, but are \$0.080 million lower than SCE’s for 2024, and \$20.644 million lower than SCE’s for 2025.¹⁵⁶

3. Underground Switch Replacement Program.

SCE states that its Underground (UG) Switch Replacement Program replaces switches in underground structures; these switches are approaching the end of their service life or have exceeded the end of their service life.¹⁵⁷ Cal Advocates does not oppose SCE’s forecasts.¹⁵⁸ Instead, Cal Advocates included SCE’s errata changes (in Exhibit SCE-02, Volume 01, Part 02-E), which resulted in forecasts for UG Switch Replacements of \$3.175 million in 2023, \$3.242 million in 2024, and \$13.382 million in 2025. These forecasts are the same as SCE’s forecast for 2023, but are \$0.002 million lower for 2024, and \$0.017 million lower for 2025.¹⁵⁹

¹⁵⁶ Ex. CA-03 at 19-20.

¹⁵⁷ Ex. SCE-02, Vol. 01, Part 02 at 54.

¹⁵⁸ Ex. CA-03 at 20.

¹⁵⁹ Ex. CA-03 at 20.

4. Overhead Conductor Program.

The Overhead Conductor Program (OCP) was introduced in SCE's 2018 GRC to address public safety risks associated with energized downed overhead conductor.¹⁶⁰ Regarding the beginning in 2025 and onward, SCE states that it is using a modified mitigation strategy.¹⁶¹ Based on recent and refined analysis of the drivers of conductor failure events, SCE states that it plans to replace bare conductor with covered conductor as the primary mitigation for the risks that the OCP is designed to address.¹⁶²

SCE's OCP forecasts are \$66.278 million for 2023, \$62.874 million for 2024, and \$332.799 million for 2025.¹⁶³ Cal Advocates recommends OCP forecasts of \$66.182 million in 2023, \$55.221 million in 2024, and \$244.920 million in 2025.¹⁶⁴ Compared with SCE's forecasts, Cal Advocates' forecasts are \$0.096 million less than SCE's for 2023, \$7.653 million less for 2024, and \$87.879 million less for 2025.

a) Proactive replacement of overhead cable

SCE uses predictive machine-learning models to estimate the risk of overhead conductor failures and wire-down events.¹⁶⁵

SCE proposes to proactively replace a total of 1,680 circuit-miles of overhead cable over the four-year period of 2025 through 2028 (420 circuit-miles in each of the four years) in order to mitigate the safety and reliability risks associated with overhead conductor failure.¹⁶⁶ According to SCE, these 1,680 circuit-miles, if replaced at the rate of 420 circuit-miles annually, are expected to mitigate the overall risk by up to 29% over the length of this current GRC cycle.¹⁶⁷

¹⁶⁰ Ex. CA-03 at 21.

¹⁶¹ Ex. CA-03 at 21.

¹⁶² Ex. CA-03 at 21.

¹⁶³ Ex. CA-03 at 21.

¹⁶⁴ Ex. CA-03 at 21.

¹⁶⁵ Ex. CA-03 at 21-23.

¹⁶⁶ Ex. CA-03 at 21-23.

¹⁶⁷ Ex. CA-03 at 21-23.

SCE used a machine-learning algorithm to help tailor OCP's scope and to help estimate the risk and consequence of failure for each of the 500,000+ primary overhead-conductor segments on the SCE distribution system.¹⁶⁸ Cal Advocates asked SCE to use its machine-learning algorithm to calculate risk-reduction percentages for a variety of total cable replacements.¹⁶⁹ SCE's response showed that differences between risk-reduction levels gradually diminish as the quantity of cable replaced increases.¹⁷⁰

For example, an increase from 680 circuit-miles to 880 circuit-miles (a 200-mile increase) results in a 3% increase in the risk reduction (from 16% to 19%). But increasing the cable replacement amount from 1,480 circuit-miles to 1,680 circuit-miles (also a 200-mile increase) results in only a 2% increase in the risk reduction (from 27% to 29%).¹⁷¹ Thus, risk-reduction gains diminish as the quantity of cable replacements increase.¹⁷² In SCE's rebuttal testimony, SCE apparently agrees with Cal Advocates' conclusion, and states the following regarding risk reductions associated with OCP cable replacements: "Naturally, every circuit mile in SCE's service area does not pose the same risk, based on several factors including condition of the conductor and location. Therefore, the amount of risk represented by each mile will also naturally diminish if the miles are appropriately ranked from high to low risk."¹⁷³

SCE's 2025 forecast of 420 circuit-miles of replacements is over four times as much as its 2024 forecast.¹⁷⁴ And not since 2018 has SCE replaced as many as 320 circuit-miles. So instead of a 420 mile-per-year replacement forecast, Cal Advocates recommends a more reasonable 320-mile-per-year replacement forecast. This forecast

¹⁶⁸ Ex. CA-03 at 24-25.

¹⁶⁹ Ex. CA-03 at 24-25.

¹⁷⁰ Ex. CA-03 at 24-25.

¹⁷¹ Ex. CA-03 at 24-25.

¹⁷² Ex. CA-03 at 24-25.

¹⁷³ Ex. SCE-13, Vol. 01 at 12.

¹⁷⁴ Ex. CA-03 at 24-25.

totals 1,280 miles over the four-year period from 2025 through 2028.¹⁷⁵ This 320-mile-per-year replacement forecast results in a 24% reduction in risk.

On page 11 of Exhibit SCE-13, Volume 01, SCE alleges the following:

Cal Advocates proposes to trade off increased public safety in SCE's OCP for cost reduction. Cal Advocates suggests reducing SCE's OCP scope from 1,680 circuit miles across this GRC period by 400 circuit miles, based on Cal Advocates' perception that the incremental risk reduction is not justified. This proposal is essentially centered on cost considerations rather than the considerations of safety and reliability that are driving SCE's forecast.

SCE's allegation is mere hyperbole. Cal Advocates objects to SCE's allegation. Cal Advocates' statutory mission is to obtain the lowest possible rate for service consistent with reliable and safe service levels; and all of Cal Advocates' recommendations have been in keeping with that mission.

Regardless of SCE's spurious accusations, Cal Advocates makes the following points regarding the analysis of risk reductions (which Cal Advocates discussed on pages 17, 27, and 28 of Exhibit CA-03). First, it is often difficult to try to definitively quantify the value of risk reductions. Participants in these GRC proceedings use their experience and judgment to determine the appropriate levels of risk reduction. Second, SCE itself has used its judgment in balancing risk and costs when it sought a 29% risk reduction rather than, say, a 30% (or larger) reduction. Third, SCE has again used its judgment to begin the increased OCP expenditures in 2025, rather than an earlier year.

SCE has proposed substantial and unreasonable increased expenditures for its OCP program. SCE's arguments for replacing 420 miles in 2025 are unpersuasive. SCE's request to replace 117 miles and 91 miles in 2023 and 2024, respectively, indicates that SCE has not found any immediate urgency in undertaking these replacements, especially given the fact that—because of the decrease in wildfire-mitigation costs beginning in 2024—SCE has additional funds with which to increase various DIR

¹⁷⁵ Ex. CA-03 at 24-25.

(including OCP) projects prior to 2025. SCE should start its increased OCP program in 2025, and use a replacement rate of 320 miles per year because it strikes the appropriate balance between risk reduction and costs.

In SCE's rebuttal testimony,¹⁷⁶ SCE has omitted any discussion regarding the negative impacts that may be associated with increased OCP spending. The safety and reliability that an SCE customer experiences can also be negatively affected by unaffordable utility bills. People that cannot afford their utility bills run the risk of having their power cut off, or can experience health issues by failing to run needed life-sustaining electric devices or needed air conditioning; in addition, SCE's customers may be forced to cut back on purchasing needed essentials (e.g., food, medicine) in order to pay their utility bills.

SCE also states that the important question regarding risk reductions is how much absolute risk SCE is proposing to "buy down."¹⁷⁷ In the context of this discussion, the term "absolute" risk refers to the changes in the number of individuals that would be affected by the various risk-reduction proposals. SCE has failed to provide any quantification regarding absolute risk numbers. In contrast, Cal Advocates has used the information contained in SCE's rebuttal testimony to calculate the absolute impacts.¹⁷⁸ On page 11 of Exhibit SCE-13, Volume 01, SCE states that from 2013 through 2023, there were six serious injuries and four fatalities due to contact with downed wires. In addition, over the same period, there were thirty-five serious injuries and thirteen fatalities due to contact with intact overhead wires. Therefore, in total, there were 58 serious events over the 10-year period, or an average of 5.8 serious events per year.

Reducing these serious OCP events by 29% (which is SCE's proposal) would result in 4.1 serious events per year, a reduction of 1.7 from the current 5.8 level. Reducing these events by 24% (Cal Advocates' recommendation) would result in 4.4

¹⁷⁶ Ex. SCE-13, Vol. 01.

¹⁷⁷ Ex. SCE-13, Vol. 01 at 12.

¹⁷⁸ Ex. SCE-13, Vol. 01 at 11.

serious events per year, a reduction of 1.4 from the current 5.8 level. Stated another way, Cal Advocates' recommended 24% risk reduction would result in a theoretical additional 0.3 events per year, compared to SCE's proposed risk reduction of 29%. (This 0.3 calculation is almost certainly overstated, as it assumes that risk reductions are uniform, and do not diminish with additional OCP replacements.) This minimal difference would likely be offset by the fact that, under Cal Advocates' proposal, SCE's customers would have a decreased risk of being unable to pay their utility bills and would have a decreased risk of needing to reduce essential electric usage—and all of these decreased risks could positively affect the health and welfare of customers.

On page 13 of Exhibit SCE-13, Volume 01, SCE next discusses the fact that Cal Advocates used a different unit cost when developing its 2025 OCP forecast. As discussed on page 25 of Exhibit CA-03, SCE actually developed its Covered Conductor unit costs in Exhibit SCE-04, Volume 05, Part 02. A separate witness (from Exhibit CA-11, at 25) for Cal Advocates analyzed the reasonableness of that cost, and concluded that a reduction to SCE's proposed unit cost should be made. That reduction has been reflected in the OCP expenditures that have been analyzed in Exhibit CA-03.

According to SCE's machine-learning algorithm, a 1,280-mile conductor replacement will provide a risk-reduction of 24%, compared to SCE's proposed 29% risk reduction. Cal Advocates' recommended 24% reduction prioritizes safety and still provides a significant risk and reliability improvement, while simultaneously resulting in a significant Test Year 2025 capital expenditure reduction.¹⁷⁹

b) Accelerated Overhead Conductor Program

When wire-down events occur, SCE reacts by attempting to immediately address the safety risks and restore power. SCE later replaces the failed span as part of the Accelerated Overhead Conductor Program (AOCP).¹⁸⁰

¹⁷⁹ Ex. CA-03 at 24-25.

¹⁸⁰ Ex. CA-03 at 26-27.

SCE claims that its AOCF forecasts are based on the “historical trend” from the previous year.¹⁸¹ When Cal Advocates asked SCE’s forecasts for AOCF expenditures are unreasonable on their face. SCE fails to identify any change in its “historical trend” that would explain this significant price increase of about 150%. Nor does SCE identify any meaningful mathematical relationship between SCE’s forecasts for proactive OCF replacements (which stem from SCE’s own foresight and forward-looking decision-making) and forecasts for AOCF costs (which stem from SCE’s anticipated reaction to wire-down events).¹⁸² For example, in 2023, SCE forecasts a proactive OCF replacement of 117 circuit-miles, with a corresponding AOCF of \$5.269 million.¹⁸³ But in 2024, SCE forecasts an OCF replacement of 91 circuit-miles (a decrease of about 22% from the previous year), and has a corresponding AOCF of \$13.272 million (an increase of about 152% from the previous year).¹⁸⁴ Further, in 2025, SCE forecasts the replacement of 420 circuit-miles (over 4.5 times as high as its proposed 2024 level); yet its AOCF forecast is \$13.595 million, only \$0.323 million higher than its 2024 forecast.¹⁸⁵

In SCE’s rebuttal testimony,¹⁸⁶ SCE acknowledges that the forecast years 2023 and 2024, as shown in SCE’s direct testimony, do not exhibit the usual four-percent ratio that SCE presented in response¹⁸⁷ to Cal Advocates’ data request PubAdv-SCE-307-GAW, Question 01.a-c, which was a data-request response Cal Advocates relied upon.¹⁸⁸ In fact, as shown on Table II-7 of SCE’s rebuttal testimony,¹⁸⁹ SCE’s 2024 AOCF forecast is

¹⁸¹ Ex. CA-03 at 26-27; Ex. SCE-02, Vol. 01, Part 02 at 97.

¹⁸² Ex. CA-03 at 26-27.

¹⁸³ Ex. CA-03 at 26-27.

¹⁸⁴ Ex. CA-03 at 26-27.

¹⁸⁵ Ex. CA-03 at 26-27.

¹⁸⁶ Ex. SCE-13, Vol. 01 at 14

¹⁸⁷ SCE’s data-request response was included in Ex. CA-03, Appendix A.

¹⁸⁸ See Ex. SCE-13, Vol. 01 at 14, FN 36.

¹⁸⁹ Ex. SCE-13, Vol. 01 at 15.

actually estimated to constitute 21% of the OCP forecasts, a far cry from the 4%-to-9% figure that SCE provided in its data-request response (Exhibit CA-03, Appendix A).

SCE's AOCF forecasts are unsupported and unjustified. Based on the historical trend from the previous year (which SCE purports to also rely on when making its AOCF forecasts), Cal Advocates recommends that the AOCF forecasts be \$5.530 million for 2024, and \$5.665 million for 2025.¹⁹⁰ These forecasts simply reflect an escalated version of the 2023 forecast (\$5.269 million), because there is no indication that AOCF expenditures are related to the magnitude of the regular overhead conductor replacements in the OCP.¹⁹¹

5. Capacitor Bank Replacement Program

SCE's Capacitor Bank Replacement program seeks to replace or remove failed and obsolete distribution capacitor banks.¹⁹²

Cal Advocates does not oppose SCE's forecasts, but Cal Advocates' utilizes SCE's updated forecasts provided in SCE's numerous errata changes. Using the updated forecasts, the forecasts for the Capacitor Bank Replacement Program are \$4.238 million in 2023, \$4.355 million in 2024, and \$16.946 million in 2025. These Cal Advocates' forecasts are higher than SCE's original forecasts by \$0.028 million for 2023, \$0.028 million higher for 2024, and \$0.119 million higher for 2025.¹⁹³

6. 4-kV Remediation Program.

SCE's 4-kV Remediation Program seeks to address aged and obsolete distribution and substation equipment that are in poor health. The 4-kV Remediation Program also seeks to address outdated system designs that have limited system-load capacity and that impede operational flexibility with system reliability impacts.¹⁹⁴

¹⁹⁰ Ex. CA-03 at 22, 26-27.

¹⁹¹ Ex. CA-03 at 22, 26-27.

¹⁹² Ex. CA-03 at 29-30.

¹⁹³ Ex. CA-03 at 29-30.

¹⁹⁴ Ex. CA-03 at 31-32.

SCE's forecasts for the 4-kV Remediation Program are \$42.605 million in 2023, \$49.668 million in 2024, and \$127.378 million in 2025. Cal Advocates' corresponding forecasts are \$42.605 million in 2023, \$43.144 million in 2024, and \$122.331 million in 2025.¹⁹⁵ When compared to SCE's forecasts, Cal Advocates' forecasts are the same as SCE's for 2023, \$6.524 million less for 2024, and \$5.047 million less for 2025.

According to SCE, out of SCE's roughly 800 distribution substations and 4,600 distribution circuits, there are over 150 4-kV substations and 700 4-kV circuits that are in service but require remediation.¹⁹⁶

For the period of 2023 through 2028, SCE claims thirty-eight 4-kV systems require remediation.¹⁹⁷ SCE provides considerable testimony to justify the remediation of these thirty-eight 4 kV projects. Cal Advocates does not oppose SCE's forecasts for addressing those thirty-eight projects. But when SCE listed the costs purportedly associated with remediating these thirty-eight 4-Kv systems, SCE included an additional cost category—labeled as “Load Growth”—as part of this remediation. SCE claims that 4 kV Load Grow remediations address more immediate needs regarding circuits that are forecast to be overloaded.¹⁹⁸

This additional “Load Growth” cost category represents work that is separate and outside of the prioritized scope of thirty-eight systems across this GRC cycle. Cal Advocates was unable to find any discussions, in either SCE's testimony or SCE's workpapers, regarding how the 4-kV Load Growth remediation forecasts were derived. When Cal Advocates asked SCE for detailed calculations showing how these yearly Load Growth forecasts are derived, SCE replied with the following: “SCE's forecast for the Load Growth portion of the 4 kV Remediation Program is informed by SCE's historical recorded expenditures in this activity. Using historical, recorded expenditures provides

¹⁹⁵ Ex. CA-03 at 31-32.

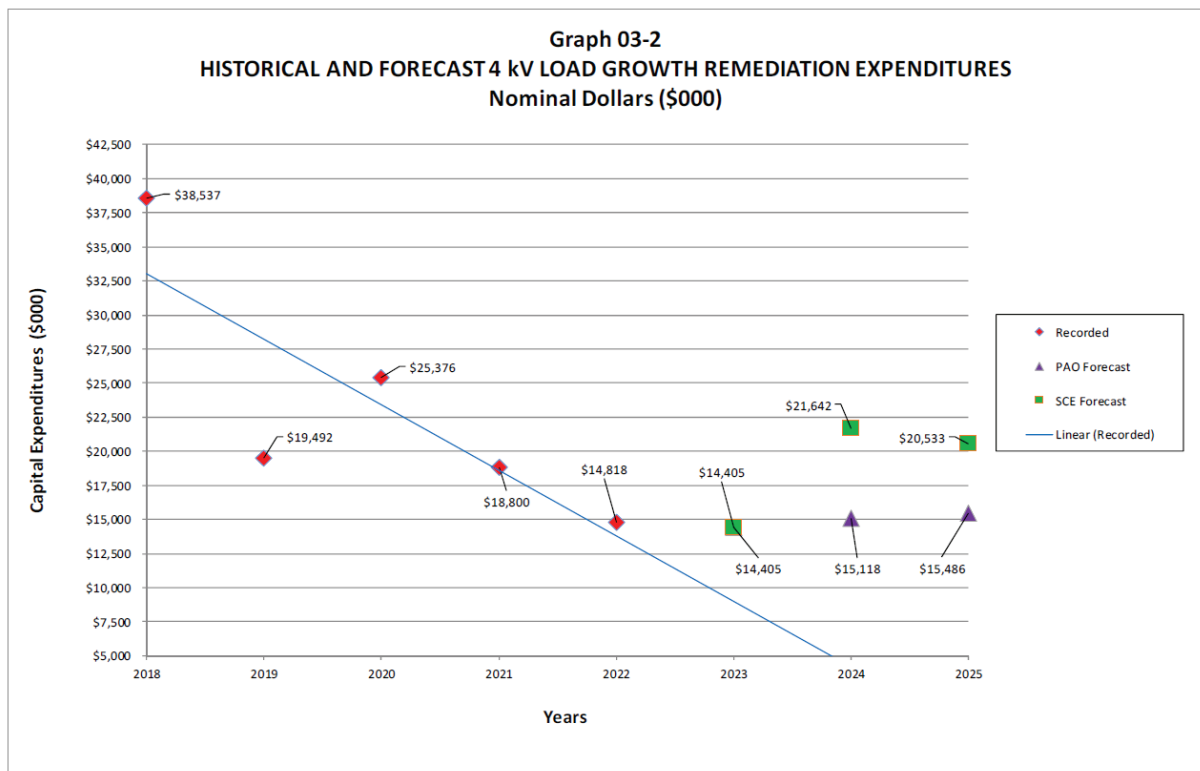
¹⁹⁶ Ex. CA-03 at 31-32; Ex. SCE-02, Vol. 01, Part 02 at 131.

¹⁹⁷ Ex. CA-03 at 31-32; Ex. SCE-02, Vol. 01, Part 02 at 154-156.

¹⁹⁸ Ex. CA-03 at 31-32; Ex. SCE-02, Vol. 01, Part 02 at 154-156.

SCE with a reasonable expectation of the level of required mitigation work resulting from emergent load growth needs on an annual basis in the 4 kV Remediation Program.”¹⁹⁹

Included with SCE’s response was data showing recorded Load Growth capital expenditures for the period 2018 through 2022.²⁰⁰ As shown in Graph 03-2, from Ex. CA-03, at 33, SCE’s data showed a fairly dramatic decline over the period of 2018 through 2022.²⁰¹ Furthermore, according to SCE’s 2023 Load Growth capital estimate (which SCE forecasts to be \$14.405 million), the trend of declining Load Growth expenditures is continuing into 2023, because SCE’s 2023 Load Growth forecast is lower than its 2022 Load Growth recorded expenditure.²⁰²



¹⁹⁹ Ex. CA-03, Appendix B.

²⁰⁰ Ex. CA-03, Appendix B.

²⁰¹ Ex. CA-03, Appendix B.

²⁰² Ex. CA-03 at 32; Ex. SCE-02, Vol. 01, Part 02 at 154-156.

As shown on Graph 03-2, both SCE and Cal Advocates are forecasting that 4-kV Load Growth remediation costs will begin to increase beginning in 2024, with SCE expecting larger increases. In SCE's response to data request PubAdv-SCE-266-GAW, Q.3,²⁰³ SCE noted that it uses historical recorded expenditures to derive its forecasts for 4-kV Load Growth remediation. Using an average of recorded data to develop future forecasts is a common methodology that is frequently used to develop GRC estimates, especially when the recorded data fluctuate with no discernable pattern. However, as shown in Graph 03-2, in this instance there is a clear pattern of decreasing expenditures in 4-kV Load Growth remediation, and this decrease continues even through SCE's 2023 forecast. In Cal Advocates' judgment, the use of an average is inappropriate here, given this trend of decreasing expenditures. SCE tacitly concedes the inappropriateness of using an average when, in SCE's response to data request PubAdv-SCE-266-GAW Question 03, SCE stated:

The 2023-2028 4 kV Load Growth forecast, roughly \$20 million annually, is informed by 4 kV Load Growth's historical averages from 2018 to 2022. It is important to note that while the recorded average from years 2018-2022 is roughly \$6 million higher in 2022 constant dollars and \$3 million higher in nominal dollars than SCE's request, SCE believes our forecast is reasonable and will allow for the execution of emergent work in this space.²⁰⁴

Stated another way, SCE used its own judgment to develop modified forecasts instead of a straightforward historical average. As summarized in subsequent paragraphs (and as discussed on pages 34 and 35 of Exhibit CA-03), Cal Advocates has concluded that SCE's 4 kV Load Growth forecast for 2023 should be used to develop forecasts for 2024 and 2025.

As noted on page 130 of Exhibit SCE-02, Volume 01, Part 02, SCE performed fewer 4-kV Remediation projects since 2018 to temporarily reallocate resources to wildfire mitigation and grid hardening—as SCE did with other DIR programs. Again,

²⁰³ Ex. CA-03, Appendix B.

²⁰⁴ Ex. CA-03, Appendix B.

4-kV Load Growth remediation projects address immediate and emergent capacity constraints on SCE's circuits as they arise and, therefore, reflect near-term and time-sensitive capacity needs. Cal Advocates' does not expect that these types of immediate 4-kV Load Growth remediations will end up experiencing the same degree of postponements (due to resource reallocations for wildfire mitigation and grid hardening) that the other types of 4-kV remediations have experienced.

After reviewing SCE's historical data and the trend of declining Load Growth expenditures, Cal Advocates does not expect Load Growth costs, beginning in 2024, to increase as fast as SCE has forecast.²⁰⁵ There is a clear pattern of decreasing expenditures for 4-kV Load Growth remediation; and this pattern continues even through SCE's 2023 forecast.²⁰⁶ Given the history and data here, the most reasonable method for developing 4-kV Load Growth remediation forecasts is to use SCE's own 2023 Load Growth forecast as the foundation for determining the 2024 and 2025 forecasts.²⁰⁷ Cal Advocates used SCE's 2023 4-kV Load Growth remediation forecast of \$14.405 million, escalated that figure to account for inflation, and derived Cal Advocates' 2024 and 2025 forecasts.²⁰⁸

The reasonableness of Cal Advocates' recommended estimation approach is further justified by forecasts that Cal Advocates developed as part of its analysis of Exhibit SCE-02, Volume 07, which dealt with "Load Growth, Transmission Projects, and Engineering"; as Cal Advocates discussed in its load-growth analysis of Exhibit SCE-02, Volume 07, SCE's forecasts are generally higher than what Cal Advocates recommends.

In data request PubAdv-SCE-266-GAW, Q.5, Cal Advocates sought to determine how costs of 4-kV Load Growth remediation would be affected by an adjustment to the load-growth forecasts contained in Exhibit SCE-02, Volume 07 (in light of the fact that

²⁰⁵ Ex. CA-03 at 32-33.

²⁰⁶ Ex. CA-03 at 32-33; Ex. CA-03, Appendix B; Ex. SCE-02, Vol. 01, Part 02 at 154-156.

²⁰⁷ Ex. CA-03 at 33-35.

²⁰⁸ Ex. CA-03 at 34-35.

Cal Advocates made adjustments to the load-growth forecasts). In response to this data request, SCE stated:

SCE objects to this question as vague, ambiguous, and calling for speculation. SCE does not know what alternative forecasts Cal Advocates' witnesses may choose to develop, and what adjustments Cal Advocates may choose to propose. SCE cannot answer this question with the information that is reasonably available to SCE.²⁰⁹

Because SCE had no further information to provide, Cal Advocates reasonably concluded that lower load-growth forecasts associated with Exhibit SCE-02, Volume 07 would logically result in a reduced need for 4-kV Load Growth remediation. First, Graph 03-2 showed that recorded 4-kV Load Growth remediation capital costs have been declining (and that SCE's 2023 forecast continues in this decline); second, Cal Advocates recommended load-growth adjustments associated with its analysis of Exhibit SCE-02, Volume 07. Combining these two facts, Cal Advocates has reasonably concluded that reductions to SCE's 4-kV Load Growth remediation forecasts are warranted.

Beginning on page 19 of CUE's rebuttal testimony,²¹⁰ CUE criticizes Cal Advocates for claiming that Graph 03-2 shows a decline in recorded 4-kV remediation Load Growth expenditures from 2018 through 2022, along with forecast expenditures for 2023. CUE alleges that Cal Advocates obscured the fact that SCE has done fewer 4-kV remediation projects since 2018.

CUE's allegation is incorrect. CUE fails to acknowledge that there are two types of 4-kV remediation projects: first, the thirty-eight long-term 4-kV remediations that are planned years in advance (and which Cal Advocates agrees are warranted); and, second, the 4-kV Load Growth remediations. As discussed in footnote 25 on page 32 of Exhibit CA-03, Cal Advocates notes that 4-kV Load Growth remediation projects address immediate and emergent capacity constraints on SCE's circuits as those constraints arise; therefore, 4-kV Load Growth remediation projects arise from near-term and time-

²⁰⁹ Ex. CA-03, Appendix C.

²¹⁰ Ex. CUE-02.

sensitive capacity needs. Cal Advocates does not believe that these types of immediate 4-kV Load Growth remediations have experienced the same degree of postponements (due to resource reallocations for wildfire mitigation and grid hardening) as have the other types of 4 kV remediations. Stated another way, Cal Advocates reasonably concluded that CUE's allegations pertaining to wildfire-mitigation deferrals are much less likely to apply to 4-kV Load Growth remediation projects; and Cal Advocates also reasonably concludes that the declining Load Growth expenditures simply occurred because of a decreased level of immediate and emergent capacity restraints.

Cal Advocates' incorporation of its recommended 4-kV Load Growth remediation revisions into the total 4-kV Remediation Program results in forecasts for the entire 4-kV Remediation Program of \$42.605 million in 2023, \$43.144 million in 2024, and \$122.331 million in 2025. These forecasts are the same as SCE's forecast for 2023, but are \$6.524 million lower for 2024, and are \$5.047 million lower for 2025.²¹¹

B. Inspection and Maintenance, and Capital-related Expense

For work related to distribution inspections and maintenance work, and for work related to capital-related projects, SCE derives total capital forecasts of \$629.075 million for 2023, \$699.302 million for 2024, and \$759.838 million for 2025. Cal Advocates' corresponding total capital forecasts are \$589.611 million for 2023, \$658.190 million for 2024, and \$717.544 million for 2025.²¹² When compared with SCE's forecasts, Cal Advocates' forecasts are \$39.464 million lower than SCE's for 2023, \$41.112 million than SCE's for 2024, and \$42.294 million lower than SCE's for 2025.

1. Activities that affect distribution-transformer forecasts

Specifically, for capital-related costs, SCE states that the costs support SCE's distribution grid and personnel.²¹³ According to SCE, these costs are not charged to

²¹¹ Ex. CA-03 at 35-36.

²¹² Ex. CA-03 at 36.

²¹³ Ex. CA-03 at 36-37.

specific capital or Operation and Maintenance (O&M) activities, because these costs account for overall support to the entire distribution organization and workforce.²¹⁴

SCE has six capital programs.²¹⁵ Cal Advocates analyzed these six capital programs, and recommends adjustments to one of them, the Distribution Transformers capital program.²¹⁶ SCE's capital forecasts for the Distribution Transformers program are \$150.615 million for 2023, \$206.847 million for 2024, and \$243.636 million for 2025. Cal Advocates' corresponding forecasts for this capital program are \$111.152 million for 2023, \$165.735 million for 2024, and \$201.344 million for 2025.²¹⁷ When compared with SCE's forecasts, Cal Advocates' forecasts are \$39.463 million less than SCE's for 2023, \$41.112 million less for 2024, and \$42.292 million less for 2025.

SCE's overall forecasts for distribution-transformer purchases are purportedly based on a three-year average (2020 through 2022) of the number of distribution-transformer purchases that occurred during that period; and those forecasts are then adjusted to account for changes to the total forecast of activities that use transformers.²¹⁸ Based on distribution-transformer usage from 2020 through 2022, SCE calculated the three-year average of the number of installations or replacements of transformers (less than 500 kVA) across all activities.²¹⁹ SCE used the average number of transformers used during this three-year period to determine the expected number of transformers to be used for 2023; and the average was then adjusted to reflect the total forecast of Transmission and Distribution (T&D) activities that use transformers.²²⁰ For example, if the 2023 T&D expenditure for activities that use transformers is expected to be 5% greater than that of 2022, the average number of transformers expected to be used in 2023

²¹⁴ Ex. CA-03 at 36-37.

²¹⁵ Ex. CA-03 at 36.

²¹⁶ Ex. CA-03 at 36-37.

²¹⁷ Ex. CA-03 at 36-37.

²¹⁸ Ex. CA-03 at 38-39; Ex. SCE-02, Vol. 02 at 60.

²¹⁹ Ex. CA-03 at 38-39.

²²⁰ Ex. CA-03 at 38-39.

would be increased by 5% accordingly. The same type of adjustment is applied to the forecasts for 2024 and 2025.²²¹

Therefore, Cal Advocates asked SCE for a list of the “T&D expenditure activities” that, if adjusted, would impact the forecasts for distribution transformers.²²² SCE said it used activities within Business Planning Groups of “Distributed Energy Resources, Distribution Grid, Resiliency, Substation, Transmission Grid, and Generation in both O&M and Capital. If these forecasts are adjusted, the required number of transformers to be purchased will also be adjusted.”²²³

SCE listed six general categories—not specific activities—that, if adjusted, would affect forecasts for the Distribution Transformers program. Furthermore, based on SCE’s response, the relevant “activities” include both O&M costs and capital expenditures.²²⁴

Because SCE fails to reasonably identify which specific forecasts affect the Distribution Transformer program, Cal Advocates uses a proxy percentage to approximate the degree to which specific adopted capital and O&M costs (in Distributed Energy Resources, Distribution Grid, Resiliency, Substation, Transmission Grid, and Generation) will differ from SCE’s original forecasts.²²⁵

Based on Cal Advocates’ experience and expertise, a 15% adjustment is reasonable to use as a proxy. By applying a 15% proxy adjustment to those original 2023, 2024, and 2025 SCE capital and O&M forecasts that impact distribution-transformer purchases, Cal Advocates has reduced the overall forecasts for the Distribution Transformers program in those years.²²⁶

²²¹ Ex. CA-03 at 38-39.

²²² Ex. CA-03 at 39-40.

²²³ Ex. CA-03 at 39-40.

²²⁴ Ex. CA-03 at 39-41.

²²⁵ Ex. CA-03 at 40-41.

²²⁶ Ex. CA-03 at 40-41.

2. Adjustments to SCE's distribution-transformer spreadsheet

After studying a large SCE spreadsheet (purportedly confidential) with data regarding distribution-transformer figures, Cal Advocates concludes that several aspects of this spreadsheet should be revised to develop distribution-transformer forecasts that are more reasonable.²²⁷

a) Adjustments to Average Usage

SCE adjusted its forecasts for base distribution-transformers purchases to reflect cost changes in capital (and O&M) “activities” that use distribution transformers. Cal Advocates adjusted SCE's large spreadsheet to reflect the proxy 15% reduction to those capital (and O&M) costs that use distribution transformers.²²⁸

Beginning on page 9 of Exhibit SCE-13, Volume 02 (SCE's second volume of rebuttal testimony for Exhibit CA-03), SCE first states that Cal Advocates references no GRC decisions, no Commission directives, and no concrete evidence to supplement its 15% “proxy” adjustment. In response, Cal Advocates points out that the 15% proxy adjustment is based on Cal Advocates' judgment and experience—and was necessitated by SCE's failure to specify what activities, if adjusted, would affect forecasts for the Distribution Transformers program

SCE also alleges that Cal Advocates' proposed 15% “proxy” adjustment is unnecessary, and further alleges that SCE has made clear that if the authorized amounts for these other forecasts (that will themselves affect the need for distribution transformers) are eventually adjusted in the final Decision, the transformer forecasts will be adjusted as well.²²⁹ Cal Advocates agrees that the quantity of distribution transformers will need to be adjusted if any number of other capital and O&M areas are themselves adjusted. However, Cal Advocates is uncertain whether the Commission is aware that these adjustments will not be automatically made. The Commission, presumably through

²²⁷ Ex. CA-03 at 41-42.

²²⁸ Ex. CA-03 at 41-42.

²²⁹ Ex. SCE-13, Vol. 02 at 10.

the efforts of the Energy Division, will need to (1) obtain a copy of the confidential standalone distribution-transformer model, (2) obtain the precise capital and O&M areas that, if adjusted, will impact the distribution transformers, (3) plug into the transformer model the adopted changes to those capital and O&M areas, (4) calculate the impact on distribution transformers, and (5) transfer that information into the appropriate rows of the Results of Operations (RO) model. Only after all of these steps have been completed can the Commission develop a revenue requirement that correctly incorporates the adopted distribution-transformer adjustments.

SCE also claims that it is not uncommon to adjust distribution-transformer forecasts, because a similar methodology was used in SCE's 2018 GRC and 2021 GRC for this activity, and the forecast was "trued up" to the authorized total for overall portfolio growth.²³⁰ Cal Advocates disagrees.

It is true that, in prior GRCs, distribution-transformer spreadsheets were used, but these differed from the confidential model that SCE used in this current GRC. In the 2018 GRC, SCE created a spreadsheet that listed the specific capital projects that, if adjusted, would affect the forecasts for distribution transformers. The past spreadsheet for the 2018 GRC was a relatively simple spreadsheet that involved listing specific capital inputs from only two of Cal Advocates' witnesses; and, most importantly, the way those adjustments would affect distribution transformers was reflected in Cal Advocates' direct testimony. For the 2021 GRC, the distribution-transformer spreadsheet (and Cal Advocates' analyses) was very similar to the one in the 2018 GRC. For the 2021 GRC, the distribution-transformer spreadsheet listed the specific capital projects that, if adjusted, would affect the forecasts for distribution transformers. In addition, and most importantly, Cal Advocates' direct testimony considered how those adjustments affected distribution transformers.

It is important to contrast the distribution-transformer calculations in the last two SCE GRCs with the calculations in this current TY 2025 GRC. In this current GRC, the

²³⁰ Ex. SCE-13, Vol. 02 at 10.

distribution-transformer model and SCE's calculations fail to list which specific capital costs (and now O&M costs too) would affect distribution transformers. In Cal Advocates' testimony for this GRC,²³¹ in order to incorporate an estimate of the impact on distribution transformers due to adjustments made to the other various capital and O&M costs, Cal Advocates had to include a "proxy" adjustment of 15%. That adjustment allowed Cal Advocates to include an estimate—as occurred in the 2018 and 2021 GRCs—of how distribution transformers were affected by adjustments to other accounts. Cal Advocates believed that it was important to reflect in Cal Advocates' direct testimony the impact that other adjustments will have on distribution-transformer forecasts.

SCE lastly argues that it has expressly confirmed that this same updating action will take place with the current transformer forecasts; and SCE argues that even if Cal Advocates' recommendation is approved, it would still be necessary to update the distribution-transformer forecast based on final authorized amounts.²³² However, SCE neglects to mention several important aspects associated with Cal Advocates' recommendation. Cal Advocates' use of a proxy percentage (a proxy percentage that approximates the impact on distribution transformers arising from the Commission's adopted expenses and capital forecasts) serves to provide a more realistic (and accurate) estimate of the ultimate magnitude of distribution-transformer expenditures. In the last two SCE GRCs, Cal Advocates' testimony included forecasts for distribution transformers that reflected the impacts on distribution transformers due to adjustments made to the other various capital and O&M costs; Cal Advocates' use of a "proxy" adjustment in this current GRC continues in the same vein as that methodology. In addition, Cal Advocates' use of a "proxy" adjustment emphasizes the need for the Commission to prepare for calculating distribution-transformer adjustments that arise from adopted numbers in other areas.

²³¹ Ex. CA-03 at 42-44.

²³² Ex. SCE-13, Vol. 02 at 10.

b) Adjustments for Float Percentages

According to SCE, the term “float” refers to the buffer between SCE’s expected distribution-transformer usage and its total inventory.²³³ In SCE’s spreadsheet, SCE used the term “Target Stock Level” to represent the quantity of distribution transformers (which is the number of transformers that SCE has calculated that it will require, plus a float percentage) that it will need each year.²³⁴

Mathematically, there are two potential ways to calculate the “Total Stock Level.” Option 1 is to simply increase the quantity of required transformers by the float percentage. Option 2 is to set a certain “Total Stock Level” so that if that level is reduced by the float percentage, the resulting transformer amount will equal the calculated transformer quantity that SCE has determined it needs.²³⁵

There is an important difference between the two options. For example, suppose SCE determines that it needs 100 transformers, and that it also needs a 15% float buffer. With Option 1, one would take the 100 transformers, and then increase that figure by 15%—resulting in a total of 115 transformers for the “Target Stock Level” figure. Cal Advocates endorses this straightforward and reasonable approach.²³⁶

SCE has elected to use Option 2. Based on the hypothetical example, SCE would say it requires a Target Stock Level of 117.647 transformers (not 115 transformers); SCE would then try to justify this figure by saying that if the total of 117.647 transformers is reduced by 15% (about 17.647), the result would be the 100 transformers.²³⁷

When reviewing the number of distribution transformers in the aggregate, the difference between the two options would be significant. Indeed, according to SCE’s

²³³ Ex. CA-03 at 42-43.

²³⁴ Ex. CA-03 at 42-43.

²³⁵ Ex. CA-03 at 42-43.

²³⁶ Ex. CA-03 at 42-43.

²³⁷ Ex. CA-03 at 42-43.

calculations, Cal Advocates' proposed methodology would result in a reduction of roughly 350 transformer purchases in each year.²³⁸

SCE claims that Cal Advocates is incorrectly calculating the float amounts, but Cal Advocates disagrees. Cal Advocates is simply using a different mathematical formula to calculate the amount of float that Cal Advocates has concluded is more reasonable. Under Option 2, mathematically speaking, SCE has correctly derived the level of distribution transformers that would be needed if—using the combined total of needed transformers plus float—that overall combined total was reduced by 15%. In Cal Advocates' judgment, that methodology overstates the needed level of SCE's calculated float. This overstatement is important given SCE's discussion of distribution-transformer costs that is contained in Exhibit SCE-02, Volume 02, at 61. On that page, SCE states that its expectation is that the float percentage will gradually increase in the following years as the transformer market stabilizes. Given that fact, Cal Advocates has concluded that during this rate-case cycle, it is reasonable to use Cal Advocates' calculation methodology for float (resulting in a lower level of transformer purchases) during these times when costs for distribution transformers are unusually high.

In SCE's rebuttal testimony, SCE continues to state that its proposed inventory float is a substantially conservative figure, because the calculations derived from its large distribution-transformer model indicate a gradual depletion of the inventory (i.e., inventory starts at 9,615 units in 2023 and ends at 6,135 units in 2027) that cannot be sustained in the long-term.²³⁹

Even if SCE's calculations are correct, Cal Advocates believes that, at a time of increased transformer costs, it makes economic sense to draw down the transformer inventory level (which was evidently created when transformer prices were lower), to reduce the need to purchase new transformers at a time when costs are higher. When distribution-transformer costs stabilize, the inventory can be replenished.

²³⁸ Ex. CA-03 at 42-43; Ex. CA-03-E at 43.

²³⁹ Ex. SCE-13, Vol. 02 at 11.

To be clear, Cal Advocates does not recommend that its float calculation be carried forward in perpetuity. Like SCE, Cal Advocates is concerned that current distribution-transformer costs are high. In Exhibit SCE-02, Volume 02, at 61, SCE states that SCE's expectation is that the float will gradually increase in the following years as the transformer-market stabilizes. Cal Advocates agrees with this assessment, and Cal Advocates simply recommends that current float purchases be a bit lower than SCE's forecasts during this GRC cycle. In addition, by SCE's own calculations, SCE expects to still maintain an inventory of over 6,100 distribution transformers in 2027.

c) Adjustments to Indirect Miscellaneous Costs

As discussed in SCE's testimony,²⁴⁰ SCE included Indirect Costs (consisting of items like waste removal) in its distribution transformers forecasts. SCE's large spreadsheet incorporates a factor of 30% for these costs.²⁴¹

In response to a Cal Advocates' data request (PubAdv-SCE-219-GAW, Question 9), SCE provided a detailed calculation that showed the derivation of the 30% figure. These calculations show that the actual calculated percentage amounts to 28.6%, not 30%. Cal Advocates adjusted the large spreadsheet so that it incorporates this more precise figure.²⁴² Notably, in SCE's rebuttal testimony, SCE admits that "Cal Advocates is correct that SCE has not hit the 30% threshold."²⁴³

3. Conclusions about Inspection and Maintenance, and Capital-related Expenses

After accounting for all of Cal Advocates' proposed adjustments for SCE's large (and purportedly confidential) spreadsheet of figures used to calculate distribution-transformer forecasts, Cal Advocates' recommended forecasts for the Distribution Transformers program are \$111.152 million in 2023, \$165.735 million in 2024, and \$201.344 million in 2025. Cal Advocates' forecasts are \$39.463 million lower than

²⁴⁰ Ex. SCE-02, Vol. 02 at 61.

²⁴¹ Ex. CA-03 at 43.

²⁴² Ex. CA-03 at 43.

²⁴³ Ex. SCE-13, Vol. 02 at 11.

SCE's forecast for 2023, are \$41.112 million lower than SCE's for 2024, and are \$42.292 million lower than SCE's for 2025.²⁴⁴

C. Safety and Reliability Investment Incentive Mechanism

Cal Advocates has no position on this issue.

D. Inspection & Maintenance, and Capital-Related Expense

SCE's Distribution Inspections & Maintenance and Capital-Related activities include its streetlight operations, inspections, and maintenance program.²⁴⁵

SCE forecasts \$201.534 million for its Distribution Inspections & Maintenance and Capital-Related activities in TY 2025, which is \$0.989 million lower than its 2022 recorded expenses of \$202.523 million.²⁴⁶ SCE's tracks its Distribution Inspections & Maintenance and Capital-Related O&M expenses in its Inspections and Maintenance and Capital-Related Expense and Other BPEs.

Cal Advocates' TY 2025 recommendation for SCE's Distribution Inspections & Maintenance and Capital-Related O&M expenses is \$189.408 million, which is \$12.126 million lower than SCE's TY 2025 forecast of \$201.534 million.

The table below summarizes SCE's request and Cal Advocates' recommendation for Distribution Inspections & Maintenance and Capital-Related expenses.

²⁴⁴ Ex. CA-03 at 43-44.

²⁴⁵ Ex. SCE-02, Vol. 02 at 1.

²⁴⁶ SCE's response to data request PubAdv-SCE-054-RYD, Q. 1a.

**Distribution Inspections & Maintenance and Capital-Related
2018-2022 Recorded / 2025 Forecast
(In Thousands of Dollars)**

BPE	2018	2019	2020	2021	2022	SCE 2025	Cal Advocates 2025
Capital Related Expense	\$20,895	\$15,765	\$13,806	\$14,050	\$8,342	\$25,623	\$13,497
Inspections & Maintenance	\$150,054	\$208,679	\$206,670	\$182,195	\$194,181	\$175,911	\$175,911
Total	\$170,949	\$224,445	\$220,476	\$196,245	\$202,523	\$201,534	\$189,408

Source: SCE's response to data request PubAdv-SCE-054-RYD, Q. 1a.

1. Cal Advocates does not object to SCE's Inspections & Maintenance request.

Cal Advocates does not object to SCE's Distribution Inspections & Maintenance and Capital-Related O&M expense forecast for its Inspections & Maintenance BPE of \$175.911 million. Cal Advocates reviewed SCE's testimony, workpapers, data request responses, and historical expense levels for this BPE and then developed a different TY forecast for SCE's Capital-Related Expense and Other BPE compared to SCE's forecast as discussed below.

2. Cal Advocates adjusts SCE's Capital-Related Expense and Other request substantially under Electric Asset Data.

SCE forecasts \$25.623 million for its Capital-Related Expense and Other activities in TY 2025, which is an increase of \$17.281 million over its 2022 recorded expenses of \$8.342 million.²⁴⁷ SCE's expense forecast for Capital-Related Expense and Other is associated with its Distribution Support Activities, which are work activities that support SCE's construction crews working on the distribution system.²⁴⁸ SCE utilized various forecast methods for its Distribution Support Activities, including itemized forecasts, Last Year Recorded, and three- and five-year averages.²⁴⁹

²⁴⁷ SCE's response to data request PubAdv-SCE-054-RYD.

²⁴⁸ Ex. SCE-02, Vol. 02 at 45.

²⁴⁹ Ex. SCE-02, Vol. 02 at 52.

Cal Advocates recommends \$13.497 million for SCE's Capital-Related Expense and Other BPE, which is \$12.126 million less than SCE's TY 2025 forecast of \$25.623 million.

The table below summarizes SCE's request and Cal Advocates' recommendation for SCE's Capital-Related Expense and Other BPE.

**Capital-Related Expense and Other BPE
2018-2022 Recorded / 2025 Forecast
(In Thousands of Dollars)**

	2018	2019	2020	2021	2022	SCE 2025	Cal Advocates 2025
Circuit Mapping	\$0	(\$1)	\$0	\$0	\$0	\$0	\$0
Distribution Analytics	\$199	(\$11)	\$0	\$0	\$0	\$0	\$0
Electric Asset Data	\$0	\$0	\$0	\$0	\$0	\$14,388	\$3,597
Distribution Support Activities	\$0	\$0	\$0	\$107	(\$92)	\$0	\$0
Electric Asset Records Accuracy	\$7,599	\$1,792	(\$4)	-	\$0	\$0	\$0
Equipment Data Maintenance	\$1,626	\$2,677	\$2,606	\$2,249	\$357	\$357	\$357
Field Accounting O&M Duties	\$860	\$700	\$744	\$756	\$676	\$676	\$676
First Call Crew Stand by and 2 Hr Double Time Stipend (Distribution)	\$0	\$0	\$0	\$996	(\$958)	\$0	\$0
Geographic Information System (GIS)	\$125	\$13	\$0	\$0	\$0	\$0	\$0
Information Technology/Corporate Real Estate Chargebacks	\$1,610	\$1,941	\$1,341	\$1,087	\$1,610	\$1,610	\$1,610
Informational Meetings	\$3,599	\$3,536	\$2,239	\$2,145	\$2,789	\$3,301	\$3,301
Landbase Maintenance	(\$28)	\$3	\$3	\$3	\$3	\$0	\$0
Real Properties - O&M Activities	\$132	\$107	\$78	\$84	\$51	\$51	\$51
Reliability Operations Center	\$2,831	\$3,392	\$3,665	\$2,762	\$2,121	\$3,254	\$2,121
Stand-by Time	\$1,823	\$1,116	\$2,467	\$3,569	\$1,667	\$1,667	\$1,667
Survey	\$77	\$24	\$29	\$24	\$20	\$20	\$20
Underground Civil O&M Activities	\$442	\$477	\$638	\$259	\$96	\$96	\$96
Total	\$20,895	\$15,765	\$13,806	\$14,043	\$8,341	\$25,421	\$13,497

Source: SCE's response to data request PubAdv-SCE-271-RYD, Q. 1.

a) Electric Asset Data

SCE forecasts \$14.388 million for its Electric Asset Data activity in TY 2025. SCE did not record expenses for its Electric Asset Data activity prior to 2023 and developed its forecast by creating projections based on the record fail rate of existing quality metrics and utilizing cost estimates based on 2021 and 2022 costs.²⁵⁰

Cal Advocates recommends \$3.597 million for SCE's Electric Asset Data activity in 2025 and normalized SCE's \$14.388 million forecast over the four-year rate case cycle to account for the lack of supporting data and uncertainties in forecasting this activity.²⁵¹

SCE's testimony and workpapers have been insufficient and incomplete. SCE's documentation does not include specific, verifiable line-item detail needed to compare and analyze its Electric Asset Data forecast with the same or similar programs and costs incurred to monitor electric asset data. SCE states that its "focus on maintaining and improving asset data quality is not new," and that it: (1) established an asset data correction process in 2009; (2) established its comprehensive Geographic Information System (eGIS) in 2015; (3) enhanced its data collection in the High Fire Risk Areas (HFRA) in 2018 and non-HFRA in 2020; and (4) established an Information Governance organization and data steward roles in 2020.²⁵² SCE states that these efforts are not sufficient to meet evolving business needs but does not identify the costs of each activity or the savings from switching from these activities to its proposed Electric Asset Data activity. In SCE's next GRC, it should be required to provide historical expenses and more specific data on its various asset data quality programs to allow for a detailed analysis and evaluation. SCE did not have any recorded expenses before 2023, but once the program is running, SCE will be able to provide historical expense data. Thus, Cal

²⁵⁰ Ex. SCE-02, Vol. 02 Workpapers at 133.

²⁵¹ Cal Advocates used SCE's \$14.388 million forecast and divided it by 4 to obtain \$3.597 million and "normalized" SCE's \$14.388 million forecast over the four-year rate case cycle to account for the lack of supporting data and uncertainties in forecasting this activity.

²⁵² Ex. SCE-02 Vol. 02 at 46.

Advocates' recommendation of \$3.597 million is a reasonable level to establish TY expenses for SCE's Electric Asset Data activity.

b) Reliability Operations Center

SCE forecasts \$3.254 million for its Reliability Operations Center in TY 2025, an increase of \$1.133 million over its 2022 recorded expenses of \$2.121 million. SCE developed its forecast by utilizing a five-year average of 2018-2022 recorded expenses plus \$0.300 million for the Google Cloud Platform.²⁵³ SCE's forecasting method does not account for the steady decline in its Reliability Operations Center expenses in 2020-2022.

Having utilized SCE's 2022 recorded expenses to develop its forecast, Cal Advocates recommends \$2.121 million for SCE's Reliability Operations Center, \$1.133 million less than SCE's forecast.

SCE did not identify specifically attrition/vacancy levels that resulted in the decline in its expenses from 2020-2022. SCE's testimony, workpapers and data request responses did not identify any documented and verifiable problems encountered which prevented it from meeting its operational and compliance requirements due to the decline in recorded expenses and attrition/vacancies for 2021 and 2022. SCE's use of a five-year average does not account for this declining trend and includes the higher labor costs it experienced in 2020. Cal Advocates' recommendation of \$2.121 million addresses the declining trend of SCE's expenses and provides sufficient funding for SCE's Reliability Operations Center.

VII. METER ACTIVITIES

SCE's Meter Activities Business Planning Element (BPE) capital work relates to the safety and reliability of the meter system and guards against the issues caused by technology obsolescence and allows customers to receive timely billing. SCE's two BPE capital activities in this General Rate Case (GRC) include: 1) Meter System Maintenance

²⁵³ Ex. SCE-02 Vol. 02 at 53.

Design and Meter Engineering activities²⁵⁴ and 2) Advanced Metering Infrastructure (AMI) 2.0. These activities help advance SCE's operational capabilities for customer service and grid management by providing automation capabilities and enabling field efficiencies.²⁵⁵

A. Meter O&M

SCE requests \$45.653 million in O & M meter services and Cal Advocates does not object to this request.²⁵⁶

B. Meter Capital

SCE forecasts \$124.280 million in capital expenditures from 2023-2025 for Meter Activities²⁵⁷ and Cal Advocates recommends \$105.420 million for 2023-2025.²⁵⁸ The table below shows SCE's 2023, 2025, and TY 2025 requests and Cal Advocates' recommendation.

²⁵⁴ Ex. SCE-02, Vol. 03 at 4.

²⁵⁵ Ex. SCE-02, Vol. 03 at 29.

²⁵⁶ Ex. CA-02 at 2.

²⁵⁷ Ex. SCE-02, Vol. 03 at 5, and Ex. SCE-02, Vol. 3E at 34E.

²⁵⁸ Ex. CA-04-E at 7.

Meter Activities
2023-2025 Capital Expenditure Forecast²⁵⁹
(In Thousands of Nominal Dollars)

Description (a)	SCE Proposed ²⁶⁰ (b)			Cal Advocates Recommended (c)			Difference SCE>Cal Advocates (d=b-c)		
	2023	2024	2025	2023	2024	2025	2023	2024	2025
Meter System Maintenance Design	\$904	\$936	\$965	\$412	\$412	\$412	\$492	\$524	\$553
Meter Engineering	\$29,247	\$33,703	\$34,431	\$26,480	\$26,480	\$27,130	\$2,767	\$7,223	\$7,301
AMI 2.0 Pre-Deployment ²⁶¹	\$0	\$13,367	\$10,727	\$0	\$13,367	\$10,727	\$0	\$0	\$0
Total	\$30,151	\$48,006	\$46,123	\$26,892	\$40,259	\$38,269	\$3,259	\$7,747	\$7,854

The table below shows SCE's recorded Meter Activities capital expenditures for 2018-2022.

Meter Activities
Capital Expenditures 2018-2022 Recorded²⁶²
(In Thousands of Nominal Dollars)

Description	2018	2019	2020	2021	2022
Meter System Maintenance Design	\$228	\$288	\$788	\$384	\$374
Meter Engineering	\$13,061	\$24,270	\$50,436	\$26,248	\$35,437
(AMI 2.0) Pre-deployment	\$0	\$0	\$0	\$0	\$0
Total	\$13,289	\$24,558	\$51,224	\$26,632	\$35,811

²⁵⁹ 2018 and 2019 data does not capture the recent trend in recorded cost, which is not true because 2019 data and 2021 recorded cost is almost same \$19 million, while 2018 recorded data is \$13 million.

²⁶⁰ Ex. SCE-02, Vol. 03 at 5, and Ex. SCE-02, Vol. 3E at 34E.

²⁶¹ In SCE's testimony Ex. SCE-02, Vol. 03 at 35, filed on May 12, 2023, SCE requested \$16.049 million for 2024, and \$12.471 million for 2025 for its AMI 2.0 capital expenditures. In response to Cal Advocates data request PubAdv-SCE-093-RA6, Q1, SCE asserts that it identified miscalculations in SCE's testimony and workpapers, which results in a \$4.69 million decrease to SCE's total 2024-2025 forecasts. SCE filed an Errata on November 9, 2023, and provided the updated forecast of \$13.367 million in 2024, a decrease of \$2.682 million from its original forecast of \$16.049 million and \$10.727 million in TY 2025, a decrease of \$1.744 million from its original forecast of \$12.471 million in Ex. SCE-02, Vol. 03E at 35E.

²⁶² Ex. CA-04-E at 8.

Cal Advocates' recommendation for capital costs associated with the Meter Activities is \$26.892 million in 2023, \$40.259 million in 2024 and \$38.269 million in TY 2025. Cal Advocates' recommendation is \$3.259 million less than SCE's request of \$30.151 million in 2023, \$7.747 million less than SCE's request of \$48.006 million in 2024, and \$7.854 million less than SCE's request of \$46.123 million in TY 2025. Cal Advocates does not object to SCE's forecast of \$13.367 million in 2024, and \$10.727 million in TY 2025 for (AMI) 2.0 pre-deployment costs.

Cal Advocates also opposes SCE's requests for costs for its Meter System Maintenance Design and Meter Engineering activities from 2023 to 2025. Cal Advocates developed different forecasts relative to SCE for these cost categories.

1. SCE Has Failed to Support Its Requests for Substantial Increases in Meter System Maintenance Design

SCE forecasts \$0.904 million in 2023, \$0.936 million in 2024 and \$0.965 million in TY 2025 for Meter System Maintenance Design capital expenditures. SCE's request represents an increase of \$0.530 million or 142% in 2023, \$0.562 million or 151% in 2024, and \$0.591 million or 158% in TY 2025 over its 2022 recorded costs of \$0.374 million.²⁶³ SCE's forecast is itemized and based on an annual forecast of net new 650 devices to be added to the network or that require additional network infrastructure due to infrastructure failure or performance issues.²⁶⁴ SCE's Meter System Maintenance Design program includes costs supporting networking, engineering, and infrastructure for new meter deployment and resolving network performance issues.²⁶⁵

Cal Advocates' recommendation for Meter System Maintenance Design capital expenditures is \$0.412 million in 2023, \$0.412 million in 2024, and \$0.412 million in TY 2025. Cal Advocates' recommendation is \$0.492 million less than SCE's request of

²⁶³ Ex. SCE-02, Vol. 03 at 27.

²⁶⁴ Ex. SCE-02, Vol. 03 at 28.

²⁶⁵ Ex. SCE-02, Vol. 03 at 27.

\$0.904 million in 2023, \$0.524 million less than SCE’s forecast of \$0.936 million in 2024, and \$0.553 million less than SCE’s forecast of \$0.965 million in TY 2025. Cal Advocates developed its recommendation by utilizing SCE’s five-year average Meter System Maintenance Design costs from 2018 to 2022. The table below shows SCE’s 2023, 2024, and TY 2025 requests and Cal Advocates’ recommendations for Meter System Maintenance Design Capital Expenditures:

**Meter System Maintenance Design
2023-2025 Capital Expenditure Forecasts
(In Thousands of Nominal Dollars)**

Description (a)	SCE Proposed ²⁶⁶ (b)			Cal Advocates Recommended (c)			Difference SCE>Cal Advocates (d=b-c)		
	2023	2024	2025	2023	2024	2025	2023	2024	2025
Meter System Maintenance Design	\$904	\$936	\$965	\$412	\$412	\$412	\$492	\$524	\$553
Total	\$904	\$936	\$965	\$412	\$412	\$412	\$492	\$524	\$553

SCE has failed to demonstrate its requested increases are justified.²⁶⁷ SCE’s five-year average of recorded total Meter System Maintenance design cost is \$0.412 million. SCE did not provide a list of the cost drivers and documentation utilized to support its 119% increase in 2023, 127% increase in 2024, and 134% increase in 2025, relative to the five-year average of recorded total meter service maintenance design costs.²⁶⁸ The record in this proceeding shows that SCE’s recorded costs increased only by \$0.560 million between 2018 and 2020, from \$0.288 million to \$0.788 million. However, SCE’s recorded costs decreased by \$0.414 million between 2020 and 2022, from \$0.788 million

²⁶⁶ Ex. SCE-02, Vol. 03 at 27.

²⁶⁷ Ex. CA-04-E at 10.

²⁶⁸ Ex. CA-04-E at 10.

to \$0.374 million. SCE did not show how its increase request is reasonable with this recorded continuous decline in its spending.²⁶⁹

SCE states that “The increase from 2018 to 2020 was driven by SCE’s ability to execute needed replacements of devices required as inventory and additional resources were more stable. SCE’s expenditures in this account decreased in 2021 and 2022 due to a lack of material, significant supply chain issues during COVID, and COVID impacts to business customer activities that drive RTEM volumes during this period.” SCE did not, however, provide any documentation to justify the increase/decrease.

Given this downward trend in spending, SCE’s request to almost double its Meter System Maintenance Design costs is unreasonable and be rejected as a matter of law. For the last 10 years, SCE’s recorded Meter System Maintenance Design costs have been less than what was authorized in GRCs.²⁷⁰ The table below provides a 10-year comparison of authorized Meter System Maintenance Design versus actual expenditures:

**Meter System Maintenance Design
2013-2022 GRC Authorized vs Recorded Costs
(In Thousands of Nominal Dollars)**

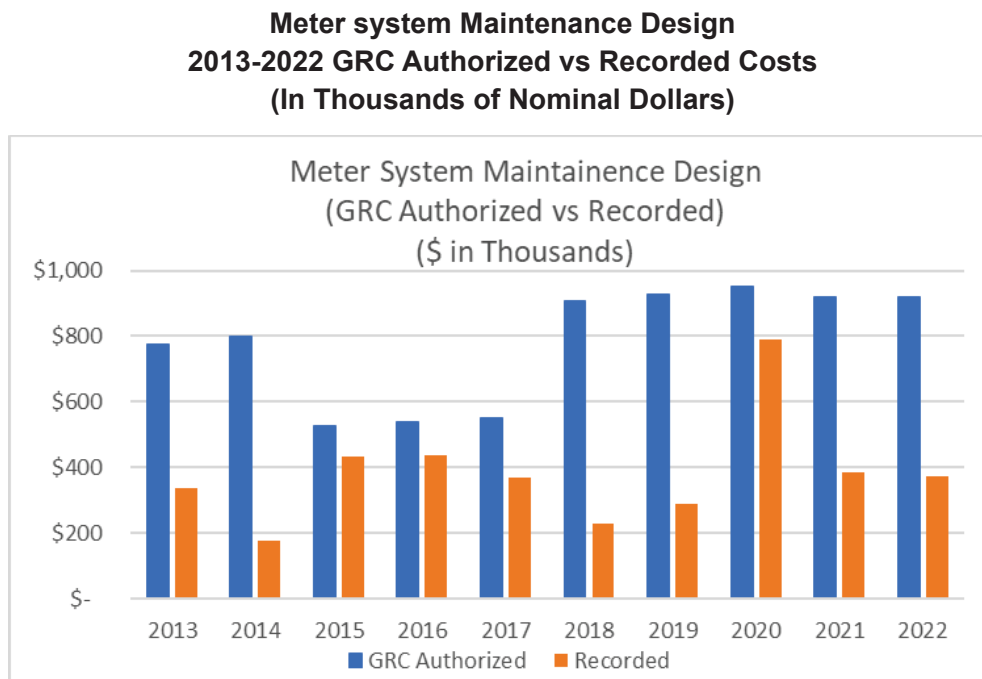
Year	GRC Authorized	Actual Recorded	\$ Difference	% Difference	Average Yearly \$ Underspend	Average Yearly % Underspend
2013	\$ 776	\$ 338	\$ 438	130		
2014	\$ 799	\$ 177	\$ 622	351		
2015	\$ 529	\$ 435	\$ 94	22		
2016	\$ 539	\$ 437	\$ 102	23		
2017	\$ 550	\$ 368	\$ 182	49		
2018	\$ 907	\$ 228	\$ 679	298		
2019	\$ 929	\$ 288	\$ 641	223		
2020	\$ 952	\$ 788	\$ 164	21		
2021	\$ 922	\$ 384	\$ 538	140		
2022	\$ 922	\$ 374	\$ 548	147	\$ 401	140

Source: Cal Advocates created this table using the data from SCE’s spreadsheet titled “Supplemental Response PubAdv-SCE-085-RA6(v)” in response to Cal Advocates data request PubAdv-SCE-085-RA6, Q1v.

²⁶⁹ Ex. CA-04-E at 10.

²⁷⁰ Ex. CA-04-E at 11.

The following graph provides a 10-year comparison of authorized Meter System Maintenance Design versus actual recorded expenditures:



Source: Cal Advocates created this graph from using data from SCE's spreadsheet titled "Supplemental Response PubAdv-SCE-085-RA6(v)" is response to Cal Advocates data request PubAdv-SCE-085-RA6, Q1v

Both the previous table and Figure above show that there has not been a single instance over the last 10 years where SCE's recorded Meter System Maintenance Design has been equal to or exceeded the authorized costs levels. Indeed, the column "Average Yearly \$ Underspend" in the previous table shows, on average SCE has spent \$0.401 million less than was authorized for the last 10 years. The table above shows that on a yearly percentage basis SCE has spent 140% less than was authorized for the last 10 years. Thus, over the past 10 years, ratepayers have paid an additional \$4.01 million in rates to support the Meter System Maintenance Design program that has not been spent on that program.

SCE states that its forecast is itemized and based on an annual forecast of net new 650 devices to be added to the network or that require additional network infrastructure due to infrastructure failure or performance issues.²⁷¹

Cal Advocates requested²⁷²:

- 1) documentation such as management decisions and guidelines to determine that new 650 devices need to be added to the network;
- 2) documentation that can explain why SCE did not already perform additional network infrastructure work or adding new devices to the network since it states that there was infrastructure failure or performance issues; and
- 3) documentation that can verify the requirement of additional network infrastructure and net new 650 devices to be added to the network due to infrastructure failure or performance issues.

SCE responds, “SCE’s forecast is based on its determination that approximately 1,266 of SCE’s meter devices and 300 of SCE’s packet router devices will age beyond their rated useful life each year during this rate case cycle. SCE prioritizes replacement of these devices based on asset failure risk.”²⁷³ SCE’s responses are insufficient and incomplete and failed to justify its 2023, 2024, and TY 2025 capital expenditures forecasts. Accordingly, SCE has failed to meet its burden of demonstrating that its request is reasonable.

SCE’s 2018-2022 recorded data shows costs fluctuated between 2018 and 2022, averaging \$0.412 million for the five-year period. Cal Advocates recommends a five-year average methodology as a basis to establish a capital expenditures level for SCE’s Meter System Maintenance Design activities in 2023, 2024 and TY 2025. Cal Advocates also considered the fact that SCE has continued to underspend its authorized funding for the last 10 years. Cal Advocates’ recommendation of \$0.412 million in 2023, \$0.412

²⁷¹ Ex. SCE-02, Vol. 03 at 28.

²⁷² Ex. CA-04-E at 13.

²⁷³ Ex. CA-04-E at 13, FN 30.

million in 2024, and \$0.412 million in TY 2025 for Meter System Maintenance Design Capital Expenditures is reasonable and should be adopted.

2. SCE Wrongly Uses a Three-Year Average (2020-2022) In Its Meter Engineering Request

SCE's Meter Engineering program develops the meter volume forecasts for meters to meet forecast customer growth, replace defective or damaged meters outside of the warranty period, and address meter technology, changes for all of SCE's residential, commercial, industrial, and agricultural customers, excluding Advanced Metering Infrastructure (AMI 2.0) obsolescence. SCE forecasts \$29.247 million in 2023, \$33.703 million in 2024, and \$34.431 million in TY 2025 for Meter Engineering capital expenditures. SCE's Meter Engineering includes: (1) Routine Meter Work and (2) Non-Routine Meter Work.²⁷⁴ SCE's routine meter replacement forecast is based on the three-year average from 2020-2022 plus escalation to 2023-2028 dollar.²⁷⁵ SCE's non-routine meter-related projects forecasts are itemized and based on forecast unit volumes and unit costs.²⁷⁶

Cal Advocates' recommendation for Meter Engineering capital expenditures is \$26.480 million for 2023, \$26.480 million for 2024, and \$27.130 million for TY 2025. Cal Advocates' recommendation is \$2.767 million less than SCE's request of \$29.247 million for 2023, \$7.223 million less than SCE's forecast of \$33.703 million for 2024, and \$7.301 million less than SCE's forecast of \$34.431 million for TY 2025.

For routine meter replacement forecast, Cal Advocates developed its recommendation by utilizing SCE's four-year average Meter Engineering costs from 2019 to 2022. For non-routine meter-related projects, Cal Advocates objects to deferred Edison projects: (1) Real time Energy Metering (RTEM) work, (2) Catalina Meter

²⁷⁴ Ex. SCE-02, Vol. 03 at 22.

²⁷⁵ Ex. SCE-02, Vol. 03 at 25-26.

²⁷⁶ Ex. SCE-02, Vol. 03 at 26.

Replacement Program, and (3) Complex Meter Replacement Program.²⁷⁷ The table below shows SCE’s 2023, 2024, and TY 2025 requests and Cal Advocates’ recommendations for Meter Engineering Capital Expenditures:

**Meter Engineering
2023-2025 Capital Expenditure Forecasts
(In Thousands of Nominal Dollars)**

Description (a)	SCE Proposed²⁷⁸ (b)			Cal Advocates Recommended (c)			Difference SCE>Cal Advocates (d=b-c)		
	2023	2024	2025	2023	2024	2025	2023	2024	2025
Work Activity									
Routine Work	\$27,349	\$27,339	\$27,667	\$25,066	\$25,066	\$25,066	\$2,283	\$2,273	\$2,601
Non-Routine Work	\$1,898	\$6,364	\$6,764	\$1,414	\$1,414	\$2,064	\$484	\$4,950	\$4,700
Total	\$29,247	\$33,703	\$34,431	\$26,480	\$26,480	\$27,130	\$2,767	\$7,223	\$7,301

**a) Cal Advocates recommends minor adjustments to
SCE’S Routine Meter Work.**

For Routine Meter Work, SCE forecasts \$27.349 million in 2023, \$27.339 million in 2024, and \$27.667 million in TY 2025. SCE used a three-year average (2020-2022) plus escalation as a basis to forecast 2023-2025.²⁷⁹

Cal Advocates recommends \$25.066 million in 2023, \$25.066 million in 2024, and \$25.066 million for TY 2025 for SCE’s meter engineering routine capital expenditures. Cal Advocates’ recommendation, utilizing a four-year average of recorded costs, captures the recent fluctuations in costs. SCE’s costs fluctuated over the five-year period (2018 to 2022) associated with its routine work. Cal Advocates recommends a four-year average instead. SCE states that 2018 and 2019 data does not capture the recent trend in recorded

²⁷⁷ SCE’s response to Cal Advocates data request PubAdv-SCE-157-RA6, Q.1. SCE states that three projects/programs were deferred which reduced its 2021 costs below its 2021 authorized revenues.

²⁷⁸ Ex. SCE-02, Vol. 03 at 25.

²⁷⁹ Ex. SCE-02, Vol. 03 at 25-26.

cost. This is not true because 2019 data and 2021 recorded cost is almost the same \$19 million, while 2018 recorded data is \$13 million.

CE asserts that meter replacement costs have increased since 2020.²⁸⁰ However, the historical data shows costs decreased by \$8.143 million between 2020 and 2021 and increased by \$15.189 million between 2021 and 2022.

SCE's method utilizing a three-year average plus escalation includes 2022 data, which is the highest recorded data over the last 10 years from 2013-2022,²⁸¹ and inflates its 2023-2025 forecasts. The following table shows SCE's 2018-2022 recorded routine work capital costs:

**Meter Engineering, Routine Work
2018-2022 Recorded Costs
(In Thousands of Nominal Dollars)**

Description	2018	2019	2020	2021	2022
Routine Work	\$13,061	\$19,249	\$27,371	\$19,228	\$34,417
Total	\$13,061	\$19,249	\$27,371	\$19,228	\$34,417

Source: SCE's spreadsheet titled "PubAdv SCE-157-RA6 Attachment Q2" provided in response to Cal Advocates' data request PubAdv-SCE-157-RA6, Q.2

SCE did not include 2018 and 2019 data in its forecast calculation.²⁸² Cal Advocates includes the 2019 data in its forecast methodology for 2023-2025 for routine work capital expenditures.

b) SCE has not demonstrated why it has included deferred projects in its Non-Routine Meter Work.

For Non-Routine Meter Work, SCE forecasts \$1.898 million in 2023, \$6.364 million in 2024, and \$6.764 million in TY 2025. SCE's non-routine meter forecast is based on itemized forecasts, unit volumes and unit costs for specific identified

²⁸⁰ Ex. SCE-02, Vol. 03 at 25-26.

²⁸¹ From SCE's spreadsheet titled "PubAdv SCE-157-RA6 Attachment Q2" provided in response to Cal Advocates' data request PubAdv-SCE-157-RA6, Q.2.

²⁸² Ex. SCE-02, Vol. 03 at 26.

projects.²⁸³ Cal Advocates recommends \$1.414 million in 2023, \$1.414 million in 2024, and \$2.064 million in TY 2025 for Non-routine meter work. The table below summarizes SCE’s non-routine meter forecast and Cal Advocates’ recommendation for each of SCE’s five identified projects.²⁸⁴

**Meter Engineering Non-Routine Work
2023-2025 Capital Expenditure Forecasts
(In Thousands of Nominal Dollars)**

Description (a)	SCE Proposed²⁸⁵ (b)			Cal Advocates Recommended²⁸⁶ (c)			Difference SCE>Cal Advocates (d=b-c)		
	2023	2024	2025	2023	2024	2025	2023	2024	2025
Cell Relay Maintenance Program	\$1,300	\$1,300	\$1,950	\$1,300	\$1,300	\$1,950	\$0	\$0	\$0
RTEM Replacements Program (RTEM)		\$3,600	\$3,600		\$0	\$0		\$3,600	\$3,600
Catalina Meter Replacement Program	\$209	\$800		\$0	\$0		\$209	\$800	
Complex Meter Replacement Program	\$275	\$550	\$1,100	\$0	\$0	\$0	\$275	\$550	\$1,100
ESC Communication Equipment	\$114	\$114	\$114	\$114	\$114	\$114	\$0	\$0	\$0
Total	\$1,898	\$6,364	\$6,764	\$1,414	\$1,414	\$2,064	\$484	\$4,950	\$4,700

Cal Advocates does not object to SCE’s 2023-2025 forecasts for Cell Relay Maintenance program and ESG Communication Equipment. Cal Advocates opposes SCE’s forecasts for three projects in the table above that were deferred: (1) Real time Energy Metering (RTEM) work, (2) Catalina Meter Replacement Program, and (3)

²⁸³ Ex. CA-04-E at 16.

²⁸⁴ SCE states in response to Cal Advocates data request PubAdv-SCE-205-RA6, Q2d that, the Catalina Meter Replacement Program is considered to be a “project,” while the RTEM work, and the Complex Meter Replacement Program are considered to be “programs” rather than specific projects.

²⁸⁵ Ex. SCE-02, Vol. 03 at 26.

²⁸⁶ In SCE’s RO model, Cal Advocates calculated its adjustment using a proportional allocation between meter engineering line-items.

Complex Meter Replacement Program.²⁸⁷ Cal Advocates recommends adjustments to SCE's 2023-2025 forecast for these three deferred projects.

SCE was authorized a total of \$18.550 million in its 2021 GRC for these three projects and recorded only \$0.066 million from 2020-2022.²⁸⁸ The table below summarizes the 2021 GRC authorized and recorded costs for these three projects:

**Meter Engineering Non-Routine Work Deferred Projects
Authorized vs Recorded
(In Thousands of Nominal Dollars)²⁸⁹**

Description	2020		2021		2022	
Activity	Authorized	Recorded	Authorized	Recorded	Authorized	Recorded
RTEM Replacements Program ²⁹⁰	\$0	\$0	\$7,200	\$0	\$7,200	\$0
Catalina Meter Replacement Program ²⁹¹	\$400	\$5	\$1,000	\$61	\$0	\$0
Complex Meter Replacement Program ²⁹²	\$2,750	\$0	\$0	\$0	\$0	\$0
Total	\$3,150	\$5	\$8,200	\$61	\$7,200	\$0

²⁸⁷ SCE's response to Cal Advocates data request PubAdv-SCE-157-RA6, Q.1. SCE states that three projects/programs were deferred which reduced its 2021 costs below its 2021 authorized revenues.

²⁸⁸ Cal Advocates calculated the authorized total of \$18.550 million and recorded total \$0.066 million from 2020-2022 from SCE's spreadsheet titled "PubAdv-SCE-205-RA6" provided in response to Cal Advocates data request PubAdv-SCE-205-RA6.

²⁸⁹ Cal Advocates created this table from SCE's spreadsheet titled "PubAdv SCE -205-RA6" provided in response to Cal Advocates data request PubAdv SCE -205-RA6.

²⁹⁰ SCE asserts that the RTEM work is now scheduled to be completed from 2024 to 2027. For RTEM replacement program, SCE was authorized a total of \$14.4 million in the 2021 GRC but recorded \$0 from 2021-2022. In the 2025 GRC, SCE is requesting a total of \$7.2 million from 2023-2025 for RTEM program. SCE's response to Cal Advocates data request PubAdv-SCE-157-RA6, Q.1.

²⁹¹ In SCE's response to Cal Advocates data request PubAdv-SCE-157-RA6, Q.1, SCE asserts that it planned to begin the program in 2020 but was not able to begin this project until the fourth quarter of 2021. In the 2021 GRC, SCE was authorized a total of \$1.4 million for this program but recorded only \$0.066 million. In the 2025 GRC, SCE is requesting a total of \$1.009 million from 2023-2025. SCE's spreadsheet titled "PubAdvSCE-205-RA6" provided in response to Cal Advocates data request PubAdv-SCE-205-RA6.

²⁹² SCE states that the start of the Complex Meter Replacement Program was deferred until 2023 with an expected completion in 2026. For Complex Meter Replacement Program, SCE was authorized a total of \$2.750 million in 2020, but recorded \$0 in 2020. In the 2025 GRC, SCE is again requesting a total of \$1.925 million from 2023-2025 for Complex Meter Replacement program. SCE's response to Cal Advocates data request PubAdv-SCE-157-RA6, Q.1.

SCE requests a total of \$10.134 million from 2023-2025 for the deferred projects: Real time Energy Metering Program, Catalina Meter Replacement Program, and the Complex Meter Replacement Program in its 2025 GRC.²⁹³

Both Cal Advocates and the Commission have been concerned about utilities seeking recovery for capital projects that were previously been authorized by the Commission, but subsequently been deferred by the utility. The Commission states in SCE's 2021 GRC Decision that as the applicant, SCE bears the burden to establish the reasonableness of its decision to defer projects and reprioritize funding and its renewed request for funding.²⁹⁴ Consequently, the Commission has on numerous occasions reduced or disallowed costs of activities that were requested and included in prior GRC authorizations, deferred, and re-requested in another GRC.²⁹⁵

Here, SCE failed to demonstrate the reasonableness of including these three deferred projects again in its 2025 GRC request.²⁹⁶ SCE confirmed in a discovery response that it did not perform a cost benefit analysis when determining whether to include these projects in its Meter Engineering activity.²⁹⁷ SCE also did not provide documentation demonstrating the calculated ratepayer benefit for funding these projects in both its 2021 and 2025 GRC.²⁹⁸

Contrary to D.21-08-036, SCE failed to establish the reasonableness of its renewed request for funding for these projects. Ratepayers should not be burdened with the deferred projects in this GRC, since SCE failed to provide documentation that would allow the Commission and Cal Advocates to verify the reasonableness of including these

²⁹³ Ex. SCE-02, Vol. 03 at 26.

²⁹⁴ D.21-08-036 at 469-470.

²⁹⁵ D.21-08-036 2021 at 469. In footnote 1550 of this Decision, The Commission referred back to D.15-11-021 at 346; D.07-03-044. at 94-95 as examples where the Commission reduced or disallowed costs of activities that were requested and included in prior GRC authorizations, deferred, and re-requested in another GRC.

²⁹⁶ Ex. CA-04-E at 19.

²⁹⁷ SCE's response to Cal Advocates data request PubAdv-SCE-205-RA6, Q1i and Q2c.

²⁹⁸ SCE's response to Cal Advocates data request PubAdv-SCE-205-RA6, Q1 and Q2.

costs for the deferred Real time Energy Metering Program, Catalina Meter Replacement Program, and the Complex Meter Replacement Program in this GRC.

The Commission should adopt Cal Advocates' reasonable recommendation for Meter Engineering capital expenditures of \$26.480 million in 2023, \$26.480 million in 2024, and \$27.130 million in TY 2025 for Routine and Non-Routine work.

VIII. TRANSMISSION GRID

A. Transmission Grid O&M

Cal Advocates does not oppose SCE's TY 2025 \$32.228 million forecast for Transmission Grid O&M expense.

B. Transmission Grid Capital Expenditures

SCE forecasts \$1.8 billion for Transmission Grid capital expenditures for 2023-2028, which consists of the following costs categories: Transmission Capital Maintenance, Telecommunications Capital Maintenance, Transmission Claims, Transmission Line Rating Remediation (TLRR), Capital-Related Expense & Other.

Cal Advocates opposes SCE's Transmission Grid capital expenditures forecasts for the following cost categories: Transmission Capital Maintenance and Transmission Line Rating Remediation (TLRR).²⁹⁹

1. Transmission Line Rating Remediation (TLRR)

a) Overview

The purpose of the Transmission Line Rating Remediation (TLRR) program is to bring transmission lines into compliance with the Commission's General Order (GO) 95 and the North American Electric Reliability Corporation's (NERC) FAC-003 standards, which specify minimum phase-to-ground clearance requirements and phases-to-phase clearance requirements.³⁰⁰ In 2006, SCE conducted a Light Detection and Ranging (LiDAR) study to identify transmission lines potentially in violation of GO 95 Table 1

²⁹⁹ Report on the Results of Operations for Southern California Edison Company General Rate Case Test Year 2025, Transmission Grid, Substations, Ex. CA-09 at 6.

³⁰⁰ Ex. CA-09 at 7.

during emergency loading conditions.³⁰¹ The study was conducted on the Bulk Electric System (BES) in response to the NERC FAC-009-1 Standard Update issued in 2006 and the subsequent NERC Recommendation to Industry.³⁰² In 2011, the Commission, NERC, and Western Electricity Coordinating Council (WECC) requested that SCE expand the LiDAR study to 115kV radial lines.³⁰³ The radial-line scope was revised in 2016, bringing the total number of GO 95 discrepancies to 6,511 in the BES and 5,272 in the radial system (11,783 altogether).³⁰⁴ In consultation with NERC and WECC, SCE agreed to remediate all BES GO-95 discrepancies by the end of 2025 and all radial-system GO-95 discrepancies by the end of 2030.³⁰⁵ SCE is on track to meet the 2030 radial-system deadline but not the 2025 BES deadline.³⁰⁶

SCE forecasts \$8.679 million for 2023, \$22.009 million for 2024, and \$73.090 million for 2025, for TLRR capital expenditures.³⁰⁷ The Commission should only authorize \$6.992 million for 2023, \$13.456 million for 2024, and \$30.047 million for 2025, for TLRR capital expenditures.³⁰⁸ SCE forecasts its TLRR capital expenditures to increase dramatically, starting in 2025.³⁰⁹ This increase is primarily driven by the deferral of the Four Major Projects,³¹⁰ on which SCE expects to begin construction during this GRC period.³¹¹ Cal Advocates has, however, determined that the contingency

³⁰¹ Ex. CA-09 at 7.

³⁰² Ex. CA-09 at 7.

³⁰³ Ex. CA-09 at 7.

³⁰⁴ Ex. CA-09 at 7.

³⁰⁵ Ex. CA-09 at 7.

³⁰⁶ Ex. CA-09 at 7.

³⁰⁷ Ex. CA-09 at 8.

³⁰⁸ Ex. CA-09 at 8.

³⁰⁹ Ex. SCE-02, Vol. 04, at 60. SCE forecasts expenditures for the TLRR program as a whole (both Commission- and FERC- components included) to increase from a 2018-2024 annual average of \$98.25 million to a 2025-2028 annual average of \$264.525 million—an increase of \$166.275 million or 169%. $264.525 - 98.25 = 166.275$; $166.275 / 98.25 = 169\%$.

³¹⁰ Ex. CA-09 at 8. The four major projects noted above are the Eldorado-Pisgah-Lugo (EPL), Gorman-Kern River (GKR), Control-Silver Peak (CSP), and Ivanpah-Control (IC).

³¹¹ Ex. CA-09 at 8.

requested for one of the Four Major Projects does not align with the contingency discussed by SCE in discovery.³¹²

b) Forecasted expenditures should reflect project delays

The Four Major Projects were originally planned for completion prior to the 2025 deadline for BES GO-95 discrepancies³¹³ but were deferred due to Commission licensing.³¹⁴ Each of the projects has open, pending applications before the Commission with only one project's proceedings at the point of a Scoping Ruling.³¹⁵ Other TLRR projects were delayed due to wildfires and COVID-19.³¹⁶ SCE's request for total TLRR expenditures (Commission-jurisdictional components only) for 2023-2028 is \$249.181 million.³¹⁷

As the result of extensive discovery, Cal Advocates concludes that at least three of the Four Major Projects, Gorman-Kern River (GKR), Control-Silver Peak (CSP), and Ivanpah-Control (IC), have experienced delays since SCE filed its GRC Testimony. As such, the expected in-service dates and expenditure forecasts are no longer accurate.³¹⁸ Cal Advocates procured additional information regarding a number of GO-95 discrepancies across years, programs, and TLRR projects; reasons for TLRR project delays; project-level costs; project timelines; the scope of remediation work; project alternatives considered; project contingency levels; and the impact of project delays on TLRR expenditure forecasts.³¹⁹

Table below shows five line items in the Four Major Projects with adjusted in-service dates that reflect SCE's current expected completion dates for the projects, as of

³¹² Ex. CA-09 at 11.

³¹³ Ex. CA-09 at 9.

³¹⁴ Ex. CA-09 at 10.

³¹⁵ Ex. CA-09 at 9.

³¹⁶ Ex. SCE-02, Vol. 04 at 60.

³¹⁷ Ex. CA-09 at 9.

³¹⁸ Ex. CA-09 at 10.

³¹⁹ Ex. CA-09 at 10.

October 2023,³²⁰ as well as Cal Advocates' recommended current expected in-service dates for TLRR projects.³²¹ The adjustments made to the in-service dates for RO Model ID number 1053 (part of the Control-Silver Peak project) move the expenditures for this line item out of this GRC cycle.³²² RO Model ID number 1043 (Ivanpah-Control project) was outside of this GRC cycle even prior to the adjustment.³²³

**Transmission Line Rating Remediation Program³²⁴
In-Service Date Adjustments for Major Projects**

Project Name	[Column B] RO Model ID	[Column J] WBS	[Column K] Description	[W] Close Input	
				SCE	CalAdv
Gorman-Kern River (GKR)	1021	CET-PD-OT-PJ-790799	GKR: Contingency/Known Risk (Budgeting)	Apr-27	Aug-28
Ivanpah-Control (IC)	1043	CET-PD-OT-PJ-790401	Control -Instl protect equip Cb / Relay	Apr-29	Aug-30
Control-Silver Peak (CSP)	1053	CET-PD-OT-PJ-790606	Zack Sub:Rplc protect equip cb/relays	Feb-28	Apr-29
Gorman-Kern River (GKR)	1055	CET-PD-OT-PJ-790701	Gorman-Kern River: Install tower/Lines	Apr-27	Aug-28
Gorman-Kern River	1056	CET-PD-OT-PJ-790702	Correction:Rplc protect equip cb/relays	Nov-26	Aug-28

Source: SCE RO Model Inputs; SCE's response to data request PubAdv-SCE-214-KJP Q.01a-d - Q.01.a-d Answer.

The Commission should authorize expenditures for TLRR program based on the following method: (1) the recommended adjustment to in-service dates for the GKR, IC, and CSP projects should be rounded to the nearest year (one year in all cases); and (2) forecasted expenditures for the Commission-jurisdictional components of each of these projects should be postponed by that amount (no other TLRR project expenditures are adjusted).³²⁵ All TLRR project expenditures (both Commission and FERC-jurisdictional)

³²⁰ Ex. CA-09 at 11.

³²¹ Ex. CA-09 at 11.

³²² Ex. CA-09 at 11.

³²³ Ex. CA-09 at 11.

³²⁴ Ex. CA-09 at 12.

³²⁵ Ex. CA-09 at 12.

should then be summed to yield the recommended expenditures for the TLRR program. The Commission should authorize \$6.992 million for 2023, \$13.456 million for 2024, and \$30.047 million for 2025, for TLRR capital expenditures.³²⁶

c) SCE's requested contingency for the Gorman-Kern River Project is unreasonably high.

SCE's Workpaper Exhibit SCE-02, Volume 04, includes an item described as "GKR: Contingency/ Known Risk (Budgeting)," with a total cost estimate of \$59,296,800.³²⁷ \$59,296,800 would amount to a 48% contingency/known risk reserve figure, which is unreasonably high for a project as mature and routine as the GKR project.³²⁸ SCE claims it is only requesting a contingency percentage of 14.17% for the GKR project, which would amount to \$17,656,009.³²⁹ Unfortunately, this is just an artful attempt to obtain an unreasonably high contingency.

In rebuttal, SCE attempts to extract the "known risk reserve" amount of \$32,658,500 from Commission scrutiny. Initially, SCE's testimony proposed a sizeable (48%) contingency/known risk reserve on the project but SCE's rebuttal suggests that the Commission should only review the contingency portion. SCE claims that it applies a \$23.46 million contingency to the GKR project to "cover uncertainty and variability in the estimated cost of known scope as well as for inadequacies in estimating methods and scope and estimating limitations."³³⁰ [emphasis added] SCE then explains in rebuttal that the known risk reserve is for "known uncertainties" that "may have a negative impact to the project costs or project schedule."³³¹ [emphasis added] Moreover, SCE provides no industry standard reference or precedent to support its use of this "known risk reserve."³³²

³²⁶ Ex. CA-09 at 8.

³²⁷ Ex. SCE-02, Vol. 04WP at 112.

³²⁸ Ex. CA-09 at 13.

³²⁹ Ex. CA-09 at 13, FN 29.

³³⁰ Ex. SCE-13, Vol. 04 at 12.

³³¹ Ex. SCE-13, Vol. 04 at 13.

³³² Ex. SCE-13, Vol. 04 at 13.

Given that both factors strive to manage both known and kind risks, calling an additional unidentified cost by a different name does not change the fact that SCE requests an enormous total contingency/risk reserve figure to cover risks for the GKR project. The Commission should authorize that the total cost estimate for the “GKR: Contingency/ Known Risk (Budgeting)” item be revised to \$17,656,009, which is \$41,640,791 less than SCE’s request of \$59,296,800.

The entire contingency amount for the GKR project is forecasted for 2028. If the Commission adopts Cal Advocates’ recommendation to postpone TLRR expenditures to reflect project delays, this recommended adjustment to the GKR project contingency would be shifted to 2029 and would thus be out of scope for this GRC.

d) A line item in SCE’s RO model inputs is unsupported by SCE’s workpapers and should be excluded.

SCE’s forecasted annual expenditures for the TLRR program equal the sum of expenditures listed in Exhibit SCE-02 Volume 04 (pp. 145-146). The expenditures SCE entered into its RO Model Inputs under RO Model ID number 1034 are categorized as TLRR and incremental to the total expenditures. However, the expenditures entered as RO Model ID number 1034 are not supported in SCE’s workpapers or testimony and thus should be reduced to zero. The Commission should therefore authorize \$0 for RO Model ID number 1034 (CET-PD-OT-PJ-729801) for TY 2025, \$0.122 million less than SCE’s request.³³³ In its rebuttal, SCE acknowledged that the costs for CET-PD-OT-PJ-729801 were erroneously designated as CPUC-jurisdictional whereas they are in fact FERC-jurisdictional.³³⁴ Accordingly, SCE does not challenge the above recommendation to remove \$0.122 million.

³³³ Ex. CA-09 at 13.

³³⁴ Ex. SCE-13, Vol. 04 at 14.

C. Transmission Infrastructure Replacement

The Transmission Infrastructure Replacement (TIR) program falls under the Transmission Capital Maintenance program. SCE's current TIR approach relies on observed conditions of equipment to identify assets in need of replacement. SCE requests \$19.908 million for 2023, \$21.577 million for 2024, and \$61.668 million for 2025, for TIR capital expenditures. Cal Advocates recommends \$19.908 million for 2023, \$21.577 million for 2024, and \$18.339 million for 2025, for TIR capital expenditures.

SCE proposes to supplement inspections of observed conditions with quantitative risk analysis as part of a new, more proactive approach, starting in 2025—an approach that SCE claims will increase the safety and reliability of its Transmission system.³³⁵ This new approach results in annual expenditures that are more than triple the average annual expenditures under the current approach.³³⁶ The forecasted capital expenditures for the TIR program include capital expenditures for the Pothead Replacement Program, for which SCE requested \$0.955 million in TY 2025 and recorded \$0 in 2022.

SCE has not provided a quantitative assessment of the extent to which the new approach will affect safety and reliability. Absent this quantitative assessment, Cal Advocates concludes that SCE has not demonstrated that the benefits of the change in approach merit the increase in cost. Cal Advocates recommends that the Commission approve only expenditures consistent with historical levels and that the Commission require SCE to provide a Cost-Benefit Analysis of the proposed change in approach as a prerequisite for approval of the incremental costs. If the Commission rejects Cal Advocates' recommended adjustment to the TIR program, as a whole, the Commission should adjust the amount approved for the Pothead Replacement Program, as detailed below. Cal Advocates reviewed historical and forecasted capital expenditures for the TIR program. This review included SCE's Testimony and Workpapers in SCE's TY

³³⁵ Ex. SCE-02, Vol. 04 at 71.

³³⁶ Ex. SCE-02, Vol. 04 at 37: Table II-10, "Trans IR Program": SCE RO Model Inputs. SCE's TY 2025 request of \$62.549 million for the TIR program as a whole (which is 99% Commission-jurisdictional in 2025) is \$45.240 million (261%) more than the 2022 recorded expenditures of \$17.309 million for the TIR program as a whole.

2025 GRC filing, RO Model Inputs provided by SCE (which includes adjustments made by SCE to reflect errata), and discovery. Cal Advocates issued data requests regarding the expected benefits of the change in approach to the TIR program. Cal Advocates sought information by which one could assess whether the value of the expected benefits of the new approach are commensurate with the significant increase in cost. Based on SCE’s testimony and workpapers alone, it was unclear whether SCE had conducted such an assessment.

Cal Advocates concludes that the expenditures requested for the TIR program for the years 2025-2028 are significantly higher than historical expenditures; Cal Advocates also concludes that the shift to a more proactive approach in the TIR program is the primary driver of this significant cost increase. Cal Advocates concludes that SCE has failed to demonstrate that the benefits of the new approach are commensurate with the costs.

a) SCE has not justified the significant cost increase to the Transmission Infrastructure Replacement (TIR) program.

The average annual expenditures for the TIR program for 2018-2022 was \$17.564 million.³³⁷ SCE requests \$19.908 million for 2023, \$21.577 million for 2024, and \$61.668 million for 2025, for TIR capital expenditures, which include SCE’s \$0.955 million in TY 2025 for the Pothead Replacement Program.³³⁸ SCE’s TIR forecasts rely on observed conditions of equipment to identify assets in need of replacement;³³⁹ moreover, SCE proposes to “supplement inspections of observed conditions with quantitative risk analysis ... starting in 2025.”³⁴⁰ SCE’s proposal to shift to a “more

³³⁷ Ex. CA-09 at 17.

³³⁸ Ex. CA-09 at 14-15.

³³⁹ Ex. SCE-02, Vol. 04 at 70.

³⁴⁰ Ex. SCE-02, Vol. 04 at 37: Table II-10, “Trans IR Program”: SCE RO Model Inputs. SCE’s TY 2025 request of \$62.549 million for the TIR program as a whole (which is 99% Commission-jurisdictional in 2025) is \$45.240 million (261%) more than the 2022 recorded expenditures of \$17.309 million for the TIR program as a whole.

proactive approach” in 2025 results in an annual average expenditure from 2025-2028 of \$63.464 million, 261% higher than the 2018-2022 annual average.³⁴¹ While the requested expenditures for 2025-2028 are significantly higher than historical expenditures, SCE does not provide a quantitative assessment of the extent to which this enhanced approach will increase safety and reliability.³⁴² Absent this assessment, SCE has not demonstrated that the results of the new approach will merit increased costs. Cal Advocates thus recommends that the Commission approve only expenditures consistent with historical levels and require that SCE provide a cost-benefit analysis of the proposed change in method.

Cal Advocates recommends \$19.908 million for 2023, \$21.577 million for 2024, and \$18.339 million for 2025, for TIR capital expenditures.³⁴³ Cal Advocates’ methodology, described in its testimony, for 2025-2028 Commission-jurisdictional expenditures,³⁴⁴ utilizes historical average expenditures and escalation factors consistent with SCE’s workpapers.³⁴⁵ If the Commission rejects Cal Advocates’ recommended adjustment to the TIR program, it should at least adjust the amount approved for the Pothead Replacement Program.

b) SCE’s proposed contingency for the Pothead Replacement Program is too high.

The Pothead Replacement Program replaces older, porcelain, oil-filled cable terminations with newer polymer types to mitigate safety and reliability risks.³⁴⁶ The newer polymer cable terminations are the industry standard among all California utilities, and 90 percent of Cable Terminations in SCE’s Transmission System consist of the

³⁴¹ Based on Ex. SCE-02, Vol. 04 at 37; $63,464 / 17,564 - 1 = 261\%$.

³⁴² Ex. CA-09 at 15.

³⁴³ Ex. CA-09 at 14.

³⁴⁴ Ex. CA-09 at 17-18.

³⁴⁵ In Workpaper Ex. SCE-02, Vol. 04, SCE uses the following escalation factors to estimate unit costs for 2023-2028, relative to 2022: 1.036, 1.052, 1.059, 1.065, 1.077, 1.094.

³⁴⁶ Ex. CA-09 at 19.

newer polymer type, with the remaining 10% of the older porcelain type.³⁴⁷ SCE requests a total of \$3.877 million for 2023-2028 to replace a total of 120 porcelain cable terminations³⁴⁸ at a unit cost (2022 dollars) of \$29,172.42, plus escalation³⁴⁹ and a Capital Forecast Adjustment.³⁵⁰ This unit cost assumes a base cost of \$18,910.35 and a 54% contingency (\$10,262.07 per unit).³⁵¹

Given that current installations comprise industry-standard polymer types, and that 90 percent of current cable terminations are industry standard, a 54% contingency is unreasonably high.³⁵² Cal Advocates recommends a 25% contingency, consistent with the following other programs within SCE's TIR program: the Transmission Overhead Re-Conductor Program, Fault Return Conductor Installation Program, and Transmission Switch Replacement Program.³⁵³ A 25% contingency for the Pothead Replacement Program is equal to \$4,727.59 per unit and yields a unit cost of \$23,637.94, or \$5,534.49 less than SCE's proposed unit cost.³⁵⁴ Based on a 25% contingency, Cal Advocates recommends \$0.779 million³⁵⁵ for the Pothead Replacement Program for TY 2025, which is \$0.176 million less than SCE's request of \$0.955 million.³⁵⁶ Cal Advocates' recommended adjustment to the TIR program, as a whole, includes adjustments to the

³⁴⁷ Ex. SCE-02, Vol. 04 at 115-118.

³⁴⁸ Ex. SCE-02, Vol. 04 at 121.

³⁴⁹ Ex. SCE-02, Vol. 04WP at 197.

³⁵⁰ Ex. SCE-02, Vol. 04 at 123.

³⁵¹ Based on Ex. SCE-02, Vol. 04WP, at 197; $10,262.07 / 18,910.35 = 54\%$.

³⁵² Ex. CA-09 at 19.

³⁵³ Ex. SCE-02, Vol. 04WP at 169, 189, 193.

³⁵⁴ Ex. SCE-02, Vol. 04WP ($\$18,910.35 * 0.25 = \$4,727.59$).

³⁵⁵ Cal Advocates recommended amounts for the Pothead Replacement Program includes the escalation factors and Capital Forecast Adjustment amounts used by SCE in its forecast for the program. See Ex. SCE-02, Vol. 04, at 123, Table IV-36.

³⁵⁶ Ex. CA-09 at 19.

Pothead Replacement Program.³⁵⁷ Therefore, the adjustment to the Pothead Replacement Program should not be adopted if the adjustment to the TIR program is adopted.³⁵⁸

IX. SUBSTATION

SCE's forecasts for Substations focuses on Grid Monitoring and Operability, Substation Inspection and Maintenance, Substation Capital-Related Expense and Other, and Substation Infrastructure Replacement.³⁵⁹

A. Substation O&M

SCE forecasts \$174.987 million for its Substation O&M expenses in TY 2025,³⁶⁰ which is a \$50.914 million increase over its 2022 recorded expenses.³⁶¹ Cal Advocates recommends \$131.465 million for TY 2025's Substation O&M expenses.³⁶² Substation Capital-Related Expense and Other Cal Advocates does not oppose SCE's Substation O&M expense forecast for its Substation Capital-Related Expense and Other Business Planning Element (BPE).³⁶³

1. Substation Grid Monitoring and Operability

SCE forecasts \$141.624 million for its Substation expenses in its Grid Monitoring and Operability BPE. SCE's TY 2025 forecast for Grid Monitoring and Operability BPE falls into three activities: (1) Monitoring and Operating Substations, (2) Monitoring the Bulk Power System, and (3) Telecommunication Line Rents.³⁶⁴ Cal Advocates recommends \$102.330 million for SCE's Grid Monitoring and Operability BPE.³⁶⁵

³⁵⁷ Ex. CA-09 at 20.

³⁵⁸ Ex. CA-09 at 20.

³⁵⁹ Southern California Edison 2025 General Rate Case, Substation, Ex. SCE-02, Vol. 05 at 3.

³⁶⁰ Report on the Results of Operations for Southern California Edison Company General Rate Case Test Year 2025, Distribution Grid Expenses, Ex. CA-02 at 9, FN 15.

³⁶¹ Ex. CA-02 at 9, FN 16.

³⁶² Ex. CA-02 at 10.

³⁶³ Ex. CA-02 at 10.

³⁶⁴ Ex. CA-02 at 11, FN 19.

³⁶⁵ Ex. CA-02 at 11.

a) Monitoring and Operating Substations

SCE forecasts \$55.540 million for its Monitoring and Operating Substations activity in TY 2025, a \$9.129 million increase over its 2022 recorded expenses.³⁶⁶ The Commission should authorize \$50.354 million for SCE's Monitoring and Operating Substations activity in TY 2025.³⁶⁷ SCE's \$7.463 million increase from the 2022 recorded expenses reflects additional resources to meet forecasted labor growth and changes to SCE's employee compensation program.³⁶⁸ More specifically, additional resources accompany SCE's proposal to hire 20 substation operators and 24 system operators between 2022-2028.³⁶⁹

SCE's excessive forecast results from an arbitrary method of forecasting an increase in FTEs. To arrive at 44 FTEs, SCE multiplied the number of FTEs in 2022 by the rate of T&D portfolio growth each year from 2023 through 2028.³⁷⁰ The sum of FTEs over these six years is 88, which SCE divides by two to account for "nominal dollar value impact, as well as annual attrition, hiring, and need to train new resources."³⁷¹

Rather than including six years of forecasted FTEs for TY 2025, Cal Advocates' method uses the forecasted increase in 2025 relative to 2022, which is 31 FTEs (inclusive of 18 system operators and 13 substation operators).³⁷² Cal Advocates multiplied the increase in FTEs by each FTE's respective salary to yield an adjustment of \$3.944 million to the 2022 recorded expense (\$46.410 million).³⁷³

Given Cal Advocates' well-reasoned method for forecasting Monitoring and Operating Substations' increased need for FTEs, the Commission should authorize

³⁶⁶ Ex. CA-02 at 11, FN 20.

³⁶⁷ Ex. CA-02 at 11

³⁶⁸ Ex. CA-02 at 12, FN 21.

³⁶⁹ Ex. CA-02 at 12, FN 22.

³⁷⁰ Ex. CA-02 at 12.

³⁷¹ Ex. CA-02 at 12, FN 23.

³⁷² Ex. CA-02 at 13.

³⁷³ Ex. CA-02 at 12.

\$50.354 million for TY 2025. While the recommended amount reflects a decrease from what SCE requested, it represents an increase from SCE's 2018-2022 recorded expenses that will more than adequately allow for additional FTEs and changes to SCE's employee compensation program.³⁷⁴

b) Monitoring the Bulk Power System

SCE forecasts \$86.062 million for its Monitoring the Bulk Power System activity in TY 2025, which is an increase of \$36.989 million over SCE's 2022 recorded expenses and \$26.966 million over its 2021 GRC authorized expenses.³⁷⁵ SCE's forecast reflects sizable increases in labor expenses, non-labor and other expenses, over recorded expenses from 2022.³⁷⁶

(1) Increased Labor Expenses

SCE attributes labor increases to increased staffing levels for hardware maintenance and vendor technical support of data networking equipment used to monitor the bulk power system.³⁷⁷ The increased personnel count includes 104 FTEs: 11 FTEs to "support and maintain three LTE system cores," 24 FTEs "to support overall growth," five FTEs to "support T&D infrastructure workflow," 7 FTEs "to support the growth in the Generation portfolio," and 57 FTEs "to support digital strategies and transformation and Grid."³⁷⁸

SCE's unsubstantiated request for an additional 104 employees, results in a 61% increase³⁷⁹ in labor expenses over SCE's 2022 recorded expenses. This imposes an unreasonable ratepayer burden and should be rejected. First, SCE fails to track historic FTE headcounts for this activity in order to compare its 2025 forecast with previous

³⁷⁴ Ex. CA-02 at 13.

³⁷⁵ Ex. CA-02 at 13.

³⁷⁶ Ex. CA-02 at 13.

³⁷⁷ Ex. SCE-02, Vol. 05 at 22.

³⁷⁸ Ex. SCE-02, Vol. 05 at 24-25.

³⁷⁹ Ex. CA-02 at 14.

staffing levels.³⁸⁰ When asked to provide an FTE breakdown for each job classification from 2018 through 2022, SCE did not provide any historic headcount, claiming that its method for calculating an FTE was “based on a percentage of time being allocated to this activity per labor categories defined in the testimony.”³⁸¹ Moreover, neither SCE’s testimony nor its data request responses identified any documented or verifiable labor-expense shortfall problems that resulted in missed operational or compliance deadlines or deferred and/or eliminated projects.³⁸² Because SCE’s labor expenses have been declining since 2020, and its 2021 recorded labor expenses of \$35.338 million are \$6.779 million less than its 2021 GRC authorized labor expenses (\$42.117 million),³⁸³ SCE’s refusal to provide a historic basis for its FTE forecast is unreasonable.. As such, the Commission should find that SCE failed to meet its burden to justify its request. Instead of SCE’s \$55.232 million forecast, the Commission should authorize \$36.911 million for labor, based on a three-year average of SCE’s 2020-2022 recorded labor expenses.³⁸⁴

(2) Increased Non-labor Expenses

SCE’s non-labor TY forecast is 103.36% over its 2022 recorded non-labor expenses and 99.21% over the five year average (2018-2022).³⁸⁵ To develop its \$26.321 million non-labor expense forecast, SCE adjusted its last recorded year expenses for its Grid Control Center and normalized an itemized 2025-2028 forecast for its Grid Network Solutions activity.³⁸⁶ However, SCE’s itemized 2025-2028 forecast for its Grid Network Solutions activity does not compare historic expense levels for each itemized labor category.

³⁸⁰ Ex. CA-02 at 15.

³⁸¹ Ex. CA-02 at 15.

³⁸² Ex. CA-02 at 15.

³⁸³ Ex. CA-02 at 15.

³⁸⁴ Ex. CA-02 at 14.

³⁸⁵ Ex. CA-02 at 16.

³⁸⁶ Ex. SCE-02, Vol. 05 at 14, 25.

Moreover, SCE did not provide documentation to reasonably justify or demonstrate that it requires additional funding at the requested level for its Monitoring the Bulk Power System non-labor expenses. SCE provides no specific detail to support its requested increase of \$13.378 million over its 2022 recorded expenses.³⁸⁷ SCE previously underspent its 2021 GRC authorized non-labor expenses: (1) in 2021, SCE recorded \$10.1 million, which is \$4.823 million less than its 2021 GRC authorized amount of \$14.923 million; (2) SCE's 2022 recorded expenses of \$1.831 million are the highest in the five-year period (2018-2022) and still \$225,000 less than SCE's 2021 GRC authorized expenses of \$2.056 million.³⁸⁸ SCE's forecast should have relied on a five-year average of its non-labor expenses, which would also account for the fluctuations in recorded non-labor expenses between 2018 and 2022.³⁸⁹ Thus, the Commission should authorize \$13.212 million for non-labor expenses compared to SCE's \$26.321 million forecast.³⁹⁰

(3) Other Expenses

SCE developed its \$4.509 million recommendation for Other Expenses by normalizing its 2025-2028 forecast for backhaul connectivity and failover and its Dark Fiber lease.³⁹¹ However, instead of normalization, SCE should have relied on its 2022 recorded expenses to determine the 2025 forecast.³⁹² SCE has previously underspent its 2021 GRC authorized revenues in 2021-2022. Even its 2022 recorded expenses of \$1.831million, is still \$225,000 less than SCE's 2021 \$2.056 million GRC authorized

³⁸⁷ Ex. CA-02 at 16.

³⁸⁸ Ex. CA-02 at 16.

³⁸⁹ Ex. CA-02 at 15.

³⁹⁰ Ex. CA-02 at 15.

³⁹¹ Ex. SCE-02, Vol. 05 at 28.

³⁹² Ex. CA-02 at 16.

expenses.³⁹³ Thus, the Commission should authorize \$1.831 million, which provides sufficient funding for SCE's Other Expenses³⁹⁴

c) Substation Inspections and Maintenance

SCE forecasts \$28.083 million for its Substation Inspections and Maintenance Relay Inspection and Maintenance expenses in TY 2025, an increase of \$4.414 million over its 2022 recorded expenses (\$23.669 million) and \$7.075 million over its 2021 GRC authorized expenses (\$21.009 million).³⁹⁵ The Commission should authorize \$23.855 million for SCE's Substation Inspections and Maintenance BPE in TY 2025, which is \$4.228 million less than SCE's \$28.083 million request.³⁹⁶

(1) Relay Inspection and Maintenance

SCE forecasts \$3.217 million for its Relay Inspection and Maintenance activity in TY 2025, a \$1.033 million increase over its 2022 recorded expenses of \$2.184 million.³⁹⁷ SCE utilized a five-year average of its 2018-2022 recorded expenses to develop its forecast, plus an adjustment to reflect changes to its employee compensation program.³⁹⁸ Although SCE's Relay Inspection and Maintenance expenses have declined annually in each of the last five recorded years (2018-2022), SCE's forecast does not account for this trend.³⁹⁹ SCE's testimony and workpapers do not address the decline in its 2018-2022 Relay Inspection and Maintenance expenses.⁴⁰⁰ Nor does SCE provide sufficient documentation for a detailed review and evaluation of its proposed TY activities to justify the increase over its 2022 recorded expenses.⁴⁰¹

³⁹³ Ex. CA-02 at 16.

³⁹⁴ Ex. CA-02 at 16.

³⁹⁵ Ex. CA-02 at 17.

³⁹⁶ Ex. CA-02 at 17.

³⁹⁷ Ex. CA-02 at 18.

³⁹⁸ Ex. SCE-02, Vol. 05 at 86.

³⁹⁹ Ex. CA-02 at 18.

⁴⁰⁰ Ex. CA-02 at 18.

⁴⁰¹ Ex. CA-02 at 18.

Moreover, SCE has underspent its authorized funding for Relay Inspections and Maintenance.⁴⁰² In 2021, SCE recorded \$2.834 million, which is \$0.649 million less than SCE’s 2021 GRC authorized expenses of \$3.484 million.⁴⁰³ In 2022, SCE recorded \$2.184 million, which is \$1.299 million less than its 2021 GRC authorized expenses.⁴⁰⁴ SCE attributes underspending for Relay Inspection and Maintenance work activities in the 2021 GRC to the “increased number of off-cycle inspections to install more sensitive fault settings on the relay populations associated with distribution circuits that traverse high fire risk areas” which resulted in “faster fault clearing times in these high fire risk areas.”⁴⁰⁵ However, SCE does not incorporate the 2021 savings due to faster fault clearing times in its TY forecast, even though it incorporates 2018-2020 recorded expenses.⁴⁰⁶ Nor does SCE identify the specific accounts or line-item details associated with the activities that ultimately received the reallocated, 2021-2022 authorized funding.⁴⁰⁷ Thus, the Commission should authorize Cal Advocates’ \$2.184 million recommendation. This recommended amount is reasonable, addresses the declining trend and historic underspending of SCE’s Relay Inspection and Maintenance activity, and provides sufficient funding for SCE’s proposed increase to its employee compensation program.⁴⁰⁸

(2) Other Substation Equipment Inspections and Maintenance

SCE forecasts \$4.945 million for its Other Substation Equipment Inspections & Maintenance⁴⁰⁹ activity in TY 2025. This is a 234.57% increase over its 2022 recorded

⁴⁰² Ex. CA-02 at 18.

⁴⁰³ Ex. CA-02 at 18.

⁴⁰⁴ Ex. CA-02 at 18.

⁴⁰⁵ Ex. SCE-02, Vol. 05 at 85.

⁴⁰⁶ Ex. CA-02 at 19.

⁴⁰⁷ Ex. CA-02 at 19.

⁴⁰⁸ Ex. CA-02 at 19.

⁴⁰⁹ Ex. SCE-02, Vol. 05 refers to this activity as both “Other Substation Equipment Inspections & Maintenance” and “Miscellaneous Substation Inspections and Maintenance.”

expenses (\$1.478 million) and a \$3.505 million increase over its 2021 GRC authorized expenses (\$1.44 million).⁴¹⁰ SCE's forecast consists of \$1.63 million of labor expenses, which is \$0.194 million higher than its 2022 recorded labor expenses, and \$3.315 million for non-labor expenses, which is \$3.274 million higher than its 2022 recorded non-labor expenses.⁴¹¹ SCE developed its labor forecast by utilizing a three-year average of its 2020-2022 recorded expenses plus an adjustment to reflect changes to its employee compensation program.⁴¹² For non-labor, SCE utilized an itemized forecast that it normalized, which includes \$2.304 million in TY 2025 to move equipment to the Edison Training Academy.⁴¹³

SCE has not provided documentation to justify and demonstrate that it requires an increase of 234.57% or \$2.304 million annually (\$9.216 million over the four-year rate case cycle) to move equipment to the Edison Training Academy.⁴¹⁴ Thus, the Commission should authorize \$1.748 million for SCE's Other Substation Equipment Inspections & Maintenance activity in TY 2025, which is \$3.197 million less than SCE's TY 2025 request.⁴¹⁵ Cal Advocates' recommendation relies on a five-year average of SCE's 2018-2022 recorded expenses plus an adjustment of \$0.07 million for SCE's employee compensation program.⁴¹⁶ It also accounts for fluctuations in SCE's 2018-2022 recorded expenses and removes one-time, non-recurring costs associated with moving equipment.⁴¹⁷

⁴¹⁰ Ex. CA-02 at 19.

⁴¹¹ Ex. SCE-02, Vol. 05 at 89.

⁴¹² Ex. SCE-02, Vol. 05 at 92.

⁴¹³ Ex. SCE-02, Vol. 05 at 92; CA-02 at 19.

⁴¹⁴ Ex. CA-02 at 20.

⁴¹⁵ Ex. CA-02 at 20.

⁴¹⁶ Ex. CA-02 at 20.

⁴¹⁷ Ex. CA-02 at 20.

B. Substation Capital

SCE proposes significant increases in Substation in TY 2025 relative to 2022. Increased substation expenditures are driven by a forecasted need to replace aging fiber optic cables and a \$42.82 million increase in TY 2025 for Technology Refresh.⁴¹⁸

Cal Advocates does not oppose SCE's Substations capital expenditures forecasts for the following two cost categories: (1) Grid Monitoring & Operability, and (2) Capital-Related Expense and Other.⁴¹⁹ Many of the programs and projects included in SCE's forecasted expenditures include both California Public Utilities Commission jurisdictional (CPUC-jurisdictional) and Federal Energy Regulatory Commission jurisdictional (FERC jurisdictional) components. Cal Advocates' discussion of Transmission Grid and Substations only addresses the CPUC-jurisdictional portions of programs and projects.⁴²⁰ The absence of Cal Advocates' recommendations to adjust FERC-jurisdictional components should not be interpreted as support for SCE's requested amounts for those components.⁴²¹

1. SCE should continue its Substation Transformer Bank Replacement Program at historical levels.

SCE forecasts \$49.658 million for 2023, \$65.627 million for 2024, and \$61.915 million for 2025, for Substation Transformer Bank Replacement Program capital expenditures.⁴²² Cal Advocates recommends \$49,658 million for 2023, \$65.627 million for 2024, and \$55,024 million for 2025, for Substation Transformer Bank Replacement Program capital expenditures.⁴²³ SCE's capital expenditure forecast for the Substation Transformer Bank Replacement Program for TY 2025 is higher than the program's 2022

⁴¹⁸ Ex. CA-09 at 6.

⁴¹⁹ Ex. CA-09 at 6.

⁴²⁰ Ex. CA-09 at 7.

⁴²¹ Ex. CA-09 at 7.

⁴²² Ex. CA-09 at 20.

⁴²³ Ex. CA-09 at 20.

recorded capital expenditures.⁴²⁴ SCE justifies the cost increase by stating that “[g]iven the increased population of power transformers in poor or worse health condition, SCE proposes increasing the average number of power transformers that are annually replaced...”⁴²⁵

In response to data requests, SCE provided health-condition information for SCE’s A Bank and B Bank power transformers for 2018-2021, in addition to the 2022 health condition information included in SCE’s testimony.⁴²⁶ This information revealed that the population of power transformers in poor or worse health condition did in fact *decrease* from 2018 to 2022.⁴²⁷ SCE has thus failed to support its claim that the population of power transformers in poor or worse health condition has increased; and, therefore, SCE has failed to justify an increase in the average number of power transformers that are annually replaced, as well as the associated increase in expenditures.

Cal Advocates recommends continued funding of the Substation Transformer Bank Replacement Program at historic levels. Cal Advocates calculated its recommended expenditures by first escalating the five-year average of recorded expenditures, then distributing this amount proportionally to each CPUC-jurisdictional program component.⁴²⁸ The 2018-2022 average expenditure for the Substation Transformer Bank Replacement Program is \$55.726 million per year.⁴²⁹ Escalating this amount by a factor of 1.059⁴³⁰ yields an escalated historical average of \$59.014 million in 2025. SCE requests \$66.405 million for TY 2025 for the Substation Transformer Bank Replacement

⁴²⁴ Ex. SCE-02, Vol. 05 at 140; SCE RO Model Inputs. Forecasted expenditures for TY 2025 for the Substation Transformer Bank Replacement Program as a whole are 22% higher than recorded expenditures for 2022. Substation Transformer Bank Replacement Program expenditures for 2025 are 93% CPUC-jurisdictional.

⁴²⁵ Ex. SCE-02, Vol. 05 at 140.

⁴²⁶ Ex. SCE-09 at 22.

⁴²⁷ Ex. SCE-09 at 22, FN 52.

⁴²⁸ Ex. SCE-09 at 22.

⁴²⁹ This figure includes both CPUC- and FERC-jurisdictional components. Ex. SCE-09 at 22.

⁴³⁰ In Ex. SCE-02, Vol. 04WP, SCE uses the following escalation factors to estimate unit costs for 2023-2028, relative to 2022: 1.036, 1.052, 1.059, 1.065, 1.077, 1.094.

Program, as a whole, which is \$7.391 million more than the escalated historical average.⁴³¹ 93% of SCE's request for TY 2025 is CPUC-jurisdictional (\$61.915 million); 93% of \$7.391 million is \$6.891 million.⁴³² Cal Advocates' recommendation for the CPUC-jurisdictional portion of SCE's forecasted expenditures for the Substation Transformer Bank Replacement Program is thus \$55.024 million for TY 2025, or \$6.891 million less than SCE's request of \$61.915 million.⁴³³

2. Within the Substation Preventative Maintenance Programs, the Edison Training Academy Should Be Completed Prior To More Funding Being Approved.

SCE requested \$3.482 million for T&D Equipment for the Edison Training Academy in TY 2025 and recorded \$0 in prior years.⁴³⁴ SCE included this amount in the Substation Preventative Maintenance program.⁴³⁵ Exhibit CA-22 describes Cal Advocates' review regarding the Edison Training Academy.

SCE has requested and been approved funding for the Edison Training Academy in the past two GRCs. However, the Edison Training Academy is still in an early phase, and only a small fraction of the approved funding for the Edison Training Academy has been spent.⁴³⁶ Given that the project has already been funded in two GRCs, it should not be funded again until it is complete. Therefore, Cal Advocates recommends memorandum-account treatment for capital expenditures associated with T&D Equipment for the Edison Training Academy, detailed in exhibit SCE-06, Volume 7, Workpaper Book B, page 109. This memorandum-account treatment would result in a recommended \$41.611 million for TY 2025 for Substation Preventative Maintenance, which is \$3.482 million less than SCE's \$45.093-million request, and would provide the

⁴³¹ Ex. SCE-09 at 22.

⁴³² Ex. SCE-09 at 22.

⁴³³ Ex. SCE-09 at 22.

⁴³⁴ Ex. SCE-09 at 23.

⁴³⁵ Ex. SCE-09 at 23.

⁴³⁶ Ex. CA-22 at 13-14.

potential for cost recovery of the adjusted amount in future rate cases.⁴³⁷ See Cal Advocates exhibit CA-22 for further discussion of costs associated with the Edison Training Academy.

X. GRID MODERNIZATION, GRID TECHNOLOGY, & ENERGY STORAGE

A. Grid Modernization

Grid Modernization BPE includes activities associated with Engineering & Planning (E&P) Software Tools, Communications, Grid Management System, Automation, and DER Hosting Capacity Reinforcement.⁴³⁸

E&P Software Tools includes capital expenditures used to develop the Grid Connectivity Model (GCM), Grid Analytics Applications (GAA), Long Term Planning Tool and System Modelling Tool (LTPT-SMT), Distribution Resources Plan External Portal (DRPEP), and Grid Interconnection Processing Tool (GIPT).⁴³⁹ Grid Management System includes capital expenditures used to develop the Advanced Distribution Management System (ADMS), DER Management System (DERMS) and Grid Platform (GP).⁴⁴⁰ Communications includes capital expenditures used to develop the Field Area Network (FAN) and Common Substation Platform (CSP).⁴⁴¹ Automation includes capital expenditures used to develop Reliability-driven Distribution Automation (RDA), DER-driven Distribution Automation (DDA), Small-scale Deployments (SSD), and DER-driven Substation Automation (DSA).⁴⁴² DER Hosting Capacity Reinforcement

⁴³⁷ Ex. CA-09 at 24.

⁴³⁸ Public Advocates Office, California Public Utilities Commission, Report on Results of Operations for Southern California Edison Company General Rate Case Test Year 2025, Grid Modernization, Grid Technology, and Energy Storage, Ex. CA-05 at 1.

⁴³⁹ Ex. CA-05 at 1.

⁴⁴⁰ Ex. CA-05 at 1.

⁴⁴¹ Ex. CA-05 at 1.

⁴⁴² Ex. CA-05 at 2.

includes capital expenditures used to develop the Subtransmission Relay Upgrade Program (SRUP).⁴⁴³

SCE requests \$170.8 million for 2023, \$181.9 million for 2024, and \$281.1 million for 2025, for Distribution Grid capital expenditures associated with Grid Modernization.⁴⁴⁴ SCE utilized a variety of methods to forecast these capital expenditures. Cal Advocates does not oppose SCE's requests for 2023-2025. However, Cal Advocates provides recommendations regarding some of SCE's Grid Modernization programs.

The Long Term Planning Tool and System Modelling Tool (LTPT-SMT) is used for forecasting, power system analysis, and work management functions that provide inputs for SCE's Integration Capacity Analysis (ICA) and annual grid-planning processes.⁴⁴⁵ In its workpapers, SCE proposed an in-service date of December 1, 2028, for the LTPT.⁴⁴⁶ Also, SCE proposed an in-service date of December 1, 2031, for the SMT.⁴⁴⁷

The DRPEP is a website used to provide the public with information about a distribution circuit's ability to connect DERs to each circuit section and publish information from the annual distribution-planning process.⁴⁴⁸ SCE proposed an in-service date of January 1, 2027, for the DRPEP.⁴⁴⁹

Cal Advocates asked SCE to clarify its requests for cost recovery for E&P software projects with in-service dates past 2025,⁴⁵⁰ and specifically, the LTPT-SMT and the DRPEP. SCE responded:

⁴⁴³ Ex. CA-05 at 2.

⁴⁴⁴ Southern California Edison, 2025 General Rate Case, Grid Modernization, Grid Technology, and Energy Storage, Ex. SCE-02, Vol. 06 at 4.

⁴⁴⁵ Ex. SCE-02, Vol. 06 at 55.

⁴⁴⁶ Ex. SCE-02, Vol. 06WP at 28.

⁴⁴⁷ Ex. SCE-02, Vol. 06WP at 29.

⁴⁴⁸ Ex. SCE-02, Vol. 06 at 59-60.

⁴⁴⁹ Ex. SCE-02, Vol. 06WP at 33.

⁴⁵⁰ Ex. CA-05 at 7, FN 10.

SCE notes that each of these tools is already in-service and that, during the 2025 GRC forecast period (2023-2028), these tools will continue to evolve through the completion of various releases. The use of specific in-service dates in the 2025 GRC workpapers – as well as the Results of Operations (RO) model – was therefore an oversight. These tools should have used the Blanket-Specifics 12/1/9999 in-service date designation, consistent with all the other engineering and planning (E&P) software tools. Blanket-Specifics budget items are used for capital expenditures with multiple efforts that are placed into service separately. The E&P tools are all delivered in multiple releases over time. Each of the releases is used and useful and they are closed to plant as they go into production.⁴⁵¹

The LTPT-SMT and DRPEP are already in-service and will continue to be updated over time, which is consistent with the Blanket Specific in-service date designation.⁴⁵² Cal Advocates does not oppose SCE’s assertion that the LTPT-SMT and DRPEP tools should use the Blanket-Specifics 12/1/9999 in-service date designation, consistent with all the other E&P software tools. Cal Advocates therefore recommends that the LTPT, SMT, and DRPEP use the Blanket-Specific 12/1/9999 in-service date designation in the RO model.⁴⁵³

B. Grid Technology Assessments, Pilots, & Adoption

1. Capital

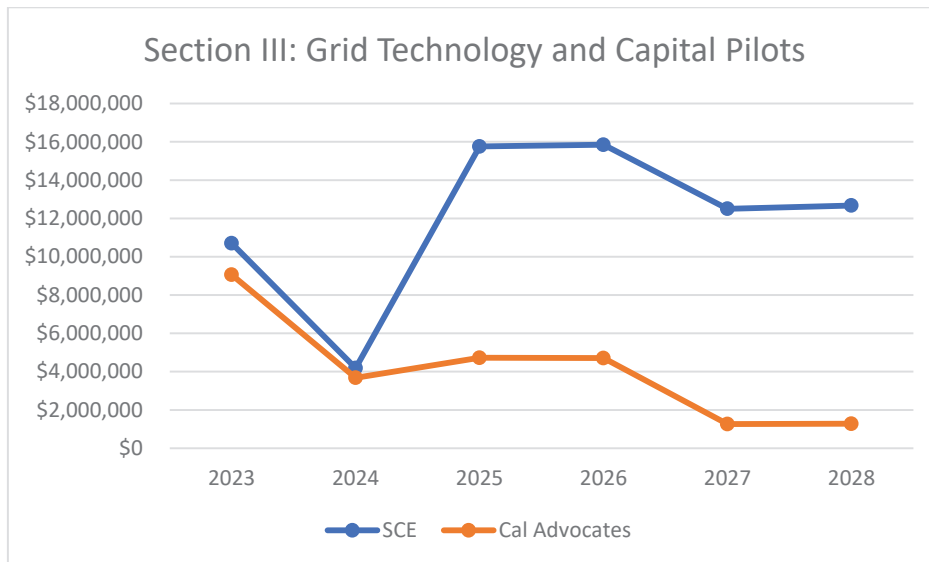
The graph below illustrates a comparison between SCE’s capital expenditure requests for grid technology assessments and capitol pilot projects and Cal Advocates’ recommendations for 2023-2028.

⁴⁵¹ Ex. CA-05 at 7, FN 10.

⁴⁵² Ex. CA-05 at 7.

⁴⁵³ Ex. CA-05 at 7.

**SCE's T&D Capital Expenditure Request vs. Cal Advocates'
Section III: Grid Technology and Capitol Pilot Projects
2023-2028 Forecast**



a) Cal Advocates does not oppose SCE's capital expenditure proposals for Grid Technology Assessment Programs.

SCE proposes \$24.714 million in capital expenditures over the 2023-2028 period for upgrades to its Grid Technology Laboratories.⁴⁵⁴ These upgrades include \$6.091 million for its Energy Storage and Transportation Electrification Test Facility at Pomona, \$17.818 million for its Fenwick Test Facility at Westminster, and \$0.805 million for its Equipment Demonstration and Evaluation Facility.⁴⁵⁵

Cal Advocates does not oppose SCE's forecasted 2023-2028 Grid Technology Laboratories capital expenditures.

SCE requested \$9.128 million in capital expenditures over the 2019-2021 period for upgrades to its Grid Technology Laboratories in its previous GRC Application. The Commission did not grant funding for the CoEnergy Storage and Transportation

⁴⁵⁴ Ex. SCE-02, Vol. 06 at 141E, Table III-20.

⁴⁵⁵ Ex. SCE-02, Vol. 06 at 141E, Table III-20.

Electrification Test Facility at Pomona because SCE planned to decommission the facility. Instead, SCE was authorized funding to expand the Fenwick Test Facility at Pomona to build an Energy Storage and Transportation Electrification Test Facility. This authorization included adding SCE also planned to add new test asset hardware to its Equipment Demonstration and Evaluation Facility.⁴⁵⁶ In this GRC application, SCE states that it decided to keep its transportation electrification testing at the Pomona facility and not move such testing to the Fenwick Test Facility.^{457 458}

SCE's 2023-2028 forecasts for its Distribution Grid capital activities for Grid Technology Assessment programs were based mostly on existing contracts, recent purchases, and engineering estimates.⁴⁵⁹ SCE's 2023 forecast includes proposed expansions in the Energy Storage and Transportation Electrification Test Facility to support the Research Hub for Electrical Technologies in Truck & Transportation Application (RHETTA) Electric Truck Research and Utilization Center (eTRUC) program, which was awarded to the Electric Power Research Institute in 2021.⁴⁶⁰ SCE's 2023-2026 forecasts also include updates of the Real-Time Digital Simulators to the latest NovaCor racks to perform Hardware-in-the-loop modeling and simulations at the Fenwick Test Facility.⁴⁶¹

The table below provides SCE's requests on a yearly basis for Grid Technology Assessment programs.

⁴⁵⁶ D.21-08-036, Decision on Test Year 2021 General Rate Case for Southern California Edison Company at 117-120.

⁴⁵⁷ Ex. SCE-02, Vol. 06 at 143, Lines 2-20.

⁴⁵⁸ "The expenditures in 2018 and 2019 for Grid Technology Laboratories were for various types of upgrades to the Fenwick, Garage of the Future, and Distributed Energy Resources labs. In 2020, the capital expenditures were for a Fenwick facility remodel, decommissioning activities for the Large Energy Storage Test Apparatus located at Shawnee and University of California Irvine, and a lab equipment expansion at the Substation Automation lab. Expenditures in 2021 were for a lab reconfiguration at Pomona Innovation Village, lab asset equipment expansion at Substation Automation lab, and lab hardware expansion at the Distribution Grid Analytics lab at the Fenwick Test Facility." Ex. SCE-02, Vol. 06 at 140, Lines 4-10.

⁴⁵⁹ Ex. SCE-02, Vol. 06 at 144, Line 31; at 145, Line 1; at 147, Lines 9-10; at 149, Lines 21-22.

⁴⁶⁰ Ex. SCE-02, Vol. 06 at 144, Lines 2-5.

⁴⁶¹ Ex. SCE-02, Vol. 06 at 146, Lines 23-27.

**Grid Technology Assessment Programs
SCE Forecast Capital Cost
(\$000)**

Description	2023	2024	2025	2026	2027	2028
Energy Storage and Transportation Electrification Test Facility	\$3,301	\$0	\$1,102	\$556	\$561	\$571
Fenwick Test Facility	\$5,636	\$3,550	\$3,491	\$4,010	\$563	\$568
Equipment Demonstration and Evaluation Facility	\$120	\$130	\$132	\$139	\$141	\$143
Total	\$9,057	\$3,680	\$4,725	\$4,705	\$1,265	\$1,282

Source: Ex. SCE-02, Vol. 06 at 141E.

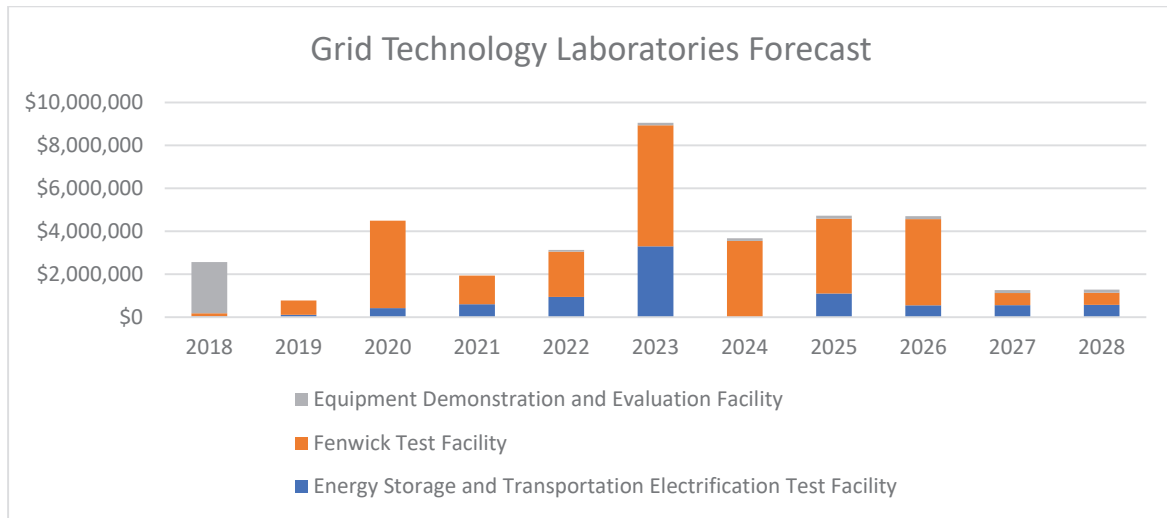
The table below provides SCE's recorded capital expenditures on a yearly basis for Grid Technology Assessment programs.

**Grid Technology Assessment Programs
2017-2022 Recorded Capital Expenditures
(\$000)**

Description	2018	2019	2020	2021	2022
Energy Storage and Transportation Electrification Test Facility	\$40	\$108	\$425	\$600	\$946
Fenwick Test Facility	\$140	\$668	\$4,071	\$1,337	\$2,107
Equipment Demonstration and Evaluation Facility	\$2,386	\$0	\$0	\$0	\$80
Total	\$2,566	\$776	\$4,496	\$1,937	\$3,133

The graph below illustrates SCE's requests on a yearly basis for 2023-2028 in comparison to the recorded costs for 2018-2022.

Grid Technology Assessment Program Recorded and 2023-2028 Forecast



For SCE’s capital expenditures requests for its Grid Technology Assessment Program, Cal Advocates requested additional details for each test facility on the planned upgrades and expansions, including dollar amounts for supporting contracts and purchases,⁴⁶² planned operational dates,⁴⁶³ any cost-benefit analyses performed,⁴⁶⁴ the technical problems unique to SCE that these upgrades would address,⁴⁶⁵ steps taken to identify cheaper alternative options to solve those technical problems,⁴⁶⁶ and the upgrade cycle for facility equipment.⁴⁶⁷ For the Energy Storage and Transportation Electrification Facility, Cal Advocates also reviewed the Letter of Intended Commitment for SCE’s role in eTRUC RHETTA, which was submitted to the California Energy Commission.⁴⁶⁸

⁴⁶² Cal Advocates data request PubAdv-SCE-177-STN, Q.3., Q.5., and Q.6.

⁴⁶³ Cal Advocates data request PubAdv-SCE-297-STN, Q.1.a., Q.2.a., and Q.3.a.

⁴⁶⁴ Cal Advocates data request PubAdv-SCE-297-STN, Q.2.b. and Q.3.b.

⁴⁶⁵ Cal Advocates data request PubAdv-SCE-339-STN, Q.1.a., Q.2.a., and Q.3.a.

⁴⁶⁶ Cal Advocates data request PubAdv-SCE-339-STN, Q.1.b., Q.2.b., and Q.3.b.

⁴⁶⁷ Cal Advocates data request PubAdv-SCE-369-STN, Q.2., Q.3., and Q.4.

⁴⁶⁸ Cal Advocates data request PubAdv-SCE-177-STN, Q.4.b.

Cal Advocates does not oppose SCE's: 1) proposed capital expenditures for the Grid Technology Assessment Program; 2) \$6.091 million request over the 2023-2028 period for upgrades and expansions to the Energy Storage and Transportation Electrification Test Facility; 3) \$17.818 million request over the 2023-2028 period for upgrades and expansions to the Fenwick Test Facility;⁴⁶⁹ and 4) \$0.805 million request over the 2023-2028 period for upgrades to the Equipment Demonstration and Evaluation Facility.

b) SCE has failed to demonstrate that all its capital pilot projects will benefit ratepayers

SCE proposes \$46.953 million in capital expenditures over the 2023-2028 period to initiate various Capital Pilot Projects.⁴⁷⁰ These capital expenditures include \$6.351 million for the Smart City Pilot Project, \$3.940 million for Virtual Programmable Automation Controller (PAC) Pilot Project, \$8.725 million for the Virtual Protection Pilot Project, \$6.220 million for Adaptive Protection Pilot Project, \$14.607 million for the DC Link Pilot Project, and \$7.111 million worth of upgrades to the Service Center of the Future Pilot Project. SCE did not request capital expenditures during 2019-2021 period for Capital Pilot Projects in its previous General Rate Case Application.⁴⁷¹

Cal Advocates recommends that the Commission adopt \$0 in capital expenditures over the 2023-2028 period to initiate SCE's Capital Pilot Projects, versus SCE's request for \$46.955 million over the same period. Specifically, Cal Advocates recommends a downward adjustment of \$1.642 million for 2023, \$0.505 million for 2024, \$11.035 million for 2025, \$11.141 million for 2026, \$11.238 million for 2027, and \$11.393 million for 2028 for a total downward adjustment of \$46.955 million.

SCE's 2023-2025 forecasts for its Distribution Grid capital activities for capital pilot projects were based mostly on Electric Program Investment Charge (EPIC) program

⁴⁶⁹ SCE explained the Fenwick Test Facility is part of a 5-10 year upgrade cycle. Cal Advocates, however, was unable to distinguish between routine upgrades versus expansions. Ex.CA-?? at ??.

⁴⁷⁰ Ex. SCE-02, Vol. 06 at 150, Table III-23.

⁴⁷¹ Ex. SCE-02, Vol. 06 at 150, Table III-23.

projects.⁴⁷² The Smart City Project uses microgrids to provide grid resiliency to essential community facilities.⁴⁷³ The Virtual PAC Project seeks to reduce reliance on proprietary legacy substation control hardware in favor of modern standardized technologies.⁴⁷⁴ The Virtual Protection Project focuses on the virtualization of appliance-based protection equipment to utilize the flexibility and interoperability of substation process busses.⁴⁷⁵ The Adaptive Protection Project focuses on adaptive protection to enhance grid operational reliability under changing conditions.⁴⁷⁶ The DC Link Project is focused on battery energy storage connectivity with DC Link to improve operational flexibility between load circuit transfers.⁴⁷⁷ The Service Center of the Future Project is focused on advanced alternative service and control methods for high-power and high-energy electric transportation fleet depots.⁴⁷⁸

The table below provides SCE's requests on a yearly basis for Capital Pilot Projects.

**Capital Pilot Projects
SCE Forecast Capital Cost
(\$000)**

Description	2023	2024	2025	2026	2027	2028
Smart Cities	\$1,642	\$505	\$3,090	\$1,114	\$0	\$0
Virtual PAC	\$0	\$0	\$2,152	\$1,114	\$674	\$0
Virtual Protection	\$0	\$0	\$2,538	\$3,008	\$787	\$2,393
Adaptive Protection	\$0	\$0	\$0	\$668	\$2,248	\$3,304
DC Link	\$0	\$0	\$1,655	\$3,899	\$4,495	\$4,557
Service Center of the Future	\$0	\$0	\$1,600	\$1,337	\$3,034	\$1,139
Total	\$1,642	\$505	\$11,035	\$11,141	\$11,238	\$11,393

⁴⁷² Ex. SCE-02, Vol. 06 at 150, Lines 5-17.

⁴⁷³ Ex. SCE-02, Vol. 06 at 150, Lines 18-19.

⁴⁷⁴ Ex. SCE-02, Vol. 06 at 150, Lines 19-21.

⁴⁷⁵ Ex. SCE-02, Vol. 06 at 150, Line 21-p.151, Line 1.

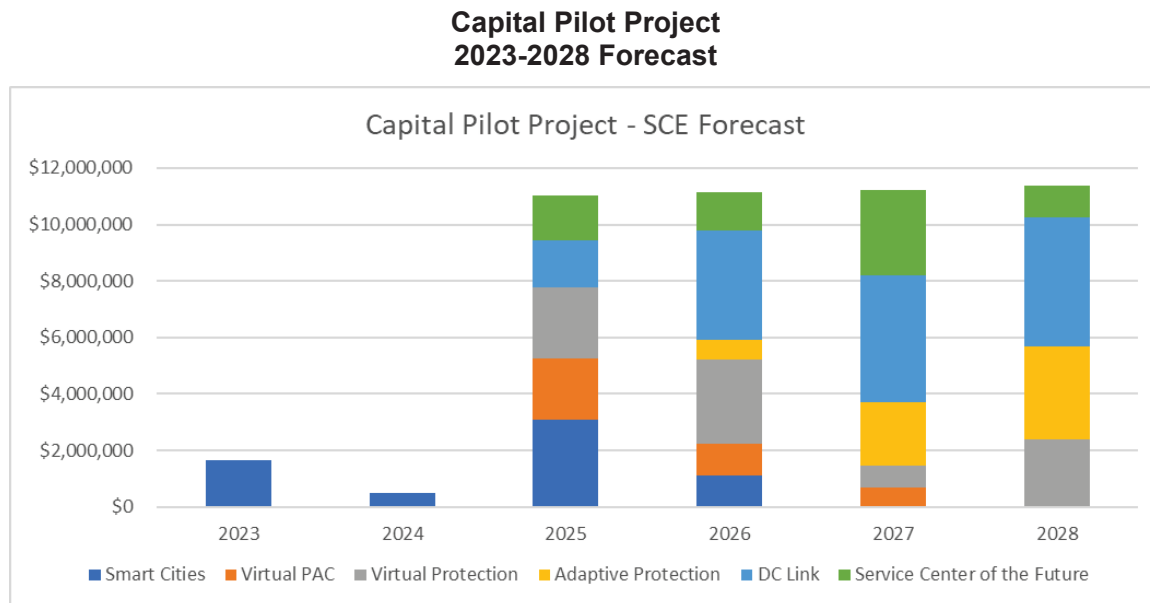
⁴⁷⁶ Ex. SCE-02, Vol. 06 at 151, Lines 1-2.

⁴⁷⁷ Ex. SCE-02, Vol. 06 at 151, Lines 3-4.

⁴⁷⁸ Ex. SCE-02, Vol. 06 at 150, Lines 4-5.

Source: Ex. SCE-02, Vol. 06 at 150, Table III-23.

The graph below illustrates SCE’s requested capital expenditure on a yearly basis for 2023-2028.



For SCE’s capital expenditures for Capital Pilot Projects, Cal Advocates requested additional details on each project, including the recorded cost for precursor projects,⁴⁷⁹ any projected cost savings,⁴⁸⁰ planned operational dates,⁴⁸¹ any cost-benefit analyses performed,⁴⁸² cost estimates for any alternative solutions considered,⁴⁸³ the technical problems unique to SCE that these projects would address,⁴⁸⁴ steps taken to identify cheaper alternative options to solve those technical problems,⁴⁸⁵ and the purpose of the project.⁴⁸⁶

⁴⁷⁹ Ex. CA-06 at 18.

⁴⁸⁰ Ex. CA-06 at 18.

⁴⁸¹ Ex. CA-06 at 18.

⁴⁸² Ex. CA-06 at 18.

⁴⁸³ Ex. CA-06 at 18.

⁴⁸⁴ Ex. CA-06 at 18.

⁴⁸⁵ Ex. CA-06 at 18.

⁴⁸⁶ Ex. CA-06 at 18.

Cal Advocates examined each project using the following criteria:

1. Did SCE demonstrate that the project would be used and useful before the end of 2028?⁴⁸⁷
2. Did SCE demonstrate that the benefits of the project would meet or exceed the cost to the ratepayers?
3. Did SCE demonstrate that the project would address problems that are unique to SCE?⁴⁸⁸
4. Did SCE demonstrate that other more cost-effective options do not exist for doing this research?⁴⁸⁹

SCE has failed to meet its burden for the Commission to authorize funding for any of these programs. In many cases, the project was either used and useful outside the GRC period or used and useful on the last possible day. SCE never performed a cost-benefit analysis for any of these pilots. All of these projects dealt with problems common to other utilities. SCE provided insufficient evidence that a cost-effective alternative was considered.

In sum, it would be unreasonable for the Commission to waste ratepayer funding on SCE's speculative programs.

c) The Commission should reject SCE's Smart City Pilot because SCE has not demonstrated the Smart City Pilot will be used and useful during this GRC period nor that ratepayer benefit exceeds the costs.

SCE requests \$6.351 million during 2023-2026 for the Smart City Pilot Project,⁴⁹⁰ which partners SCE with the city of Porterville, CA to advance a community microgrid

⁴⁸⁷ D.21-08-036 at 209. "Generally speaking, the Commission has determined that plant which is not used and useful should be excluded from rate base."

⁴⁸⁸ D.21-08-036 at 119. "Consistent with D.15-11-021, we continue to consider whether the facilities would address problems that are unique to SCE, and that other more cost-effective options do not exist for doing this research."

⁴⁸⁹ D.21-08-036 at 119.

⁴⁹⁰ Ex. SCE-02, Vol. 06 at 150, Table III-23.

for grid resiliency.⁴⁹¹ Cal Advocates recommends \$0 for SCE’s Smart City Pilot Project.⁴⁹² The table below provides SCE’s requested capital expenditures on a yearly basis for the Smart City Pilot Project.

**Smart City Pilot
SCE Forecast Capital Cost
(\$000)**

Description	2023	2024	2025	2026	2027	2028	Total
T&D Hardware & Software	\$400	\$125	\$600	\$200	\$0	\$0	\$1,325
IT Hardware & Software	\$500	\$125	\$550	\$0	\$0	\$0	\$1,175
T&D Engineering	\$300	\$125	\$1,000	\$200	\$0	\$0	\$1,625
IT Engineering & Architecture	\$300	\$130	\$300	\$200	\$0	\$0	\$930
Construction	\$142	\$0	\$350	\$400	\$0	\$0	\$892
Total	\$1,642	\$505	\$2,800	\$1,000	\$0	\$0	\$5,947

Source: Ex. SCE-02, Vol. 06, p. 153, Table III-24.

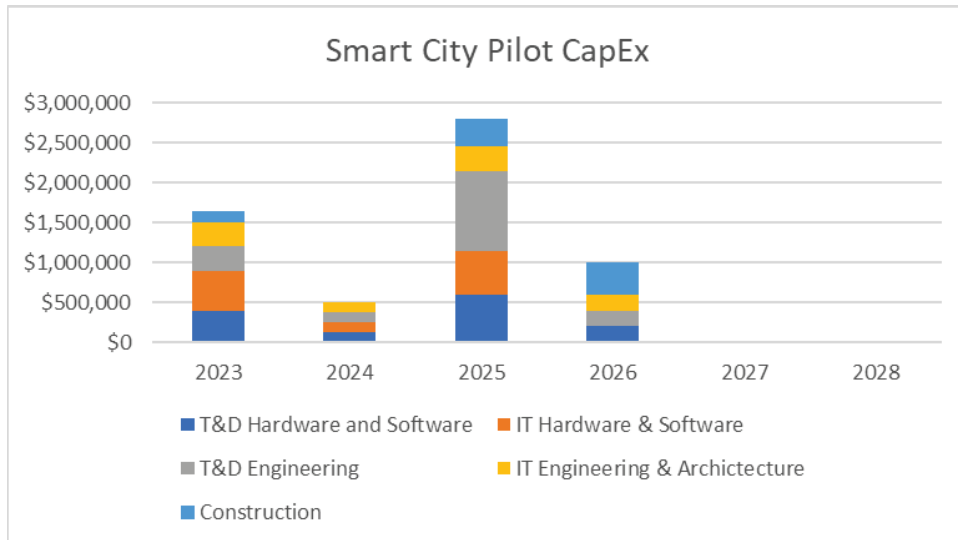
The breakdown of expenditures that SCE provided above equals \$5.947 million, which is \$0.404 million less than the \$6.351 million it requested.

The graph below illustrates SCE’s requested capital expenditure on a yearly basis for the Smart Cities Pilot Project.

⁴⁹¹ Ex. SCE-02, Vol. 06 at 151, Lines 22-23.

⁴⁹² Ex. CA-06 at 19.

Smart City Pilot 2023-2028 Forecast



SCE cannot demonstrate the Smart City Pilot Project will be used and useful by 2026 and instead contends that the Smart City Pilot Project will be operational by 2027.⁴⁹³ SCE explains that the operational date is dependent on approval of the EPIC project.⁴⁹⁴ Further, SCE is in the process of negotiating with the city of Porterville, CA to host the Smart City Pilot Project, but has not finalized the agreement.⁴⁹⁵ SCE believes that the agreement will be finalized in Q2 of 2024.⁴⁹⁶ Despite these speculations, SCE has not demonstrated the Smart City Pilot Project will be used and useful within the 2023-2028 period.

SCE has also failed to demonstrate that the benefits of the project would meet or exceed the cost to the ratepayers. SCE has not conducted any cost savings analysis or cost-benefit analysis for this pilot, asserting that such analysis cannot occur until such time as the EPIC project has been completed.⁴⁹⁷ This all indicates that this project is not

⁴⁹³ Ex. CA-06 at 20.

⁴⁹⁴ Ex. CA-06 at 20.

⁴⁹⁵ Ex. CA-06 at 20.

⁴⁹⁶ Ex. CA-06 at 20.

⁴⁹⁷ Ex. CA-06 at 21.

fully mature and should not be funded in this GRC. Instead of seeking this funding in this GRC, SCE could file an application to recover its expected costs when the EPIC project is completed.

Further, SCE has not applied lessons learned from the Microgrid Incentive Program to the Smart City Pilot Project. The Commission has ruled that SCE has access to \$83.340 million to establish microgrids, along with \$8 million in administrative costs, from the Microgrid Incentive Program.⁴⁹⁸ With these microgrids already funded by ratepayers, SCE has not demonstrated further advantages to ratepayers with spending an additional \$5.947 million on another microgrid.

SCE has failed to demonstrate that the Smart City Pilot Project would address problems unique to SCE. SCE wrongly asserts that the Smart City Pilot Project addresses the required infrastructure improvements to integrate microgrids to the SCE grid and enable SCE to establish standards and processes.⁴⁹⁹ In contrast, Pacific Gas and Electric Company (PG&E) had to integrate the Redwood Coast Airport Microgrid into the PG&E grid. Also, San Diego Gas and Electric Company (SDG&E) had to integrate the Borrego Springs Microgrid into the SDG&E grid. Thus, these concerns are not unique to SCE.

SCE has also failed to demonstrate that other cost-effective alternatives do not exist. In fact, SCE admits that it did not consider any alternatives to the Smart City Pilot Project.⁵⁰⁰ As previously discussed, the Microgrid Incentive Program already provides SCE the opportunity to solve the issues that the Smart City Pilot Project would address.

Overall, SCE has failed to meet its burden for the Commission to approve any funding for this program. Cal Advocates' recommendation is not to fund any of SCE's requested programs. SCE did not provide sufficient evidence that any of these projects provided benefits that would exceed the costs. Further, many of them were incursions into outside

⁴⁹⁸ Decision Adopting Implementation Rules for the Microgrid Incentive Program, at 86, Ordering Paragraph (OP) 8.

⁴⁹⁹ Ex. CA-06 at 21.

⁵⁰⁰ Ex. CA-06 at 21.

markets. Finally, many of them have a used and useful date at the end of the GRC period (and in one case after the GRC period), meaning any delay would push it well past.

d) SCE’s Virtual PAC Pilot should be rejected because SCE has not demonstrated the Virtual PAC Pilot will be used and useful during this GRC period nor that ratepayer benefit exceeds the costs.

SCE requests \$3.940 million during 2025-2027 for the Virtual PAC Pilot Project.⁵⁰¹ The Virtual PAC Pilot Project installs a virtual IEC 61850 capable PAC onto the common substation platform that also hosts the substation Human Machine Interface (HMI).⁵⁰² Cal Advocates recommends \$0 for SCE’s Virtual PAC Pilot Project.⁵⁰³ The table below provides SCE’s requested capital expenditures on a yearly basis for the Virtual PAC Pilot Project.

**Virtual PAC
SCE Forecast Capital Cost
(\$000)**

Description	2023	2024	2025	2026	2027	2028	Total
T&D Hardware & Software	\$0	\$0	\$441	\$223	\$0	\$0	\$664
IT Hardware & Software	\$0	\$0	\$441	\$0	\$0	\$0	\$441
T&D Engineering	\$0	\$0	\$607	\$223	\$0	\$0	\$830
IT Engineering & Architecture	\$0	\$0	\$662	\$0	\$0	\$0	\$662
Construction	\$0	\$0	\$0	\$668	\$674	\$0	\$1,343
Total	\$0	\$0	\$2,152	\$1,114	\$674	\$0	\$3,940

Source: Ex. SCE-02, Vol. 06 at 155, Table III-25.

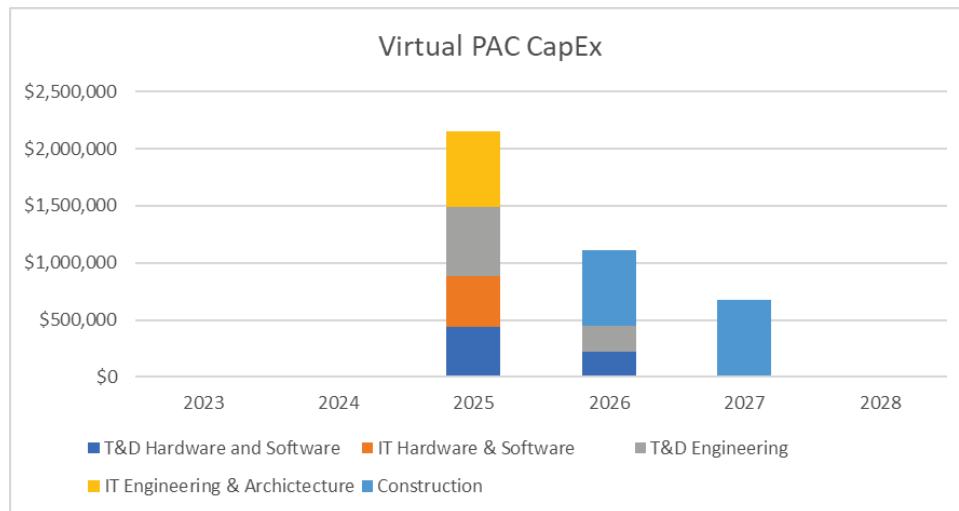
The graph below illustrates SCE’s requested capital expenditure on a yearly basis for the Virtual PAC Pilot Project.

⁵⁰¹ Ex. SCE-02, Vol. 06 at 150, Table III-23.

⁵⁰² Ex. SCE-02, Vol. 06 at 153, Lines 10-12.

⁵⁰³ Ex. CA-06 at 22.

Virtual PAC Pilot 2023-2028 Forecast



SCE asserts the Virtual PAC Pilot Project will be used and useful by 2028 and that the Virtual PAC Pilot Project will be operational by December 31, 2027. However, SCE cannot confirm those dates.⁵⁰⁴ Since the Virtual PAC Pilot Project’s operational date is dependent on completion of the EPIC project,⁵⁰⁵ SCE cannot demonstrate it will be used and useful within the 2023-2028 period.

SCE has provided little to show that this timeline is reasonable. To recover costs, the project should be used and useful within the GRC period.

SCE also fails to demonstrate that the project would provide a benefit to ratepayers that would meet or exceed the cost. In fact, SCE has not conducted any cost savings analysis or cost-benefit analysis for this pilot, asserting that such analysis cannot occur until the EPIC project has been completed.⁵⁰⁶ This indicates that this project is not fully mature. The Commission should therefore reject SCE’s request for funding of the Virtual PAC Pilot Project in this GRC cycle. Rather than seeking funding in this GRC,

⁵⁰⁴ Ex. CA-06 at 23.

⁵⁰⁵ Ex. CA-06 at 23.

⁵⁰⁶ Ex. CA-06 at 23.

SCE could file an application seeking cost recovery for this program when the EPIC project is completed.

Moreover, SCE fails to demonstrate that the Virtual PAC Project would address problems unique to SCE. SCE incorrectly asserts that the Virtual PAC Pilot Project enables SCE to establish standards and processes for integration of the Virtual PAC technology.⁵⁰⁷ Yet, the establishment of standards for the integration of the Virtual PAC technology is not a concern unique to SCE.

SCE is a customer of the Virtual PAC technology, not a seller in the Virtual PAC business. Research and development into this technology is not justified by SCE's business model. To reduce rates, SCE should be a technology follower and not a technology leader. If SCE was trying to obtain market advantage on a competitor, then this kind of R&D would make sense, but not in a regulated utility market with a captive customer base. SCE should let companies that specialize in this technology perform the R&D and then benefit from their research.

Beyond that, SCE has failed to demonstrate that other cost-effective alternatives do not exist. In fact, SCE admits that it did not consider any alternatives to the Virtual PAC Pilot Project.⁵⁰⁸

Overall, SCE has failed to meet its burden for the Commission to approve any funding for this program. Therefore, Cal Advocates recommends a downward adjustment of \$2.152 million in 2025, \$1,114 million in 2026, and \$0.674 million in 2027 for a total downward adjustment of \$3.940 million.

⁵⁰⁷ Ex. CA-06 at 24.

⁵⁰⁸ Ex. CA-06 at 24.

- e) **The Commission should reject SCE’s Virtual Protection Pilot Project because SCE has not demonstrated the Virtual Protection Pilot will be used and useful during this GRC period nor that ratepayer benefit exceeds the costs.**

SCE requests \$8.725 million during 2025-2028 for the Virtual Protection Pilot Project.⁵⁰⁹ The Virtual Protection Pilot Project validates the capabilities of a process bus implementation and virtualization of protection equipment.⁵¹⁰ Cal Advocates recommends \$0 for SCE’s Virtual PAC Pilot Project.⁵¹¹ The table below provides SCE’s requested capital expenditures on a yearly basis for the Virtual Protection Pilot Project.

**Virtual Protection
SCE Forecast Capital Cost
(\$000)**

Description	2023	2024	2025	2026	2027	2028	Total
T&D Hardware & Software	\$0	\$0	\$662	\$446	\$0	\$228	\$1,336
IT Hardware & Software	\$0	\$0	\$883	\$446	\$0	\$684	\$2,012
T&D Engineering	\$0	\$0	\$441	\$446	\$0	\$570	\$1,457
IT Engineering & Architecture	\$0	\$0	\$552	\$557	\$0	\$570	\$1,678
Construction	\$0	\$0	\$0	\$1,114	\$787	\$342	\$2,243
Total	\$0	\$0	\$2,538	\$3,008	\$787	\$2,393	\$8,725

Source: Ex. SCE-02, Vol. 06 at 156, Table III-26.

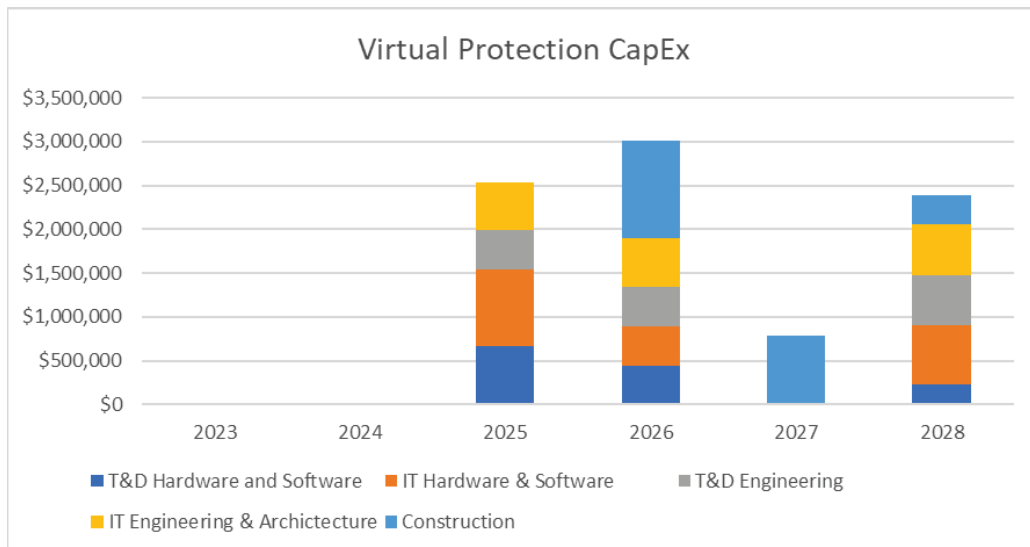
The graph below SCE’s requested capital expenditure on a yearly basis for the Virtual Protection Pilot Project.

⁵⁰⁹ Ex. SCE-02, Vol. 06 at 150, Table III-23.

⁵¹⁰ Ex. SCE-02, Vol. 06 at 155, Lines 11-13.

⁵¹¹ Ex. CA-06 at 24.

Virtual Protection Pilot 2023-2028 Forecast



SCE contends that the Virtual Protection Pilot Project will be used and useful by 2028, but cannot ensure that date. Instead, SCE projects an in-service date for the Virtual Protection Pilot Project of December 31, 2028.⁵¹² SCE explains that the operational date is dependent on completion of the related EPIC project.⁵¹³ Any delay on this project would push its used and useful date outside the 2023-2028 period. SCE unrealistically assumes no delays and has thereby failed to establish that this project will be used and useful by 2028.

SCE has failed to demonstrate that the project would provide a benefit to ratepayers that would meet or exceed the cost. SCE has not conducted any cost savings analysis or cost-benefit analysis for this pilot, and instead asserts that such analysis cannot occur until the EPIC project has been completed.⁵¹⁴ This indicates the Virtual Protection Pilot Project is not fully mature and should not be included in this GRC cycle.

⁵¹² Ex. CA-06 at 25.

⁵¹³ Ex. CA-06 at 26.

⁵¹⁴ Ex. CA-06 at 26.

Rather than seeking funding in this GRC, SCE could file an application seeking cost recovery for this project when the EPIC project is completed.

SCE has also failed to demonstrate that the Virtual Protection Project would address problems unique to SCE. SCE asserts that the Virtual Protection Pilot Project enables SCE to establish standards and processes for integration of the Virtual Protection technology.⁵¹⁵ The establishing of standards for the integration of Virtual Protection technology is not a concern unique to SCE. SCE is a customer of Virtual Protection, not a seller in the Virtual Protection business.

SCE has also failed to demonstrate that other cost-effective alternatives do not exist. In fact, SCE admits that it did not consider any alternatives to the Virtual Protection Pilot.⁵¹⁶

SCE has failed to meet its burden for the Commission to approve any funding for this program. Therefore, Cal Advocates recommends a downward adjustment of \$2.538 million in 2025, \$3.008 million in 2026, \$0.787 million in 2027, \$2.393 million for a total downward adjustment of \$8.725 million.

f) The Commission should reject SCE's Adaptive Protection Pilot Project because SCE has not demonstrated the Adaptive Protection Pilot will be used and useful during this GRC period nor that ratepayer benefit exceeds the costs.

SCE requests \$6.220 million over the 2026-2028 period for the Adaptive Protection Pilot Project,⁵¹⁷ which would enable SCE to validate the scalability of adaptive protection technology and evaluate the interaction of this technology with the back-office applications that manage the operation of the grid.⁵¹⁸ Cal Advocates recommends \$0 for SCE's Adaptive Protection Pilot Project.⁵¹⁹ The table below provides

⁵¹⁵ Ex. CA-06 at 26.

⁵¹⁶ Ex. CA-06 at 26.

⁵¹⁷ Ex. SCE-02, Vol. 06 at 150, Table III-23.

⁵¹⁸ Ex. SCE-02, Vol. 06 at 157, Lines 19-21.

⁵¹⁹ Ex. CA-06 at 27.

SCE's requested capital expenditures on a yearly basis for the Adaptive Protection Pilot Project.

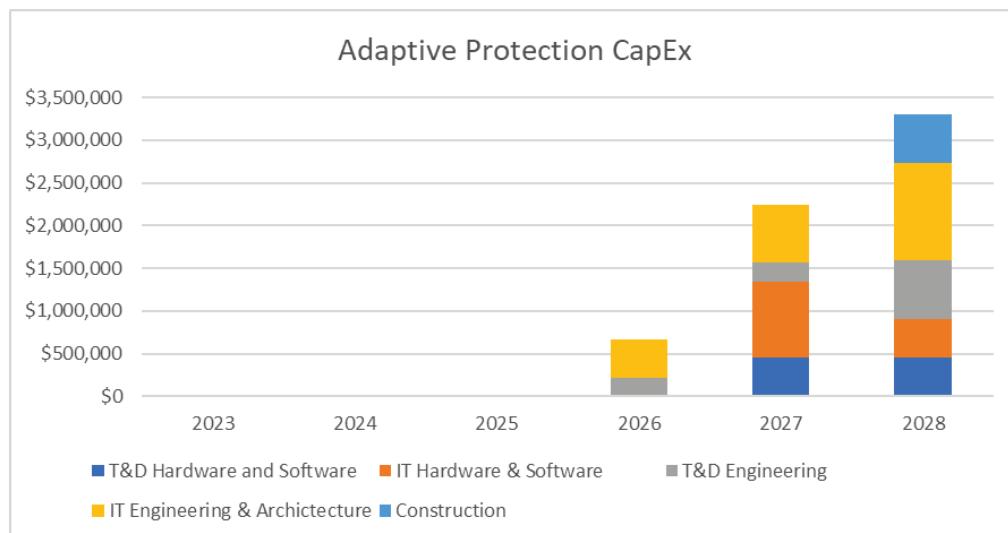
**Adaptive Protection
SCE Forecast Capital Cost
(\$000)**

Description	2023	2024	2025	2026	2027	2028	Total
T&D Hardware & Software	\$0	\$0	\$0	\$0	\$450	\$456	\$905
IT Hardware & Software	\$0	\$0	\$0	\$0	\$899	\$456	\$1,355
T&D Engineering	\$0	\$0	\$0	\$223	\$225	\$684	\$1,131
IT Engineering & Architecture	\$0	\$0	\$0	\$446	\$674	\$1,139	\$2,259
Construction	\$0	\$0	\$0	\$0	\$0	\$570	\$570
Total	\$0	\$0	\$0	\$668	\$2,248	\$3,304	\$6,220

Source: Ex. SCE-02, Vol. 06 at 158, Table III-27.

The graph below illustrates SCE's requested capital expenditure on a yearly basis for the Adaptive Protection Pilot Project.

**Adaptive Protection Pilot
2023-2028 Forecast**



SCE admits that the Adaptive Protection Pilot Project will not be used and useful by 2028, and instead projects an in-service date for the Adaptive Protection Pilot Project of December 31, 2029.⁵²⁰ SCE also admits that the operational date is dependent on completion of the related EPIC project.⁵²¹

SCE has also failed to demonstrate that the project would provide a benefit to ratepayers that would meet or exceed the cost. SCE has not conducted any cost savings analysis or cost-benefit analysis for this pilot, asserting that such analysis cannot occur till the EPIC project has been completed.⁵²² Thus, this indicates that the Adaptive Protection Pilot Project is not fully mature and should not be included in this GRC cycle. Rather than seek funding for this program in this GRC, SCE could file an application seeking recovery after the EPIC project is completed.

SCE has also failed to demonstrate that the Adaptive Protection Pilot Project would address problems unique to SCE. SCE asserts that the Adaptive Protection Pilot Project enables SCE to establish standards, training, and operational guidance for integration of the Adaptive Protection technology.⁵²³

Establishing standards for the integration of Virtual Protection technology is not a concern unique to SCE. SCE is a customer of machine learning applications, not a seller in this market. Research and development into this technology is not justified by SCE's business model. To reduce rates, SCE should be a technology follower and not a technology leader. If SCE was trying to obtain market advantage on a competitor, then this kind of R&D would make sense, but not in a regulated utility market with a captive customer base. SCE should let companies that specialize in this technology perform the R&D and then benefit from their research.

⁵²⁰ Ex. CA-06 at 28.

⁵²¹ Ex. CA-06 at 28.

⁵²² Ex. CA-06 at 28.

⁵²³ Ex. CA-06 at 28.

Also, SCE has failed to demonstrate that other cost-effective alternatives do not exist. In fact, SCE admits that it did not consider any alternatives to the Adaptive Protection Pilot Project.⁵²⁴

Overall, SCE has failed to meet its burden for the Commission to approve any funding for this program. Therefore, Cal Advocates recommends a downward adjustment of \$0.668 million in 2026, \$2.248 million in 2027, \$3.304 million for a total downward adjustment of \$6.220 million.

- g) The Commission should reject SCE's DC Link Pilot Project because SCE has not demonstrated SCE's DC Link Pilot Project will be used and useful during their GRC period nor that ratepayer benefit exceeds the costs.**

SCE requests \$14.607 million from 2025-2028 for the DC Link Pilot Project,⁵²⁵ which implements one or more battery energy storage systems capable of connecting two adjacent circuits.⁵²⁶ Cal Advocates recommends \$0 for SCE's DC Link Pilot Project.⁵²⁷ The table below provides SCE's requested capital expenditures on a yearly basis for the DC Link Pilot Project.

⁵²⁴ Ex. CA-06 at 28.

⁵²⁵ Ex. SCE-02, Vol. 06 at 150, Table III-23.

⁵²⁶ Ex. SCE-02, Vol. 06 at 159, Lines 3-4.

⁵²⁷ Ex. CA-06 at 29.

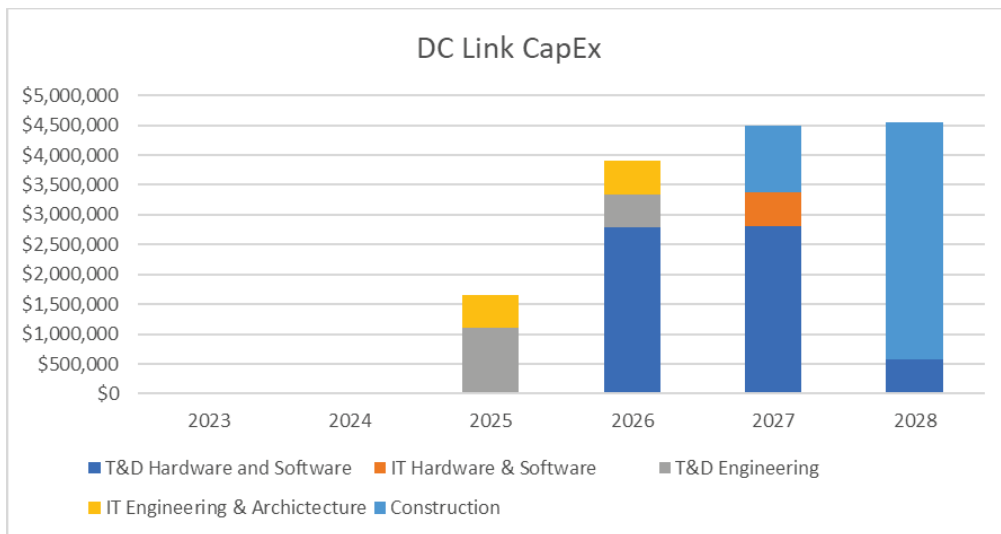
**DC Link
SCE Forecast Capital Cost
(\$000)**

Description	2023	2024	2025	2026	2027	2028	Total
T&D Hardware & Software	\$0	\$0	\$0	\$2,785	\$2,810	\$570	\$6,164
IT Hardware & Software	\$0	\$0	\$0	\$0	\$562	\$0	\$562
T&D Engineering	\$0	\$0	\$1,104	\$557	\$0	\$0	\$1,661
IT Engineering & Architecture	\$0	\$0	\$552	\$557	\$0	\$0	\$1,109
Construction	\$0	\$0	\$0	\$0	\$1,124	\$3,988	\$5,111
Total	\$0	\$0	\$1,655	\$3,899	\$4,495	\$4,557	\$14,607

Source: Ex. SCE-02, Vol. 06 at 160, Table III-28.

The graph below illustrates SCE’s requested capital expenditure on a yearly basis for the DC Link Pilot Project.

**DC Link Pilot
2023-2028 Forecast**



SCE contends that the DC Link Pilot Project will be used and useful by the end of 2028 but cannot ensure that date. Instead, SCE projects an in-service date for the DC Link Pilot Project of December 31, 2028. SCE asserts the operational date is dependent on completion of the related EPIC project.⁵²⁸ A delay in the EPC project would push its used and useful date outside the 2023-2028 period. SCE's inherent assumption that there will be no delays is unreasonable. SCE has failed to establish that the project will be used and useful by the end of 2028.

SCE has also failed to demonstrate that the project would provide a benefit to ratepayers that would meet or exceed the cost. SCE has not conducted any cost savings analysis or cost-benefit analysis for this pilot and instead asserts such scoping cannot occur until the EPIC project has been completed.⁵²⁹ Without an affirmative demonstration that the project is in the ratepayer interest, it would be unreasonable for the Commission to authorize any ratepayer funding for the project. Rather than seeking funding in this GRC, SCE could file an application for this project when the EPIC project is completed.

Additionally, SCE has failed to demonstrate that the DC Link Pilot Project would address problems unique to SCE. SCE asserts that the DC Link Pilot Project enables SCE to establish standards, maintenance, and operating practices of the DC Link technology.

The establishing of standards for the integration of DC Link technology is not a concern unique to SCE. SCE is a battery customer, not a seller in the battery market. . Research and development into this technology is not justified by SCE's business model. To reduce rates, SCE should be a technology follower and not a technology leader. If SCE was trying to obtain market advantage on a competitor, then this kind of R&D would make sense, but not in a regulated utility market with a captive customer base.

⁵²⁸ Ex. CA-06 at 30.

⁵²⁹ Ex. CA-06 at 30.

SCE should let companies that specialize in this technology perform the R&D and then benefit from their research.

SCE has also failed to demonstrate that the other cost-effective alternatives do not exist. In fact, SCE admits that it did not consider any alternatives to the DC Link Pilot Project.⁵³⁰

Overall, SCE has failed to meet its burden for the Commission to approve any funding for this program. Therefore, Cal Advocates recommends a downward adjustment of \$1.655 million in 2025, \$3.899 million in 2026, \$4.495 million in 2027, \$4.557 million for a total downward adjustment of \$14.607 million.

- h) The Commission should reject SCE's Service Center of the Future Pilot Project because SCE has not demonstrated SCE's Service Center of the Future Pilot Project will be used and useful during this GRC period nor that ratepayer benefit exceeds the costs.**

SCE requests \$7.111 million over the 2025-2028 period for the Service Center of the Future Pilot Project,⁵³¹ which will enable SCE to develop a new standard for providing service to large transportation load centers.⁵³² Cal Advocates recommends \$0 for SCE's Service Center of the Future Pilot Project.⁵³³ The table below provides SCE's requested capital expenditures on a yearly basis for the Service Center of the Future Pilot Project.

⁵³⁰ Ex. CA-06 at 31.

⁵³¹ Ex. SCE-02, Vol. 06 at 150, Table III-23.

⁵³² Ex. SCE-02, Vol. 06 at 160, Lines 9-11.

⁵³³ Ex. CA-06 at 31.

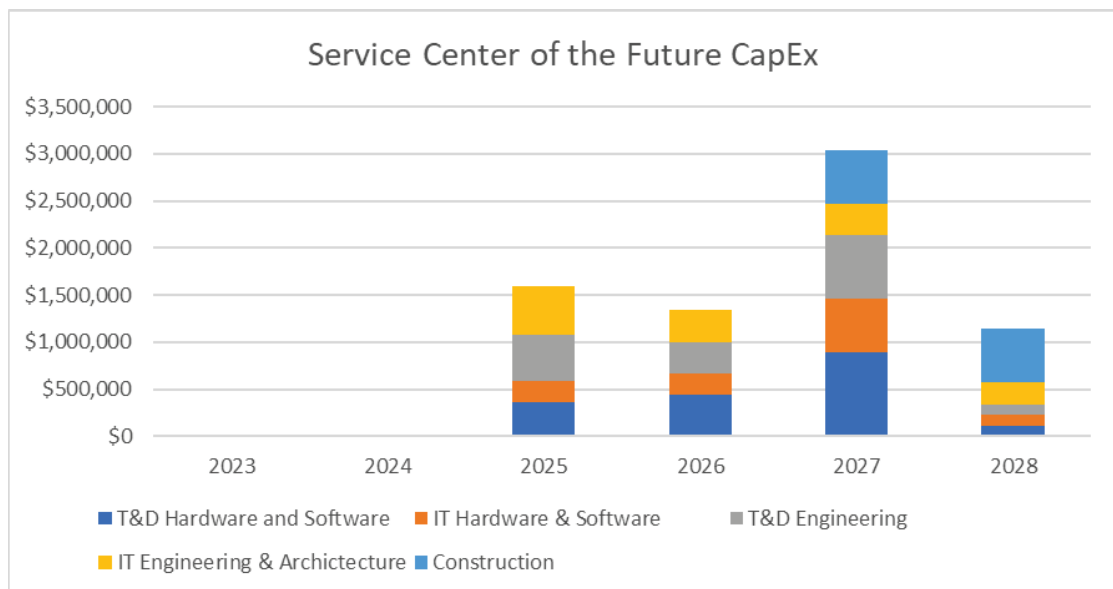
**Service Center of the Future
SCE Forecast Capital Cost
(\$000)**

Description	2023	2024	2025	2026	2027	2028	Total
T&D Hardware & Software	\$0	\$0	\$364	\$446	\$899	\$114	\$1,823
IT Hardware & Software	\$0	\$0	\$221	\$223	\$562	\$114	\$1,119
T&D Engineering	\$0	\$0	\$497	\$334	\$674	\$114	\$1,619
IT Engineering & Architecture	\$0	\$0	\$519	\$334	\$337	\$228	\$1,418
Construction	\$0	\$0	\$0	\$0	\$562	\$570	\$1,132
Total	\$0	\$0	\$1,600	\$1,337	\$3,034	\$1,139	\$7,111

Source: Exh. SCE-02, Vol. 06 at 161, Table III-29.

The graph below illustrates SCE's requested capital expenditure on a yearly basis for the Service Center of the Future Pilot Project.

**Service Center of the Future Pilot
2023-2028 Forecast**



SCE states the Service Center of the Future Pilot Project will be used and useful by the end of 2028 but cannot ensure that date. Instead, SCE projects an in-service date for the Service Center of the Future Pilot Project of December 31, 2028. SCE explains though that the operational date is dependent on completion of the related EPIC project.⁵³⁴ Any delay to this project would push its used and useful date outside the 2023-2028 period. One possible cause of delay could be the recent site change from the El Monte Transit Center to the SCE Service Center in Domingos Hills, although SCE asserts this change will not result in any delay or change in cost estimate.⁵³⁵

SCE has also failed to demonstrate that the project would provide a benefit to ratepayers that would meet or exceed the cost. SCE has not conducted any cost savings analysis or cost-benefit analysis for this pilot, asserting that such scoping cannot occur until the EPIC project has been completed.⁵³⁶ Further, SCE may have difficulty scoping the exact cost, as the site of the project is in flux.⁵³⁷ SCE should file an application requesting recovery at such time that the EPIC project is completed.

Additionally, SCE has failed to demonstrate that the Service Center of the Future Pilot Project would address problems unique to SCE. SCE asserts that the Service Center of the Future Pilot Project enables SCE to establish standards to support these installations, while addressing roles and responsibilities.⁵³⁸ The establishment of standards for the support of service fleet centers is not a concern unique to SCE.⁵³⁹ SCE should not use ratepayer dollars for research and development in an ancillary market.

⁵³⁴ Ex. CA-06 at 33.

⁵³⁵ Ex. CA-06 at 33.

⁵³⁶ Ex. CA-06 at 33.

⁵³⁷ Ex. CA-06 at 33.

⁵³⁸ Ex. CA-06 at 33.

⁵³⁹ P. 298 of the Workpapers, “Southern California Edison (SCE), along with many of its commercial and industrial customers, are committed to moving their fleets towards electrification.”

Finally, SCE has failed to demonstrate that the other cost-effective alternatives do not exist. In fact, SCE admits that it did not consider any alternatives to the Service Center of the Future Pilot Project.⁵⁴⁰

Cal Advocates' recommendation is not to fund SCE's Service Center of the Future Pilot Project. SCE did not provide sufficient evidence that the project will provide benefits that will exceed the costs. Also, its used and useful date is at the end of the GRC period, which means any delay would push it well past the GRC period. Therefore, Cal Advocates recommends a downward adjustment of \$1.600 million in 2025, \$1.337 million in 2026, \$3.034 million in 2027, \$1.139 million for a total adjustment of \$7.111 million.

2. O&M

SCE forecasts \$15.921 million for its Grid Technology Assessments, Pilots & Adoption activity in TY 2025. SCE developed its forecast by utilizing its 2022 recorded expenses of \$9.518 million with four upward adjustments: 1) \$1.3 million to fill 11 vacancies;⁵⁴¹ 2) \$1.1 million "to account for further growth in the Grid Technology area between 2022 and 2025;"⁵⁴² 3) \$0.65 million "to account for increased software licenses, applications, and hardware needed for laboratory projects;"⁵⁴³ and 4) \$0.65 million "to account for pre-award work that will be necessary to support the application process for IJJA initiatives."⁵⁴⁴ The remainder of the increase over 2022 recorded costs is related to changes in SCE's employee compensation program.⁵⁴⁵

Cal Advocates recommends that the Commission adopt \$9.518 million for SCE's Grid Technology Assessments, Pilots & Adoption activity in TY 2025, which is \$5.584 million less than SCE's TY 2025 forecast of \$15.102 million. Cal Advocates utilized

⁵⁴⁰ Cal Advocates data request PubAdv-SCE-326-STN, Q.3.b.

⁵⁴¹ Ex. SCE-02, Vol. 06 at 136.

⁵⁴² Ex. SCE-02, Vol. 06 at 136.

⁵⁴³ Ex. SCE-02, Vol. 06 at 138.

⁵⁴⁴ Ex. SCE-02, Vol. 06 at 139.

⁵⁴⁵ Ex. SCE-02, Vol. 06 at 138.

SCE’s 2022 recorded expenses to develop its TY 2025 forecast. The 2022 recorded expenses are comparable to the recent recorded, historical expenses for this activity. SCE underspent its 2021 GRC authorized revenues and failed to provide verifiable documentation to demonstrate that it requires additional funding beyond its 2022 recorded expenses. This forecasted increase is unreasonable, especially since SCE forecasts a 50% reduction to its 2022 staffing level in 2025.

The table below summarizes SCE’s request and Cal Advocates’ recommendation for Grid Technology Assessments, Pilots & Adoption expenses.

**Grid Technology Assessments, Pilots & Adoption
2018-2022 Recorded / 2025 Forecast
(In Thousands of Dollars)**

	2018	2019	2020	2021	2022	SCE 2021 Authorized	SCE 2025	Cal Advocates 2025
Grid Technology Assessments, Pilots & Adoption	\$11,075	\$9,792	\$10,278	\$9,270	\$9,518	\$14,751	\$15,102	\$9,518

In its 2021 GRC, the Commission approved SCE’s requested \$14.751 million for Grid Technology Assessments, Pilots & Adoption expenses. However, SCE’s 2021 recorded expenses was \$9.27 million, or \$5.481 less than authorized. In 2022, SCE recorded \$9.518 million, which is \$5.233 million less than its 2021 GRC authorized revenue. SCE explains that the “variance was due to unfilled vacancies, projects being delayed or placed on hold due to work restrictions caused by the COVID-19 pandemic, and the company prioritizing emergent public safety risks pertaining to wildfire-related events.”⁵⁴⁶ SCE, however, does not identify specific projects that it reallocated its Grid Technology Assessments, Pilots & Adoption authorized revenues for in 2021-2022. Instead, SCE claims “it has not been SCE’s typical practice to trace funds that it re-allocated.”⁵⁴⁷ Because SCE does not typically trace authorized funding utilized for the

⁵⁴⁶ Ex. SCE-02, Vol. 06 at. 128.

⁵⁴⁷ SCE’s response to data request PubAdv-SCE-186-RYD, Q. 8c.

proposed and evaluated 2021 GRC projects (i.e., does not know where the authorized funds were spent), SCE now requests duplicate funding in TY 2025 for the same or similar projects.

SCE has not provided documentation to support its request for additional funding related to its 11 unfilled vacancies in 2021-2022 because it forecasts less FTEs in 2025 than the number of FTEs that worked with this activity in 2021-2022. SCE forecasts 45 FTEs in 2025, which is 50% of the 2019-2022 staffing level of 90 FTEs per year.⁵⁴⁸

SCE's TY forecast adjustments do not account for the historic underspending of its 2021 GRC authorized revenues. As explained above, SCE has significantly underspent over the past few years, and expenses in this continue to show a downward trend. The Commission should adopt Cal Advocates' recommendation of \$9.518 million, which, unlike SCE's request, is comparable to SCE's historic expense level.

C. Energy Storage

1. Capital

SCE proposes \$121.202 million in capital expenditures over the 2023-2028 period for the expansion of its Grid Scale Storage Projects. These expenditures include \$41.985 million for capital upgrades of four operational systems and project close out of six additional systems to be deployed in SCE's Distribution Energy Storage Integration (DESI) Projects through 2025, and \$79.217 million to launch SCE's Long Duration Energy Storage (LDES) Project beginning in 2025.⁵⁴⁹

The Commission should adopt \$38.647 million in capital expenditures over the 2023-2028 period for SCE's Grid Scale Storage Projects, rather than SCE's excessive request for \$121.202 million over the same period. Specifically, Cal Advocates recommends a downward adjustment of \$1.172 million for 2023, \$2.166 million for 2024, \$9.196 million for 2025, \$12.605 million for 2026, \$19.088 million for 2027, and

⁵⁴⁸ Ex. CA-02 at 31.

⁵⁴⁹ Ex. SCE-02, Vol. 6 at 186, Figure IV-46.

\$38.328 million for 2028. This results in a total downward adjustment of \$82.555 million.

The tables below compare SCE’s 2023-2028 request, Cal Advocates’ recommendation, and the difference between the two for Grid Technology Assessment Program capital expenditures.

**Grid Scale Storage Projects
Capital Expenditures for 2023-2025
(\$000)**

Description	SCE Proposed ⁵⁵⁰			Cal Advocates Recommended			Difference (SCE Proposed - Cal Advocates Recommended)		
	2023	2024	2025	2023	2024	2025	2023	2024	2025
DESI	\$15,989	\$20,185	\$5,811	\$14,817	\$18,019	\$5,811	\$1,172	\$2,166	\$0
LDES	\$0	\$0	\$9,196	\$0	\$0	\$0	\$0	\$0	\$9,916

**Grid Scale Storage Projects
Capital Expenditures for 2026-2028
(\$000)**

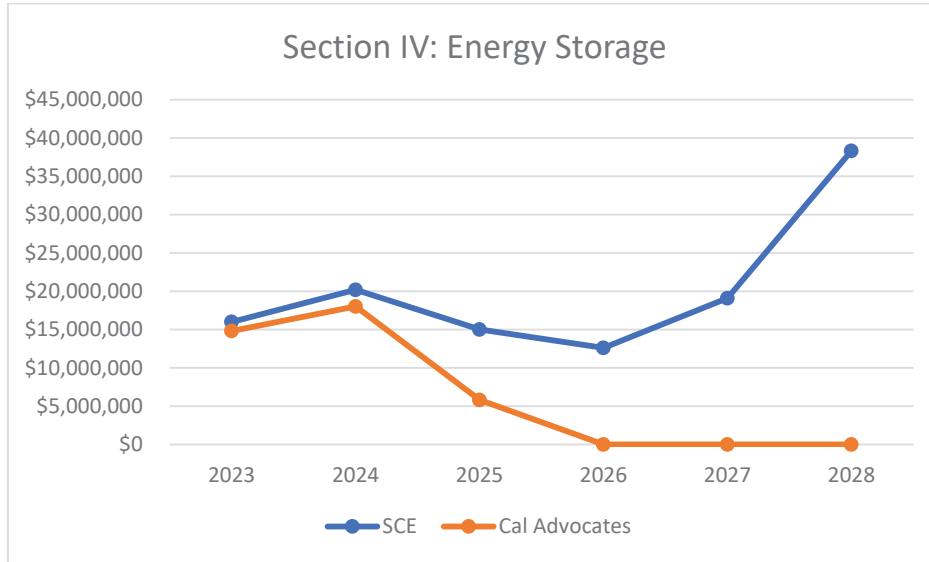
Description	SCE Proposed ⁵⁵¹			Cal Advocates Recommended			Difference (SCE Proposed - Cal Advocates Recommended)		
	2026	2027	2028	2026	2027	2028	2026	2027	2028
DESI	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
LDES	\$12,605	\$19,088	\$38,328	\$0	\$0	\$0	\$12,605	\$19,088	\$38,328

The graph below illustrates a comparison between SCE’s capital expenditure requests for energy storage and Cal Advocates’ recommendation for 2023-2028.

⁵⁵⁰ Ex. SCE-02, Vol. 6 at 186, Figure IV-46.

⁵⁵¹ Ex. SCE-02, Vol. 6 at 186, Figure IV-46.

**SCE's T&D Capital Expenditure Request vs. Cal Advocates'
Section IV: Energy Storage
2023-2028 Forecast**



a) Background on SCE's Energy Storage Pilots

SCE's request for three DESI pilots was its 2015 GRC Decision.⁵⁵² Later the Commission approved funding to expand the DESI Pilot Program to 13 DESI pilots, including two of the pilots approved in the 2015 GRC Decision. The Commission approved SCE's request for \$31.903 million in capital expenditures over the 2019-2021 period to continue deployment of the DESI Project, with the DESI Pilot Projects intended to be operational by 2021. No party contested SCE's 2021 requests for funding to complete the deployment during that proceeding.⁵⁵³ In 2021, SCE recorded capital expenditures that were \$5.945 million less than authorized.⁵⁵⁴

In the current GRC Application, SCE requests funding for the DESI Pilot Program to complete system repairs for the four operational pilot projects (DESI 1, DESI 2, Mercury 4, and Gemini 2) and complete construction of six others (Mercury 1, Mercury

⁵⁵² Ex. SCE-02, Vol. 6 at 166, Lines 5-9.

⁵⁵³ D.21-08-036 at 122.

⁵⁵⁴ Ex. SCE-02, Vol. 6 at 143, Lines 2-20.

2, Gemini 1, Gemini 3, Apollo 1, and Apollo 2).⁵⁵⁵ SCE bases these forecasts on Request for Proposal (RFP) quotes, recent project costs, and accounting/engineering estimates.⁵⁵⁶

SCE requests \$78.158 million to initiate a LDES Project to facilitate adoption of novel non-lithium-ion energy storage technologies.⁵⁵⁷ SCE's forecasts are based on industry studies, vendor conversations, and accounting/ engineering estimates from subject matter experts.⁵⁵⁸ Additionally, SCE applied to the United States Department of Energy (DOE) for \$70 million in Infrastructure Investment and Jobs Act (IIJA) funding to be matched by SCE in a IIJA Memorandum Account.⁵⁵⁹ However, the DOE notified SCE on September 22, 2023 that it was not a successful candidate for the grant.

The table below provides SCE's capital expenditure forecast for the Grid Scale Energy Storage Program.

**Grid Scale Energy Storage
SCE Forecast Capital Cost
(\$000)**

Description	2023	2024	2025	2026	2027	2028
DESI	\$15,989	\$20,185	\$5,811	\$0	\$0	\$0
LDES	\$0	\$0	\$9,196	\$12,605	\$19,088	\$38,328
Total	\$15,989	\$20,185	\$15,007	\$12,605	\$19,088	\$38,328

Source: Ex. SCE-02, Vol. 06 at 186, Figure IV-46.

The table below provides SCE's recorded capital expenditures for the Grid Scale Energy Storage Program.

⁵⁵⁵ Ex. SCE-02, Vol. 06 at 187, Lines 7-11.

⁵⁵⁶ Ex. SCE-02, Vol. 06 at 197, Lines 28-29.

⁵⁵⁷ Ex. SCE-02, Vol. 06 at 172, Lines 8-26.

⁵⁵⁸ Ex. SCE-02, Vol. 06 at 204, Lines 22-24.

⁵⁵⁹ Ex. SCE-02, Vol. 06 at 172, Lines 17-23.

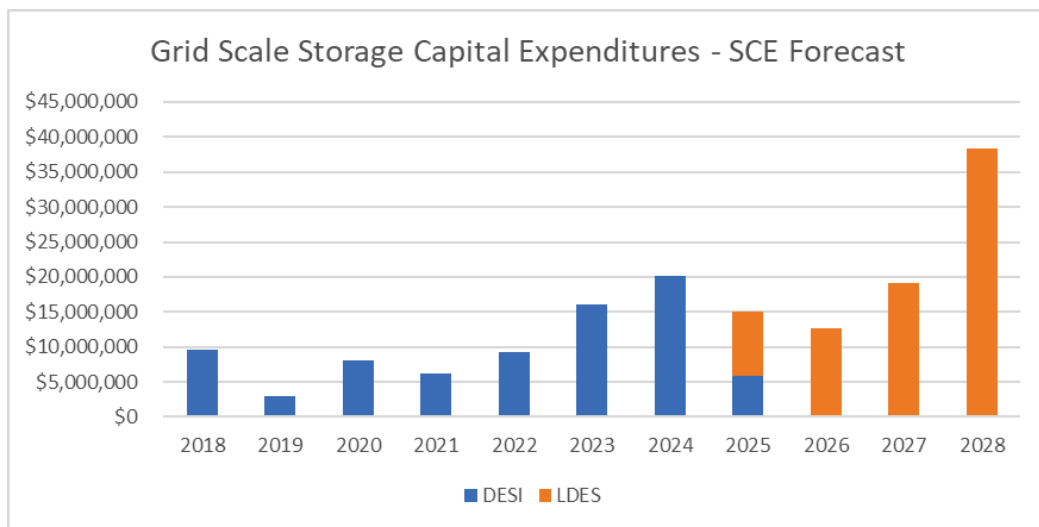
**Grid Scale Energy Storage
2017-2022 Recorded Capital Expenditures
(\$000)**

Description	2018	2019	2020	2021	2022
DESI	\$9,687	\$2,959	\$8,068	\$6,218	\$9,304
LDES	\$0	\$0	\$0	\$0	\$0
Total	\$9,687	\$2,959	\$8,068	\$6,218	\$9,304

Source: Ex. SCE-02, Vol. 06 at 186, Figure IV-46.

The graph below illustrates SCE’s forecasted capital expenditures for 2023-2028 in comparison to the recorded costs for 2018-2022.

**Grid Scale Energy Storage Program
2018-2022 Recorded and 2023-2028 Forecast**



Cal Advocates examined each program using the following criteria:

1. Did SCE demonstrate that the project would be used and useful before the end of 2028?⁵⁶⁰
2. Did SCE demonstrate that the benefits of the project would exceed the cost to the ratepayers?

⁵⁶⁰ D.21-08-036 at 209.

3. Did SCE demonstrate that the project would address problems that are unique to SCE?⁵⁶¹
4. Did SCE demonstrate that other more cost-effective options do not exist for doing this research?⁵⁶²

b) Cal Advocates adjusts SCE's DESI Pilot Program because of its pending decommission.

SCE requests \$41.985 million over the 2023-2025 period for the DESI Pilot Program and Cal Advocates recommends \$38.647 million for SCE's DESI Pilot Program.⁵⁶³ The table below provides SCE's capital expenditures forecast for the DESI Pilot Program.

**DESI Pilot Program
SCE Forecast Capital Cost
(\$000)**

Description	2023	2024	2025	2026	2027	2028	Total
DESI 1	\$1,172	\$2,166	\$0	\$0	\$0	\$0	\$3,338
DESI 2	\$638	\$0	\$0	\$0	\$0	\$0	\$638
Mercury 4	\$608	\$0	\$0	\$0	\$0	\$0	\$608
Mercury 1	\$3,130	\$0	\$0	\$0	\$0	\$0	\$3,130
Mercury 2	\$3,578	\$0	\$0	\$0	\$0	\$0	\$3,578
Gemini 1	\$3,661	\$0	\$0	\$0	\$0	\$0	\$3,661
Gemini 2	\$248	\$0	\$0	\$0	\$0	\$0	\$248
Apollo 1	\$159	\$908	\$765	\$0	\$0	\$0	\$1,832
Apollo 2	\$1,385	\$7,311	\$2,787	\$0	\$0	\$0	\$11,483
Apollo 3	\$1,409	\$9,800	\$2,258	\$0	\$0	\$0	\$13,467
Total	\$15,989	\$20,185	\$5,811	\$0	\$0	\$0	\$41,983

Source: Ex. SCE-02, Vol. 06 at 187, Table IV-34.

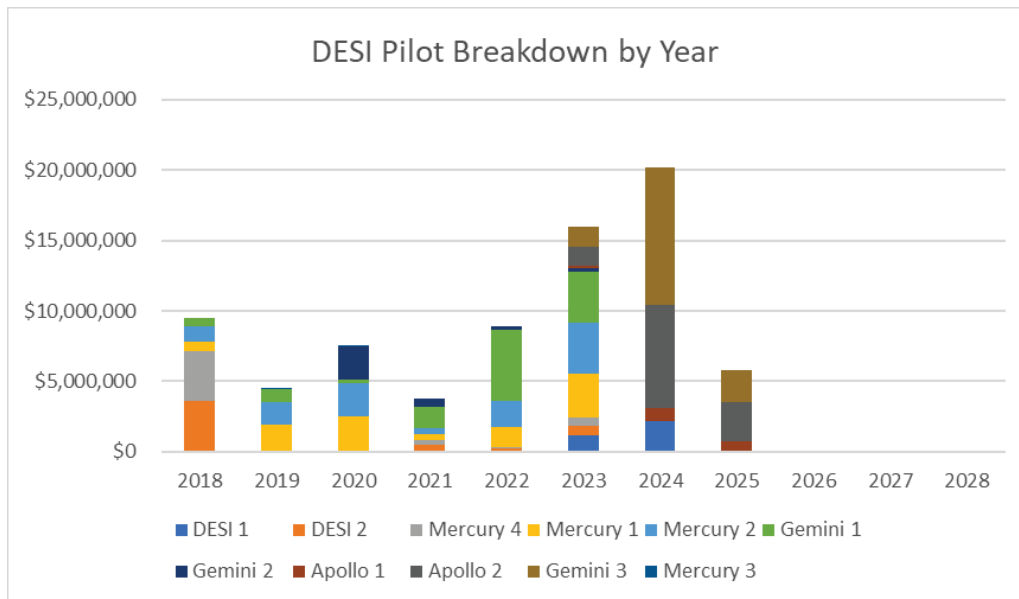
The graph below illustrates SCE's recorded costs and forecasted capital expenditures for the DESI Pilot Program.

⁵⁶¹ D.21-08-036 at 119.

⁵⁶² D.21-08-036 at 119.

⁵⁶³ Ex. CA-06 at 38.

**DESI Pilot Program
2018-2022 Recorded Cost and 2023-2028 Forecast**



Overall, Cal Advocates does not object to the DESI Pilot Program. However, on January 23, 2024, SCE informed Cal Advocates that SCE now plans to decommission DESI 1 rather than undertake upgrades.⁵⁶⁴ Based on that information, Cal Advocates recommends that the originally planned upgrades to DESI 1 be removed from their decommissioning schedule.

SCE cannot meet its burden to support funding for the upgrades of DESI 1. SCE announced the cancellation of the upgrades to DESI 1 a couple days before our testimony was due. At that time, they had not provided decommissioning costs.

Thus, for the DESI Pilot Program, Cal Advocates recommends a downward adjustment of \$1.172 million in 2023 and \$2.166 million in 2024 for a total downward adjustment of \$3.338 million. Due to the plan to decommission DESI 1, the Commission should not adopt more than Cal Advocates' recommended \$38.647 million for this program.

⁵⁶⁴ Ex. CA-06 at 40.

c) SCE’s problematic LDES pilot should not be funded in this GRC.

SCE requests \$79.217 million over the 2025-2028 period for the LDES Pilot Program. Cal Advocates recommends a downward adjustment of \$9.196 million for 2025, \$12.254 million for 2026, \$18.730 million for 2027, \$37.977 million for 2028. This results in a total downward adjustment of \$79.217 million.⁵⁶⁵ The table below provides SCE’s capital expenditures forecast for the LDES Pilot Program.

**LDES Pilot Program
SCE Forecast Capital Cost
(\$000)**

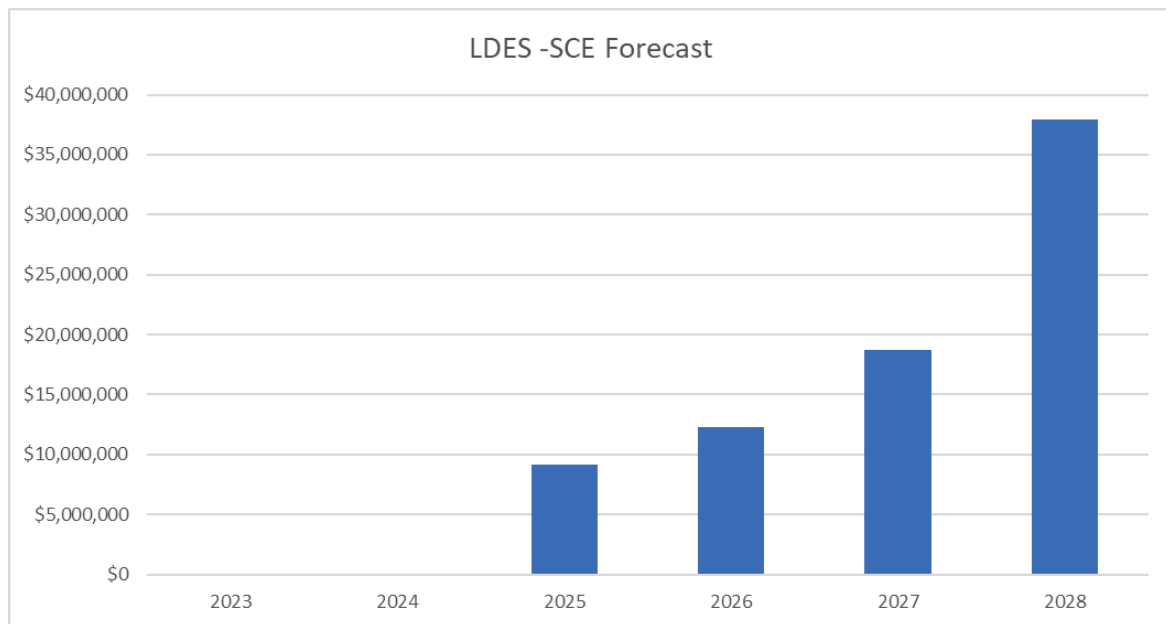
Description	2023	2024	2025	2026	2027	2028
CapEx	\$0	\$0	\$9,196	\$12,254	\$18,730	\$37,977

Source: Ex. SCE-02, Vol. 06 at 203, Table IV-35.

The graph below illustrates SCE’s forecasted capital expenditures for the LDES Pilot Program.

⁵⁶⁵ Ex. CA-06 at 40.

LDES Pilot Program – SCE 2023-2028 Forecast



SCE asserts that the LDES Pilot will be used and useful by the end of 2028. However, with the DOE’s funding denial, SCE projects deployment of a scaled down LDES pilot over the 2025-2026 period, with additional pilots to follow over the 2027-2028 period.⁵⁶⁶

In its showing, SCE has failed to demonstrate that the project would provide benefits to ratepayers that would meet or exceed the costs. SCE has not conducted any cost savings analysis or cost-benefit analysis for this pilot and instead asserts that the benefits of the emerging technology could not be quantified.⁵⁶⁷ This does not support SCE’s position and merely indicates that SCE has not completed enough research into this technology to sufficiently demonstrate that the project would provide suitable benefit to be included in this GRC cycle.

In the future, SCE could file an application seeking cost recovery when the technology is ready. Further, SCE has failed to demonstrate that ratepayers will benefit if

⁵⁶⁶ Cal Advocates data request PubAdv-SCE-297-STN, Q.11.a.

⁵⁶⁷ Cal Advocates data request PubAdv-SCE-297-STN, Q.11.d.

SCE performs research and development into this technology instead of a company that specializes in energy storage technology. SCE is an energy storage customer, not a vendor of storage technology. It is not reasonable for SCE to use ratepayer dollars for research and development in such an ancillary market.

Also, SCE has failed to demonstrate that the LDES Pilot Project would address problems unique to SCE. SCE asserts that LDES technology is specific to the needs of the SCE service area, particularly due to the heat waves driving the need for extended storage.⁵⁶⁸

Heat waves, and any accompanying wildfires, however, are not unique to SCE. Heatwaves can create dry conditions that cause wildfires. During these heatwaves, SCE may execute a public safety power shutoff of a feeder line to prevent a wildfire. During these PSPS events, a circuit may be safe to energize while the line feeding that circuit is not. A LDES could be used to energize the circuit in that circumstance. That said, I'm fine with striking the reference to wildfires.

SCE has also failed to demonstrate that other cost-effective alternatives do not exist. SCE references existing and operational storage technologies without demonstrating why these existing and mature technologies are insufficient.⁵⁶⁹

Overall, SCE has failed to meet its burden for the Commission to approve any funding for this program.

2. O&M

SCE forecasts \$15.921 million for its O&M Energy Storage activities in TY 2025, which is a \$15.221 million increase over its 2022 recorded expenses of \$0.700 million. SCE's TY 2025 forecast includes: 1) \$1.679 million associated with its Distribution Energy Storage Integration (DESI) Work Activities; 2) \$0.150 million associated with Long Duration Energy Storage (LDES) Work Activities; and 3) \$14.242 million

⁵⁶⁸ Cal Advocates data request PubAdv-SCE-369-STN, Q.12.a.

⁵⁶⁹ Cal Advocates data request PubAdv-SCE-339-STN, Q.10.b.

associated with Generation Work Activities.⁵⁷⁰ SCE’s Generation Work Activities forecast includes \$13.626 million for fixed and variable costs paid to third parties associated with three Reliability Utility-Owned Energy Storage (RUOES) systems that it procured in October 2021.^{571 572}

Cal Advocates recommends that the Commission adopt \$0.700 million for SCE’s Energy Storage activities in TY 2025, which is \$15.221 million less than SCE’s TY 2025 forecast of \$15.921 million. Cal Advocates used SCE’s 2022 recorded costs to develop its recommendation. Cal Advocates’ forecast excludes SCE’s \$13.626 million forecast for costs associated with the three RUOES sites. This reduction is due to the uncertainty regarding when such costs may be incurred and SCE’s high annual forecast cost. Accordingly, Cal Advocates recommends that the Commission reject SCE’s request and direct SCE to seek recovery of these costs through a Tier 2 Advice Letter after they have been incurred.

The table below summarizes SCE’s request and Cal Advocates’ recommendation for Energy Storage expenses.

**Energy Storage
2018-2022 Recorded / 2025 Forecast
(In Thousands of Dollars)⁵⁷³**

	2018	2019	2020	2021	2022	SCE 2021 Authorized	SCE 2025	Cal Advocates 2025
Energy Storage	\$1,340	\$1,921	\$1,594	\$1,072	\$700	\$2,106	\$15,921	\$700

SCE states that its TY 2025 forecast of \$13.626 million for the RUOES systems “assumes an in-service date of 2023, making 2025 the first year of the post-warranty

⁵⁷⁰ Ex. SCE-02, Vol. 06 at 178-179.

⁵⁷¹ Ex CA-02 at 26.

⁵⁷² SCE does not forecast any costs for the RUOES systems prior to 2025 because the systems are assumed to go in service in 2023 and the first two years of maintenance (2023-2024) will be covered under warranty.

⁵⁷³ Ex. CA-02 at 27.

period and thus the first year of expected annual fixed fees,”⁵⁷⁴ but its RUOES sites have not been placed in service and will not incur costs until after TY 2025. Cal Advocates discovered that SCE’s RUOES sites were not placed in service in 2023 and were instead anticipated to be placed in service in March 2024 (for the Separator and Cathode systems) and June 2024 (for the Anode system).⁵⁷⁵ SCE’s Rebuttal Testimony again does not demonstrate that its Separator and Cathode RUOES systems were placed in service by March 2024. SCE’s ratepayers should not be responsible for proposed projects that are not implemented or have unknown implementation dates and costs.

Moreover, because the three RUOES sites have not yet been placed in-service, SCE’s forecast includes costs that are speculative. SCE has not previously recorded costs of this size for energy storage and does not have recorded cost history for the RUOES systems. Since SCE’s estimated in-service dates for the three RUOES sites are uncertain, these projects may continue to be delayed.

Given the uncertainty and unpredictability of SCE’s TY forecast for its RUOES sites, Cal Advocates recommends a TY expense level of \$0.700 million based on 2022 recorded expenses. Once SCE has verified when contractual costs will be incurred for RUOES sites, SCE could then submit a Tier 2 Advice Letter to recover those costs.

XI. LOAD GROWTH, TRANSMISSION PROJECTS, AND ENGINEERING

A. Load Growth

1. Overview of Transportation Electrification Grid Readiness (TEGR)

SCE requests \$0 for 2023, \$32.7 million for 2024, \$131.9 million for 2025, \$168.8 million for 2026, \$242.2 million for 2027, and \$240.5 million for 2028 for CPUC-jurisdictional TEGR forecast capital expenditures.⁵⁷⁶

As SCE has failed to establish that it is entitled to any funding for TEGR, Cal Advocates’ capital expenditure recommendations for TEGR-driven capital expenditures

⁵⁷⁴ SCE’s response to data request PubAdv-SCE-186-RYD, Q. 7f.

⁵⁷⁵ SCE’s response to data request PubAdv-SCE-367-RYD, Q. 1a.

⁵⁷⁶ Ex. CA-08-E at 5.

is \$0 for 2023 – 2028.⁵⁷⁷ To derive its forecasts, Cal Advocates aligned SCE’s TEGR capital expenditures with the load growth forecast from the CEC’s 2022 IEPR.⁵⁷⁸ The following summarizes Cal Advocates’ recommendations for SCE’s requested Load Growth TEGR capital expenditures:⁵⁷⁹

- Cal Advocates recommends \$0 for DSP New Circuits, which is \$183.1 million lower than SCE’s 2023-2028 TEGR-driven request of \$183.1 million.
- Cal Advocates recommends \$0 for DSP Circuit Upgrades, which is \$65.3 million lower than SCE’s 2023-2028 TEGR-driven request of \$65.3 million.
- Cal Advocates recommends \$0 for DSP Substations in, which is \$130.8 million lower than SCE’s 2023-2028 TEGR-driven request of \$130.8 million.
- Cal Advocates recommends \$0 for the TSP A-Bank Plan, which is \$436.9 million lower than SCE’s 2023-2028 TEGR-driven request of \$436.9 million.

The table below compares Cal Advocates’ recommendation and SCE’s 2023-2025 request for TEGR-driven Load Growth expenditures.

⁵⁷⁷ Ex. CA-08-E at 5.

⁵⁷⁸ Ex. CA-08-E at 5.

⁵⁷⁹ Ex. CA-08-E at 5.

TEGR-Driven Load Growth Capital Expenditures for 2023-2025
(in Thousands of Nominal Dollars)

TEGR Load Growth Cost Category	SCE Proposed			Cal Advocates Recommended			Difference (SCE Proposed - Cal Advocates Recommended)		
	2023	2024	2025	2023	2024	2025	2023	2024	2025
Distribution Substation Plan (DSP)	\$0	\$32,674	\$77,659	\$0	\$0	\$0	\$0	\$32,674	\$77,659
Transmission Substation Plan (TSP)	\$0	\$0	\$54,268	\$0	\$0	\$0	\$0	\$0	\$54,268
Total	\$0	\$32,674	\$131,926	\$0	\$0	\$0	\$0	\$32,674	\$131,926

The table below compares Cal Advocates’ recommendation and SCE’s 2026-2028 request for TEGR-driven Load Growth expenditures.

TEGR-Driven Load Growth Capital Expenditures for 2026-028
(in Thousands of Nominal Dollars)

TEGR Load Growth Cost Category	SCE Proposed			Cal Advocates Recommended			Difference (SCE Proposed - Cal Advocates Recommended)		
	2026	2027	2028	2026	2027	2028	2026	2027	2028
Distribution Substation Plan (DSP)	\$63,580	\$124,141	\$81,140	\$0	\$0	\$0	\$63,580	\$124,141	\$81,140
Transmission Substation Plan (TSP)	\$105,256	\$118,010	\$159,364	\$0	\$0	\$0	\$105,256	\$118,010	\$159,364
Total	\$168,836	\$242,151	\$240,504	\$0	\$0	\$0	\$168,836	\$242,151	\$240,504

2. Baseline Forecast Recommendations

Across the Load Growth Baseline Forecast, SCE requests \$213.5 for 2023, \$266.2 million for 2024, \$274.6 million for 2025, \$409.7 million for 2026, \$404.1 million for 2027, and \$358.9 million for 2028 for CPUC-jurisdictional, Load Growth Baseline Forecast capital expenditures.⁵⁸⁰

⁵⁸⁰ Ex. SCE-02, Vol. 07 Errata, December 15, 2023 (Ex. SCE-02, Vol. 07E) at 42E2. SCE did not provide Cal Advocates with a CPUC-jurisdictional only total Baseline Forecast capital expenditure for Ex. SCE-02, Vol. 07 by the time that Cal Advocates had written testimony. Within the Baseline Forecast capital expenditure categories of Ex. SCE-02, Vol. 07, only the Transmission Substation Plan (TSP) cost category

Cal Advocates' total capital expenditure recommendations for the Baseline Forecast Load Growth capital expenditures are \$96.8 million for 2023, \$143.6 million for 2024, \$165.8 million for 2025, \$286.9 million for 2026, \$265.2 million for 2027, and \$215.4 million for 2028.⁵⁸¹ Cal Advocates' recommendations are \$116.7 million less than SCE's forecast in 2023, \$122.6 million less than SCE's forecast in 2024, \$108.8 million less than SCE's forecast in 2025, \$122.8 million less in 2026, \$138.9 million less than SCE's forecast in 2027, and \$143.5 million less than SCE's forecast in 2028.⁵⁸²

To derive its forecasts, Cal Advocates aligned SCE's Baseline Forecast for DSP, TSP, and System Improvement capital expenditures with the load growth forecast from the CEC's 2022 IEPR using an annual percentage reduction in addition to a project-by-project adjustment, which is presented in Exhibit CA-07.

Cal Advocates' total recommendations for Load Growth Baseline Forecast capital expenditures in the DSP, TSP and System Improvement include:⁵⁸³

- Cal Advocates recommends \$35.2 million for DSP Distributed Energy Resources, which is \$84.4 million lower than SCE's 2023-2028 Baseline Forecast request of \$119.6 million.
- Cal Advocates recommends \$214.4 million for DSP New Circuits, which is \$69.7 million lower than SCE's 2023-2028 Baseline Forecast request of \$284.2 million.
- Cal Advocates recommends \$201.7 million for DSP Circuit Upgrades, which is \$63.0 million lower than SCE's 2023-2028 Baseline Forecast request of \$264.6 million.

contains non- CPUC-jurisdictional costs. In order to produce a CPUC-jurisdictional Baseline Forecast capital expenditure total, Cal Advocates relied on SCE's data response PubAdv-SCE-203-MJJ, Q.1, which provides separate forecasts for CPUC-jurisdictional and Federal Energy Regulatory Commission (FERC) jurisdictional capital forecasts for all TSP projects. Cal Advocates added the CPUC-jurisdictional capital expenditure total for 2023 to 2028 to the capital expenditure totals of the other four Baseline Forecast capital expenditure categories between 2023 and 2028 to yield SCE's total Baseline Forecast capital expenditure request for 2023 to 2028.

⁵⁸¹ Ex. CA-08-E at 8.

⁵⁸² Ex. CA-08-E at 8.

⁵⁸³ Ex. CA-08-E at 8.

- Cal Advocates recommends \$374.9 million for DSP Substations, which is \$86.0 million lower than SCE's 2023-2028 Baseline Forecast request of \$460.9 million.
- Cal Advocates recommends \$74.8 million for the TSP Subtransmission Lines Plan (STL) from 2023 to 2028, which is \$89.1 million lower than SCE's Baseline Forecast request of \$163.9 million.
- Cal Advocates recommends \$1.8 million for the TSP A-Bank Plan from 2023 to 2028, which is \$250.9 million lower than SCE's Baseline Forecast request of \$252.7 million.
- Cal Advocates recommends \$5.77 million for the TSP Subtransmission VAR Plan from 2023 to 2028, which is \$1.45 million lower than SCE's Baseline Forecast request of \$7.22 million.
- Cal Advocates recommends \$214.3 million for the System Improvement Programs from 2023 to 2028, which is \$73.42 million lower than SCE's Baseline Forecast request of \$287.7 million.

The table below compares Cal Advocates' recommendation and SCE's 2023-2025 request for Baseline-driven Load Growth expenditures. The table compares Cal Advocates' recommendation and SCE's 2026-2028 request for Baseline-driven Load Growth expenditures.

**Cal Advocates' recommendations and specific exhibit reductions compared to SCE's proposal for Baseline
Forecast Load Growth Capital Expenditures for 2023-2025⁵⁸⁴
(in Thousands of Nominal Dollars)**

Load Growth Expenditure Category	SCE Proposed			Cal Advocates Recommended			Cal Advocates Reduction by Exhibit (SCE Proposed - Cal Advocates Recommended = CA-07 + CA-08)					
	TOTAL			TOTAL			CA-07	CA-08	CA-07	CA-08	CA-07	CA-08
	2023	2024	2025	2023	2024	2025	2023		2024		2025	
Distribution Substation Plan (DSP)	\$104,135	\$160,656	\$153,717	\$49,487	\$95,124	\$97,755	\$1,920	\$52,729	\$0	\$65,533	\$400	\$55,562
Transmission Substation Plan (TSP)	\$58,079	\$48,256	\$53,189	\$22,022	\$14,140	\$23,662	\$12,593	\$23,464	\$24,375	\$9,741	\$16,078	\$13,449
Climate Driven Circuit Ties	\$0	\$0	\$19,742	\$0	\$0	\$13,459	\$0	\$0	\$0	\$0	\$6,283	\$0
Land Rights Management	\$920	\$975	\$983	\$920	\$975	\$983	\$0	\$0	\$0	\$0	\$0	\$0
System Improvement	\$50,344	\$56,270	\$46,970	\$24,374	\$33,317	\$29,948	\$0	\$25,970	\$0	\$22,953	\$0	\$17,022
Total	\$213,477	\$266,157	\$274,599	\$96,802	\$143,555	\$165,806	\$14,513	\$102,163	\$24,375	\$98,226	\$22,761	\$86,033

The table below compares Cal Advocates' recommendation and SCE's 2026-2028 request for Baseline-driven Load Growth expenditures.

⁵⁸⁴ Ex. CA-08-E at 10.

**Cal Advocates' recommendations and specific exhibit reductions compared to SCE's proposal for Baseline Forecast Load
Growth Capital Expenditures for 2026-2028⁵⁸⁵
(in Thousands of Nominal Dollars)**

Load Growth Expenditure Category	SCE Proposed				Cal Advocates Recommended				Cal Advocates Reduction by Exhibit (SCE Proposed - Cal Advocates Recommended = CA-07 + CA-08)					
	TOTAL				TOTAL				2026		2027		2028	
	2026	2027	2028		2026	2027	2028		CA-07	CA-08	CA-07	CA-08	CA-07	CA-08
Distribution Substation Plan (DSP)	\$295,609	\$238,788	\$176,463		\$220,002	\$213,088	\$150,763		\$25,700	\$49,907	\$25,700	\$0	\$25,700	\$0
Transmission Substation Plan (TSP)	\$52,731	\$98,418	\$113,136		\$19,369	\$795	\$2,306		\$28,968	\$4,394	\$97,623	\$0	\$110,831	\$0
Climate Driven Circuit Ties	\$19,908	\$20,047	\$20,339		\$13,573	\$4,430	\$13,383		\$6,335	\$0	\$15,618	\$0	\$6,957	\$0
Land Rights Management	\$1,015	\$1,030	\$1,062		\$1,015	\$1,030	\$1,062		\$0	\$0	\$0	\$0	\$0	\$0
System Improvement	\$40,430	\$45,852	\$47,860		\$32,955	\$45,852	\$47,860		\$0	\$7,476	\$0	\$0	\$0	\$0
Total	\$409,693	\$404,135	\$358,861		\$286,914	\$265,195	\$215,374		\$61,003	\$61,776	\$138,940	\$0	\$143,487	\$0

⁵⁸⁵ Ex. CA-08-E at 11.

Cal Advocates' recommendations are based on its review of SCE's historical adjusted-recorded capital expenditures and forecast estimates. Cal Advocates also analyzed SCE's methodologies and assumptions used for its Load Growth forecast.

Cal Advocates supports using the most up to date forecasts as the basis for its determination of capital expenditures. As of February 2024, the most up to date forecast is the CEC 2022 IEPR and many of Cal Advocates' recommendations are based on centering the forecasts of load growth on the CEC 2022 IEPR. CEC 2022 IEPR is based on the most up to date information and matches observations and trends more closely than SCE's Baseline and TEGR. CEC 2022 IEPR is better aligned with SCE's recent observations of MDHD charging behavior and, therefore, load shapes.

3. Load Growth Methodology

SCE's Load Growth section of Exhibit SCE-02, Volume 7 is driven by two primary forecasting methodologies: Base Load Growth (Baseline Forecast) and the Transportation Electrification Grid Readiness (TEGR) forecast.⁵⁸⁶ Both of these forecasts incorporate load growth in SCE's service territory due to accelerating electric vehicle (EV) adoption and distributed energy resources (DER) growth.⁵⁸⁷ These two forecasts result in capital expenditures associated with distribution (4-kV, 12-kV, 16-kV and 33-kV lines and distribution substations) and subtransmission (from 66-kV and 115-kV lines and A-bank substations).⁵⁸⁸ In contrast, Cal Advocates' forecasting methodology is based on aligning SCE's Load Growth forecast with the 2022 IEPR.

a) SCE's Baseline Forecast

SCE's Baseline Forecast methodology is described in SCE's 2022 Grid Needs Assessment (GNA) Report⁵⁸⁹ and used the 2020 IEPR in its 2022 GNA Report and as the Baseline Forecast in Exhibit SCE-02, Volume 07. The Baseline Forecast involves a

⁵⁸⁶ Ex. SCE-02, Vol. 07 at 16.

⁵⁸⁷ Ex. SCE-02, Vol. 07 at 6.

⁵⁸⁸ Ex. SCE-02, Vol. 07 at 1 and Ex. SCE-02, Vol. 07 at 71, Figure II-19.

⁵⁸⁹ SCE included the 2022 GNA Report in Workpaper SCE-02, Vol. 07.

top-down disaggregation of the CEC 2020 IEPR Base system forecast to SCE's circuits.⁵⁹⁰ SCE separately disaggregates the DERs from the 2020 IEPR and applies unique load shapes and local knowledge to the disaggregation of the DERs to the circuit level.⁵⁹¹

b) SCE's TEGR Forecast

SCE also has a supplemental load growth forecast called the TEGR,⁵⁹² which is incremental to the Baseline Forecast. SCE's TEGR is a new growth forecast that has not been included in previous GRC cycles. SCE primarily included the TEGR to "... supplement the 2020 IEPR forecast with a more accurate view of grid planning needs to achieve the State's goals and targets".⁵⁹³ The TEGR was designed to capture state policies approved throughout 2021 to 2023 primarily focused on transportation electrification (TE)⁵⁹⁴ and the anticipated increase in load due to EV charging that SCE argues is not accounted for in the 2020 IEPR.⁵⁹⁵ The TEGR principally utilized light-duty (LD) and medium-duty and heavy-duty (MDHD) EV adoption forecasts produced by the California Air Resources Board's (CARB) 2020 Mobile Source Strategy (MSS) to project load growth in SCE's service territory from 2021 to 2035.

One of SCE's approaches for the TEGR forecast uses the same methodology for the Baseline Forecast as outlined in SCE's GNA filing but replaces the IEPR load growth forecast with the EV forecast from the CARB MSS. Another approach is targeted at the localized impacts of MDHD EV adoption that, according to SCE does not adequately capture the traditional top-down approach. This approach primarily relies on two external consultant studies to focus on specific areas of MDHD electrification impact as

⁵⁹⁰ Ex. SCE-02, Vol. 07 at 17.

⁵⁹¹ Ex. SCE-02, Vol. 07 at 18.

⁵⁹² Ex. SCE-02, Vol. 7.

⁵⁹³ Ex. SCE-02, Vol. 07 at 19.

⁵⁹⁴ State policies recently passed include the California Air Resources Board's (CARB) approved Advanced Clean Cars II (ACC), Advanced Clean Fleets (ACF), Advanced Clean Trucks (ACT).

⁵⁹⁵ Ex. SCE-02, Vol. 07 at 19.

well as data for truck stop electrification and a customized forecast for the Port of Long Beach (POLB).⁵⁹⁶ These two approaches (top-down disaggregation of the CARB MSS and bottom-up MDHD consultant forecasts) compose the total TEGR forecast.

c) Cal Advocates Forecast (2022 IEPR)

At the time Cal Advocates developed its recommendations, the 2022 IEPR provided the most up to date knowledge, data, and government policy within the SCE's GRC years (2023-2028). Therefore, Cal Advocates used the 2022 IEPR as the basis for its Load Growth Recommendations.⁵⁹⁷

The 2022 IEPR includes many refinements to the 2021 IEPR. The primary update is a new demand forecast called the Additional Achievable Transportation Electrification (AATE) scenario.⁵⁹⁸ The AATE scenario in the 2022 IEPR incorporates the recent EV policy changes nationally and in California, such as CARB's Advanced Clean Cars II (ACC II), Advanced Clean Fleets (ACF), and the federal 2022 Inflation Reduction Act (IRA).⁵⁹⁹ The AATE includes two scenarios:

1. forecast assumes a lower or delayed adoption rate (Scenario 2 or AATE 2),⁶⁰⁰ and
2. forecast assumes accelerated EV adoption due to statewide compliance with all new CARB regulations and policies (Scenario 3 or AATE 3).⁶⁰¹

In addition to the impacts of TE adoption and policies, the 2022 IEPR incorporates the Additional Achievable Fuel Substitution (AAFS) which includes the 2022 State

⁵⁹⁶ Workpaper SCE-02, Vol. 07 Book. A, TEGR Forecast Development Workpaper at 102.

⁵⁹⁷ On February 14, 2024, the CEC adopted the 2023 IEPR which is, as of today, the most up to date forecast. The 2023 IEPR peak loads are lower than the 2022 IEPR peak loads in SCE's territory through 2035.

⁵⁹⁸ CEC, 2022 Integrated Energy Policy Report Update, May 10, 2023 (CEC, 2022 IEPR). Available at: <https://efiling.energy.ca.gov/GetDocument.aspx?tn=250084>.

⁵⁹⁹ CEC, 2022 IEPR at 49.

⁶⁰⁰ CEC, 2022 IEPR at 49.

⁶⁰¹ CEC, 2022 IEPR at 49.

Implementation Plan (SIP)⁶⁰² requirement of all space and water heaters to be zero-emission by 2030.⁶⁰³ Additionally, the 2022 IEPR includes, as the 2021 IEPR did, the Advanced Achievable Energy Efficiency (AAEE) forecast to capture additional effects of energy efficiency measures.⁶⁰⁴ The 2022 IEPR also includes considerations of climate change impacts in light of the late-2022 heat events in California.⁶⁰⁵ SCE acknowledges the significant changes to the IEPR forecast for the 2022 version. SCE also highlights how the CEC has incorporated many, if not all, of the policies that were, according to SCE, not included in the 2020 IEPR.⁶⁰⁶ SCE also uses a comparison between the TEGR and the 2022 IEPR AATE3 scenario as a way of ground-truthing the TEGR forecast by showing that the TEGR aligns with the AATE3 around 2032.⁶⁰⁷

With Cal Advocates recognition of the acceleration of EV adoption due to CARB regulations and the need for infrastructure to support the resulting electrification, Cal Advocates' forecast uses the local reliability scenario for SCE's territory. The local reliability scenario incorporates the highest EV adoption rate (AATE3), the highest AAFS scenario (AAFS 4), and the lowest assumption of energy efficiency (AAEE). These characteristics result in a forecast that assumes an aggressive energy demand from AATE and AAFS.

The CEC published preliminary results of the 2023 IEPR (Draft 2023 IEPR), that is referenced throughout this exhibit is for comparison purposes only.⁶⁰⁸ Since the filing

⁶⁰² CARB 2022 State Strategy for the State Implementation Plan, September 22, 2022.

⁶⁰³ CEC, 2022 IEPR at 46.

⁶⁰⁴ CEC, 2022 IEPR at 46.

⁶⁰⁵ CEC, 2022 IEPR at 4.

⁶⁰⁶ Workpaper SCE-02, Vol. 07 Book. A, TEGR Forecast Development Workpaper at 93.

⁶⁰⁷ Workpaper SCE-02, Vol. 07 Book. A, TEGR Forecast Development Workpaper at 93-94.

⁶⁰⁸ CEC, Draft 2023 Integrated Energy Policy Report, November 13, 2023 (CEC, Draft 2023 IEPR). Available at: <https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2023-integrated-energy-policy-report>

of testimony, the CEC has adopted the final 2023 IEPR.⁶⁰⁹ Neither the draft or final 2023 IEPR serve as the basis for any recommendations.

4. TEGR LOAD GROWTH PROGRAMS

a) Background on TEGR Load Growth Projects and Programs

SCE's TEGR Forecast results in \$0.82 billion out of the total CPUC-jurisdictional, Load Growth, capital expenditure request of \$2.74 billion from 2023 to 2028. The following subsections of the Load Growth section include capital expenditure dollars resulting from the TEGR forecast:

- DSP Circuit Upgrades
- DSP New Circuits
- DSP Substations
- TSP A-Bank Substation Plan

Below is a summary of SCE's forecast TEGR capital expenditures:

SCE TEGR Forecast Capital Cost for the Distribution Substation Plan (in Thousands of Nominal Dollars)⁶¹⁰

	2023	2024	2025	2026	2027	2028
DSP Circuit Upgrades	\$0	\$0	\$16,626	\$4,164	\$36,668	\$7,800
DSP New Circuits	\$0	\$8,076	\$37,100	\$26,768	\$59,308	\$51,886
DSP Substations	\$0	\$24,598	\$23,933	\$32,648	\$28,166	\$21,453
Total	\$0	\$32,674	\$77,659	\$63,580	\$124,141	\$81,140

⁶⁰⁹ CEC, Adopted 2023 Integrated Energy Policy Report with Errata, February 14, 2024 (CEC, Final 2023 IEPR). Available at: <https://efiling.energy.ca.gov/GetDocument.aspx?tn=254463>

⁶¹⁰ Ex. SCE-02, Vol. 07 at 42-69.

**SCE TEGR Forecast Capital Cost for the Transmission
Substation Plan (in Thousands of Nominal Dollars)⁶¹¹**

	2023	2024	2025	2026	2027	2028
TSP A-Bank Plan	\$0	\$0	\$54,268	\$105,256	\$118,010	\$159,364

Deficiencies in SCE’s TEGR and Baseline forecasting methodology are discussed below. These deficiencies further support Cal Advocates’ recommendations, which are based on the 2022 IEPR.

b) SCE’s EV forecast is aggressive in the near term.

The Baseline Forecast and TEGR EV adoption forecasts overestimate EV adoption, particularly for MDHD EVs, when compared to the 2022 IEPR AATE 3.⁶¹² The Baseline LD forecast (2020 IEPR) is 26%, 13%, and 4% higher than the 2022 IEPR AATE 3 LD forecast for 2023, 2024, and 2025, respectively.⁶¹³ The Baseline Forecast for MDHD (drawn by SCE from the 2020 IEPR) is 233% and 10% above the 2022 IEPR AATE 3 MDHD forecast for 2023 and 2024, respectively (See Table 8-8).⁶¹⁴ The TEGR forecast is consistently and substantially higher than the 2022 IEPR AATE 3 for all GRC years (2023-2028) and for both LD and MDHD EVs. The tables below compare the Baseline Forecast and TEGR with the 2022 IEPR AATE 3.

⁶¹¹ Ex. SCE-02, Vol. 07 at 69-100.

⁶¹² Ex. CA-08-E at 19.

⁶¹³ Ex. CA-08-E at 19.

⁶¹⁴ Ex. CA-08-E at 19.

**MDHD and LD EV statewide EV populations from
SCE's Baseline compared to the 2022 IEPR AATE3⁶¹⁵**

	LD EVs (millions)			MD/HD EVs (thousands)		
Forecast year	AATE3	BASE	Baseline percentage increase relative to AATE3	AATE3	BASE	Baseline percentage increase relative to AATE3
2023	1.46	1.84	26%	3.42	6.30	233%
2024	1.96	2.22	13%	14.35	11.39	10%
2025	2.50	2.60	4%	28.07	15.85	-22%
2026	3.12	2.90	-7%	44.93	21.93	-32%
2027	3.88	3.20	-18%	66.39	30.38	-40%
2028	4.79	3.50	-27%	92.92	40.05	-43%

**MDHD and LD EV statewide EV populations from
SCE's supplemental TEGR compared to the 2022 IEPR AATE3⁶¹⁶**

	LD EVs (millions)			MD/HD EVs (thousands)		
Forecast year	AATE3	TEGR	TEGR percentage increase relative to AATE3	AATE3	TEGR	TEGR percentage increase relative to AATE3
2023	1.46	1.72	15%	3.4	25.5	646%
2024	1.96	2.27	14%	14.4	37.2	159%
2025	2.50	2.90	14%	28.1	52.3	86%
2026	3.12	3.64	14%	44.9	68.4	52%
2027	3.88	4.47	13%	66.4	84.0	27%
2028	4.79	5.40	11%	92.9	107.0	15%

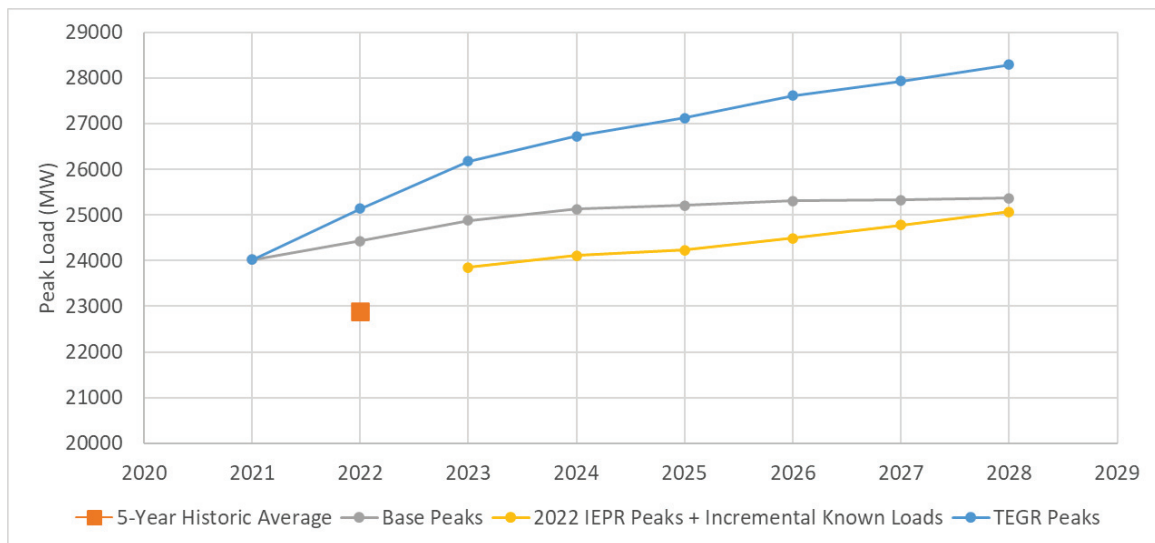
⁶¹⁵ Ex. CA-08-E at 20.

⁶¹⁶ Ex. CA-08-E at 20.

c) SCE is frontloading capital investments for EVs.

EV adoption rates, charging locations, and charging times are uncertain. This is especially true for MDHD EVs, which are only beginning deployment given the recent adoption of state policies such as ACF.⁶¹⁷ However, overestimating the influx of EVs and the corresponding utility infrastructure can lead to increased costs, which would not be justified if forecasted load fails to materialize or is significantly delayed.⁶¹⁸ SCE's TEGR Forecast aligns with the 2022 IEPR AATE 3⁶¹⁹ in the long term (around 2032). However, the figure below shows the Baseline and TEGR Forecasts greatly exceed the AATE3 forecast in the earlier years. This means the projected needs would arise earlier under the Baseline and TEGR Forecasts relative to the AATE3 forecast. This use of the Baseline and TEGR Forecasts, therefore, results in a frontloading of investments that is not unjustified and should not require ratepayers to fund this investment.

Cumulative peak load comparison between SCE's TEGR, SCE's Baseline Forecast, and the 2022 IEPR with incremental known loads.



⁶¹⁷ CARB, Advanced Clean Fleets Regulation Summary, May 17, 2023 (CARB, Advanced Clean Fleets Regulation Summary). Available at: <https://ww2.arb.ca.gov/resources/fact-sheets/advanced-clean-fleets-regulation-summary>.

⁶¹⁸ Public Advocates Office, Distribution Grid Electrification Model – Study and Report, 2023 (“DGEM”) at 44.

⁶¹⁹ Figure II-8 and II-9 from Ex. SCE-02, Vol. 07.

d) SCE's internal load shapes may be overestimating peak load associated with EVs.

SCE states that when disaggregating load from the IEPR forecast down to the circuit level, it customizes the load shapes based on the type of DER.⁶²⁰ The IEPR forecast includes 8760-hour, yearly load shapes for several DER types including energy efficiency (EE), photovoltaic (PV), transportation electrification (TE), energy storage (ES), and time-of-use (TOU). However, SCE only uses the IEPR load shapes for EE, ES, and TOU. For the other DERs, SCE states that it uses customized, internally developed load shapes for TE, PV, and LMDR.⁶²¹ when distributing total forecasts for each DER to the hourly level.

These customized load shapes, particularly for MDHD EVs, tend to have an increased peak when compared to the 2020 and 2022 IEPR.⁶²² Thus, SCE's internally developed load shapes result in an overestimation of the infrastructure overloads.

Cal Advocates received the 8760-hour load shapes for TE from SCE for both the Baseline and TEGR forecasts.⁶²³ After the analysis of these load shapes, Cal Advocates found that the load shapes SCE used are very similar, and often the same, across the Baseline and TEGR forecasts for LD and MDHD TE. SCE provided the TEGR load shapes as percentages of total energy. As a comparison, Cal Advocates converted the Baseline Forecast and IEPR hourly load shapes into percentages by dividing each hour by the total energy contributed by either LD or MDHD EVs for each year. This results in load shapes that show the *shape* of charging load, but do not show any differences in magnitude (or size) of the charging load that exist. The graphs below show the load profile comparison across SCE's Baseline, SCE's TEGR, the 2020 IEPR, and the 2022 IEPR.⁶²⁴

⁶²⁰ Workpaper SCE-02, Vol. 07 Book. A, TEGR Forecast Development Workpaper at 15.

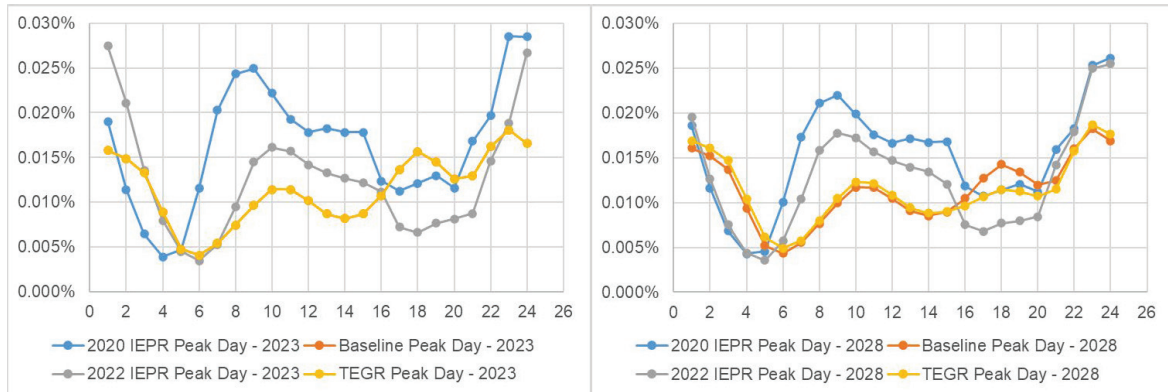
⁶²¹ Workpaper SCE-02, Vol. 07 Book. A, TEGR Forecast Development Workpaper at 15.

⁶²² See Figure 8-4 and Figure 8-5 below.

⁶²³ Ex, CA-08-E at 22.

⁶²⁴ Note that the Baseline load shape for 2023 is not visible because it is directly underneath the TEGR load shape, meaning that the load shapes are equivalent.

Light-duty load profile comparison between SCE's Baseline, SCE's TEGR, 2022 IEPR, and the 2020 IEPR for 2023 (left) and 2028 (right).

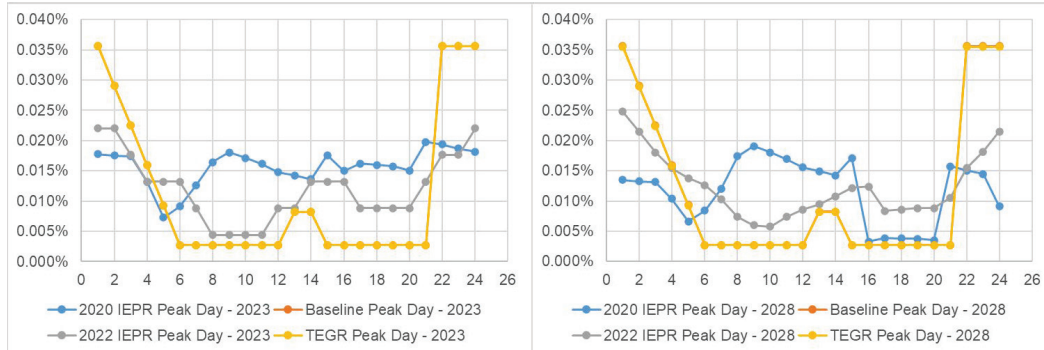


Moreover, the CEC forecasts more mid-day charging while SCE forecasts a smaller peak in the late-evening hours than the CEC in both the 2020 and 2022 IEPR. However, SCE's forecast reflects more charging occurs between 4-8pm. The 4-8pm spike in charging in SCE's forecast likely has a substantial impact on forecasted overloads on SCE's distribution system. This is because SCE's peak pricing currently occurs between 4pm and 9pm,⁶²⁵ showing that its peak load occurs during that time period. Applying this same methodology above, Cal Advocates derived the Baseline and TEGR load shapes for MDHD EV shown in graphs below.⁶²⁶

⁶²⁵ <https://www.sce.com/residential/rates/electric-vehicle-plans>, peak pricing is from 4-9pm.

⁶²⁶ Note that the Baseline load shape for 2023 and 2028 is not visible because it is directly underneath the TEGR load shape, meaning that the load shapes are equivalent. 2022 IEPR data from CED 2022 Hourly Forecast – SCE – Local Reliability (available at <https://efiling.energy.ca.gov/GetDocument.aspx?tn=248356>). 2020 IEPR data from CEDU 2020 Hourly Forecast Update – SCE – HIGH-LOW (available at <https://efiling.energy.ca.gov/GetDocument.aspx?tn=236299-1>).

MDHD load profile comparison between the SCE's Baseline, SCE's TEGR, 2022 IEPR, and the 2020 IEPR for 2023 (left) and 2028 (right).



SCE's LD load shape reflects moderately more on-peak charging than AATE3 but is otherwise similar. In comparison, SCE's MDHD profiles significantly deviate from both the 2020 and 2022 IEPR. For example, SCE forecasts very little daytime charging for MDHD EVs and assumes the majority of load associated with MDHD occurs right at 9pm. SCE states that this is due to the many different inputs and assumptions including SCE's current non-residential rate schedule.⁶²⁷ ⁶²⁸

In contrast to SCE's load shapes, the load shapes from the 2020 and 2022 IEPR show a more distributed load shape with more mid-day charging. Both IEPR profiles contain more load between the peak hours of 4-9pm. However, because SCE's MDHD vehicle population forecast is consistently and substantially greater than the IEPR, SCE's assumption of a large and sudden onset of MDHD charging at 9pm may substantially impact distribution infrastructure, especially because SCE forecasts heavily clustered MDHD charging in its industrial areas.⁶²⁹ This clustering of MDHD EV's which all begin charging at 9pm results in large, local power spikes may skew forecasting models into calculating far more infrastructure overloads than a more distributed charging

⁶²⁷ Workpaper SCE-02, Vol. 07 Book. A at 21.

⁶²⁸ Workpaper SCE-02, Vol. 07 Book.

⁶²⁹ Workpaper SCE-02, Vol. 07 Book. A at 111.

profile.⁶³⁰ Most likely, the large power spike in combination with the sustainability higher MDHD EV forecast leads to an excessive forecast of capital expenditures.

In conclusion, SCE did not include full TOU- responsiveness in its load shapes by considering its super off-peak period for commercial customers between 8am – 4pm and the data supporting that customers enrolled in these TOU rates are actively shifting their usage to mid-day.⁶³¹ SCE also did not incorporate the IEPR’s more distributed load shapes into their EV forecast. These components have the potential to result in more overloaded infrastructure than what is ultimately needed. Therefore, the Commission should adopt the recommendations outlined for the Baseline and TEGR forecasts.

**e) CEC AB2127 Report’s use of the CARB MSS and
SCE’s TEGR Forecast.**

The TEGR forecast supplements the 2020 IEPR with the 2020 CARB MSS EV forecast, which forecasts significantly higher EV adoption between 2023 and 2028 than the 2020 and 2022 IEPR.⁶³² Cal Advocates asked SCE to justify the use of a forecast that is “significantly outpacing the 2022 IEPR in the near term”.⁶³³ In response, SCE stated that the 2022 IEPR was not available to them at the time of analysis and that, “for the near-term outlook, the CEC didn’t consider the similar strong policy impacts as CARB’s MSS did”.⁶³⁴

SCE also states that “the CARB’s Mobile Source Strategy forecast is also used in CEC’s 2021 Assembly Bill (AB) 2127 EV Charging Infrastructure Assessment” as a justification for SCE using this forecast as well.⁶³⁵ However, the CEC’s 2021 AB 2127 Report states that the CARB MSS is considered an “upper bound” for MDHD vehicle

⁶³⁰ DGEM at 33.

⁶³¹ Joint IOU Cost Report, 2023 at 64-65.

⁶³² Refer to Table 8-8.

⁶³³ Ex. CA-08-E at 25.

⁶³⁴ Ex. CA-08-E at 25.

⁶³⁵ Alexander, Matt, Noel Crisostomo, Wendell Krell, Jeffrey Lu, and Raja Ramesh. May 2021. *Assembly Bill 2127 Electric Vehicle Charging Infrastructure Assessment: Analyzing Charging Needs to Support Zero-Emission Vehicles in 2030 – Revised Staff Report*. California Energy Commission. Publication Number: CEC-600-2021-001-REV. (“CEC 2021 AB 2127 Report”).

adoption⁶³⁶ and particularly notes the difference between the CARB MSS and the CEC's IEPR.

According to the CEC, the CARB MSS is not a forecast of EV adoption. Instead, the CEC considers it to be a planning document to reach air quality goals by considering the impacts of recent state and federal TE policies.⁶³⁷ SCE states the 2020 IEPR did not include the potential impact of these policies. As a result, SCE asserts the CARB MSS should be considered for their GRC requests associated with EV adoption in place of the 2020 IEPR.

SCE uses the CEC 2021 AB 2127 Report as a justification for using the CARB MSS forecast and the need for a substantial increase in investments to support EV charging. However, not only is the CARB MSS the highest adoption scenario in the CEC 2021 AB 2127 Report, but the newest version of the CEC AB 2127 Report has shifted EV charging infrastructure data for MDHD from the CARB MSS to the 2022 IEPR AATE 3. The 2022 IEPR includes the policy impacts that the CARB MSS considered. Thus, the 2022 IEPR results in an EV growth rate that is more up to date and more likely to be representative of true EV adoption and represents a lower rate.

EV charging infrastructure and utility infrastructure planning should be based on accurate and representative forecasts. The CEC's update to the AB 2127 report in August of 2023 emphasizes this point.⁶³⁸ Here, the CEC updates its forecasting methodology to move away from the 2020 CARB MSS and rely more heavily on the recent 2022 IEPR, specifically the AATE 3 for MDHD vehicles: The 2022 IEPR includes the policy impacts that the CARB MSS considered. Thus, the 2022 IEPR results in an EV growth rate that is more up to date and more likely to be representative of true EV adoption. Based on

⁶³⁶ CEC 2021 AB 2127 Report at 48.

⁶³⁷ Policy updates include CARB's Advanced Clean Cars II (ACC II), Advanced Clean Fleets (ACF), Advanced Clean Trucks (ACT), and the 2022 Federal Inflation Reduction Act.

⁶³⁸ Davis, Adam, Tiffany Hoang, Thanh Lopez, Jeffrey Lu, Taylor Nguyen, Bob Noltz, Larry Rillera, Dustin Schell, Micah Wofford. August 2023. Assembly Bill 2127 Electric Vehicle Charging Infrastructure Second Assessment Staff Draft Report: Assessing Charging Needs to Support Zero Emission Vehicles in 2030 and 2035. California Energy Commission. Publication Number: CEC-600-2023-048. ("CEC 2023 AB 2127 Report").

these considerations, the forecast of SCE's capital expenditures should be aligned with using the CEC 2022 IEPR AATE 3 instead of the CARB MSS.

f) SCE's use of external consultant studies and an internally developed DER forecast methodology prevents public transparency.

For the TEGR, SCE uses two components: a top-down disaggregation of the CARB MSS forecast and a bottom-up forecast from two consultant forecasts focusing on MDHD electrification. SCE states that if the results of these studies are not captured in disaggregation of the CARB MSS, then SCE replaces the CARB MSS forecast with the consultant forecasts.⁶³⁹ Unlike the robust stakeholder review and vetting that the IEPR forecast is subjected to, these consultant studies and methodologies are not accessible to the public or to other stakeholders for review. Thus, it is unclear if these studies would be considered as reliable as the IEPR forecast.

In D.18-02-004, the Commission explained the need for IOUs to use the IEPR for DER growth scenarios, rather than internally-developed forecasting methodology:

Planning assumptions and calculations should be transparent; the sources of assumptions should be publicly available; and the utility should clearly explain the steps taken to adjust the IEPR numbers.⁶⁴⁰

When disaggregating this forecast to the circuit level, the Commission has established that the IOUs may use their own methodology.⁶⁴¹ However, the planning assumptions and calculations performed by the IOUs during the disaggregation of the IEPR should be transparent and publicly available.

SCE should address location-specific needs through the disaggregation of the IEPR in order to allocate load in those identified areas, not through the inclusion of unvetted and confidential consultant forecasts. SCE's use of consultant studies for

⁶³⁹ Workpaper SCE-02, Vol. 07 Book. A at 101.

⁶⁴⁰ D.18-02-004 at 20.

⁶⁴¹ This forms part of the Grid Needs Assessment process, see D.18-02-004 at 23.

forecasting removes the consistency and transparency of the utility planning process. Instead of using SCE's methodology, the capital expenditures associated with the TEGR forecast should be aligned with the 2022 IEPR.

g) Cumulative Peak Load for TEGR is Higher than both the Baseline and the 2022 IEPR.

Cal Advocates' forecast seeks to align SCE's forecast with the most recent IEPR, specifically the CEC 2022 IEPR AATE 3 which incorporates recent policy updates.⁶⁴²

SCE's data shows that the TEGR cumulative peak loads are above the Baseline Forecast and that the Baseline Forecast is above the 2022 IEPR.⁶⁴³ Therefore, the TEGR must be removed in its entirety (combined with a percentage reduction of the Baseline Forecast) to align SCE's forecast with the 2022 IEPR.

Cal Advocates' analysis of SCE's data identified deficiencies in SCE's TEGR and Baseline forecasting methodology⁶⁴⁴ and further supports Cal Advocates' use of the CEC 2022 IEPR. These deficiencies are discussed below and support Cal Advocates' adjustments to SCE's capital expenditures based on the CEC 2022 IEPR.

h) CEC 2022 IEPR is based on the most up to date information and matches observations and trends more closely than SCE's Baseline and TEGR.

The 2022 IEPR (specifically, the AATE 3) represents the most recent and updated knowledge and data regarding EV adoption trends in California. Importantly, it shows a progressive decline in forecast peak load over the last three years of IEPR reports (2021-2023). This supports Cal Advocates' conclusion that the EV adoption rate and influence on peak load in SCE forecasts is overly aggressive along with SCE's capital expenditure requests.

⁶⁴² Policy updates include CARB's Advanced Clean Cars II (ACC II), Advanced Clean Fleets (ACF), Advanced Clean Trucks (ACT), and the 2022 Federal Inflation Reduction Act.

⁶⁴³ Ex. CA-08-E at 10.

⁶⁴⁴ Ex. CA-08-E at 30.

CARB tracks the year over year actual EV population for California including 2022 which can be compared against the Baseline, TEGR, and 2022 IEPR's forecast for 2022 to see how close each of these forecasts were to the actual adoption.⁶⁴⁵ This comparison can serve as a way to assess the accuracy of the forecasts.

Cal Advocates recommends adjustments to SCE's forecasts that are consistent with the most up-to-date forecasts of EV adoption in California (2022 IEPR AATE 3). Cal Advocates recognizes the importance for the electric utilities to have capacity available when it is needed, especially as California enters a transformative period of DER integration, building electrification, and transportation electrification where there will be significant uncertainty about the future. SCE should, however, conduct its distribution planning based on the most recent forecasts for the future.

i) CEC 2022 IEPR is better aligned with SCE's recent observations of MDHD charging behavior and, therefore, load shapes.

SCE's LD load shape for Baseline and TEGR evolves between 2023 and 2028 with a slight shift in load from 4-8pm to mid-day and later evening. SCE uses a static load profile for MDHD charging, which incorporates time-of-use (TOU)-responsiveness but makes the assumption that the vast majority of charging for MDHD will spike at 9pm with very little mid-day charging. SCE states that "if charging load shifts move to daytime, it would require additional investment."⁶⁴⁶ Additional investment is, however, only likely to be needed if SCE is considering MDHD charging load to move from overnight to evening. As Cal Advocates showed in its DGEM study, moving load from evening hours (specifically 9pm) to midday can significantly reduce investment by about two-thirds.⁶⁴⁷

⁶⁴⁵ CA-08 at 32.

⁶⁴⁶ Ex. CA-08-E at 33.

⁶⁴⁷ DGEM at 34.

As more MDHD fleet operators electrify and enroll in SCE's TOU rate, there will be a greater load shift to mid-day. The points above support Cal Advocates' conclusion that:

1. SCE did not, at the time of the analysis, include full TOU-responsiveness in its load shapes by considering its super off-peak period for commercial customers between 8am – 4pm and the data supporting that customers enrolled in these TOU rates are actively shifting their usage to mid-day.⁶⁴⁸ It also did not include the increased assumptions of TOU-rate responsiveness into the future during forecasting as data has shown that MDHD EV customers are increasingly enrolling in and participating in TOU rates.⁶⁴⁹
2. SCE's cost report and the data on MDHD TOU responsiveness in SCE's service territory further supports the 2022 IEPR load shape which, in addition to overnight charging, also assumes a significant mid-day load as well as an overall more distributed load profile.

Thus, the CEC 2022 IEPR is better aligned with SCE's recent observations of MDHD charging behavior and therefore load shapes.

j) Cal Advocates recommends aligning SCE's forecast with the 2022 IEPR.

Cal Advocates recommends aligning SCE's forecast with the 2022 IEPR and made the alignment through a comparison of cumulative peak loads within the GRC cycle between the 2022 IEPR, SCE's TEGR, and SCE's Baseline Forecast. From this comparison, Cal Advocates concludes that the TEGR load growth forecast and corresponding capital expenditures should be removed in their entirety given the significantly lower peak loads the 2022 IEPR forecasted.

Below are Cal Advocates' recommendations for the TEGR Forecast for the DSP and TSP sections of Exhibit SCE-02, Volume 07 for 2023 to 2025:

⁶⁴⁸ Joint IOU Cost Report, 2023 at 64-65.

⁶⁴⁹ Joint IOU Cost Report, 2023 at 54.

**Cal Advocates' recommendations for TEGR DSP Capital Expenditures for
2023-2025⁶⁵⁰
(in Thousands of Nominal Dollars)**

DSP Cost Category	SCE Proposed			Cal Advocates Recommended			Difference (SCE Proposed - Cal Advocates Recommended)		
	2023	2024	2025	2023	2024	2025	2023	2024	2025
DSP Circuit Upgrades	\$0	\$0	\$16,626	\$0	\$0	\$0	\$0	\$0	\$16,626
DSP New Circuits	\$0	\$8,076	\$37,100	\$0	\$0	\$0	\$0	\$8,076	\$37,100
DSP Substations	\$0	\$24,598	\$23,933	\$0	\$0	\$0	\$0	\$24,598	\$23,933
Total	\$0	\$32,674	\$77,659	\$0	\$0	\$0	\$0	\$32,674	\$77,659

**Cal Advocates' recommendations for TEGR TSP Capital Expenditures for
2023-2025⁶⁵¹
(in Thousands of Nominal Dollars)**

TSP Cost Category	SCE Proposed			Cal Advocates Recommended			Difference (SCE Proposed - Cal Advocates Recommended)		
	2023	2024	2025	2023	2024	2025	2023	2024	2025
TSP A-Bank Plan	\$0	\$0	\$54,268	\$0	\$0	\$0	\$0	\$0	\$54,268

Below are Cal Advocates' recommendations for the TEGR Forecast of the DSP and TSP sections of Exhibit SCE-02, Volume 07 for 2026 to 2028:

⁶⁵⁰ Ex. CA-08-E at 36.

⁶⁵¹ Ex. CA-08-E at 36.

**Cal Advocates' recommendations for TEGR DSP Capital Expenditures for
2026-2028⁶⁵²
(in Thousands of Nominal Dollars)**

DSP Cost Category	SCE Proposed			Cal Advocates Recommended			Difference (SCE Proposed - Cal Advocates Recommended)		
	2026	2027	2028	2026	2027	2028	2026	2027	2028
DSP Circuit Upgrades	\$4,164	\$36,668	\$7,800	\$0	\$0	\$0	\$4,164	\$36,668	\$7,800
DSP New Circuits	\$26,768	\$59,308	\$51,886	\$0	\$0	\$0	\$26,768	\$59,308	\$51,886
DSP Substations	\$32,648	\$28,166	\$21,453	\$0	\$0	\$0	\$32,648	\$28,166	\$21,453
Total	\$63,580	\$124,141	\$81,140	\$0	\$0	\$0	\$63,580	\$124,141	\$81,140

**Cal Advocates' recommendations for TEGR TSP Capital Expenditures for
2026-2028⁶⁵³
(in Thousands of Nominal Dollars)**

TSP Cost Category	SCE Proposed			Cal Advocates Recommended			Difference (SCE Proposed - Cal Advocates Recommended)		
	2023	2024	2025	2026	2027	2028	2026	2027	2028
TSP A-Bank Plan	\$105,256	\$118,010	\$159,364	\$0	\$0	\$0	\$105,256	\$118,010	\$159,364

5. Baseline Load Growth Programs

a) SCE's Baseline Load Growth Projects and Programs

SCE's Baseline Forecast is an output of SCE's traditional distribution and subtransmission planning process which involves disaggregation of the 2020 IEPR as described in SCE's GNA filings.⁶⁵⁴

SCE's Baseline Forecast results in \$1.93 billion out of the total Commission-jurisdictional capital expenditure request of \$2.74 billion from 2023 – 2028 in the Load

⁶⁵² Ex. CA-08-E at 37.

⁶⁵³ Ex. CA-08-E at 37.

⁶⁵⁴ Workpaper SCE-02, Vol. 07 Book. A, SCE's Grid Needs Assessment Narrative.

Growth section of Exhibit SCE-02, Volume 07. The Baseline Forecast results in capital expenditures in all the sub-sections of SCE's Load Growth Chapter.

SCE's 2023-2025 forecasts for its Distribution Grid capital activities were based mostly on its recorded adjusted capital expenditures, plus additional incremental expenditures for proposed projects and activities.

The table below shows SCE's request for the four cost categories under the DSP section of Exhibit SCE-02, Volume 07.

**SCE Baseline Forecast Capital Cost for the Distribution
Substation Plan (in Thousands of Nominal Dollars)⁶⁵⁵**

	2023	2024	2025	2026	2027	2028
DSP Circuit Upgrades	\$24,842	\$56,611	\$48,061	\$52,102	\$37,697	\$45,330
DSP DER	\$1,226	\$2,507	\$10,000	\$35,300	\$35,300	\$35,300
DSP New Circuits	\$42,800	\$60,289	\$42,443	\$41,614	\$42,076	\$54,961
DSP Substations	\$35,267	\$41,249	\$53,213	\$166,593	\$123,715	\$40,872
Total	\$104,135	\$160,656	\$153,717	\$295,609	\$238,788	\$176,463

The table below shows SCE's request for the three cost categories under the TSP section of Exhibit SCE-02, Volume 07.

**SCE Baseline Forecast Capital Cost for the Transmission
Substation Plan
(in Thousands of Nominal Dollars)⁶⁵⁶**

	2023	2024	2025	2026	2027	2028
TSP Subtransmission Lines Plan	\$48,501	\$42,198	\$42,607	\$23,833	\$2,913	\$3,832
TSP A-Bank Plan	\$8,607	\$5,343	\$9,716	\$27,037	\$94,790	\$107,207
TSP Subtransmission VAR	\$970	\$715	\$866	\$1,861	\$714	\$2,098
Total	\$58,079	\$48,256	\$53,189	\$52,731	\$98,418	\$113,136

⁶⁵⁵ Ex. SCE-02, Vol. 07 at 43-69.

⁶⁵⁶ Ex. SCE-02, Vol. 07 at 69-83.

The table below shows SCE’s request for the System Improvement Programs section of Exhibit SCE-02, Volume 07.

**SCE Baseline Forecast Capital Cost for the System Improvement Program
(in Thousands of Nominal Dollars)⁶⁵⁷**

	2023	2024	2025	2026	2027	2028
System Improvement Programs	\$24,842	\$56,611	\$48,061	\$40,430	\$45,852	\$47,860

There are also SCE capital expenditure requests in the Load Growth section of Exhibit SCE-02, Volume 7 associated with Climate Driven Circuit Ties and Land Rights Management. Cal Advocates does not oppose SCE’s Climate Driven Circuit Ties and Land Rights Management request.

b) Cal Advocates’ Baseline Load Growth Methodology

Cal Advocates’ recommendations seek to align the Baseline Forecast to the CEC 2022 IEPR. Cal Advocates does not oppose most of the methodologies and assumptions SCE used to develop its Baseline Forecast. However, the concerns raised concerning SCE’s TEGR forecast above also apply to the Baseline Forecast. Specifically, both the Baseline Forecast and TEGR Forecast raise concerns because:

- Both forecasts have aggressive near-term EV adoption forecasts, especially for MDHD EV;
- Both forecasts result in a front-loading of capital expenditure due to the aggressive near-term EV forecast; and
- Both use SCE’s internally developed load shapes.

In light of the common concerns between these two forecasts, Cal Advocates recommends that SCE’s Baseline Forecast capital expenditure requests be adjusted to align with the 2022 IEPR, consistent with the discussion above.

⁶⁵⁷ Ex. SCE-02, Vol. 07 at 84-95.

c) Methodology for Aligning Forecast with 2022 IEPR

Cal Advocates seeks to align SCE's Load Growth capital expenditure request with the 2022 IEPR. Since the peak load from the TEGR far exceeded the 2022 IEPR and the Baseline, Cal Advocates recommends a complete cut or a complete reduction of SCE's TGER requests.⁶⁵⁸

Cal Advocates relies on certain assumptions to adjust SCE's forecasts downward to project what spending is needed to meet the load growth in the 2022 IEPR AATE 3. These assumptions are as follows.

Infrastructure is built to serve peak load. The amount of peak load that must be served therefore dictates the quantity of new infrastructure. Utility infrastructure includes discrete assets with approximately linear costs (e.g., two new substations costs about twice what one new substation costs). New infrastructure is built when peak loads rise higher than an asset's capacity. Since the cost of new infrastructure is approximately linear, a peak load increase of 100 MW will require half of the infrastructure, at half of the cost, of a peak load increase of 200 MW.⁶⁵⁹

The observation that cost is proportional to *growth in* peak load leads to the observation that, given two forecasts of peak load growth (A and B), the ratio of capital spending under the two forecasts should approximately match the ratio of peak load growth in the two forecasts:

$$\frac{Spending_{Forecast A}}{Spending_{Forecast B}} = \frac{Peak Load Growth_{Forecast A}}{Peak Load Growth_{Forecast B}}$$

Because peak load growth is equal to the forecasted peak minus the baseline peak:

$$\frac{Spending_{Forecast A}}{Spending_{Forecast B}} = \frac{Peak Load_{Forecast A} - Baseline Peak}{Peak Load_{Forecast B} - Baseline Peak}$$

Or:

⁶⁵⁸ See Figure 8-6.

⁶⁵⁹ There is a simplification here that system (coincident) peak approximately correlates to individual (non-coincident) infrastructure peaks. This will not always be the case. There is also a simplification that the available buffer is consistent everywhere.

$$Spending_{Forecast A} = Spending_{Forecast B} \frac{Peak Load_{Forecast A} - Baseline Peak}{Peak Load_{Forecast B} - Baseline Peak}$$

This generalized equation is applicable to SCE's GRC rate case. In accordance with this equation, Cal Advocates adjusted the Load Growth capital expenditures by using a ratio between the difference in cumulative peak load growth SCE forecasted and the 2022 IEPR compared to the average 5-year historic peak load. Cal Advocates then used the following equation to adjust the capital expenditures to align with the 2022 IEPR peak load:

$$CCE_{CalAdv,n} = \frac{P_{IEPR,n} - P_{Historic}}{P_{SCE,n} - P_{Historic}} \times CCE_{SCE,n}$$

$CCE_{SCE,n}$	= cumulative capital expenditure requested by SCE up to year n, calculated as $\sum_{i=2023}^n CE_{SCE,i}$
$CCE_{CalAdv,n}$	= cumulative capital expenditure recommendation for SCE up to year n, calculated as $\sum_{i=2023}^n CE_{CalAdv,i}$
CE	= capital expenditure
n	= year increment
i	= summation index
$P_{IEPR,n}$	= 2022 IEPR peak load forecast for year n. ⁶⁶⁰
$P_{SCE,n}$	= SCE peak load forecast for year n. ⁶⁶¹
$P_{Historic}$	= average system peak load from 2018-2022. ⁶⁶²

Cal Advocates performed this calculation on the cumulative capital expenditures SCE requested for its Baseline Forecast with the exclusion of the capital expenditure requests associated with the Climate Driven Circuit Ties and Land Rights Management sections of Exhibit SCE-02, Volume 7. This methodology is applied to cumulative capital expenditures because the increase in peak load is calculated in reference to a baseline peak. Both the numerator and denominator of the above equation are differences in cumulative peak load rather than year over year load growth. The result of this calculation was then converted into a yearly percentage reduction which is then applied

⁶⁶⁰ 2022 IEPR data from CED 2022 Hourly Forecast – SCE – Local Reliability (available at <https://efiling.energy.ca.gov/GetDocument.aspx?tn=248356>).

⁶⁶¹ Ex. CA-08-E at 42.

⁶⁶² Ex. CA-08-E at 42.

to SCE's capital expenditures for 2023 – 2028 (with the exclusion of Climate Driven Circuit Ties and Land Rights Management).

**Percentage reduction in SCE's requested
Baseline Forecast capital expenditures.**

Year	Percentage reduction recommended by Cal Advocates
2023	52%
2024	41%
2025	36%
2026	18%
2027	0%
2028	0%

To adjust the capital expenditures based on these percent reductions, Cal Advocates first removed any unsubstantiated projects, then applied the percent reduction to the remaining balance.

d) Cal Advocates' Recommendation

The following tables summarize Cal Advocates' recommendation for adjustments to the Baseline Forecast capital expenditures for DSP, TSP and System Improvement.

The table below shows SCE's proposed capital expenditures, Cal Advocates' recommendations, and the adjustment split between Exhibit CA-07 and Exhibit CA-08 where applicable for 2023-2025 for the DSP cost categories.

**Cal Advocates' recommendations and specific exhibit reductions compared to SCE's proposal
for DSP Baseline Forecast Capital Expenditures for 2023-2025⁶⁶³
(in Thousands of Nominal Dollars)**

DSP Cost Category	SCE Proposed			Cal Advocates Recommended			Cal Advocates Reduction by Exhibit (SCE Proposed - Cal Advocates Recommended = CA-07 + CA-08)					
	TOTAL			TOTAL			CA-07	CA-08	CA-07	CA-08	CA-07	CA-08
	2023	2024	2025	2023	2024	2025	2023	2024	2023	2024	2025	2025
DSP Circuit Upgrades	\$24,842	\$56,611	\$48,061	\$12,027	\$33,519	\$30,643	\$0	\$12,815	\$0	\$23,092	\$0	\$17,417
DSP DER	\$1,226	\$2,507	\$10,000	\$594	\$1,484	\$6,121	\$0	\$633	\$0	\$1,023	\$400	\$3,479
DSP New Circuits	\$42,800	\$60,289	\$42,443	\$20,721	\$35,697	\$27,062	\$0	\$22,078	\$0	\$24,592	\$0	\$15,381
DSP Substations	\$35,267	\$41,249	\$53,213	\$16,145	\$24,424	\$33,929	\$1,920	\$17,203	\$0	\$16,826	\$0	\$19,284
Total	\$104,135	\$160,656	\$153,717	\$49,487	\$95,124	\$97,755	\$1,920	\$52,729	\$0	\$65,533	\$400	\$55,562

⁶⁶³ Ex. CA-08-E at 44.

The table below shows SCE proposed capital expenditures, Cal Advocates' corresponding recommendations, and the adjustment split between Exhibit CA-07 and Exhibit CA-08 where applicable for 2023-2025 for the TSP cost categories.

**Cal Advocates' recommendations and specific exhibit reductions compared to
SCE's proposal for TSP Baseline Forecast for Capital Expenditures for 2023-2025⁶⁶⁴**
(in Thousands of Nominal Dollars)

TSP Cost Category	SCE Proposed			Cal Advocates Recommended			Cal Advocates Reduction by Exhibit (SCE Proposed - Cal Advocates Recommended = CA-07 + CA-08)					
	TOTAL			TOTAL			CA-07	CA-08	CA-07	CA-08	CA-07	CA-08
	2023	2024	2025	2023	2024	2025	2023		2024		2025	
TSP STL	\$48,501	\$42,198	\$42,607	\$19,799	\$13,716	\$23,110	\$7,606	\$21,096	\$19,032	\$9,449	\$6,363	\$13,135
TSP A-Bank Plan	\$8,607	\$5,343	\$9,716	\$1,753	\$0	\$0	\$4,987	\$1,868	\$5,343	\$0	\$9,716	\$0
TSP ST VAR	\$970	\$715	\$866	\$470	\$423	\$552	\$0	\$501	\$0	\$292	\$0	\$314
Total	\$58,079	\$48,256	\$53,189	\$22,022	\$14,140	\$23,662	\$12,593	\$23,464	\$24,375	\$9,741	\$16,078	\$13,449

The table below shows SCE proposed capital expenditures, Cal Advocates' corresponding recommendations, and the total adjustment for 2023-2025 for the System Improvement Programs.

⁶⁶⁴ Ex. CA-08-E at 44.

**Cal Advocates' recommendations and specific exhibit reductions compared to
SCE's proposal for System Improvement Baseline Forecast Capital Expenditures for 2023-2025⁶⁶⁵**
(in Thousands of Nominal Dollars)

	SCE Proposed			Cal Advocates Recommended			Cal Advocates Reduction by Exhibit (SCE Proposed - Cal Advocates Recommended = CA-07 + CA-08)					
	TOTAL			TOTAL			CA-07	CA-08	CA-07	CA-08	CA-07	CA-08
	2023	2024	2025	2023	2024	2025	2023		2024		2025	
System Improvement	\$50,344	\$56,270	\$46,970	\$24,374	\$33,317	\$29,948	\$0	\$25,970	\$0	\$22,953	\$0	\$17,022

The table below shows SCE proposed capital expenditures, Cal Advocates' corresponding recommendations, and the adjustment split between Exhibit CA-07 and Exhibit CA-08 where applicable for 2026-2028 for the DSP cost categories.

⁶⁶⁵ Ex. CA-08-E at 45.

**Cal Advocates' recommendations and specific exhibit reductions compared to
SCE's proposal for DSP Baseline Forecast Capital Expenditures for 2026-2028⁶⁶⁶**
(in Thousands of Nominal Dollars)

DSP Cost Category	SCE Proposed				Cal Advocates Recommended				Cal Advocates Reduction by Exhibit (SCE Proposed - Cal Advocates Recommended = CA-07 + CA-08)							
	TOTAL				TOTAL				CA-07	CA-08	CA-07	CA-08	CA-07	CA-08	CA-07	CA-08
	2026	2027	2028	2028	2026	2027	2028	2028	2026		2027		2028			
DSP Circuit Upgrades	\$52,102	\$37,697	\$45,330	\$45,330	\$42,468	\$37,697	\$45,330	\$45,330	\$0	\$9,634	\$0	\$0	\$0	\$0	\$0	\$0
DSP DER	\$35,300	\$35,300	\$35,300	\$35,300	\$7,825	\$9,600	\$9,600	\$9,600	\$25,700	\$1,775	\$25,700	\$0	\$25,700	\$25,700	\$0	\$0
DSP New Circuits	\$41,614	\$42,076	\$54,961	\$54,961	\$33,919	\$42,076	\$54,961	\$54,961	\$0	\$7,695	\$0	\$0	\$0	\$0	\$0	\$0
DSP Substations	\$166,593	\$123,715	\$40,872	\$40,872	\$135,789	\$123,715	\$40,872	\$40,872	\$0	\$30,803	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$295,609	\$238,788	\$176,463	\$176,463	\$220,002	\$213,088	\$150,763	\$150,763	\$25,700	\$49,907	\$25,700	\$0	\$25,700	\$25,700	\$0	\$0

The table below shows SCE proposed capital expenditures, Cal Advocates' corresponding recommendations, and the adjustment split between Exhibit CA-07 and Exhibit CA-08 where applicable for 2026-2028 for the TSP cost categories.

⁶⁶⁶ Ex. CA-08-E at 46.

**Cal Advocates' recommendations and specific exhibit reductions compared to
SCE's proposal for TSP Baseline Forecast Capital Expenditures for 2026-2028⁶⁶⁷**
(in Thousands of Nominal Dollars)

TSP Cost Category	SCE Proposed				Cal Advocates Recommended				Cal Advocates Reduction by Exhibit (SCE Proposed - Cal Advocates Recommended = CA-07 + CA-08)							
	TOTAL				TOTAL				CA-07		CA-08		CA-07		CA-08	
	2026	2027	2028		2026	2027	2028		2026		2027		2028			
TSP STL	\$23,833	\$2,913	\$3,832		\$17,853	\$81	\$208		\$1,931	\$4,050	\$2,832	\$0	\$3,624	\$0		
TSP A- Bank Plan	\$27,037	\$94,790	\$107,207		\$0	\$0	\$0		\$27,037	\$0	\$94,790	\$0	\$107,207	\$0		
TSP ST VAR	\$1,861	\$714	\$2,098		\$1,517	\$714	\$2,098		\$0	\$344	\$0	\$0	\$0	\$0		
Total	\$52,731	\$98,418	\$113,136		\$19,369	\$795	\$2,306		\$28,968	\$4,394	\$97,623	\$0	\$110,831	\$0		

The table below shows SCE proposed capital expenditures, Cal Advocates' corresponding recommendations, and the total adjustment for 2026-2028 for the System Improvement Programs.

⁶⁶⁷ Ex. CA-08-E at 47.

**Cal Advocates' recommendations and specific exhibit reductions compared to
SCE's proposal for System Improvement Baseline Forecast Capital Expenditures for 2026-2028⁶⁶⁸**
(in Thousands of Nominal Dollars)

	SCE Proposed			Cal Advocates Recommended			Cal Advocates Reduction by Exhibit (SCE Proposed - Cal Advocates Recommended = CA-07 + CA-08)					
	TOTAL			TOTAL			CA-07	CA-08	CA-07	CA-08	CA-07	CA-08
	2026	2027	2028	2026	2027	2028	2026	2027	2027	2028		
System Improvement	\$40,430	\$45,852	\$47,860	\$32,955	\$45,852	\$47,860	\$0	\$7,476	\$0	\$0	\$0	\$0

⁶⁶⁸ Ex. CA-08-E at 47.

B. Transmission Projects

SCE requests \$126.5 million in capital expenditure for Transmission Projects between 2023 and 2025 and \$109.4 million in capital expenditure for Transmission Projects between 2026 and 2028.⁶⁶⁹ SCE divides its Transmission Projects into the following categories: 1) Grid Reliability; 2) Renewable Transmission; 3) Generation Interconnection Remedial Action Scheme (RAS); and 4) Transmission Economic Projects.⁶⁷⁰ Because the Commission does not have jurisdiction over any capital expenditures for Generation Interconnection RAS, SCE and Cal Advocates did not cover this category.⁶⁷¹

Cal Advocates recommends that the Commission adopt a decrease of \$22.5 million between 2023 to 2025 to all Transmission Projects, which yields a modified capital expenditure total of \$104.0 million between 2023-2025. The table below compares Cal Advocates' recommendation and SCE's 2023 through 2025 forecasts for Transmission Projects.

⁶⁶⁹ Ex. SCE-02, Vol. 07E2 at 105E2.

⁶⁷⁰ Ex. SCE-02, Vol. 07 at 105.

⁶⁷¹ Ex. SCE-02, Vol. 07 at 105.

**SCE's Request and Cal Advocates' Recommendation for
Transmission Projects Capital Expenditures for 2023-2025
(in Thousands of Nominal Dollars)⁶⁷²**

Cost Category	SCE Proposed			Cal Advocates Recommendation			Difference (SCE Proposed - Cal Advocates Recommended)		
	2023	2024	2025	2023	2024	2025	2023	2024	2025
Grid Reliability Projects	\$15,779	\$40,840	\$34,866	\$15,738	\$35,869	\$32,910	\$41	\$4,971	\$1,956
Renewable Transmission Projects	\$14,033	\$9,785	\$6,110	\$5,380	\$6,610	\$2,368	\$8,653	\$3,175	\$3,742
Transmission Economic Projects	\$0	\$1,774	\$3,321	\$0	\$1,774	\$3,321	\$0	\$0	\$0
Total	\$29,812	\$52,399	\$44,297	\$21,118	\$44,253	\$38,599	\$8,694	\$8,146	\$5,698

The Grid Reliability and Renewable Transmission assessments focus on the 2023-2025 capital expenditure requests, while the evaluation of the Transmission Economic Projects also encapsulates the proposed investments in the attrition years (2026-2028). Cal Advocates examines the Transmission Economic Projects' attrition years because the majority of the capital expenditure requests are within the attrition years.

1. The Commission should not fully approve SCE's Grid Reliability Projects request

SCE requests \$91.5 million in capital expenditures for the Grid Reliability Projects between 2023 and 2025.⁶⁷³ These projects support transmission system reliability and compliance with various regulatory requirements.⁶⁷⁴

Cal Advocates recommends a decrease of \$7.0 million for the Grid Reliability Projects over the three-year period, which yields a 2023-2025 modified capital

⁶⁷² Ex. SCE-02, Vol. 07E2 at 105E2-116E2.

⁶⁷³ Ex. SCE-02, Vol. 07E2 at 107E2.

⁶⁷⁴ Ex. SCE-02, Vol. 07 at 107. The government agencies that regulate SCE's transmission system include the North American Electric Reliability Corporation (NERC), Western Electricity Coordinating Council (WECC), and California Independent System Operator (CAISO).

expenditure of \$84.5 million. The table below compares Cal Advocates' recommendation and SCE's 2023 through 2025 forecasts for the Grid Reliability Projects.

**SCE's Request and Cal Advocates' Recommendation for the Grid Reliability
Transmission Project Capital Expenditures for 2023-2025
(in Thousands of Nominal Dollars)⁶⁷⁵**

Project Details	SCE Proposed			Cal Advocates' Recommendation			Difference (SCE Proposed - Cal Advocates Recommended)		
	2023	2024	2025	2023	2024	2025	2023	2024	2025
Transmission Blanket	(\$217)	\$1,754	\$6,976	(\$217)	\$1,754	\$6,976	\$0	\$0	\$0
Cerritos Channel Transmission Line Relocation Project	\$151	\$16,965	\$15,701	\$151	\$16,965	\$15,701	\$0	\$0	\$0
Riverside Transmission Reliability Project	\$41	\$1,021	\$1,021	\$0	\$0	\$0	\$41	\$1,021	\$1,021
Transmission IT Blanket	\$10,233	\$14,183	\$11,168	\$10,233	\$10,233	\$10,233	\$0	\$3,950	\$935
Projects under \$3 million	\$674	\$398	\$0	\$674	\$398	\$0	\$0	\$0	\$0
Projects with operating date outside of GRC window	\$4,897	\$6,519	\$0	\$4,897	\$6,519	\$0	\$0	\$0	\$0
Total	\$15,779	\$40,840	\$34,866	\$15,738	\$35,869	\$32,910	\$41	\$4,971	\$1,956

Cal Advocates recommends capital expenditure decreases for two projects:
1) Project No. 5450: Riverside Transmission Reliability Project, and 2) Project No. 4576: Transmission IT Blanket.

⁶⁷⁵ Ex. SCE-02, Vol. 07E2 at 107E2. Please note that the parentheses indicate a negative value.

The Riverside Transmission Reliability Project (RTRP) has experienced delays and the work on this project is currently suspended. On October 2, 2023, the City of Norco filed a Petition for Modification (PFM) of the decision approving the RTRP to request that a portion of the project be undergrounded. This request has delayed the construction of the project past the operation date that SCE stated in Exhibit SCE-02, Volume 07.⁶⁷⁶ SCE states in a data response that “until the CPUC provides a decision on the PFM, SCE will not perform any additional work.”⁶⁷⁷ Thus, Cal Advocates recommends that the RTRP be removed from this GRC and that any capital expenditures for this project not be added to a GRC until after the Commission rules on the City of Norco’s PFM. It would be unreasonable for ratepayers to fund a stalled project.

For Project No. 4576: Transmission IT Blanket, SCE provided a clear cost category breakdown for the year 2023. However, SCE provided no historic costs for 2018 through 2022 and no cost category breakdown besides the category “Other” for 2024 through 2028.⁶⁷⁸ The table below shows SCE’s cost category breakdown of this project from 2018 to 2028.

⁶⁷⁶ Downey Brand, LLP, *Petition of the City of Norco to Modify Decision 20-03-001 to Reopen the Record to Consider Alternative 8 of the Riverside Transmission Reliability Project*, October 2, 2023.

⁶⁷⁷ SCE’s response to data request PubAdv-SCE-373-MJJ, Q.4.

⁶⁷⁸ Ex. CA-07 at 27.

**Cost Category Breakdown of Project No. 4576: Transmission IT Blanket
(in Thousands of Nominal Dollars)⁶⁷⁹**

Cost Category	2018	2019	2020	2021	2022	2023	2024	2025
Labor	\$0	\$0	\$0	\$0	\$0	\$1,553	\$0	\$0
Material	\$0	\$0	\$0	\$0	\$0	\$4,596	\$0	\$0
Other	\$0	\$0	\$0	\$0	\$0	\$1,021	\$14,183	\$11,168
Contract	\$0	\$0	\$0	\$0	\$0	\$3,064	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$0	\$10,233	\$14,183	\$11,168

Due to the lack of historic costs and only a vague budget, it was impossible to review SCE’s request for 2024 and 2025 capital expenditures.⁶⁸⁰ Cal Advocates recommends using SCE’s 2023 proposed budget for 2024 and 2025. The table below shows Cal Advocates’ modified budget for this project.

**Cal Advocates’ Recommended Modified Cost Category
Breakdown of Project No. 4576: Transmission IT Blanket
(in Thousands of Nominal Dollars)⁶⁸¹**

Cost Category	2023	2024	2025
Labor	\$1,553	\$1,553	\$1,553
Material	\$4,596	\$4,596	\$4,596
Other	\$1,021	\$1,021	\$1,021
Contract	\$3,064	\$3,064	\$3,064
Total	\$10,233	\$10,233	\$10,233

⁶⁷⁹ SCE’s response to data request PubAdv-SCE-315-MJJ Q.5 (Please note, however, that the specific excel spreadsheet provided to Cal Advocates in this data responses was titled *PubAdv-SCE-245-MJJ, Q.2d - Corrected.xlsx*). The table replicates in a more legible format the line-item budget of Project No. 4576. Please note that the line-item budget that SCE provided in the data response also contains proposed budgets for the attrition years (2026-2028), and the annual proposed budgets for the attrition years also only include a budget for the line-item “Other”.

⁶⁸⁰ Ex. CA-07-E at 27.

⁶⁸¹ SCE’s response to data request PubAdv-SCE-315-MJJ Q.5 (Please note, however, that the specific excel spreadsheet provided to Cal Advocates in this data responses was titled *PubAdv-SCE-245-MJJ, Q.2d - Corrected.xlsx*). The table replicates in a more legible format the line-item budget of Project No. 4576 and presents Cal Advocates’ proposed modifications to the budget.

2. The Commission should decrease SCE's Renewable Transmission Projects request

SCE requests a total of \$29.9 million in capital expenditures for the Renewable Transmission Projects between 2023 and 2025.⁶⁸² These projects include interconnection and policy-driven projects.⁶⁸³ For its interconnection projects, SCE performs studies with CAISO and assists power plants with the CAISO generator interconnection process.⁶⁸⁴ The policy-driven projects are subject to the CAISO's transmission planning process (TPP), which evaluates transmission investments necessitated by public policy and reliability needs, as well as infrastructure improvements that reduce overall transmission costs.⁶⁸⁵

Cal Advocates recommends a decrease of \$15.6 million for the Grid Reliability Projects between 2023 and 2025. Cal Advocates' decrease results in a modified 2023-2025 capital expenditure Grid Reliability Projects request of \$14.4 million. The table below compares Cal Advocates' recommendation and SCE's 2023 through 2025 forecasts for the Renewable Transmission Projects.

⁶⁸² Ex. SCE-02, Vol. 07E2 at 113E2.

⁶⁸³ Ex. SCE-02, Vol. 07 at 113.

⁶⁸⁴ Ex. SCE-02, Vol. 07 at 113.

⁶⁸⁵ CAISO, *2022-2023 Transmission Plan*, May 18, 2023. Available at: caiso.com/InitiativeDocuments/Revised-Draft-2022-2023-Transmission-Plan.pdf.

**SCE's Request and Cal Advocates' Recommendation for
the Renewable Transmission Project Capital Expenditures for 2023-2025
(in Thousands of Nominal Dollars)⁶⁸⁶**

Project Details	SCE Proposed			Cal Advocates' Recommendation			Difference (SCE Proposed - Cal Advocates Recommended)		
	2023	2024	2025	2023	2024	2025	2023	2024	2025
Lugo-Victorville 500kV SPS	\$3,899	\$467	\$0	\$0	\$0	\$0	\$3,899	\$467	\$0
Tours Solar Project (WDT1268)	\$2,623	\$1,498	\$1	\$0	\$0	\$0	\$2,623	\$1,498	\$1
Calcite 220kV Substation	\$0	\$0	\$3,741	\$0	\$0	\$0	\$0	\$0	\$3,741
Syracuse Solar Project (WDT1267)	\$2,131	\$1,210	\$0	\$0	\$0	\$0	\$2,131	\$1,210	\$0
Projects with Commission jurisdictional costs under \$3 million	\$2,553	\$2,683	\$820	\$2,553	\$2,683	\$820	\$0	\$0	\$0
Projects with operating dates outside the GRC cycle	\$2,827	\$3,927	\$1,548	\$2,827	\$3,927	\$1,548	\$0	\$0	\$0
Total	\$14,033	\$9,785	\$6,110	\$5,380	\$6,610	\$2,368	\$8,653	\$3,175	\$3,742

Cal Advocates recommends capital expenditure decreases for the following projects: 1) Project No. 7763: Lugo-Victorville 500kV SPS; 2) Project No. 8085: Tours Solar Project; 3) Project No. 8082: Syracuse Solar Project; and 4) Project No. 6902: Calcite 220kV Substation. These decreases should be adopted by the Commission, as several of these projects have experienced changes to their operation dates.

⁶⁸⁶ Ex. SCE-02, Vol. 07E2 at 113E2.

As of October 25, 2023, the new expected operation date of Project No. 7763: Lugo-Victorville 500kV SPS is January 2026 rather than 2023.⁶⁸⁷ SCE explained that the project's operation date has changed due to delays in permit approval from various state agencies, and "these approvals are needed to complete the remaining project construction."⁶⁸⁸ For Project No. 8085: Tours Solar Project and Project No. 8082: Syracuse Solar Project, "the project was placed on hold by the customer and is awaiting a revised operation date."⁶⁸⁹ Without a clear operation date for these two projects, Cal Advocates recommends removing Project No. 8085 and Project No. 8082 from this GRC. Ratepayers should not be asked to fund the project without a definite operation date.

Project No. 6902: Calcite 220kV Substation will also likely experience delays in its operation date. SCE reported that it is developing the Permit to Construct (PTC) for the Calcite 220kV Substation and has not yet submitted the PTC to the Commission.⁶⁹⁰ SCE further stated that it expects "a 9-month duration from the submission date to the CPUC Final Decision. However, this timeline is only an estimate and is dependent and driven by Commission review."⁶⁹¹ SCE should not make a request for cost recovery of a transmission project until after the Commission has reviewed and approved its PTC.

Moreover, SCE reported that once the Commission has approved the PTC, it will take another approximately 18 months to construct the Calcite 220 kV Substation before the project is placed in-service.⁶⁹² SCE added that the 18-month timeframe did not include other necessary steps to construct the substation, including design, engineering, land acquisition, and material procurement, among other activities.⁶⁹³ Finally, an

⁶⁸⁷ SCE, *Q4 2023 Transmission Development Forum (TDF) Approved Transmission Planning Projects and Queue Network Upgrades Changes in In-Service Dates (ISD) from the Q3 2023 TDF*, October 245, 2023. Available at: <https://www.caiso.com/Documents/SCE-Presentation-Transmission-Development-Forum-Oct252023.pdf>.

⁶⁸⁸ Ex. CA-07 at 31.

⁶⁸⁹ Ex. CA-07 at 31.

⁶⁹⁰ Ex. CA-07 at 31.

⁶⁹¹ Ex. CA-07 at 31.

⁶⁹² Ex. CA-07 at 31.

⁶⁹³ Ex. CA-07 at 32.

Environmental Impact Report (EIR) for the Calcite 220kV Substation has not been released, which could further delay the construction and operation date of the substation.⁶⁹⁴ Based on these considerations, it is highly unlikely the Calcite 220 kV Substation will meet its current operation date of 2025. Therefore, Cal Advocates recommends that Project No. 6902 be disallowed from the GRC until SCE is able to provide a more accurate operation date. Again, it is unreasonable for ratepayers to fund a project without a definite operation date.

3. SCE's Dynamic Line Ratings project should be submitted as a separate application

SCE requests \$19.0 million in capital expenditures for the Transmission Economic Projects between 2023 and 2028.⁶⁹⁵ SCE states that the Transmission Economic Projects are assets that reduce transmission costs for ratepayers, including mitigation of transmission congestion and cost reductions of local generation procurement.⁶⁹⁶ This transmission capital expenditure category includes Ambient Adjusted Ratings (AARs) and Dynamic Line Ratings (DLRs).⁶⁹⁷

Cal Advocates does not object to the \$5.1 million capital expenditure request for the AARs. However, Cal Advocates recommends removing DLRs from SCE's Transmission Economic Projects request, resulting in a decrease of \$13.9 million. Cal Advocates' recommendation results in a 2023-2028 Transmission Economic Project capital expenditure total of \$5.1 million and covers the attrition years (2026-2028). The table below compare Cal Advocates' recommendation and SCE's 2026 through 2028 forecasts for the Transmission Economic Projects.

⁶⁹⁴ Ex. CA-07 at 32.

⁶⁹⁵ Ex. SCE-02 Vol. 07E2 at 116E2.

⁶⁹⁶ SCE-02 Vol. 07 at 116.

⁶⁹⁷ SCE-02 Vol. 07 at 116.

**SCE's Request and Cal Advocates' Recommendation for
the Transmission Economic Projects Capital Expenditures for 2026-2028
(in Thousands of Nominal Dollars)⁶⁹⁸**

Project Details	SCE Proposed			Cal Advocates' Recommendation			Difference (SCE Proposed - Cal Advocates Recommended)		
	2026	2027	2028	2026	2027	2028	2026	2027	2028
Ambient- Adjusted Ratings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Dynamic Line Ratings	\$4,642	\$6,189	\$3,095	\$0	\$0	\$0	\$4,642	\$6,189	\$3,095
Total	\$4,642	\$6,189	\$3,095	\$0	\$0	\$0	\$4,642	\$6,189	\$3,095

Cal Advocates does not object to DLRs as transmission grid enhancing technology. However, Cal Advocates recommends that SCE develop a DLR pilot program to test the benefits of DLRs to its transmission system before SCE makes a several million-dollar investment in DLRs through the GRC process. SCE could seek to establish the DLR pilot program by either filing a separate application or through the Commission's Electric Program Investment Charge (EPIC) program.

In any event, SCE should be directed to remove its DLR request from the GRC because: 1) there is a lack of recent empirical studies and California-specific evidence supporting DLR deployment; 2) SCE failed to substantiate the proposed line items that compose its DLR budget; and 3) SCE did not provide a fixed operation date.

SCE uses a 2013 ONCOR study that examined the benefits of DLRs installed on eight transmission circuits across various counties in Central Texas as a means to provide evidence for installing DLRs in SCE's transmission system.⁶⁹⁹ However, SCE admitted that it "is not aware of any large scale DLR deployments in California to date."⁷⁰⁰ SCE

⁶⁹⁸ Ex. SCE-02 Vol. 07E2 at 116E2.

⁶⁹⁹ Ex. SCE-02, Vol. 07 at 117; SCE's response to data request PAO-SCE-Verbal-023, Q.3. Oncor Electric Delivery Company, *Dynamic Line Rating: Oncor Electric Delivery Smart Grid Program*, Final Report, August 2013. Available at: https://www.smartgrid.gov/files/documents/FTR_Final_Oncor_DE-OE0000320_1e7DpRI.pdf.

⁷⁰⁰ Ex. CA-07 at 34.

also stated that "SCE has reviewed available research and published worldwide studies and believes that the benefits will be available without the need to have a local case study performed."⁷⁰¹ Aside from these statements, SCE did not provide evidence to demonstrate the reasonableness of its DLR capital expenditure request. SCE has not demonstrated its DLR request will result in any benefits to ratepayers.

Furthermore, SCE provides minimal supporting documentation for the line items for its DLR capital expenditure budget. SCE was unable to supply proof of the equipment or vendor costs in the DLR capital expenditure budget, stating that: "The equipment costs for the Dynamic Line Ratings were based on subject matter experts at EPRI. SCE does not have a formal quote."⁷⁰² SCE also said that it did not perform a cost benefit analysis of the AARs or DLRs and instead referred Cal Advocates to "the ONCOR study that provides cost benefit analyses for DLR".⁷⁰³ This study, however, was conducted in 2013. SCE does not explain how this outdated data can be relied upon to demonstrate the likelihood of success in its DLR request, especially when the DLR projects' operation date is unknown.⁷⁰⁴

In contrast to SCE's approach, Pacific Gas and Electric Company (PG&E) has proposed a \$6 million initiative to the Commission's EPIC program to develop a demonstration project that studies the benefits of DLRs to PG&E's transmission and distribution infrastructure.⁷⁰⁵ PG&E justifies that a demonstration project in its service territory is required because:

Low-cost DLR technology is still in a nascent stage, with few emerging vendors and no large scope demonstrations in North

⁷⁰¹ Ex. CA-07 at 34.

⁷⁰² Ex. CA-07 at 34.

⁷⁰³ Ex. CA-07 at 34.

⁷⁰⁴ SCE's response to data request PubAdv-SCE-245-MJJ, Q.7a. As SCE stated in this data response, "SCE has not yet developed or determined the operational date for the Dynamic Line Rating (DLR) system."

⁷⁰⁵ Pacific Gas and Electric Company (PG&E), *EPIC 4 Wave 1 Public Workshop*, presentation, January 16, 2024, slides 21-22. Available at: <https://www.pge.com/content/dam/pge/docs/about/corporate-responsibility-and-sustainability/EPIC-4-Workshop-Jan-2024.pdf>.

America. An EPIC demonstration project across PG&E's system ... can provide vital data on this emerging grid opportunity.⁷⁰⁶

If the demonstration project shows that DLRs increase the thermal rating of PG&E's existing infrastructure, PG&E plans to install DLRs across its electric grid.⁷⁰⁷

In contrast, SCE requests full funding for its DLR project without first assessing its potential benefits through a pilot program. SCE could propose a DLR pilot program in a separate application to the Commission or through the Commission's EPIC program. Such a pilot program offers the opportunity for SCE to gather data on DLRs deployed within its service territory and understand the impact of DLRs on its transmission system.

In fact, from 2015-2017 SCE operated a DLR program it did not include in its GRC application here, which SCE had to cancel before it was completed. SCE issued a report on the program entitled "Advanced Technology Dynamic Line Rating Final Project Report"⁷⁰⁸ The report states:

It has been determined from this project that although Dynamic Line Ratings might be feasible in some specific occasions, the adoption of technology with the current operating procedure is not practical. The solution proposed by this technology is not practical for deployment at the high voltage transmission system, given that longer lines will require significant increase in cost, equipment and maintenance.⁷⁰⁹

SCE's findings demonstrate how inappropriate it would be to approve a large-scale deployment of DLR in SCE's transmission system without any confidence that other factors have changed to make it more feasible for SCE's "current operating procedure." In order for this to be a potentially reasonable use of ratepayer funds, data from a pilot

⁷⁰⁶ PG&E, *EPIC 4 Wave 1 Public Workshop*, presentation, January 16, 2024, slide 22. Available at: <https://www.pge.com/content/dam/pge/docs/about/corporate-responsibility-and-sustainability/EPIC-4-Workshop-Jan-2024.pdf>.

⁷⁰⁷ PG&E, *EPIC 4 Wave 1 Public Workshop*, presentation, January 16, 2024, slides 21-22. Available at: <https://www.pge.com/content/dam/pge/docs/about/corporate-responsibility-and-sustainability/EPIC-4-Workshop-Jan-2024.pdf>.

⁷⁰⁸ Ex. CA-32.

⁷⁰⁹ Ex.CA-32 at 7.

program is needed to determine if DLRs could deliver widespread benefits to SCE’s transmission system at all.

C. Engineering O&M

1. Distribution Substation Plan (DSP)

SCE’s DSP request concentrates on the infrastructure investments needed to satisfy reliability needs driven by load and DER growth.⁷¹⁰ The DSP section in Exhibit SCE-02, Volume 07 includes DSP Circuit Upgrades, DSP Distributed Energy Resources (DERs), DSP New Circuits, and DSP Substations.⁷¹¹ The tables below compare Cal Advocates’ recommendation and SCE’s requests from 2023 through 2025 and from 2026 through 2028 for the baseline DSP projects.

Cal Advocates’ Total Recommendations and Specific Exhibit Reductions Compared to SCE’s Proposal for the DSP Capital Expenditures for 2023-2025 (in Thousands of Nominal Dollars)⁷¹²

DSP Cost Category	SCE Proposed			Cal Advocates Recommended			Cal Advocates Reduction by Exhibit (SCE Proposed - Cal Advocates Recommended = CA-07 + CA-08)					
	TOTAL			TOTAL			CA-07	CA-08	CA-07	CA-08	CA-07	CA-08
	2023	2024	2025	2023	2024	2025	2023		2024		2025	
DSP Circuit Upgrades	\$24,842	\$56,611	\$48,061	\$12,027	\$33,519	\$30,643	\$0	\$12,815	\$0	\$23,092	\$0	\$17,417
DSP DER	\$1,226	\$2,507	\$10,000	\$594	\$1,484	\$6,121	\$0	\$633	\$0	\$1,023	\$400	\$3,479
DSP New Circuits	\$42,800	\$60,289	\$42,443	\$20,721	\$35,697	\$27,062	\$0	\$22,078	\$0	\$24,592	\$0	\$15,381
DSP Substations	\$35,267	\$41,249	\$53,213	\$16,145	\$24,424	\$33,929	\$1,920	\$17,203	\$0	\$16,826	\$0	\$19,284
Total	\$104,135	\$160,656	\$153,717	\$49,487	\$95,124	\$97,755	\$1,920	\$52,729	\$0	\$65,533	\$400	\$55,562

⁷¹⁰ Ex. SCE-02, Vol. 07 at 42.

⁷¹¹ Ex. SCE-02, Vol. 07 at 42-66.

⁷¹² Ex. SCE-02, Vol. 07 at 43-69; Ex. SCE-02, Vol. 07E2, p. 43E2-62E2; SCE’s response to data request PubAdv-SCE-060-MJJ, Q.2. SCE’s response to PubAdv-SCE-060-MJJ, Q.2. SCE provided an Excel spreadsheet with the updated Baseline Forecast capital expenditures from the December 15, 2023 errata entitled: “PubAdv-SCE-060-MJJ-Q2-Supplemental_02”.

**Cal Advocates' Total Recommendations and Specific Exhibit Reductions
Compared to SCE's Proposal for the DSP Capital Expenditures for 2026-2028
(in Thousands of Nominal Dollars)⁷¹³**

DSP Cost Category	SCE Proposed			Cal Advocates Recommended			Cal Advocates Reduction by Exhibit (SCE Proposed - Cal Advocates Recommended = CA-07 + CA-08)					
	TOTAL			TOTAL			CA-07	CA-08	CA-07	CA-08	CA-07	CA-08
	2026	2027	2028	2026	2027	2028	2026		2027		2028	
DSP Circuit Upgrades	\$52,102	\$37,697	\$45,330	\$42,468	\$37,697	\$45,330	\$0	\$9,634	\$0	\$0	\$0	\$0
DSP DER	\$35,300	\$35,300	\$35,300	\$7,825	\$9,600	\$9,600	\$25,700	\$1,775	\$25,700	\$0	\$25,700	\$0
DSP New Circuits	\$41,614	\$42,076	\$54,961	\$33,919	\$42,076	\$54,961	\$0	\$7,695	\$0	\$0	\$0	\$0
DSP Substations	\$166,593	\$123,715	\$40,872	\$135,789	\$123,715	\$40,872	\$0	\$30,803	\$0	\$0	\$0	\$0
Total	\$295,609	\$238,788	\$176,463	\$220,002	\$213,088	\$150,763	\$25,700	\$49,907	\$25,700	\$0	\$25,700	\$0

a) SCE has not demonstrated the need for a significant increase in its mobile energy storage units under its DSP Distributed Energy Resources.

SCE requests \$119.6 million in capital expenditures for the baseline DSP DERs from 2023 to 2028⁷¹⁴ and plans to invest more in DERs to supplement traditional infrastructure upgrades where SCE considers DERs to be a preferred alternative.⁷¹⁵ SCE singles out mobile battery storage units for the DERs it requests.⁷¹⁶ As SCE has failed to adequately support its request, Cal Advocates recommends a decrease of \$77.5 million over the six-year period.

⁷¹³ Ex. SCE-02, Vol. 07 at 43-69; Ex. SCE-02, Vol. 07E2, p. 43E2-62E2; SCE's response to data request PubAdv-SCE-060-MJJ, Q.2. SCE's response to PubAdv-SCE-060-MJJ, Q.2. SCE provided an Excel spreadsheet with the updated Baseline Forecast capital expenditures from the December 15, 2023 errata entitled: "PubAdv-SCE-060-MJJ-Q2-Supplemental_02".

⁷¹⁴ Ex. SCE-02, Vol. 07 at 48; SCE's response to data request PubAdv-SCE-060-MJJ, Q.2. SCE's response to PubAdv-SCE-060-MJJ, Q.2. SCE provided an Excel spreadsheet with the updated Baseline Forecast capital expenditures from the December 15, 2023 errata entitled: "PubAdv-SCE-060-MJJ-Q2-Supplemental_02".

⁷¹⁵ Ex. SCE-02, Vol. 07 at 30.

⁷¹⁶ Ex. SCE-02, Vol. 07 at 30.

Cal Advocates recommends lowering the capital expenditure for 2025 through 2028 because SCE nearly quadruples the number of mobile energy storage facilities that it plans to acquire from 2025 to 2026 through 2028, without substantiation of the need for more units. Specifically, in 2025 SCE requests three mobile units and then seeks authorization to purchase 11 units every year from 2026 to 2028.⁷¹⁷ SCE provides no reason as to why this increase in mobile units is necessary, especially given that SCE had yet to identify “all locations where these [mobile units] may be used in the future.”⁷¹⁸ SCE has not explained why and where the units are needed from 2026 to 2028, and has thus not met its burden to establish that spending ratepayer dollars on this is reasonable. Thus, Cal Advocates recommends the Commission only allow SCE to purchase three units per year from 2025 to 2028, which is consistent with SCE’s 2025 request.⁷¹⁹

b) Cal Advocates no longer opposes SCE’s \$1.9 million request under SCE’s DSP Substations.

SCE requests \$460.9 million in capital expenditures for the baseline DSP Substations from 2023 to 2028.⁷²⁰ SCE states that it considers increasing the capacity of a substation when a load transfer is not viable and/or when an existing substation or a neighboring substation will exceed its loading limits.⁷²¹ Cal Advocates had initially recommended a decrease of \$1.9 million in 2023 to remove a line purchase in that year that appeared in SCE’s December 15, 2023 for Exhibit SCE-02, Volume 07. SCE has since explained that this line item was not included properly in its application, but it was included in its Report on Operations model and workpapers. Cal Advocates has considered this explanation and withdraws its recommendation to decrease 2023 DSP Substations by \$1.9 million.

⁷¹⁷ Ex. CA-07 at 13.

⁷¹⁸ Ex. CA-07 at 13.

⁷¹⁹ SCE explained the cost per energy storage unit is approximately \$3.2 million. Cal Advocates uses this price per unit cost to calculate its recommendation.

⁷²⁰ Ex. SCE-02E, Vol. 07 at 55E2.

⁷²¹ Ex. SCE-02, Vol. 07 at 31.

2. Transmission Substation Plan

SCE’s Transmission Substation Plan (TSP) request focuses on the transmission projects and programs necessary to expand, upgrade, and reconfigure the electric grid over the next decade.⁷²² TSP includes the Subtransmission Lines Plan, A-Bank Plan, and Subtransmission VAR Plan.⁷²³ The tables below compare Cal Advocates’ recommendation and SCE’s requests from 2023 through 2025, and from 2026 through 2028 for the baseline TSP projects.

**Cal Advocates’ Total Recommendations and Specific Exhibit Reductions Compared to SCE’s Proposal for the TSP Capital Expenditures for 2023-2025
(in Thousands of Nominal Dollars)⁷²⁴**

TSP Cost Category	SCE Proposed			Cal Advocates Recommended			Cal Advocates Reduction by Exhibit (SCE Proposed - Cal Advocates Recommended = CA-07 + CA-08)					
	TOTAL			TOTAL			CA-07	CA-08	CA-07	CA-08	CA-07	CA-08
	2023	2024	2025	2023	2024	2025	2023		2024		2025	
TSP STL	\$48,501	\$42,198	\$42,607	\$19,799	\$13,716	\$23,110	\$7,606	\$21,096	\$19,032	\$9,449	\$6,363	\$13,135
TSP A-Bank Plan	\$8,607	\$5,343	\$9,716	\$1,753	\$0	\$0	\$4,987	\$1,868	\$5,343	\$0	\$9,716	\$0
TSP ST VAR	\$970	\$715	\$866	\$470	\$423	\$552	\$0	\$501	\$0	\$292	\$0	\$314
Total	\$58,079	\$48,256	\$53,189	\$22,022	\$14,140	\$23,662	\$12,593	\$23,464	\$24,375	\$9,741	\$16,078	\$13,449

⁷²² Ex. SCE-02, Vol. 07 at 69.

⁷²³ Ex. SCE-02, Vol. 07 at 69-83.

⁷²⁴ Ex. SCE-02, Vol. 07E at 70E2-87E2; SCE’s response to PubAdv-SCE-060-MJJ, Q.2. SCE provided an Excel spreadsheet with the updated Baseline Forecast capital expenditures from the December 15, 2023 errata entitled: “PubAdv-SCE-060-MJJ-Q2-Supplemental_02”.

**Cal Advocates' Total Recommendations and Specific Exhibit Reductions Compared to
SCE's Proposal for the TSP Capital Expenditures for 2026-2028
(in Thousands of Nominal Dollars)⁷²⁵**

TSP Cost Category	SCE Proposed			Cal Advocates Recommended			Cal Advocates Reduction by Exhibit (SCE Proposed - Cal Advocates Recommended = CA-07 + CA-08)					
	TOTAL			TOTAL			CA-07	CA-08	CA-07	CA-08	CA-07	CA-08
	2026	2027	2028	2026	2027	2028	2026		2027		2028	
TSP STL	\$23,833	\$2,913	\$3,832	\$17,853	\$81	\$208	\$1,931	\$4,050	\$2,832	\$0	\$3,624	\$0
TSP A-Bank Plan	\$27,037	\$94,790	\$107,207	\$0	\$0	\$0	\$27,037	\$0	\$94,790	\$0	\$107,207	\$0
TSP ST VAR	\$1,861	\$714	\$2,098	\$1,517	\$714	\$2,098	\$0	\$344	\$0	\$0	\$0	\$0
Total	\$52,731	\$98,418	\$113,136	\$19,369	\$795	\$2,306	\$28,968	\$4,394	\$97,623	\$0	\$110,831	\$0

**a) The Commission should not fully approve SCE's
TSP Subtransmission Lines Plan.**

SCE requests \$163.9 million in capital expenditures for the baseline TSP Subtransmission Lines Plan from 2023 to 2028.⁷²⁶ These capital expenditures represent investments in subtransmission lines for reliability and power delivery between the low-voltage side of SCE's transmission substation transformers to distribution substations.⁷²⁷ Cal Advocates recommends a decrease of \$41.4 million over the six-year period because SCE: 1) requests permission to conduct cost recovery on TSP projects that the Commission has not yet authorized; and 2) seeks to include a project in this GRC whose costs were already reflected in the authorized revenue requirement of D.21-08-036, the TY 2021 decision for SCE's last GRC.⁷²⁸

⁷²⁵ Ex. SCE-02, Vol. 07E at 70E2-87E2; SCE's response to PubAdv-SCE-060-MJJ, Q.2. SCE provided an Excel spreadsheet with the updated Baseline Forecast capital expenditures from the December 15, 2023 errata entitled: "PubAdv-SCE-060-MJJ-Q2-Supplemental_02".

⁷²⁶ Ex. SCE-02, Vol. 07E2 at 72E; SCE's response to PubAdv-SCE-060-MJJ, Q.2. SCE provided an Excel spreadsheet with the updated Baseline Forecast capital expenditures from the December 15, 2023 errata entitled: "PubAdv-SCE-060-MJJ-Q2-Supplemental_02".

⁷²⁷ Ex. SCE-02, Vol. 07 at 36-37.

⁷²⁸ D.21-08-036, *Decision on Test Year 2021 General Rate Case for Southern California Edison Company*, August 20, 2021.

SCE's request should not be approved without first evaluating: 1) the application status for all the TSP projects; 2) the approval method that the Commission uses to rule on each project; and 3) which projects were authorized in a past GRC.⁷²⁹ The following Subtransmission Lines Plan baseline projects are still awaiting Commission authorization: 1) Project No.: TSP STL35783; 2) Del Sur - Lancaster - Riteaid 66 kV Line Reconductor/Rebuild, Project No. STL35785; 3) Oasis - Palmdale - Quartz Hill 66 kV Subtransmission Line reconductor, Project No. STL35786; and 4) Saugus - North Oaks - Tengen 66 kV Subtransmission Line Recable, and Project No. TSP STL35551: Garnet Substation 115 kV Loop.⁷³⁰ These Subtransmission Lines Plan projects should be removed from the GRC until the Commission has approved these projects. It would be unreasonable for ratepayers to fund these projects until the Commission has provided approval.

SCE requests in this GRC costs that were already included in D.21-08-036's authorized revenue requirement.⁷³¹ This includes the costs for Project No. 6030: Valley-Ivyglen 115 kV Subtransmission Line. SCE has not demonstrated in any work papers or in data request responses why additional capital is required for this project. Therefore, Cal Advocates recommends that the Commission reject SCE's request of \$2.7 million in 2023, \$0.9 million in 2024 and \$4.5 million in 2025 associated with the Valley-Ivyglen 115 kV Subtransmission Line. SCE has failed to adequately support these additional capital expenditures beyond what was previously requested in its last GRC.⁷³²

⁷²⁹ Ex. CA-07 at 17.

⁷³⁰ Ex. CA-07 at 17.

⁷³¹ Ex. CA-07 at 17.

⁷³² Ex. CA-07 at 17.

b) The Commission should reject SCE’s full requests under its TSP A-Bank Plan when the Commission has not approved recovery.

SCE requests \$252.7 million in capital expenditures for the baseline TSP A-Bank Plan from 2023 to 2028.⁷³³ Cal Advocates recommends a decrease of \$249.1 million over the six-year period to remove costs for TSP projects that the Commission has not yet authorized.

SCE’s Subtransmission Lines Plan baseline projects still awaiting Commission authorization are: Project No. 8485: Mira Loma 220/66 kV Substation Upgrade and Split System and Project No. TSP ABank35796: Rector 220/66 Substation Split, and Project No. 6092: Alberhill 500/115 Construct New Substation.⁷³⁴ The Commission should reject A-Bank Plan projects until the Commission has approved these projects.

3. SCE should file a separate System Improvement Programs application for Approval

For System Improvement Programs, SCE requests opening the Historic Sporting Events Cost Tracking Memorandum Account (HSECTMA) where SCE proposes tracking after-the-fact incremental funding resulting from the 2026 World Cup and the 2028 Summer Olympics.⁷³⁵ Cal Advocates opposes SCE’s request to open the HSECTMA and recommends that SCE could submit a separate application to the Commission with defined capital expenditures related to both events.

Regarding the World Cup, “SCE does not anticipate needing to incur any incremental capital expenditures for the 2026 World Cup.”⁷³⁶ SCE anticipates capital expenditure investments for the Olympics, but has yet to determine the exact

⁷³³ Ex. SCE-02, Vol. 07E2 at 79E2.

⁷³⁴ SCE’s response to data request PubAdv-SCE-323-MJJ, Q.3. Please note that the Commission jurisdictional costs listed for Project No. 6092: Alberhill 500/115 Construct New Substation in the RO model did not match the Commission jurisdictional costs for the Alberhill Substation that SCE provided in PubAdv-SCE-323-MJJ, Q.3. The costs misaligned for the years 2026, 2027, and 2028 to a degree that a rounding error could not explain the difference.

⁷³⁵ Ex. SCE-02, Vol. 07E at 95.

⁷³⁶ Ex. CA-07 at 19.

infrastructure needs. SCE provided a list of six potential A and B substation upgrades with a total cost range between \$80 million and \$125 million for the Olympic infrastructure.⁷³⁷ SCE also claims that the cost range is likely higher due to grid infrastructure upgrades that the Olympics might trigger, including potential circuit upgrades.⁷³⁸ Furthermore, SCE qualified the list of potential substation upgrades by stating these are not finalized projects and the cost forecasts provided are subject to change depending on the actual work to be performed.⁷³⁹

SCE also did not provide maintenance records (2018-2023) and the recorded costs for the infrastructure components that SCE identified might incur incremental capital investments.⁷⁴⁰ Thus, given the uncertainty in investments required for the 2028 Olympics and the potentially substantial costs, Cal Advocates recommends disallowing SCE's request to open the HSECTMA and that SCE instead should submit an application to the Commission that outlines the capital investments required by the 2026 World Cup and the 2028 Summer Olympics once SCE identifies all infrastructure needs.

4. SCE has not demonstrated the need for Climate Driven Circuit Ties.

SCE requests \$19.7 million for 2023-2025 and \$60.3 million for 2026-2028 for the Climate Driven Circuit Ties.⁷⁴¹ Employing the Climate Adaptation and Vulnerability Assessment (CAVA) analysis, SCE identified nine specific circuit ties it plans to construct within its service territory.⁷⁴² SCE requests \$80.0 million from 2023 through

⁷³⁷ Ex. CA-07 at 19.

⁷³⁸ Ex. CA-07 at 19.

⁷³⁹ Ex. CA-07 at 19.

⁷⁴⁰ SCE's response to data request PubAdv-SCE-213-MJJ, Q.1b. SCE stated in its response, "SCE objects to this request under Rule 10.1 of the Commission's Rules of Practice and Procedure on the grounds that the burden, expense and intrusiveness of this request clearly outweighs the likelihood that the information sought will lead to the discovery of admissible evidence."

⁷⁴¹ Ex. SCE-02, Vol. 07 at 99; SCE's response to PubAdv-SCE-060-MJJ, Q.2. SCE provided an Excel spreadsheet with the updated Baseline Forecast capital expenditures from the December 15, 2023 errata entitled: "PubAdv-SCE-060-MJJ-Q2-Supplemental_02".

⁷⁴² WPB at 237-238.

2028 to construct the nine Climate Driven Circuit Ties and to set aside funds for “additional projects still being defined”.⁷⁴³

D.20-08-046 requires that all California investor-owned utilities, including SCE, identify climate vulnerabilities in their service territories and propose adaptation measures.⁷⁴⁴ SCE conducted CAVA and identified the distribution grid assets that are most vulnerable to climate-driven, extreme precipitation, flooding and wildfire events, as well as the likely consequences of damage to these assets.⁷⁴⁵ SCE proposes investments in circuit ties at key areas in the distribution grid would re-energize customers who lose power during an extreme climate event.⁷⁴⁶

Cal Advocates recommends a decrease of \$6.3 million between 2023 through 2025 and a decrease of \$28.9 million between 2026 through 2028. Cal Advocates also recommends a decrease equal the amount SCE proposes for the “additional projects still being defined”.⁷⁴⁷ The tables below compare Cal Advocates’ recommendation and SCE’s 2023 through 2025 and 2026 through 2028, forecasts for the Climate Driven Circuit Ties.

⁷⁴³ WPB at 237.

⁷⁴⁴ D.20-08-046, *Decision on Energy Utility Climate Change Vulnerability Assessment and Climate Adaptation in Disadvantaged Communities (Phase 1, Topics 4 and 5)*, September 3, 2020 at 2, issued in Rulemaking (R.) 18-04-019.

⁷⁴⁵ Ex. SCE-02, Vol. 07 at 97-98; Ex. SCE-02, Vol. 07 Book B (WPB), p. 231-240. SCE’s Workpaper B in those pages talks in detail about the methodology underpinning the CAVA analysis.

⁷⁴⁶ Ex. SCE-02, Vol. 07 at 99.

⁷⁴⁷ WPB at 237.

**Cal Advocates' Total Recommendations and Specific Exhibit Reductions Compared to
SCE's Proposal for the Climate Driven Circuit Ties Capital Expenditures for 2023-2025
(in Thousands of Nominal Dollars)⁷⁴⁸**

Project Details	SCE Proposed			Cal Advocates Recommended			Cal Advocates Reduction by Exhibit (SCE Proposed - Cal Advocates Recommended = CA-07 + CA-08)					
	TOTAL			TOTAL			CA-07	CA-08	CA-07	CA-08	CA-07	CA-08
	2023	2024	2025	2023	2024	2025	2023		2024		2025	
Total	\$0	\$0	\$19,742	\$0	\$0	\$13,459	\$0	\$0	\$0	\$0	\$6,283	\$0

**Cal Advocates' Total Recommendations and Specific Exhibit Reductions Compared to
SCE's Proposal for the Climate Driven Circuit Ties Capital Expenditures for 2026-2028
(in Thousands of Nominal Dollars)⁷⁴⁹**

Project Details	SCE Proposed			Cal Advocates Recommended			Cal Advocates Reduction by Exhibit (SCE Proposed - Cal Advocates Recommended = CA-07 + CA-08)					
	TOTAL			TOTAL			CA-07	CA-08	CA-07	CA-08	CA-07	CA-08
	2026	2027	2028	2026	2027	2028	2026		2027		2028	
Total	\$19,908	\$20,047	\$20,339	\$13,573	\$4,430	\$13,383	\$6,335	\$0	\$15,618	\$0	\$6,957	\$0

SCE has still not identified any additional specific circuit tie projects.⁷⁵⁰ SCE notes it anticipates defining between four to eight additional circuit ties using the same methodology that defined the nine circuit ties currently proposed for installation between 2025 through 2028.⁷⁵¹ However, SCE fails to specify where the additional circuit ties are needed within its service territory.⁷⁵² Furthermore, SCE does not justify why specifically four to eight circuit ties are needed. SCE could determine the circuit where a climate-

⁷⁴⁸ Ex. SCE-02, Vol. 07 at 99; SCE's response to PubAdv-SCE-060-MJJ, Q.2. SCE provided an Excel spreadsheet with the updated Baseline Forecast capital expenditures from the December 15, 2023 errata entitled: "PubAdv-SCE-060-MJJ-Q2-Supplemental_02".

⁷⁴⁹ Ex. SCE-02, Vol. 07 at 99; SCE's response to PubAdv-SCE-060-MJJ, Q.2. SCE provided an Excel spreadsheet with the updated Baseline Forecast capital expenditures from the December 15, 2023 errata entitled: "PubAdv-SCE-060-MJJ-Q2-Supplemental_02".

⁷⁵⁰ Ex. CA-07 at 22.

⁷⁵¹ Ex. CA-07 at 22.

⁷⁵² Ex. CA-07 at 22.

driven circuit tie is required, and engage in a similar process for the nine identified projects, before the Commission should approve further capital expenditures for the Climate Driven Circuit Ties. Therefore, Cal Advocates recommends that the current 2023-2028 proposal for the additional circuit ties be removed from the SCE's Climate Driven Circuit Tie capital expenditure request.

XII. NEW SERVICE CONNECTIONS & CUSTOMER REQUESTED SYSTEM MODIFICATIONS

SCE's New Service Connections and Customer Requested System Modifications Business Planning Elements (BPEs) capital expenditures include SCE's activities associated with responding to requests from customers for:

- Connecting new residential, commercial, agricultural, and streetlight customers to SCE's system;
- Providing customers with Electrical Vehicle Infrastructure under Tariff Rule 29;
- Meeting customer requests under Tariff Rule 20 to underground certain overhead facilities;
- Relocating existing SCE facilities to meet customer needs; and
- Providing customers with added facilities under Tariff Rule 2.⁷⁵³

SCE forecasts \$1.761 billion capital expenditures from 2023-2025 for New Service Connections and Customer Requested System Modifications activities.⁷⁵⁴

Cal Advocates recommends that the Commission adopt \$1.687 billion for SCE's New Service Connections and Customer Requested System Modifications activities for 2023-2025.

The table below shows Cal Advocates' recommendation and SCE's 2023, 2024, and TY 2025 requests:

⁷⁵³ Ex. SCE-02, Vol. 08 at 1.

⁷⁵⁴ Ex. CA-04-E at 21.

**New Service Connections and Customer Requested System Modifications
2023-2025 Capital Expenditure Forecasts
(In Thousands of Nominal Dollars)**

Description (a)	SCE Proposed ⁷⁵⁵ (b)			Cal Advocates Recommended ⁷⁵⁶ (c)			Difference SCE>Cal Advocates (d=b-c)		
	2023	2024	2025	2023	2024	2025	2023	2024	2025
Rule 20A Conversions	\$19,960	\$20,854	\$20,308	\$12,810	\$12,810	\$12,810	\$7,150	\$8,044	\$7,498
Rule 20 B/C Conversions	\$37,451	\$36,106	\$37,353	\$34,754	\$36,106	\$37,353	\$2,697	\$0	\$0
Transmission/Substation Added Facilities - Customer Financed	\$15,409	\$47,060	\$37,732	\$15,409	\$47,060	\$37,732	\$0	\$0	\$0
Transmission/Substation Added Facilities - SCE Financed	\$2,171	\$18,562	\$18,006	\$2,171	\$18,562	\$18,006	\$0	\$0	\$0
WDAT/TO/Gen-Tie - Customer Funded	\$97,926	\$127,908	\$82,255	\$97,926	\$127,908	\$82,255	\$0	\$0	\$0
WDAT/TO/Gen-Tie - SCE Funded	\$638	\$4,476	\$4,493	\$638	\$4,476	\$4,493	\$0	\$0	\$0
Distribution Added Facilities	\$9,207	\$9,691	\$9,991	\$9,207	\$9,691	\$9,991	\$0	\$0	\$0
Distribution Relocations	\$58,912	\$62,017	\$63,976	\$58,912	\$62,017	\$63,976	\$0	\$0	\$0
Transmission Relocations	\$15,454	\$16,207	\$16,835	\$15,454	\$16,207	\$16,835	\$0	\$0	\$0
Agricultural New Service Connections	\$4,941	\$5,200	\$5,354	\$4,941	\$5,200	\$5,354	\$0	\$0	\$0
Commercial EV Service Extension Rule 29	\$4,548	\$6,192	\$8,280	\$4,548	\$6,192	\$8,280	\$0	\$0	\$0
Commercial New Service Connections	\$120,440	\$128,518	\$134,697	\$120,440	\$128,518	\$134,697	\$0	\$0	\$0
Residential New Service Connections	\$131,282	\$130,768	\$142,169	\$129,021	\$121,770	\$124,783	\$2,261	\$8,998	\$17,386
Streetlights New Service Connections	\$15,256	\$16,022	\$16,456	\$15,256	\$16,022	\$16,456	\$0	\$0	\$0

⁷⁵⁵ Ex. CA-04-E at 21.

⁷⁵⁶ In SCE's RO model, Cal Advocates calculated its adjustment using a proportional allocation between Rule 20A Conversions line-items.

Description (a)	SCE Proposed ⁷⁵⁵ (b)			Cal Advocates Recommended ⁷⁵⁶ (c)			Difference SCE>Cal Advocates (d=b-c)		
	2023	2024	2025	2023	2024	2025	2023	2024	2025
Total	\$533,595	\$629,581	\$597,905	\$521,487	\$612,539	\$573,021	\$12,108	\$17,042	\$24,884

The table below shows SCE’s recorded New Service Connections and Customer Requested System Modifications Activities capital expenditures for 2018-2022.

**New Service Connections and Customer Requested System
Modifications Capital Expenditures 2018-2022 Recorded
(In Thousands of Nominal Dollars)**

Description	2018	2019	2020	2021	2022
Rule 20A Conversions	\$7,487	\$12,332	\$13,030	\$12,367	\$18,834
Rule 20 B/C Conversions	\$31,514	\$30,788	\$31,965	\$54,156	\$32,946
Transmission/Substation Added Facilities - Customer Financed	\$13,517	\$3,956	\$13,146	\$10,905	\$22,680
Transmission/Substation Added Facilities - SCE Financed	\$9,684	\$12,724	\$14,925	\$8,762	\$2,223
WDAT/TO/Gen-Tie - Customer Funded	\$6,275	\$11,121	\$21,011	\$41,029	\$54,702
WDAT/TO/Gen-Tie - SCE Funded	\$2,346	\$2,544	\$2,168	\$1,999	\$3,247
Distribution Added Facilities	\$8,362	\$7,217	\$7,715	\$7,774	\$8,333
Distribution Relocations	\$41,526	\$47,747	\$49,003	\$52,969	\$62,887
Transmission Relocations	\$7,782	\$9,012	\$15,709	\$13,787	\$20,812
Agricultural New Service Connections	\$3,834	\$3,409	\$3,754	\$4,104	\$5,358
Commercial EV Service Extension Rule 29	\$0	\$0	\$0	\$0	\$0
Commercial New Service Connections	\$86,041	\$94,111	\$97,590	\$102,141	\$121,729
Residential New Service Connections	\$118,140	\$110,480	\$104,532	\$101,784	\$121,394
Streetlights New Service Connections	\$16,962	\$14,692	\$14,194	\$8,763	\$10,311
Total	\$353,470	\$360,133	\$388,742	\$420,540	\$485,456

Cal Advocates reviewed SCE's testimony, workpapers, data request responses, and historical expense levels and does not oppose SCE's 2023-2025 capital expenditures forecasts for the following categories: Transmission/Substation Added Facilities - Customer Financed, Transmission/Substation Added Facilities - SCE Financed, WDAT/TO/Gen-Tie - Customer Funded, WDAT/TO/Gen-Tie - SCE Funded, Distribution Added Facilities, Distribution Relocations, Transmission Relocations, Agricultural New Service Connections, Commercial EV Service Extension Rule 29, Commercial New Service Connections, Streetlights New Service Connections.

However, based on its analysis, Cal Advocates finds that SCE's 2023-2025 capital expenditures forecasts for: Rule 20A Conversions, Rule 20 B/C Conversions, and Residential New Service Connections are not reasonable. Thus, ratepayer funding should be reduced for these items as discussed below.

A. New Service Connections

1. SCE has not demonstrated why its Rule 20A Conversion forecasts have increased substantially.

SCE forecasts \$19.960 million in 2023, \$20.854 million in 2024, and \$20.308 million in TY 2025 for Rule 20A Conversions capital expenditures.⁷⁵⁷ SCE used the 2022 Last Recorded Year expenditures of \$18.834 million and then escalated this amount to 2023-2028 dollar amounts, in order to forecast the annual expenditures for Rule 20A from 2023-2025.⁷⁵⁸

Rule 20A conversion projects include the undergrounding of SCE's distribution, transmission, and telecommunication facilities. In addition to the undergrounding of SCE's facilities, these projects typically involve the undergrounding of overhead facilities owned and operated by others, including communications, cable television, and other overhead services.⁷⁵⁹

⁷⁵⁷ Ex. SCE-02, Vol.0 8 at 44 and 46.

⁷⁵⁸ Ex. SCE-02, Vol. 08 at 48. SCE states that it reduced the 2025-2028 forecasts by \$0.837 million to account for the Balancing Account overcollection over the 2021-2024 period.

⁷⁵⁹ Ex. SCE-02, Vol. 08 at 47.

Cal Advocates’ recommendation for SCE’s Rule 20A conversion capital expenditures is \$12.810 million in 2023, \$12.810 million in 2024, and \$12.810 million in TY 2025. Cal Advocates’ recommendation is \$7.150 million less than SCE’s request of \$19.960 million in 2023, \$8.044 million less than SCE’s forecast of \$20.854 million in 2024, and \$7.498 million less than SCE’s forecast of \$20.308 million in TY 2025. Cal Advocates developed its recommendation by utilizing SCE’s five-year average Rule 20A conversion projects costs from 2018 to 2022. The table below shows SCE’s 2023, 2024, and TY 2025 requests and Cal Advocates’ recommendations for Rule 20A conversion capital expenditures:

**Rule 20A Conversion
2023-2025 Capital Expenditure Forecasts
(In Thousands of Nominal Dollars)**

Description (a)	SCE Proposed ⁷⁶⁰ (b)			Cal Advocates Recommended (c)			Difference SCE>Cal Advocates (d=b-c)		
	2023	2024	2025	2023	2024	2025	2023	2024	2025
Rule 20A conversion projects	\$19,960	\$20,854	\$20,308	\$12,810	\$12,810	\$12,810	\$7,150	\$8,044	\$7,498
Total	\$19,960	\$20,854	\$20,308	\$12,810	\$12,810	\$12,810	\$7,150	\$8,044	\$7,498

SCE’s five-year average of recorded Rule 20A conversion capital expenditures is \$12.810 million. Cal Advocates requested SCE provide a list of the cost drivers and documentation utilized to support its **56% increase in 2023, 62% increase in 2024, and 58% increase in 2025**, relative to the five-year average of recorded total Rule 20 A capital expenditures forecast.⁷⁶¹ SCE failed to provide this information in support of its request.⁷⁶²

⁷⁶⁰ Ex. CA-04-E at 25.

⁷⁶¹ Ex. CA-04-E at 25.

⁷⁶² Ex. CA-04-E at 25.

SCE utilized its 2022 recorded expenditures of \$18.834 million as the basis to estimate 2023-2025 forecasts for Rule 20A Conversions capital expenditures. SCE used five-year averages or itemized forecasts for all the other 13 GRC activities in its New Service Connections and Customer Requested System Modifications capital expenditures forecast.⁷⁶³ SCE, however, did not provide documentation explaining the basis for using this methodology, such as SCE's management decisions or guidelines.⁷⁶⁴ Absent this information, Cal Advocates and the Commission cannot review and evaluate the reasonableness of SCE's request. Accordingly, SCE has not met its burden.

Cal Advocates requested that SCE provide the actual recorded 2023 costs for Rule 20A conversions capital expenditures, so that Cal Advocates could review, evaluate, and compare SCE's 2023 forecasts with actual recorded 2023 costs. SCE only provided the preliminary year-to-date recorded costs data, as of November 2023.⁷⁶⁵ From that data, Cal Advocates discovered that SCE recorded \$10.413 million as of November 2023,⁷⁶⁶ which is \$9.547 million less than SCE's forecast of \$19.960 million in 2023. SCE projected \$0.250 million for this project, but recorded only \$0.024 million (917% less than projected) as of November 2023.⁷⁶⁷

SCE's workpapers included SCE's Rule 20A Project Plan calculation. SCE asserts that it used this calculation to confirm that the 2022 recorded amount was generally aligned with the estimated 2023 costs for those known projects.⁷⁶⁸ However, SCE's

⁷⁶³ SCE's spreadsheet titled "PAO-SCEVerbal-013 - 01 Forecast Methodologies" provided in response to Cal Advocates verbal data request "PAO-SCE-Verbal-013 Q.01." In SCE's 2021 GRC, SCE developed the Rule 20A forecast using a five-year average of recorded expenditures between 2014 and 2018 to forecast the annual expenditures from 2019-2023. SCE's 2021 GRC, Ex.SCE-02, Vol. 04, part 3 at 54.

⁷⁶⁴ Ex. CA-04-E at 26.

⁷⁶⁵ Ex. CA-04-E at 26.

⁷⁶⁶ From spreadsheet titled "WP SCE-02 Vol. 08 Ch. III - Rule 20A Project Plan" provided in response to Cal Advocates' data request PubAdv-SCE-318-RA6, Q2. This 2023 preliminary recorded costs includes the total as of November 2023.

⁷⁶⁷ From spreadsheet titled "WP SCE-02 Vol. 08 Ch. III - Rule 20A Project Plan" provided in response to Cal Advocates' data request PubAdv-SCE-318-RA6, Q2.

⁷⁶⁸ Ex. SCE-02-WP, Vol. 8 at 51, and Cal Advocates' data request PubAdv-SCE-062-RA6, Q.1a, and 3a. In SCE's calculation, SCE applied a 20% reduction to the projected capital spend to be conservative and

calculation fails to take into account fluctuations in recorded costs over the past five years. Cal Advocates' more accurate calculation takes this into account, which results in a five-year average of \$12.810 million. Unlike PG&E's calculation, Cal Advocates' calculation aligns with the actual recorded 2023 costs for these projects.⁷⁶⁹

In sum, Cal Advocates recommends a five-year average methodology as a basis to establish capital expenditures level for Rule 20A conversion capital expenditures activities in 2023, 2024 and TY 2025. SCE's incomplete and inadequate responses and showing fail to justify the reasonableness of its 2023, 2024, and TY 2025 capital expenditures forecasts for Rule 20A Conversion projects. Therefore, the Commission should adopt Cal Advocates' reasonable recommendation of \$12.810 million in 2023, \$12.810 million in 2024, and \$12.810 million in TY 2025 Rule 20A conversion projects capital expenditures.

2. SCE has not substantiated its Residential New Service Connections Forecast.

SCE forecasts \$131.282 million in 2023, \$130.768 million in 2024, and \$142.169 million in TY 2025 for Residential New Service Connections.⁷⁷⁰ SCE's request is an increase of \$9.888 million or 8% in 2023, \$9.374 million or 8% in 2024, and \$20.775 million or 17% in TY 2025 over its 2022 recorded costs of \$121.394 million.⁷⁷¹ SCE's Residential New Service Connections include costs that support the new temporary and permanent residential service connections for customers in SCE's service territory

to account for unforeseen project construction delays that might occur such as project redesign, easement delays, etc.

⁷⁶⁹ SCE applied a 20% reduction to the projected capital spend to be conservative and to account for unforeseen project construction delays. Cal Advocates applies a 20% increase to the actual recorded till November 2023 (\$10.413 million multiplied by 0.2, plus \$10.413 million) to be more optimistic, which gives an estimate of \$12.50 million. The five year average of \$12.810 million best align with the actual recorded 2023 costs.

⁷⁷⁰ Ex. SCE-02, Vol. 08 at 10.

⁷⁷¹ Ex. SCE-02, Vol. 08 at 10.

pursuant to SCE's Tariff Rule 16 Service Extensions and Tariff Rule 15 Line Extensions.⁷⁷²

Cal Advocates' recommendation for Residential New Service Connections capital expenditures is \$129.021 million in 2023, \$121.770 million in 2024, and \$124.783 million in TY 2025. Cal Advocates' recommendation is \$2.261 million less than SCE's forecasts of \$131.282 million in 2023, \$8.998 million less than SCE's forecasts of \$130.768 million in 2024, and \$17.386 million less than SCE's forecasts of \$142.169 million in TY 2025. SCE's last recorded year Residential Cost was \$3,870 per meter set. Cal Advocates used this cost to derive its 2023-2025 forecast.⁷⁷³

The table below shows SCE's 2023, 2024, and TY 2025 requests and Cal Advocates' recommendations for Residential New Service Connections Capital Expenditures:

**Residential New Service Connections
2023-2025 Capital Expenditure Forecasts
(In Thousands of Nominal Dollars)**

Description (a)	SCE Proposed ⁷⁷⁴ (b)			Cal Advocates Recommended (c)			Difference SCE>Cal Advocates (d=b-c)		
	2023	2024	2025	2023	2024	2025	2023	2024	2025
Residential New Service Connections	\$131,282	\$130,768	\$142,169	\$129,021	\$121,770	\$124,783	\$2,261	\$8,998	\$17,386
Total	\$131,282	\$130,768	\$142,169	\$129,021	\$121,770	\$124,783	\$2,261	\$8,998	\$17,386

SCE's request is an increase of \$20.016 million or 18% in 2023, \$19.502 million or 18% in 2024, and \$20.775 million or 28% in TY 2025 over its five-year average of \$111.266 million. SCE utilized a five-year average of the recorded cost per unit associated with residential meter sets that were installed during 2018-2022 as the basis

⁷⁷² Ex. SCE-02, Vol. 08 at 10.

⁷⁷³ Cal Advocates' recommendation regarding volume of residential gross meter sets 2023-2025 forecasts are addressed in Exhibit CA-27.

⁷⁷⁴ Ex. SCE-02, Vol. 08 at 10 and Ex. SCE-02-WP, Vol. 08 at 8.

for its forecast methodology. To derive its total residential capital expenditures forecast, SCE then applied this average recorded unit cost to the forecast volume of residential gross meter sets, which is derived from averaging the January 2023 housing starts projections by two economic forecast vendors, Moody's Analytics and IHS Market.⁷⁷⁵

Cal Advocates derived its total residential capital expenditures forecast, by applying the last recorded year capital cost per meter set of \$3,870 to the forecast volume of residential gross meter sets,⁷⁷⁶ plus the Employee Compensation program adjustment forecasts,⁷⁷⁷ which gives an estimated forecasts of \$129.021 million in 2023, \$121.770 million in 2024, and \$124.783 million in TY 2025.

Cal Advocates requested that SCE provide the documentation utilized to support SCE's forecast of \$9.888 million or 8% in 2023, \$9.374 million or 8% in 2024, and \$20.775 million or 17% in 2025, relative to 2022 recorded costs of \$121.394 million. SCE did not provide the requested documentation.⁷⁷⁸ In fact, SCE failed to provide any documentation which explains how its forecast methodology is appropriate for the 2023-2025 Residential New Service Connections capital expenditures.⁷⁷⁹

SCE's five-year average of recorded Residential New Service Connections is \$111.266 million. SCE did not provide documentation to support its requested increase of \$20.016 million or 18% in 2023, \$19.502 million or 18% in 2024, and \$20.775 million

⁷⁷⁵ Ex. SCE-02, Vol. 08 at 13 and Ex. SCE-02-WP, Vol. 08 at 8. SCE also incorporated an accounting adjustment to reflect changes made to SCE's employee compensation program to derive the total residential capital expenditures forecast.

⁷⁷⁶ Cal Advocates recommended 2023-2025 forecasts for residential gross meter sets are discussed in Cal Advocates' Exhibit CA-27.

⁷⁷⁷ Cal Advocates derived the Employee Compensation Program Adjustment forecasts from SCE's spreadsheet titled "WP SCE-02 Vol. 08 Ch. II - Residential New Service Connections Forecast" provided in response to Cal Advocates data request PubAdv-SCE-037-RA6, Q1.

⁷⁷⁸ SCE's response to Cal Advocates' data request PubAdv-SCE-037-RA6, Q.1k. SCE asserted that the increase in the 2023-2025 forecast amounts in comparison to the 2022 recorded cost is due to a projected increase in the number of meter set installations, along with SCE calculating the forecast using nominal dollars and escalating 2022 dollars to the future year forecast to adequately capture costs increases related to inflation.

⁷⁷⁹ Ex. CA-04-E at 34.

or 28% in TY 2025, over its five-year average of \$111.266 million.⁷⁸⁰ In contrast, SCE's recorded cost continuously decreased by \$16.357 million between 2018 and 2021, from \$118.141 million to \$101.784 million. SCE's recorded cost increased by \$19.610 million between 2021 and 2022, from \$101.784 million to \$121.394 million.⁷⁸¹ SCE did not provide any documentation that Cal Advocates requested in order to review and identify the activities related to the continuous decrease and increase in recorded capital expenditures. By not providing information to justify its request, SCE has not met its burden.⁷⁸²

In the 2021 GRC, the Commission expressed concerns regarding SCE's over-forecast of new residential meters since the 2012 GRC and made a downward adjustment to SCE's forecasts.⁷⁸³ D.21-08-036 concluded:

We find that SCE has failed to adequately justify its forecast for residential meter installations. It is undisputed that SCE has consistently over-forecast new residential meters since the 2012 GRC. SCE contends that it has revised its forecast methodology and that the 2021 GRC forecast relies on different and more conservative scenarios compared to previous GRCs. Although SCE made some adjustments, we do not have confidence that SCE's revised methodology adequately addresses the consistent upward bias demonstrated by TURN.⁷⁸⁴

In that decision, the Commission found that SCE had not justified its residential meter installation forecasts and had over forecasted for them since its 2012 GRC. The Commission also stated that it did not have confidence in SCE's revised methodology to rectify SCE's inaccurate forecasts. Based on the record in

⁷⁸⁰ Ex. CA-04-E at 34.

⁷⁸¹ Ex. SCE-02, Vol. 08 at 10.

⁷⁸² SCE's response to Cal Advocates' data request PubAdv-SCE-037-RA6, Q.1j. SCE states that the decrease between 2018 to 2021 is due to a gradual decrease of 4,616 less actual meters installed and decrease of SCE-contracted labor and deeded facilities costs. SCE further states that the increase in 2021 and 2022 recorded residential service connection cost per meter is due to an increase of 1,058 actual meters installed and increase in material, labor and deeded facilities costs due to COVID-19 pandemic.

⁷⁸³ D.21-08-036 at 143-145.

⁷⁸⁴ D.21-08-036 at 143.

this proceeding, the Commission should find that SCE has still not corrected these inaccuracies. Indeed, SCE’s forecast still has the problem of an upward bias.

For the last 8 years, SCE’s recorded Residential New Service Connections costs have been less than what was authorized in GRCs. Cal Advocates requested that SCE provide data showing a comparison of authorized to recorded capital expenditures starting from 2012 GRC to 2021 GRC for recorded Residential New Service Connections.⁷⁸⁵ The following table provides an 8-year comparison of authorized Residential New Service Connections versus actual expenditures:

**Residential New Service Connections
2015-2022 GRC Authorized vs Actual Recorded
(In Thousands of Nominal Dollars)**

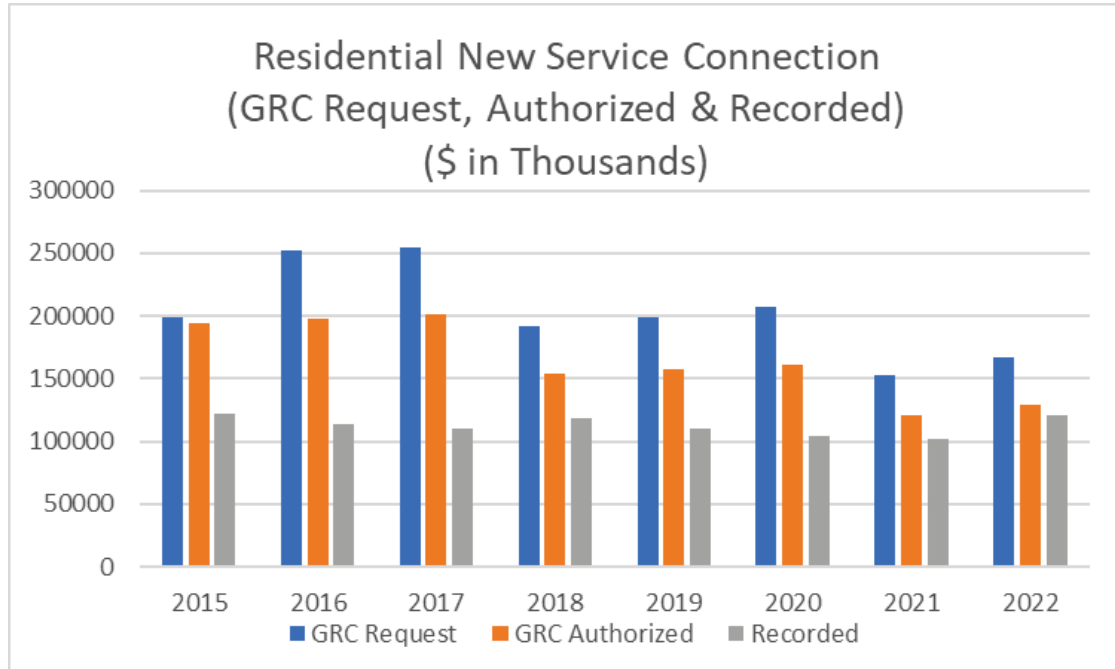
Year	GRC Authorized	Actual Recorded	\$Difference	%Difference	Average Yearly \$ Underspend	Average Yearly % Underspend
2015	\$ 194,119	\$ 122,223	\$ 71,896	59		
2016	\$ 198,002	\$ 114,075	\$ 83,927	74		
2017	\$ 201,962	\$ 109,668	\$ 92,294	84		
2018	\$ 153,772	\$ 118,093	\$ 35,679	30		
2019	\$ 157,601	\$ 110,480	\$ 47,121	43		
2020	\$ 161,525	\$ 104,532	\$ 56,993	55		
2021	\$ 121,362	\$ 101,784	\$ 19,578	19		
2022	\$ 129,660	\$ 121,394	\$ 8,266	7	\$ 51,969	46

Source: Cal Advocates created this graph from SCE’s spreadsheet titled “PubAdv-SCE-037-RA6 Q1q Residential New Service Connections” provided in response to Cal Advocates data request PubAdv-SCE-037-RA6 Q1q.

The following graph provides an 8-year comparison of authorized Residential New Service Connections versus actual recorded expenditures:

⁷⁸⁵ Cal Advocates’ data request PubAdv-SCE-037-RA6, Q1q.

**Residential New Service Connections
2015-2022 GRC Authorized vs Recorded Costs
(In Thousands of Nominal Dollars)**



Source: Cal Advocates created this graph using data from SCE's spreadsheet titled "PubAdv-SCE-037-RA6 Q1q Residential New Service Connections" provided in response to Cal Advocates data request PubAdv-SCE-037-RA6 Q1q.

The table above and the figure here show that there has not been a single instance over the last eight years where SCE's recorded Residential New Service Connections costs have been equal to or exceeded the authorized costs levels. The column Average Yearly \$ underspend in the table shows, on average, that SCE has spent \$51.969 million less than was authorized for the last 8 years. The column Average % underspend in the table shows, on a yearly percentage basis, that SCE has spent 46% less than authorized for the last 8 years.

SCE states that for the 2025 GRC, it has made changes based on the Commission's findings in the 2021 GRC Track 1 Decision, as to SCE's consistent over forecast of this work since the 2012 GRC. SCE asserts that it has now adopted a simple five-year average of the recorded cost per unit associated with residential meter sets that

were installed during 2018-2022, as the basis for its forecast methodology.⁷⁸⁶ SCE's recorded costs, however, are now based on the historical five-year average in nominal dollars (\$3,394) as compared to 2022 constant dollars (\$3,709). Thus, SCE inflated its costs by converting the five-year average of nominal dollars to 2022 constant dollars. SCE further escalated the cost per meter set in 2022 constant dollars to 2023-2028 dollars. This gives an estimate of \$3,909 in 2023, \$4,102 in 2024, and \$4,202 in TY 2025 for Residential Cost Per Meter Set.

Cal Advocates utilized SCE's 2022 recorded capital costs of \$3,870 to derive SCE's Residential cost per meter set 2023-2025 forecasts. Cal Advocates' use of SCE's 2022 recorded capital cost of \$3,870 is a more reasonable approach, given that the costs incurred in 2022 were the highest level over the 2018-2022 historical period and provides adequate funding for 2023-2025. Cal Advocates applied this last recorded year capital cost per meter set of \$3,870 to the forecast volume of residential gross meter sets⁷⁸⁷ plus the employee compensation program adjustment forecasts. This results in a total residential new service connections capital expenditures forecast of \$129.021 million in 2023, \$121.770 million in 2024, and \$124.783 million TY 2025.

The table below shows the development of SCE's 2023, 2024, and TY 2025 requests and Cal Advocates' recommendations for Residential New Service Connections capital expenditures:

⁷⁸⁶ Ex. SCE-02, Vol. 08 at 13.

⁷⁸⁷ Cal Advocates recommended 2023-2025 forecasts for residential gross meter sets are discussed in Cal Advocates' Exhibit CA-27.

**Development of Residential New Service Connections
Capital Expenditures Forecasts
(In Thousands of Nominal Dollars)**

Description (a)	SCE Proposed ⁷⁸⁸ (b)			Cal Advocates Recommended (c)			Difference SCE>Cal Advocates (d=b-c)		
	2023	2024	2023	2024	2025	2025	2023	2024	2025
Cost Per Meter	\$3,909	\$4,102	\$4,202	\$3,870	\$3,870	\$3,870	\$39	\$232	\$332
Gross Meter Set	\$33,330	\$31,573	\$33,421	\$33,084	\$31,142	\$31,798	\$246	\$431	\$1,623
Total Residential New Service Connections Forecasts ⁷⁸⁹	\$130,296	\$129,517	\$140,444	\$128,035	\$120,519	\$123,058	\$2,261	\$8,998	\$17,386
Employee Compensation Program Adjustment	\$986	\$1,251	\$1,725	\$986	\$1,251	\$1,725	\$0	\$0	\$0
Total	\$131,282	\$130,768	\$142,169	\$129,021	\$121,770	\$124,783	\$2,261	\$8,998	\$17,386

SCE's responses to Cal Advocates discovery are insufficient and incomplete. Moreover, SCE's showing has failed to justify its 2023, 2024, and TY 2025 capital expenditures forecasts. SCE has also underspent its authorized funding for the last 8 years. Cal Advocates has taken these facts into consideration and recommends \$129.021 million in 2023, \$121.770 million in 2024, and \$124.783 million in TY 2025 for Residential New Service Connections capital expenditures. Cal Advocates' recommendation is reasonable and should be adopted.

⁷⁸⁸ Ex. SCE-02, Vol. 8 at 10 and Ex. SCE-02-WP, Vol. 08 at 8.

⁷⁸⁹ Total Residential New Services Connections Forecasts are calculated by multiplying Cost Per Meter and Gross Meter Set forecasts. SCE's Proposed numbers are derived from workpaper Ex. SCE-02-WP, Vol. 8 at 8. Cal Advocates discovered that SCE made an error in calculating Total Residential New Service Connections Forecasts in its workpaper Ex. SCE-02-WP, Vol. 08 at 8.

B. Customer Requested System Modifications

1. Cal Advocates does not object to SCE's Rule 20B and Rule 20C Conversions in general, but adjusts SCE's 2023 Transmission Rule 20B & 20C Conversion.

SCE forecasts \$37.451 million in 2023, \$36.106 million in 2024, and \$37.353 million in TY 2025 for Rule 20A Conversions capital expenditures.⁷⁹⁰ SCE used various methods to forecast its 2023-2025 Rule 20B and Rule 20C conversions capital expenditure forecasts. SCE used a five-year average of recorded expenditures to forecast the 2023-2025 capital expenditures for Distribution Rule 20B/C Conversions. For Transmission Rule 20B/C Conversions, SCE based its 2023-2024 forecasts on known projects as of August 2022, and 2025-2025 forecasts on a five-year average of recorded expenditures.⁷⁹¹

Cal Advocates' recommendation for SCE's Rule 20B and C conversion capital expenditures is \$34.754 million in 2023, \$36.106 million in 2024, and \$37.353 million in TY 2025. Cal Advocates' recommendation is \$2.697 million less than SCE's request of \$37.451 million in 2023, \$0 million less than SCE's forecast of \$36.106 million in 2024, and \$0 million less than SCE's forecast of \$37.353 million in TY 2025.

The table below shows SCE's 2023, 2024, and TY 2025 requests and Cal Advocates' recommendations for Rule 20B/C Conversion projects capital expenditures:

⁷⁹⁰ Ex. SCE-02, Vol. 08 at 49.

⁷⁹¹ SCE's response to Cal Advocates' data request PubAdv-SCE-062-RA6, Q.4h.

**Rule 20B/C Conversions
2023-2025 Capital Expenditure Forecasts
(In Thousands of Nominal Dollars)**

Description (a)	SCE Proposed ⁷⁹² (b)			Cal Advocates Recommended (c)			Difference SCE>Cal Advocates (d=b-c)		
	2023	2024	2025	2023	2024	2025	2023	2024	2025
Distribution Rule 20B/ C Conversion	\$30,859	\$32,411	\$31,384	\$30,859	\$32,411	\$31,384	\$0	\$0	\$0
Transmission Rule 20B/C Conversion	\$6,592	\$3,695	\$5,969	\$3,895	\$3,695	\$5,969	\$2,697	\$0	\$0
Total	\$37,451	\$36,106	\$37,353	\$34,754	\$36,106	\$37,353	\$2,697	\$0	\$0

Cal Advocates does not object to SCE’s 2023-2025 capital expenditures forecasts for its Distribution Rule 20B/C and Transmission Rule 20C conversion projects. For Transmission Rule 20B Conversion projects, SCE developed its 2023-2024 forecasts based on known projects as of August 2022. Instead, Cal Advocates used the latest available data to develop its Transmission Rule 20B Conversion projects forecasts.

Rule 20B and Rule 20C conversions include the expenditures necessary to convert overhead lines to underground, when customers make a request. Rule 20B conversions generally arise when there are overhead lines on both sides of the street, for a minimum of 600 feet or one city block, and a governmental agency or private party wishes to eliminate the visual impact of those overhead lines or must remove the lines as a condition to obtain permitting from various governmental agencies. Rule 20C projects generally arise when an individual property owner or small developer of a new project wishes to remove existing overhead lines less than 600 feet in total length, or on one side of the street, or overhead lines on private property.⁷⁹³

⁷⁹² SCE’s spreadsheet titled “PubAdv-SCE-016-RA6 Q1,” in response to Cal Advocates’ data request PubAdv-SCE-016-RA6, Q.1 and Ex. SCE-02, Vol. 8 at 51-54. There is a discrepancy in SCE’s 2023-2025 forecasts between SCE’s testimony, workpaper, and RO model.

⁷⁹³ Ex. SCE-02, Vol. 08 at 49-50.

SCE’s Rule 20B/C Conversion Capital Expenditure forecasts are composed of Distribution Rule 20B/C Conversion projects and Transmission Rule 20B/C Conversion projects. SCE forecasts \$30.859 million in 2023, \$32.411 million in 2024, and \$31.384 million in TY 2025 for Distribution Rule 20B/ C Conversion projects.⁷⁹⁴ SCE used a five-year average of recorded expenditures to forecast the 2023-2028 capital expenditures for Distribution Rule 20B/C Conversions. Cal Advocates does not object to SCE’s Distribution Rule 20B& C Conversion projects forecasts.

For Transmission Rule 20B/C Conversion, SCE forecasts \$6.592 million in 2023, \$3.695 million in 2024, and \$5.969 million in TY 2025.⁷⁹⁵ The table below shows SCE’s 2023, 2024, and TY 2025 requests and Cal Advocates’ recommendations for Transmission Rule 20B/C Conversion projects capital expenditures:

**Rule 20B/C Conversions
2023-2025 Capital Expenditure Forecasts
(in Thousands of Nominal Dollars)**

Description (a)	SCE Proposed⁷⁹⁶ (b)			Cal Advocates Recommended (c)			Difference SCE>Cal Advocates (d=b-c)		
	2023	2024	2025	2023	2024	2025	2023	2024	2025
Transmission Rule 20B Conversion	\$3,335	\$1,630	\$4,778	\$638	\$1,630	\$4,778	\$2,697	\$0	\$0
Transmission Rule 20C Conversion	\$3,257	\$2,065	\$1,191	\$3,257	\$2,065	\$1,191	\$0	\$0	\$0
Total	\$6,592	\$3,695	\$5,969	\$3,895	\$3,695	\$5,969	\$2,697	\$0	\$0

⁷⁹⁴ Ex. SCE-02, Vol. 08 at 51-52.

⁷⁹⁵ Ex. SCE-02, Vol. 08 at 53-55.

⁷⁹⁶ Ex. SCE-02, Vol. 08 at 54 and 55. There is a discrepancy in SCE’s 2023-2025 forecasts between SCE’s testimony, workpaper, and RO model.

As shown in table above, Cal Advocates does not oppose SCE's Transmission Rule 20 C Conversion capital forecasts. For Transmission Rule 20B Conversion capital forecasts, Cal Advocates developed different capital expenditures forecast in 2023.

Cal Advocates requested that SCE provide the actual recorded 2023 costs for Rule 20B/C conversions capital expenditures to review, evaluate, and compare with SCE's 2023 forecasts.⁷⁹⁷ SCE only provided the preliminary year-to-date recorded costs (as of November 2023) data for Transmission Rule 20B and Transmission Rule 20C projects.⁷⁹⁸ From that data, Cal Advocates determined that SCE recorded \$0.532 million in 2023 for Transmission Rule 20B Conversions projects,⁷⁹⁹ \$2.803 million less than SCE's forecast of \$3.335 million in 2023.⁸⁰⁰ For one of the projects reviewed, the project start date was on November 15, 2021, and the completion date was on December 4, 2023. SCE projected \$0.278 million for this project, but recorded only \$0.0214 million (1200% less than projected) as of July 2023.⁸⁰¹

For Transmission Rule 20B Conversion projects, SCE developed its 2023-2024 forecasts based on known projects as of August 2022. Cal Advocates used the latest available data to develop its Transmission Rule 20B Conversion projects 2023-2024 forecasts. Based on its calculation,⁸⁰² which uses the available data as of November

⁷⁹⁷ Cal Advocates' data request PubAdv-SCE-318-RA6, Q.1.

⁷⁹⁸ SCE's response to Cal Advocates' data request PubAdv-SCE-318-RA6, Q.2.

⁷⁹⁹ From spreadsheet titled "PubAdv-SCE-318-RA6 Q1c" provided in response to Cal Advocates' data request PubAdv-SCE-318-RA6, Q1. This 2023 preliminary recorded costs includes the total recorded costs at the program level as of November 2023.

⁸⁰⁰ Ex. SCE-02, Vol. 08 at 54.

⁸⁰¹ From spreadsheet titled "WP SCE-02 Vol. 08 Ch. III - Transmission Rule 20B and 20C Project Plan" provided in response to Cal Advocates' data request PubAdv-SCE-062-RA6, Q4a.

⁸⁰² For Rule 20A conversion as discussed in section V.B1 above, SCE applied a 20% reduction to the projected capital spend to be conservative and to account for unforeseen project construction delays. For Transmission Rule 20B conversions capital forecast calculation, Cal Advocates applies a 20% increase to the actual recorded till November 2023 (\$0.532 million multiplied by 0.2, plus \$0.532 million) to be more optimistic, which gives an estimate of \$0.638 million in 2023.

2023,⁸⁰³ Cal Advocates recommends \$3.895 million in 2023,⁸⁰⁴ \$3.695 million in 2024, and \$5.969 million in TY 2025 for Transmission Rule 20B/C Conversion projects capital expenditures forecasts. Cal Advocates' recommendation is \$2.697 million less than SCE's request of \$6.592 million in 2023 million in 2023, \$0 million less than SCE's forecast of \$3.695 million in 2024, and \$0 million less than SCE's forecast of \$5.969 million in TY 2025 for Transmission Rule 20 B/C Conversion projects.

The Commission should adopt Cal Advocates' reasonable recommendation of \$34.754 million in 2023, \$36.106 million in 2024, and \$37.353 million in TY 2025 for Rule 20B/C conversion capital expenditures.

XIII. POLES

A. Poles O&M

Cal Advocates does not oppose SCE's proposed \$41.289 million for Poles O&M.⁸⁰⁵

B. Poles Capital

SCE's Poles Business Planning Elements (BPE) capital work addresses inspection, repair, and replacement of poles, and the joint use management of poles.⁸⁰⁶ There are two major pole replacement programs: 1) Pole Loading Program and 2) Deteriorated Pole Program, which focus on compliance with General Order 95 (GO 95) and GO 165 requirements. The Poles BPE are in both the Transmission Grid and Distribution Grid Business Planning Groups.⁸⁰⁷

⁸⁰³ From spreadsheet titled "PubAdv-SCE-318-RA6 Q1c" provided in response to Cal Advocates' data request PubAdv-SCE-318-RA6, Q1. This 2023 preliminary recorded costs includes the total as of November 2023.

⁸⁰⁴ Cal Advocates calculated the Transmission Rule 20B/C Conversion projects capital expenditures 2023 forecast by adding its estimated Transmission Rule 20B conversions capital forecast of \$0.638 million plus SCE's forecast of Transmission Rule 20C conversions capital forecast of \$3.257, which totals to \$3.895 million in 2023.

⁸⁰⁵ Ex. CA-06 at 2.

⁸⁰⁶ Ex. SCE-02, Vol. 09 at 1.

⁸⁰⁷ Ex. SCE-02, Vol. 09 at 1.

SCE forecasts \$1.052 billion in capital expenditures from 2023-2025 for Poles BPE activities.⁸⁰⁸ Cal Advocates recommends \$1.040 billion in capital expenditures from 2023-2025 for Poles BPE activities. The table below shows Cal Advocates' recommendation and SCE's 2023, 2024, and TY 2025 requests:

⁸⁰⁸ Ex. SCE-02, Vol. 09 at 2.

Poles Activities
2023-2025 Capital Expenditure Forecasts
(In Thousands of Nominal Dollars)

Description (a)	SCE Proposed ⁸⁰⁹ (b)			Cal Advocates Recommended (c)			Difference SCE>Cal Advocates (d=b-c)		
	2023	2024	2025	2023	2024	2025	2023	2024	2025
Distribution Joint Pole Capital Credits	\$(75,790)	\$(69,231)	\$(58,537)	\$(75,790)	\$(69,231)	\$(58,537)	\$0	\$0	\$0
Distribution Deteriorated Pole Replacement	\$173,163	\$179,890	\$186,777	\$173,163	\$179,890	\$186,777	\$0	\$0	\$0
Distribution Pole Loading Program Pole Replacement	\$288,756	\$134,893	\$11,510	\$288,756	\$134,893	\$11,510	\$0	\$0	\$0
Distribution Wood Pole Disposal - Pole Loading Program	\$1,333	\$620	\$47	\$1,333	\$620	\$47	\$0	\$0	\$0
Distribution Wood Pole Disposal	\$3,527	\$3,714	\$3,763	\$3,527	\$3,714	\$3,763	\$0	\$0	\$0
Transmission Joint Pole Capital Credits	\$(14,210)	\$(20,769)	\$(21,463)	\$(14,210)	\$(20,769)	\$(21,463)	\$0	\$0	\$0
Transmission Deteriorated Pole Replacement	\$88,689	\$103,047	\$88,474	\$88,689	\$91,080 ⁸¹⁰	\$88,474	\$0	\$11,967	\$0
Telecommunication Deteriorated Pole Replacement	\$492	\$355	\$88	\$492	\$355	\$88	\$0	\$0	\$0
Transmission Pole Loading Program Replacement	\$26,980	\$14,825	\$1,156	\$26,980	\$14,825	\$1,156	\$0	\$0	\$0
Telecommunication Pole Loading Program Replacement	\$61	\$145	\$0	\$61	\$145	\$0	\$0	\$0	\$0
Total	\$493,001	\$347,489	\$211,816	\$493,001	\$335,522	\$211,816	\$0	\$11,967	\$0

Source: SCE's spreadsheet titled "PubAdv-SCE-016-RA6 Q1," in response to Cal Advocates' data request PubAdv-SCE-016-RA6, Q.1.

⁸⁰⁹ 2018-2022 data from SCE's spreadsheet titled "PubAdv-SCE-016-RA6 Q1," in response to Cal Advocates' data request PubAdv-SCE-016-RA6, Q.1

⁸¹⁰ In SCE's RO model, Cal Advocates calculated its adjustment using a proportional allocation between the line-items.

The table below shows SCE's recorded Poles Activities capital expenditures for 2018-2022:

**Poles Activities
2018-2022 Recorded Capital Expenditures
(In Thousands of Nominal Dollars)**

Description	2018	2019	2020	2021	2022
Distribution Joint Pole Capital Credits	-\$79,627	-\$95,192	-\$62,984	-\$88,787	-\$66,663
Distribution Deteriorated Pole Replacement	\$195,941	\$196,678	\$182,108	\$218,325	\$210,776
Distribution Pole Loading Program Pole Replacement	\$116,912	\$157,950	\$97,192	\$279,422	\$349,307
Distribution Wood Pole Disposal - Pole Loading Program	\$0	\$0	\$0	\$0	\$0
Distribution Wood Pole Disposal	\$3,704	\$4,668	\$4,383	\$5,349	\$6,494
Transmission Joint Pole Capital Credits	-\$4,283	-\$6,333	-\$3,173	-\$4,009	-\$5,799
Transmission Deteriorated Pole Replacement	\$77,014	\$88,765	\$89,443	\$90,032	\$110,145
Telecommunication Deteriorated Pole Replacement	\$96	\$1,817	\$1,299	\$261	\$189
Transmission Pole Loading Program Replacement	\$24,656	\$41,471	\$23,795	\$26,863	\$35,033
Telecommunication Pole Loading Program Replacement	\$0	\$1	\$2	\$204	\$30
Total	\$334,413	\$389,825	\$332,065	\$527,660	\$639,512

Source: 2018-2022 data from SCE's spreadsheet titled "PubAdv-SCE-016-RA6 Q1," in response to Cal Advocates' data request PubAdv-SCE-016-RA6, Q.1.

Cal Advocates recommends that the Commission adopt the following capital costs for Poles Activities: \$493.001 million in 2023, \$335.522 million in 2024 and \$211.816 million in TY 2025. Cal Advocates' recommendation is \$0 million less than SCE's request of \$493.001 million in 2023, \$11.967 million less than SCE's request of \$347.489 million in 2024, and \$0 million less than SCE's request of \$211.816 million in TY 2025. Cal Advocates only adjusts SCE's Transmission Deteriorated Pole Replacement 2024 forecast.

Transmission Deteriorated Pole Replacement is an ongoing program. SCE utilizes the number of poles that fail inspection or need to be replaced in a specific time frame to project replacement numbers.⁸¹¹ SCE's capital expenditures and its itemized forecast are based on closed work orders through August 2022.

Cal Advocates developed its 2024 recommendation by utilizing SCE's five-year average Transmission Deteriorated Pole Replacement costs from 2018 to 2022. The table below shows SCE's 2023, 2024, and TY 2025 requests and Cal Advocates' recommendations for Transmission Deteriorated Pole Replacement Capital Expenditures:

**Transmission Deteriorated Pole Replacement
2023-2025 Capital Expenditure Forecasts
(in Thousands of Nominal Dollars)**

Description (a)	SCE Proposed ⁸¹² (b)			Cal Advocates Recommended (c)			Difference SCE>Cal Advocates (d=b-c)		
	2023	2024	2025	2023	2024	2025	2023	2024	2025
Transmission Deteriorated Pole Replacement	\$88,689	\$103,047	\$88,474	\$88,689	\$91,080	\$88,474	\$0	\$11,967	\$0
Total	\$88,689	\$103,047	\$88,474	\$88,689	\$91,080	\$88,474	\$0	\$11,967	\$0

⁸¹¹ Ex. CA-04-E at 43.

⁸¹² Ex. CA-04-E at 44.

SCE's five-year average of recorded total Transmission Deteriorated Pole Replacement cost is \$91.080 million. However, SCE did not provide the basis for its forecast or supporting documentation to justify its 13% increase in 2024, relative to the five-year average of recorded total Transmission Deteriorated Pole Replacement cost.⁸¹³ In fact, SCE did not provide any analysis or documentation to justify its significant increase in its Transmission Deteriorated Pole Replacement expenditures in 2024.⁸¹⁴ As a result, Cal Advocates was unable to review and evaluate the bases of SCE's forecasts to determine whether they were reasonable.

SCE states that the main driver for the Transmission Deteriorated Pole Replacement forecast being higher in 2024 is a higher pole replacement scope in 2024. SCE asserts that it has 2,279 replacements in scope in 2023. In 2024, this scope increases to 2,603 replacements. Yet, in 2025 the number of replacements reverts back to 2,175.⁸¹⁵ Cal Advocates requested additional documentation from SCE to evaluate and verify its need for 2,603 replacements in 2024, compared to 2,279 replacements in 2023 and 2,175 replacements in 2025. SCE, however, did not provide the requested information and instead referred Cal Advocates back to SCE's testimony, which still lacked supporting detail.⁸¹⁶

Cal Advocates also requested that SCE provide its step-by-step calculation and the basis showing how SCE estimated its 2023-2025 Transmission Deteriorated Pole Replacement forecasts. SCE's calculation includes 1,478 poles already identified as non-programmatic replacement, 414 forecast pole replacements, and 1,282 efficiency opportunity poles forecast in 2024.⁸¹⁷ However, SCE still failed to provide any

⁸¹³ Ex. CA-04-E at 44.

⁸¹⁴ Ex. CA-04-E at 44.

⁸¹⁵ Ex. CA-04-E at 44.

⁸¹⁶ Ex. CA-04-E at 45.

⁸¹⁷ SCE's spreadsheet titled "Response to PubAdv-SCE-117-RA6 1.a" in response to Cal Advocates' data request PubAdv-SCE-117-RA6, Q1, and SCE's response to Cal Advocates' data request PubAdv-SCE-270-RA6, Q. 4.

documentation or calculations needed to meet its burden demonstrating why 1,478 non-programmatic pole replacements and 414 pole forecast replacements are appropriate.⁸¹⁸

Cal Advocates analyzed SCE's Risk Spending Accountability Report (RSAR) that includes SCE's 2022 Capital RSAR data⁸¹⁹, and discovered that SCE imputed 7,140 units in total (3,570 units in 2021, and 3,570 units in 2022) of transmission deteriorated pole replacements, but only performed 5,982 units of pole replacements (3,145 in 2021, and 2,837 in 2022) during that period. Thus, SCE's actual pole replacement is 1,158 units or 16% less than its forecast for 2021-2022.⁸²⁰

Compared to the five year average of the 2018-2022 recorded costs, SCE's 2023 and 2025 forecasts were not significantly higher, but its 2024 forecast was 13% higher. This deviation was not supported by SCE.

SCE failed to support its forecast of \$103.047 million for 2024 Transmission Deteriorated Poles Replacements. In consideration of SCE's RSAR and the 13% increase of SCE's forecast relative to the five year average of the 2018-2022, Cal Advocates' recommendation \$91.080 million in 2024 provides adequate funding. The Commission should adopt Cal Advocates' recommendation rather than SCE's overestimate.

XIV. VEGETATION MANAGEMENT

SCE's Vegetation Management activities include Routine Vegetation Management, the Hazard Tree Program, Structure Brushing, Quality Control, and Environmental Support for Vegetation Programs.⁸²¹

⁸¹⁸ SCE's response Cal Advocates' data request PubAdv-SCE-270-RA6, Q. 4. For 1478 already identified non-programmatic pole replacements in 2024, SCE provided a spreadsheet "PubAdv-SCE-270-RA6 Q4.xlsx" that only includes the pole number, and dates and lack details Cal Advocates requested to verify its reasonableness.

⁸¹⁹ SCE's spreadsheet titled "SCE 2022 Capital RSAR Data Tables".

⁸²⁰ In SCE's 2022 Capital RSAR data report, SCE's spreadsheet titled "SCE 2022 Capital RSAR Data Tables", SCE notes that the decrease in the number of Transmission Deteriorated Pole replacements can be attributed to a reduction in the failure rate of poles when compared to forecast. Also, a higher percentage of pole replacement constraints, such as environmental and engineering holds, as well as Caltrans permitting, resulted in a lower number of poles being replaced.

⁸²¹ Ex. SCE-02, Vol. 10A at 19, Table II-7.

SCE forecasts \$654.572 million for its Vegetation Management O&M expenses for TY 2025,⁸²² which is a \$157.989 million increase over its 2022 recorded adjusted expenses of \$496.583 million. It is a \$446.48 million increase over its 2021 GRC authorized expenses of \$208.092 million.⁸²³

SCE utilized an itemized methodology to calculate its Vegetation Management forecasts,⁸²⁴ and separated them into six categories⁸²⁵ of work: 1) \$488.973 million for Routine Vegetation Management; 2) \$74.406 million for the Hazard Tree Program; 3) \$25.766 million for Structure Brushing; 4) \$12.718 million for Quality Control; 5) \$48.978 million for Environmental Support for VM Programs; and 6) \$3.731 million for Technology Solutions O&M.⁸²⁶ SCE proposes continuing recording Vegetation Management expenses in the two-way Vegetation Management Balancing Account (VMBA) and increasing the recovery threshold from 115% to 120% of the authorized amount.⁸²⁷

SCE's recorded Vegetation Management expenses peaked at \$568.287 million in 2020 and declined in 2021 and 2022. The graph below demonstrates SCE's historic recorded vegetation management expenses and its forecasted 2023-2025 vegetation management expenses.

⁸²² Ex. SCE-02, Vol. 10^o at 19, Table II-7.

⁸²³ Ex. CA-02 at 32.

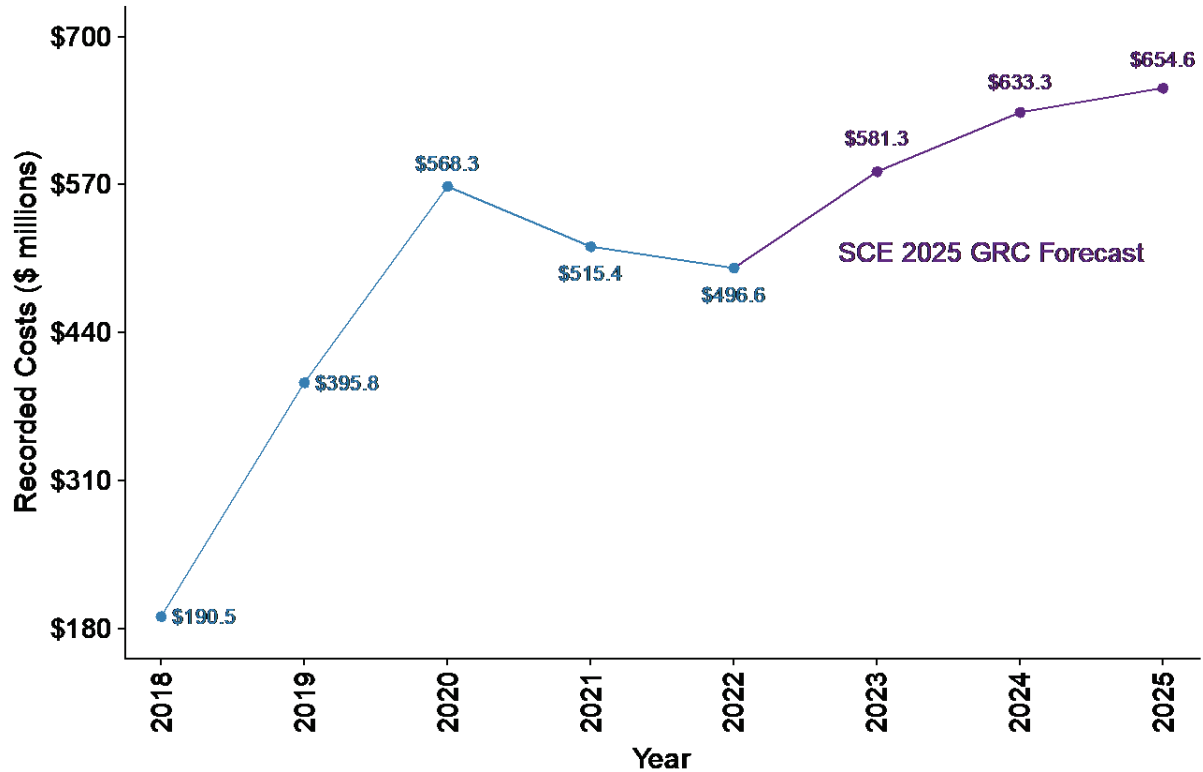
⁸²⁴ Ex. CA-02 at 33.

⁸²⁵ Referring to Ex. SCE-02, Vol. 10A, SCE categorizes vegetation management forecasts by six categories of work instead of by BPE. Referring to Ex. SCE-02, Vol. 10 at 1, SCE's Vegetation Management expenses are tracked in both its Vegetation Management and Wildfire Management BPEs.

⁸²⁶ Ex. SCE-02, Vol. 10A at 19, Table II-7 and SCE's response to data request PubAdv-SCE-260-RYD, Q. 4.

⁸²⁷ Ex. SCE-02, Vol. 10^a at 6.

**Vegetation Management
2018-2022 Recorded and 2023-2025 Expense Forecast
(In Millions of Dollars)⁸²⁸**



Cal Advocates' TY 2025 recommendation for SCE's Vegetation Management O&M expenses is \$523.862 million, which is \$130.710 million less than SCE's TY 2025 forecast of \$654.572 million.

The table below shows SCE's recorded adjusted expenses for 2018-2022, Cal Advocates' recommendation and SCE's TY 2025 forecast for Vegetation Management expenses.

⁸²⁸ Ex. CA-02 at 34.

**Vegetation Management
2018-2022 Recorded / 2025 Forecast
(In Thousands of Dollars)⁸²⁹**

	2018	2019	2020	2021	2022	SCE 2025	Cal Advocates 2025
Routine Vegetation Management	\$151,088	\$345,939	\$462,660	\$431,504	\$401,918	\$488,973	\$400,688
Hazard Tree Program	\$39,370	\$44,647	\$85,617	\$41,090	\$34,728	\$74,406	\$44,666
Structure Brushing	\$0	\$3,986	\$13,782	\$14,650	\$10,811	\$25,766	\$13,081
Quality Control	\$0	\$1,237	\$5,067	\$3,710	\$5,523	\$12,718	\$12,718
Environmental Support for VM Programs	\$0	\$0	\$0	\$23,774	\$40,317	\$48,978	\$48,978
Technology Solutions O&M	\$0	\$0	\$1,162	\$666	\$3,286	\$3,731	\$3,731
Total	\$190,458	\$395,808	\$568,287	\$515,394	\$496,582	\$654,572	\$523,862

SCE proposes continuing to record Vegetation Management expenses in the two-way Vegetation Management Balancing Account (VMBA) and increasing the recovery threshold from 115% to 120% of the authorized amount. Cal Advocates, however, recommends that the recovery threshold of SCE’s two-way Vegetation Management Balancing Account (VMBA) should remain at 115 percent. Cal Advocates’ proposal to retain the current threshold of 115% is reasonable given the Commission’s recent decision in PG&E’s 2023 GRC to eliminate its two-way VMBA and implement a one-way VMBA for PG&E.⁸³⁰

⁸²⁹ Ex. CA-02 at 35.

⁸³⁰ D.23-11-069 at 487-488. “PG&E is now well-experienced at an increased level of vegetation management, including Enhanced Vegetation Management plus its routine vegetation management. PG&E has been implementing increased vegetation management as a wildfire mitigation since at least 2018. Accordingly, the Commission finds that continuation of the VMBA is appropriate to account for remaining external uncertainties, but a one-way balancing account is sufficient and a reasonableness review threshold is no longer appropriate because PG&E’s forecasts rely upon at least 4-5 years of data and PG&E has reached a higher level of sophistication, generally, regarding vegetation management within the context of climate change.”

A. Inspections Program

SCE forecasts \$55.713 million for its Remote Sensing activity in TY 2025, which is a \$52.627 million increase (1,705%) over its 2022 recorded expenses of \$3.086 million.⁸³¹ SCE's forecast assumes that it will increase the number of miles surveyed from 5,300 miles in 2022 to 60,000 miles in 2025, which includes its entire T&D network of 48,000 distribution circuit miles and 12,000 transmission circuit miles.⁸³² SCE plans to use remote sensing technologies to continue surveying 60,000 miles annually after TY 2025 and plans to begin to gradually reduce its ground inspections in 2026.⁸³³ SCE developed its TY 2025 forecast by assuming the following costs and activities:

- \$39.3 million for data gathering, modeling, and integration costs;
- \$3.93 million for project management/execution;
- \$3.93 million for project enhancements; and
- \$1.5 million for consultant support.⁸³⁴

SCE escalated the subtotal for the above activities by 14%, or \$6.812 million, for support activities and added \$240,000 for compensation changes and other adjustments to reach its TY 2025 forecast of \$55.713 million.⁸³⁵

SCE proposes an alternative remote sensing forecast of \$10.737 million for TY 2025, if full remote sensing is not authorized.⁸³⁶ SCE's alternative forecast utilizes 11,900 circuit miles for Light Detection and Ranging(LiDAR) and 3,000 miles for the satellite portion of the forecast.⁸³⁷ SCE's alternative forecast increases its Traditional Ground Inspections forecast from \$37.337 million to \$77.72 million and its Seasonal

⁸³¹ Ex. CA-02 at 37.

⁸³² Ex. SCE-02, Vol. 10 at 30 & 32.

⁸³³ Ex. SCE-02, Vol. 10 at 32 and SCE's response to data request PubAdv-SCE-110-RYD, Q. 4a.

⁸³⁴ Ex. SCE-02, Vol. 10 Workpapers at 35.

⁸³⁵ Ex. SCE-02, Vol. 10 Workpapers at 34.

⁸³⁶ Ex. SCE-02, Vol. 10 Workpapers at 34.

⁸³⁷ Ex. CA-02 at 38.

Patrols Inspections⁸³⁸ forecast from \$1.349 million to \$5.394 million in TY 2025. The table below compares SCE’s TY 2025 Remote Sensing forecast to its alternative forecast.

**Remote Sensing
2025 Forecast / Alternative Forecast
(In Thousands of Dollars)**

	SCE 2025 Forecast	SCE 2025 Alternative Forecast	Difference
Remote Sensing	\$55,713	\$10,737	\$44,976
Ground Inspections	\$37,337	\$72,720	(\$35,383)
Seasonal Patrols Inspections	\$1,349	\$5,394	(\$4,045)
Total	\$94,399	\$88,851	\$5,548

Cal Advocates recommends that the Commission adopt \$18.571 million for SCE’s Remote Sensing activity in TY 2025. Cal Advocates uses 20,000 circuit miles in TY 2025, which is one-third of SCE’s forecasted total of 60,000. SCE’s proposal to increase the number of circuit miles surveyed from 5,300 in 2022 to 60,000 in 2025 rapidly increases the scope of its remote sensing activity. SCE requests this significant change without review or evaluation of the program (i.e., a pilot program), to determine if the ramped-up scope of work proposed in 2025 is achievable, more efficient than its current process and if the benefits outweigh the proposed costs. Based on the lack of verifiable documentation for this major change, SCE’s proposal is excessively burdensome and costly to its ratepayers. Moreover, the benefits to ratepayers are uncertain, and the Commission should not adopt such speculative proposals.

The magnitude of SCE’s remote sensing proposal, which increases the number of miles surveyed from 5,300 miles in 2022 to 60,000 miles in 2025, has not been thoroughly discussed, analyzed, or evaluated in SCE’s 2023-2025 Wildfire Mitigation

⁸³⁸ This represents only the inspections portion of SCE’s Seasonal Patrols forecast.

Plan (WMP) filings.⁸³⁹ In fact, SCE's TY 2025 remote sensing forecast does not phase in its proposed scope of 60,000 miles per year.

Moreover, despite SCE's claims to the contrary, SCE's 2019-2022 remote sensing activities, which averaged 4,075 miles/year do not gradually phase in its remote sensing activity to 60,000 miles/year.⁸⁴⁰ Instead, Cal Advocates' recommendation of \$18.571 million, which is \$15.485 million higher than SCE's 2022 recorded costs of \$3.086 million, allows SCE to reasonably increase the scope of its remote sensing activity in phases.

SCE also forecasts a higher cost per mile for remote sensing in TY 2025 than it recorded in 2022. In 2022, SCE recorded \$3.086 million to survey 5,300 miles, which is a cost of \$582 per mile.⁸⁴¹ In 2025, SCE forecasts \$55.713 million to survey 60,000 miles, which is a cost per mile of \$929.⁸⁴²

Thus, SCE's remote sensing activity would change substantially in 2025 relative to 2019-2022. Instead of utilizing recorded costs, SCE's TY forecast relies on contract rates at a different scope than its 60,000-mile proposal and various percentage-based cost estimates for project management, project enhancements, and support activities.⁸⁴³ There is significant uncertainty in the cost (relative to its benefit) of SCE's remote sensing forecast to justify the increase from 5,300 miles in 2022 to 60,000 miles in 2025, which is an increase of 54,700 miles.

Cal Advocates also opposes SCE's alternative forecast for remote sensing which substantially increases its Traditional Ground Inspections costs that have been declining since 2020. SCE recorded \$52.152 million in 2020, \$45.924 million in 2021, and \$40.706 million in 2022 for Traditional Ground Inspections. This is a stable declining

⁸³⁹ Ex. CA-02 at 40.

⁸⁴⁰ Ex. CA-02 at 41.

⁸⁴¹ Ex. CA-02 at 41.

⁸⁴² Ex. CA-02 at 41.

⁸⁴³ Ex. CA-02 at 42.

trend.⁸⁴⁴ While SCE's Traditional Ground Inspections declined, its remote sensing costs also declined from \$5.616 million in 2021 to \$3.086 million in 2022.⁸⁴⁵ SCE's alternative forecast does not account for this historical trend and lacks detail and documentation supporting its proposed increase over its 2022 recorded costs.

Thus, the Commission should adopt Cal Advocates' recommendation of \$18.571 million, which is \$15.485 million higher than SCE's 2022 recorded costs, provides sufficient funding for SCE to significantly increase the scope of its remote sensing activity, realize the costs of the activity, and evaluate its progress.

B. Routine Line Clearing

SCE forecasts \$347.714 million for Routine Line Clearing in TY 2025, which is an increase of \$19.15 million over its 2022 recorded expenses of \$328.564 million.⁸⁴⁶ SCE utilized an itemized forecast methodology to develop its forecast, which relies on 2022 vendor rates plus a 4% escalation in 2023 and a 10% escalation in 2024.⁸⁴⁷ SCE's forecast utilizes 790,000 mitigations in TY 2025, which is 53,288 less than its 2022 recorded mitigations of 843,288.⁸⁴⁸

Cal Advocates recommends that the Commission adopt \$307.800 million for SCE's Routine Line Clearing activity in TY 2025, which is \$39.914 million less than SCE's TY 2025 forecast of \$347.714 million. Cal Advocates utilized SCE's 2022 recorded cost per mitigation to develop its forecast, which accounts for the downward trend in SCE's Routine Line Clearing costs since 2020 and SCE's forecasted reduction in the number of mitigations in 2025.

SCE's Routine Line Clearing expenses have declined annually during the 2020-2022 timeframe. It recorded \$378.603 million in 2020, \$348.807 million in 2021, and \$328.564 million in 2022, for its Routine Line Clearing activity. Yet, SCE forecasts

⁸⁴⁴ Ex. CA-02 at 42.

⁸⁴⁵ Ex. CA-02 at 43.

⁸⁴⁶ Ex. CA-02 at 43.

⁸⁴⁷ Ex. SCE-02, Vol. 10 at 46 & SCE's response to data request PubAdv-SCE-340-RYD, Q. 1c.

⁸⁴⁸ Ex. SCE-02, Vol. 10 at 46.

\$347.714 million in 2025,⁸⁴⁹ which was developed by escalating its 2022 recorded expenses in both 2023 and 2024. SCE’s excessive forecast does not account for the steady downward trend of its Routine Line Clearing expenses.

SCE’s TY 2025 forecast relies on a lower number of mitigations, and a higher average cost per mitigation in TY 2025, than it experienced in 2022. The table below summarizes SCE’s Routine Line Clearing mitigations in 2018-2022 and forecasted in 2025.

**Routine Line Clearing
2018-2022 Recorded / 2025 Forecasted Mitigations
(In Thousands of Dollars)⁸⁵⁰**

	2018	2019	2020	2021	2022	SCE 2025 Forecast	Cal Advocates 2025
Trims	514,797	726,597	979,947	713,973	785,058	748,421	748,421
Removals	5,002	26,508	79,662	60,249	58,230	41,579	41,579
Total Mitigations	519,799	753,105	1,059,609	774,222	843,288	790,000	790,000
Routine Line Clearing Cost (\$ thousands)	\$131,843	\$278,425	\$378,603	\$348,807	\$328,564	\$347,714	\$307,800
Cost Per Mitigation	\$253.64	\$369.70	\$357.30	\$450.53	\$389.62	\$440.14	\$389.62

SCE’s escalated forecast methodology results in a cost per mitigation that is comparable to 2021. Yet, SCE’s increased costs in 2021 should not be included in the TY 2025 forecast. That year had the highest cost that SCE experienced in the last five recorded years. SCE states that the decrease in its 2022 recorded costs is “attributed to a lower cost-per-trim in 2022 relative to 2021.”⁸⁵¹ Yet, SCE did not provide verifiable documentation to demonstrate that its cost per mitigation will increase above its 2022 recorded costs to a level comparable to 2021.

Cal Advocates’ recommendation of \$307.800 million uses SCE’s 2022 recorded cost per mitigation of \$389.62, which is more representative of SCE’s current Routine

⁸⁴⁹ Ex. SCE-02, Vol. 10 at 45.

⁸⁵⁰ Ex. CA-02 at 44.

⁸⁵¹ Ex. SCE-02, Vol. 10 at 43.

Line Clearing expenses and is comparable to its three-year average of \$399.15 per mitigation. SCE should be efficient and experienced enough with its Routine Line Clearing activity to achieve the cost per mitigation that it achieved in 2022. In any event, if SCE experiences future market escalations of 4% and 10% above its 2022 recorded expenses, it can recover those costs in its two-way VMBA.

C. Dead, Dying, Diseased Tree Removal

See Section D. below discusses “Dead, Dying, Diseased Tree Removal.

D. Hazard Tree Management Program

SCE forecasts \$74.406 million for its Hazard Tree Program activities⁸⁵² and separated the Program forecast into two categories of work: \$44.202 million for the Hazard Tree Management Program and \$30.204 million for Dead, Dying and Diseased Tree Removal.⁸⁵³ SCE developed its Hazard Tree Management Program and Dead, Dying and Diseased Tree Removal forecasts by estimating a unit cost based on 2023 costs plus adder components and a 10% market rate increase, multiplying the unit cost by a 2023-2028 normalized volume of work, and then adding compensation changes and other adjustments.⁸⁵⁴

Cal Advocates recommends that the Commission adopt \$44.666 million for SCE’s Hazard Tree Program activities, which includes \$24.554 million for the Hazard Tree Management Program and \$20.112 million for Dead, Dying and Diseased Tree Removal. Cal Advocates’ recommendation is \$29.740 million less than SCE’s TY 2025 forecast of \$74.406 million. Cal Advocates used SCE’s 2022 average cost per remediation and the number of forecasted mitigations in 2025 to develop its recommendation.

The table below summarizes SCE’s request and Cal Advocates’ recommendation for Hazard Tree Program expenses.

⁸⁵² Ex. CA-02 at 46.

⁸⁵³ Ex. SCE-02, Vol. 10A at 19, Table II-7 and SCE’s response to data request PubAdv-SCE-260-RYD, Q. 4.

⁸⁵⁴ Ex. SCE-02, Vol. 10 Redacted Workpapers at 79-84 & 91-93.

**Hazard Tree Program
2018-2022 Recorded / 2025 Forecast
(In Thousands of Dollars)⁸⁵⁵**

	2018	2019	2020	2021	2022	SCE 2025	Cal Advocates 2025
Hazard Tree Management Program	\$6	\$14,904	\$54,127	\$29,141	\$15,366	\$44,202	\$24,554
Dead, Dying and Diseased Tree Removal	\$39,365	\$29,743	\$31,490	\$11,949	\$19,362	\$30,204	\$20,112
Total	\$39,370	\$44,647	\$85,617	\$41,090	\$34,728	\$74,406	\$44,666

The tables below summarize SCE’s 2018-2022 recorded and 2025 forecasted remediations costs for the Hazard Tree Program and Dead, Dying and Diseased Tree Removal.

**Hazard Tree Management Program
2018-2022 Recorded / 2025 Remediation Costs
(In Thousands of Dollars)⁸⁵⁶**

	2018	2019	2020	2021	2022	SCE 2025	Cal Advocates 2025
Cost (\$ thousands)	\$6 ⁸⁵⁷	\$14,904	\$54,127	\$29,141	\$15,366	\$44,202	\$24,554
Number of Remediations	0	6,000	12,000	3,400	5,500	8,788	8,788
Average Cost per Remediation	-	\$2,484	\$4,511	\$8,571	\$2,794	\$5,030	\$2,794

⁸⁵⁵ Ex. CA-02 at 47.

⁸⁵⁶ Ex. CA-02 at 48.

⁸⁵⁷ Referring to SCE’s response to data request PuvAdv-SCE-225-RYD, Q. 2h, SCE states that it “incurred minimal charges related to setting up HTMP in 2018. The program began in 2019.

**Dead, Dying and Diseased Tree Removal
2018-2022 Recorded / 2025 Remediation Costs
(In Thousands of Dollars)⁸⁵⁸**

	2018	2019	2020	2021	2022	SCE 2025	Cal Advocates 2025
Cost (\$ thousands)	\$39,365	\$29,743	\$31,490	\$11,949	\$19,362	\$30,204	\$20,112
Number of Remediations	24,000	13,000	11,000	3,000	9,000	9,350	9,350
Average Cost per Remediation	\$1,640	\$2,288	\$2,863	\$3,983	\$2,151	\$3,230	\$2,151

SCE's TY forecast results in a higher average cost per remediation than its 2020-2022 average, and its 2022 recorded costs. For the Hazard Tree Management Program, SCE recorded \$98.634 million in 2020-2022 to perform 20,900 remediations, at an average cost of \$4,719 per remediation. SCE's TY forecast relies on an average cost of \$5,030 per remediation, which is \$311 higher than its three-year average and \$2,236 higher than its 2022 recorded average cost. For Dead, Dying and Diseased Tree Removal, SCE recorded \$62.801 million in 2020-2022 to perform 23,000 remediations, at an average cost of \$2,730 per remediation. SCE's TY forecast relies on an average cost of \$3,230 per remediation, which is \$500 higher than its three-year average and \$1,079 higher than its 2022 recorded average cost.

Cal Advocates' recommendation utilizes SCE's 2022 recorded costs, and is more representative of SCE's recent remediation costs. SCE should be efficient and experienced enough with its Hazard Tree Management Program to achieve the cost per remediation that it achieved in 2022.

SCE does not compare its forecasted Hazard Tree Management Program work volume to its WMP targets, which uses different units (circuits instead of mitigations) and shows a reduction in the number of Hazard Tree Management Program circuits assessed in 2025 relative to 2022. SCE states that it has a "target to complete [Hazard

⁸⁵⁸ Ex. CA-02 at 48.

Tree Management Program] tree assessments along approximately 1,700 circuits by December 2024" and annual targets "of 412, 408, and 440 grids/circuits in 2023, 2024, and 2025, respectively."⁸⁵⁹

SCE's WMP targets for its Hazard Tree Management Program, which decrease from 467 circuits in 2022 to 440 in 2025, do not compare to SCE's 2025 GRC forecasted work volume, which increases from 5,500 remediations in 2022 to 8,788 in 2025. For Dead, Dying and Diseased Tree Removal, SCE also does not compare its forecasted work volume to WMP targets.

SCE has not met its burden to show why its proposed increase in the TY 2025 forecast over 2022 recorded expenses is reasonable. Cal Advocates' recommendation of \$44.666 million is higher than SCE's 2021-2022 recorded expenses and provides adequate funding for SCE's Hazard Tree Management Program activities. The Commission should adopt Cal Advocates' reasonable proposal.

E. Seasonal Patrols/AOC/ Emergent Work

SCE forecasts \$38.42 million for Seasonal Patrols, Areas-of-Concern (AOC), and Emergent Work in TY 2025, which is a \$12.779 million increase over its 2022 recorded expenses of \$25.641 million.⁸⁶⁰ SCE utilized an itemized forecast methodology with certain market escalations of 10%, 8%, and 2% in 2024 and 2025.⁸⁶¹ SCE's forecast utilized 2022 work volumes for seasonal patrols and AOC and 2021 work orders for emergent work.⁸⁶²

Cal Advocates recommends that the Commission adopt \$27.191 million for SCE's Seasonal Patrols, AOC, and Emergent Work activity in TY 2025, which is \$11.229

⁸⁵⁹ Ex. SCE-02, Vol. 10 at 62.

⁸⁶⁰ Ex. CA-02 at 45.

⁸⁶¹ Ex. SCE-02, Vol. 10 Workpapers at 63.

⁸⁶² Ex. SCE-02, Vol. 10 at 59.

million less than SCE's TY 2025 forecast of \$38.42 million. Cal Advocates utilized a three-year average of SCE's 2020-2022 recorded expenses to develop its forecast.

SCE's Seasonal Patrols, AOC, and Emergent Work expenses were relatively stable in 2020-2022, but SCE did not separately track the costs of Seasonal Patrols and AOC prior to 2020.⁸⁶³ SCE recorded \$26.859 million in 2020, \$29.073 million in 2021, \$25.641 million in 2022, and forecasts \$38.42 million in 2023.⁸⁶⁴ Accounting for SCE's forecasted annual operational savings of \$4.2 million from its Arbora work management tool beginning in 2023,⁸⁶⁵ SCE's TY 2025 forecast is a significant increase over its 2020-2022 recorded expenses.

SCE did not provide verifiable documentation that would demonstrate its contractor rates will experience additional rate escalations in TY 2025. SCE's 2020-2022 recorded expenses include increased costs of approximately \$15 million annually due to revised contractor rates impacted by SB 247.⁸⁶⁶ Cal Advocates' recommendation appropriately uses a three-year average of SCE's 2020-2022 recorded expenses, which accounts for the SB 247 impacts. SCE also did not provide verifiable documentation that would demonstrate its contractor rates will escalate in TY 2025.⁸⁶⁷ The Commission should adopt Cal Advocates' reasonable proposal of \$27.191 million for SCE's Seasonal Patrols, AOC, and Emergent Work activity in TY 2025

F. Structure Brushing

SCE forecasts \$25.766 million for Structure Brushing in TY 2025, which is a \$14.995 million increase over its 2022 recorded expenses of \$10.811 million.⁸⁶⁸ SCE

⁸⁶³ Ex. SCE-02, Vol. 10 at 57.

⁸⁶⁴ Ex. CA-02 at 46.

⁸⁶⁵ Ex. SCE-02, Vol. 10 at 59.

⁸⁶⁶ Ex. SCE-02, Vol. 10 at 57.

⁸⁶⁷ Ex. CA-02 at 46.

⁸⁶⁸ Ex. CA-02 at 51.

utilized an itemized forecast methodology to develop its forecast and SCE's forecast utilized a work volume of 238,894 structures and applied a 10% market escalation.⁸⁶⁹

Cal Advocates recommends that the Commission adopt \$13.081 million for SCE's Structure Brushing activity in TY 2025, which is \$12.685 million less than SCE's TY 2025 forecast of \$25.766 million. Cal Advocates utilized a three-year average of SCE's 2020-2022 recorded expenses to develop its forecast.

SCE's Structure Brushing expenses fluctuated in 2019-2022, averaging \$10.8 million over the four-year period. SCE did not separately track its Structure Brushing expenses in 2018.⁸⁷⁰ During the four-year period, SCE recorded the highest costs for Structure Brushing in 2021, due to "scheduling changes and re-alignment of resources" and hiring "two additional contractors at a higher market rate."⁸⁷¹ SCE's Structure Brushing expenses decreased by \$3.9 million to \$10.8 million in 2022 and its workload increased from 163,000 poles in 2021 to 180,000 structures in 2022.⁸⁷²

Overall, SCE has not demonstrated that its contractor rates will experience an additional 10% market escalation in TY 2025. Specifically, SCE has not provided any supporting documentation to justify its expected 10% market escalation. SCE's TY 2025 forecast is \$14.955 million higher than its 2022 recorded expenses, the year that SCE's Structure Brushing scope increased to include sub-transmission assets.⁸⁷³ Cal Advocates' recommendation of \$13.081 million is based on a three-year average, which accounts for fluctuations and is higher than SCE's 2022 recorded expenses and thus is reasonable. As SCE did not provide any supporting documentation to justify its expected 10% market escalation, Cal Advocates utilized a three-year average to help account for annual

⁸⁶⁹ Ex. SCE-02, Vol. 10 Workpapers at 95-97.

⁸⁷⁰ Ex. SCE-02, Vol. 10 at 83.

⁸⁷¹ Ex. SCE-02, Vol. 10A at 84.

⁸⁷² Ex. SCE-02, Vol. 10A at 84. SCE's 2022 recorded costs included sub-transmission compliance structures for the first time.

⁸⁷³ Ex. CA-02 at 52.

fluctuations in 2020-2022.⁸⁷⁴ The Commission should adopt Cal Advocates' more reasonable proposal.

G. Environmental Support for Vegetation Management

Cal Advocates does not object to SCE's Environmental Support for Vegetation Management Programs.

H. Wildfire Mitigation Vegetation Management Technology Solutions

Cal Advocates does not object to SCE's O&M Vegetation Management Technology Solutions activities.

XV. WILDFIRE MANAGEMENT

A. Overview

SCE's Wildfire Management O&M activities involve "efforts to enhance the safety of the electrical system and to increase public safety by minimizing the risk of significant wildfires associated with SCE equipment."⁸⁷⁵ SCE's forecasts for Wildfire Management O&M expenses include:

- Grid Hardening,
- High Fire Risk Area Sectionalizing Devices,
- Supplemental System Hardening Activities,
- Alternative Technologies,
- High Fire Risk Inspections and Remediations,
- Infrared Inspection Program,
- Wildfire Mitigation and Vegetation Management Technology Solutions for High Fire Risk Informed (HFRI) Activities,
- Public Safety Power Shutoff (PSPS) Execution,
- PSPS Customer Support,
- Organizational Support,
- Aerial Suppression,

⁸⁷⁴ Ex. CA-02 at 52.

⁸⁷⁵ Ex. SCE-04, Vol. 05, Pt. 1A at 4.

- Enhanced Situational Awareness,
- Fire Science and Advanced Modeling,
- Wildfire Mitigation and Vegetation Management Solutions for PSPS, and
- Environmental Programs.

SCE forecasts \$264.755 million for its TY 2025 Wildfire Management O&M expenses.⁸⁷⁶ Cal Advocates recommends \$217.207 million for SCE's Wildfire Management O&M expenses, which is \$47.546 million less than SCE's request. This recommendation is based on Cal Advocates' analysis of SCE's 2022 recorded adjusted expenses, historical expense levels, and SCE's TY forecasts.

Cal Advocates' recommendations regarding SCE's Wildfire Management O&M expenses for TY 2025 include:

- \$109.247 million for High Fire Risk Inspections and Remediations which is \$21.771 million lower than SCE's Test Year forecast of \$131.018 million.
- \$4.240 million for Wildfire Mitigation and Vegetation Management Technology Solutions which is \$2.501 million lower than SCE's Test Year forecast of \$6.741 million.
- \$16.107 million for PSPS Execution which is \$4.834 million lower than SCE's Test Year forecast of \$20.941 million.
- \$29.741 million for PSPS Customer Support which is \$6.354 million lower than SCE's Test Year forecast of \$36.095 million.
- \$26.516 million for Aerial Suppression which is \$8.484 million lower than SCE's Test Year forecast of \$35 million.
- \$6.454 million for Enhanced Situational Awareness which is \$3.602 million lower than SCE's Test Year forecast of \$10.056 million.

The table below compares Cal Advocates' recommendation and SCE's TY 2025 request for Wildfire Management O&M expenses:

⁸⁷⁶ Ex. SCE-04, Vol. 05, Pt. 1 at 2. All dollars are in constant 2022 unless otherwise stated.

**Wildfire Management O&M Expenses for TY 2025
(\$000)**

GRC Activity Description (a)	SCE Proposed⁸⁷⁷ (b)	Cal Advocates Recommended (c)	\$ Amount SCE>Cal Advocates (d=b-c)
Grid Hardening	\$785	\$785	\$0
HRFA Sectionalizing Devices	\$431	\$431	\$0
Supp. Sys. Hardening Activities	\$4,963	\$4,963	\$0
Alternative Technologies	\$942	\$942	\$0
High Fire Risk Inspections & Remediations	\$131,018	\$109,247	\$21,771
Infrared Inspection Program	\$574	\$574	\$0
Wildfire Mitigation & Vegetation Mgt. Technology Solutions	\$6,741	\$4,240	\$2,501
PSPS Execution	\$20,941	\$16,108	\$4,834
PSPS Customer Support	\$36,095	\$29,741	\$6,354
Organizational Support	\$3,173	\$3,173	\$0
Aerial Suppression	\$35,000	\$26,516	\$8,158
Enhanced Situational Awareness	\$10,056	\$6,469	\$3,587
Fire Science & Advanced Modeling	\$8,031	\$8,031	\$0
Wildfire Mitigation & Vegetation Mgmt. Technology Solutions	\$5,364	\$5,364	\$0
Environmental Programs	\$639	\$639	\$0
TOTAL	\$264,753	\$ 217,223	\$ 47,204

The table below shows SCE's recorded adjusted O&M expenses for SCE Wildfire Management for 2018-2022 and shows Cal Advocates' and SCE's TY 2025 forecasts.

⁸⁷⁷ SCE Amended Testimony, Ex. SCE-04, Vol. 05, Pt. 1A at 5.

**Wildfire Management O&M Expenses
2018-2022 Recorded and 2025 Forecast
(In Thousands of 2022 Dollars)⁸⁷⁸**

		Wildfire Mgmt O&M Expenses SCE 2018-2022 Recorded and 2025 Forecast ('000s of 2022 Dollars)						
SCE-04, Vol.5	Part 2	2018	2019	2020	2021	2022	2025 SCE Forecast	2025 CalAdv Forecast
	Supplemental System Hardening							
1	Activities	\$ -	\$ -	\$ -	\$ -	\$ 5,388	\$ 4,963	\$ 4,963
2	Grid Hardening	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 785	\$ 785
3	HFRA Sectionalizing Devices	\$ 3,177	\$ 484	\$ (20)	\$ 14	\$ 1,027	\$ 431	\$ 431
	Part 3							
1	Alternative/Emerging Technologies	\$ -	\$ -	\$ 135	\$ 1,013	\$ 1,254	\$ 942	\$ 942
2	High Fire Risk Inspections and Remediations	\$ 5,437	\$ 367,453	\$ 204,445	\$ 126,899	\$ 100,166	\$ 131,018	\$ 109,247
3	Infrared Inspection Program	\$ -	\$ 1	\$ 1,429	\$ 632	\$ 543	\$ 574	\$ 574
4	Wildfire Mitigation and Vegetation Management Technology Solutions	\$ -	\$ 2,185	\$ 2,876	\$ 3,912	\$ 5,648	\$ 6,741	\$ 4,240
5	Organizational Support	\$ 74	\$ 49,512	\$ 40,687	\$ 12,104	\$ 8,181	\$ 3,173	\$ 3,173
	Part 4							
1	PSPS Execution	\$ -	\$ 15,174	\$ 16,654	\$ 20,466	\$ 12,136	\$ 20,941	\$ 16,107
2	PSPS Customer Support	\$ 978	\$ 7,303	\$ 13,624	\$ 35,148	\$ 25,355	\$ 36,095	\$ 29,741
3	Aerial Suppression	\$ -	\$ -	\$ 2,761	\$ 20,327	\$ 18,200	\$ 35,000	\$ 26,516
4	Enhanced Situational Awareness	\$ 431	\$ 2,925	\$ 5,327	\$ 5,686	\$ 5,534	\$ 10,056	\$ 6,454
5	Fire Science and Advanced Modeling	\$ 2,111	\$ 2,434	\$ 3,613	\$ 6,049	\$ 7,477	\$ 8,031	\$ 8,031
6	Wildfire Mitigation and Vegetation Management Technology Solutions	\$ 243	\$ 1,728	\$ 4,560	\$ 7,811	\$ 8,547	\$ 5,364	\$ 5,364
7	Environmental Programs	\$ -	\$ -	\$ 1,632	\$ 845	\$ 678	\$ 639	\$ 639
	Total	\$ 12,451	\$ 449,199	\$ 297,723	\$ 240,906	\$ 200,134	\$ 264,755	\$ 217,207

Cal Advocates does not oppose SCE's Wildfire Management O&M expense forecasts as presented in SCE Exhibits SCE-04, Volume 05, Parts 2-4, for:

- 1) Supplemental System Hardening; 2) Grid Hardening; 3) High Fire Risk Area (HFRA) Sectionalizing Devices; 4) Alternative Emerging Technologies; 5) Infrared Inspection Program; 6) Organizational Support; 7) Fire Science and Advanced Modeling;
- 8) Wildfire Mitigation and Vegetation Management Technology Solutions for PSPS; and
- 9) Environmental Programs.

⁸⁷⁸ Ex. CA-10-E at 3.

Cal Advocates reviewed SCE's testimony, workpapers, data request responses, and historical expense levels for these cost categories and does not oppose SCE's forecasts for these areas.

Cal Advocates recommends, however, lower TY forecasts compared to SCE for the following costs categories: 1) High Fire Risk Inspections and Remediations Program; 2) Wildfire Mitigation and Vegetation Management Technology Solutions; 3) PSPS Execution; 4) PSPS Customer Support; 5) Aerial Suppression; and 6) Enhanced Situational Awareness.

SCE requests \$264.753 million in O&M expenses for Test Year 2025 to address wildfire risks,⁸⁷⁹ which is 32 percent higher than its 2022 recorded \$200.134 million amount.⁸⁸⁰

Cal Advocates recommends \$217.207 million, which is \$47.546 million lower than SCE's request of \$264.753 million.

For SCE's Wildfire Management capital 2023-2028 expenditures forecasts, Cal Advocates does not oppose the following:

- Part 2: High Fire Risk Inspections and Remediations \$8.8 million, HFRA Sectionalizing Devices \$33.1 million, and Supplemental System Hardening Activities \$1.2 million.⁸⁸¹
- Part 3: Alternative Technologies \$63.1 million, High Fire Risk Inspections and Remediations \$799.0 million, and Wildfire Mitigation and Vegetation Management Technology Solutions \$48.8 million.⁸⁸²
- Part 4: Fire Science and Advanced Modeling \$6.7 million, Enhanced Situational Awareness \$6.0 million, and Wildfire Mitigation and Vegetation Management Technology Solutions \$49.1 million.⁸⁸³

⁸⁷⁹ Ex. SCE-04, Vol. 05, Pt. 1A at. 5.

⁸⁸⁰ Ex. SCE-04, Vol. 05, Pts. 2-4, Workpapers.

⁸⁸¹ Ex. CA-11 at 5.

⁸⁸² Ex. CA-11 at 5.

⁸⁸³ Ex. CA-11 at 5.

B. Grid Hardening

Wildfire mitigation measures make up a significant portion of SCE's service area designated as a High Fire Risk Area (HFRA).⁸⁸⁴ Starting in 2018, SCE expanded its wildfire mitigation programs due to increasing risk factors like climate change.⁸⁸⁵ SCE's application includes: 1) its proposed scope of work; 2) key drivers for the work to mitigate wildfire and PSPS risks; and 3) any regulatory requirements affecting the capital requested for Grid Hardening activities.⁸⁸⁶

SCE requests \$905.8 million for 2023, \$986.6 million for 2024 and \$996.2 million for 2025, \$1,124.9 million for 2026, \$1,223.3 million for 2027 and \$1,047.1 million for 2028 Grid Hardening capital expenditures.⁸⁸⁷ SCE's Grid Hardening requests are organized under the following:

- Targeted Undergrounding;
- Wildfire Covered Conductor Program (WCCP);
- Rapid Earth Fault Current Limiters;
- HFRA Sectionalizing Devices;
- Hardening of legacy generation facilities;
- Long Span Initiative;
- Fusing Mitigation.

⁸⁸⁴ Ex. SCE-04, Vol. 05, Pt. 2 at 4.

⁸⁸⁵ Ex. SCE-04, Vol. 05, Pt. 2 at 4.

⁸⁸⁶ Ex. SCE-04, Vol. 05, Pt. 2 at 2.

⁸⁸⁷ Ex. SCE-04, Vol. 05, Pt. 2 at 4.

For Targeted Undergrounding, Cal Advocates recommends \$197.8 million in 2025, \$608.1 million for 2026, \$928.4 million for 2027, and \$831.4 million for 2028. For the Wildfire Covered Conductor Program, Cal Advocates recommends \$604.8 million in 2023, \$681.9 million in 2024, \$557.8 million in 2025, \$190.4 million in 2026, \$24.0 million in 2027 and \$23.7 million in 2028. Cal Advocates' 2023-2028 Grid Hardening recommendations are based on adjustments to the Targeted Undergrounding Program and the Wildfire Covered Conductor Program.

Cal Advocates reviewed SCE's testimony, workpapers, data request responses, and historical expense levels for Rapid Earth Fault Current Limiters, HFRA Sectionalizing Devices, hardening of legacy generation facilities, SCE's Long Span Initiative and Fusing Mitigation, and does not oppose the 2023-2028 SCE's forecasts.

Cal Advocates' recommendations for Grid Hardening and SCE's proposed for 2023-2028 are shown in the tables below.

Summary Cal Advocates Grid Hardening Recommendations by Program 2023-2025⁸⁸⁸
(Thousands \$\$\$)

Description	SCE Proposed			Cal Advocates Recommended			Difference (SCE Proposed - Cal Advocates Recommended)		
	2023	2024	2025	2023	2024	2025	2023	2024	2025
Targeted Underground	\$25,618	\$48,884	\$304,954	\$25,618	\$48,884	\$197,770	\$0	\$0	\$107,184
Wildfire Covered Conductor	\$840,531	\$879,801	\$638,519	\$604,826	\$681,881	\$557,843	\$235,705	\$197,920	\$80,676
Rapid Earth Fault Current Limiters	\$21,176	\$35,878	\$45,796	\$21,176	\$35,878	\$45,796	\$0	\$0	\$0
HFRA Sectionalizing Devices	\$5,379	\$3,188	\$7,201	\$5,379	\$3,188	\$7,201	\$0	\$0	\$0
Generation System Hardening Legacy Facilities	\$4,754	\$1,902	\$2,106	\$4,754	\$1,902	\$2,106	\$0	\$0	\$0
Long Span Initiative	\$1,667	\$4,338	\$4,376	\$1,667	\$4,338	\$4,376	\$0	\$0	\$0
Fusing Mitigation	-	-	-	-	-	-	-	-	-
Total	\$899,126	\$973,991	\$1,002,952	\$663,420	\$776,071	\$815,092	\$235,705	\$197,920	\$187,860

⁸⁸⁸ Ex. CA-11 at 8.

Summary Cal Advocates Grid Hardening Recommendations by Program 2026-2028⁸⁸⁹
(Thousands \$\$\$)

Description	SCE Proposed ⁸⁹⁰			Cal Advocates Recommended			Difference (SCE Proposed - Cal Advocates Recommended)		
	2026	2027	2028	2026	2027	2028	2026	2027	2028
Targeted Underground	\$851,620	\$1,143,432	\$966,727	\$608,112	\$928,359	\$831,416	\$243,508	\$215,073	\$135,311
Wildfire Covered Conductor	\$222,930	\$29,735	\$29,970	\$190,372	\$24,034	\$23,771	\$32,558	\$5,701	\$6,199
Rapid Earth Fault Current Limiters	\$45,699	\$45,717	\$45,872	\$45,699	\$45,717	\$45,872	\$0	\$0	\$0
HFRA Sectionalizing Devices	\$7,262	\$8,457	\$1,614	\$7,262	\$8,457	\$1,614	\$0	\$0	\$0
Generation System Hardening Legacy Facilities	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Long Span Initiative	\$4,363	\$4,402	\$4,551	\$4,363	\$4,402	\$4,551	\$0	\$0	\$0
Fusing Mitigation	-	-	-	-	-	-	-	-	-
Total	\$1,131,873	\$1,231,742	\$1,048,734	\$855,808	\$1,010,969	\$907,224	\$276,066	\$220,774	\$141,510

The table below shows 2018-2022 recorded broken down by section in the same format as Exhibit SCE-04, Volume 05, Pt. 2.

⁸⁸⁹ Ex. CA-11 at 11.

⁸⁹⁰ This table does not have all of the activities that comprise Grid Hardening line item in Table 11-2 and therefore the totals do not align with the \$6.34 billion total Grid Hardening activities seen in Ex. SCE-04, Vol. 05, Pt. 2 at Table I-2.

**2018-2022 Recorded Grid Hardening Capital by Section
(Thousands \$\$\$)⁸⁹¹**

	2018	2019	2020	2021	2022
Targeted Undergrounding	\$0	\$0	\$784	\$6,586	\$29,704
Wildfire Covered Conductor	\$27,654	\$239,911	\$544,093	\$897,602	\$791,274
Rapid Earth Fault Current Limiters	\$0	\$0	\$1,855	\$3,760	\$21,543
HFRA Sectionalizing Devices	\$0	\$11,951	\$15,900	\$7,891	\$17,586
Generation System Hardening Legacy Facilities	\$0	\$0	\$0	\$190	\$93
Long Span Initiative	\$0	\$0	\$0	\$92	\$7946
Fusing Mitigation	\$0	\$70,298	\$8,955	(\$479)	\$56
Total	\$27,654	\$322,159	\$571,587	\$915,642	\$868,202

- 1. SCE's Targeted Undergrounding requests should be based on difficulty in calculating average costs versus applying a weighted average of \$4.03 million per mile for all forecasted miles of undergrounding projects.**

Undergrounding refers to the conversion of an existing overhead electric system, which consists of poles, wires, and related equipment, to underground facilities that consist of trenches containing conduit banks that house wires, vaults, and/or pad mounts for transformers and other equipment.⁸⁹² SCE estimates that an undergrounding project typically takes between 25 to 48 months from initial scoping to in-field project completion.⁸⁹³

⁸⁹¹ Ex. CA-11 at 9.

⁸⁹² Ex. SCE-04, Vol. 05, Pt. 2 at 7.

⁸⁹³ Ex. SCE-04, Vol. 05, Pt. 2 at 7.

SCE forecasts \$25.6 million in 2023, \$48.9 million in 2024, \$305.0 million in 2025, \$851.6 million in 2026, \$1,143.4 million in 2027, and \$966.7 million in 2028 for Targeted Undergrounding (TUG) capital expenditures.⁸⁹⁴

Cal Advocates does not object to SCE’s Targeted Undergrounding Program request of \$25.6 million in 2023 and \$48.9 million in 2024. For 2025, Cal Advocates recommends \$197.8 million, which is \$107.2 million less than SCE’s \$305.0 million request. SCE’s proposed 2023-2025 capital expenditures for Targeted Undergrounding Cal Advocate’s recommendations are presented in the table below.

**Comparison of TUG Capital Expenditures 2023-2025
(\$000)**

Description	SCE Proposed ⁸⁹⁵			Cal Advocates Recommended ⁸⁹⁶			Difference (SCE Proposed – Cal Advocates Recommended)		
	2023	2024	2025	2023	2024	2025	2023	2024	2025
Targeted Undergrounding	\$25,618	\$48,884	\$304,954	\$25,618	\$48,884	\$197,770	\$0	\$0	\$107,184

For SCE’s Targeted Undergrounding Program, Cal Advocates recommends: 1) \$608.1 million in 2026, which is \$243.5 million less than SCE’s \$851.6 million request; 2) \$928.4 million in 2027, which is \$215.1 million less than SCE’s \$1,143.4 million request; 3) \$831.4 million in 2028, which is \$135.3 million less than SCE’s \$966.7 million request. SCE’s proposed 2026-2028 capital expenditures for Targeted Undergrounding and Cal Advocate’s recommendations are presented in the table below.

⁸⁹⁴ Ex. SCE-04, Vol. 05, Pt. 2 at 20.

⁸⁹⁵ Ex. SCE-04, Vol. 05, Pt. 2 at 20.

⁸⁹⁶ Ex. CA-11 at 10.

**Comparison of TUG Capital Expenditures 2026-2028
(\$000)**

Description	SCE Proposed ⁸⁹⁷			Cal Advocates Recommended			Difference (SCE Proposed - Cal Advocates Recommended)		
	2026	2027	2028	2026	2027	2028	2026	2027	2028
Targeted Undergrounding	\$851,620	\$1,143,432	\$966,727	\$608,112	\$928,359	\$831,416	\$243,508	\$215,073	\$135,311

The table below shows SCE's 2017-2022 recorded capital expenditures for TUG.

**Targeted Undergrounding
SCE 2017-2022 Recorded Capital Expenditures
(\$000)**

Description	2017	2018	2019	2020	2021	2022
Targeted Undergrounding	-	-	-	\$784	\$6,586	\$29,704

Source: Ex. SCE-04, Vol. 05, Pt. 2 at 16.

SCE's Targeted Undergrounding forecast starts with determining the level of difficulty of the proposed undergrounding projects.⁸⁹⁸ The level of difficulty relates to the terrain and topographical locations of the underground project and is the primary cost driver.⁸⁹⁹ Each project is rated a difficulty level of low, medium, high or not feasible.⁹⁰⁰ A low difficulty level includes flat and rural areas, requiring less civil construction and minimal paving (even no paving if it is a dirt road).⁹⁰¹ A medium difficulty level includes a mix of residential and rural areas.⁹⁰² A high difficulty level includes a rocky and hilly

⁸⁹⁷ Ex. SCE-04, Vol. 05, Pt. 2 at 20.

⁸⁹⁸ Ex. SCE-04, Vol. 05, Pt. 2 at 20.

⁸⁹⁹ Ex. SCE-04, Vol. 05, Pt. 2 at 20.

⁹⁰⁰ Ex. SCE-04, Vol. 05, Pt. 2 at 20.

⁹⁰¹ Ex. SCE-04, Vol. 05, Pt. 2 at 20.

⁹⁰² Ex. SCE-04, Vol. 05, Pt. 2 at 20.

terrain and high density of population, requiring extensive civil construction and significant re-routing.⁹⁰³

The table below, SCE provides Targeted Undergrounding unit costs for “low,” “medium,” and “high” difficulty levels being forecasted in the 2025 GRC.⁹⁰⁴ SCE forecasts \$1.2 million for “low,” \$2.9 million for “medium,” and \$4.5 million for “high.”

Cost for Level of Difficulty in an Underground Project

Difficulty	Description
Low (\$1.2M)	Typical setting: flat and rural areas -Straight/minimal bends, none to minimal re-routing required -Less civil construction due to existing infrastructure -Minimal paving and equipment -Low number of transformers per mile required
Medium (\$2.9)	Typical setting: medium density in residential/rural areas -Some curves, minimal to medium re-routing required -Moderate difficulty of civil construction -Moderate re-paving and equipment needed -Medium number of transformers per mile required
High (\$4.5M)	Typical setting: rocky, hilly terrain and/or high population density -Rugged terrain, significant re-routing required (e.g., follow switchbacks, rear property, etc.) -Extensive difficulty of civil construction (e.g., horizontal directional drilling) -High number of transformers per mile required -High cost of restoration due to landscaping -City or county's work moratorium -Substation getaway construction required -Long lead times and permitting/construction difficulties around railroads and bridges -Large flood control channels/wash/culverts
Infeasible	-Terrain or other parameters deem undergrounding construction infeasible (e.g., overhead directly above rocky mountains, not enough room to meet required clearances, etc.)

⁹⁰³ Ex. SCE-04, Vol. 05, Pt. 2 at 20.

⁹⁰⁴ Ex. SCE-04 Vol. 05, Workpapers Pt 2 at 26.

SCE requests funding to underground 11 miles in 2023, 20 miles in 2024, 65 miles in 2025, 180 miles in 2026, 240 miles in 2027, and 200 miles in 2028. The table below, provides SCE’s forecasted cost per mile.

Detailed Summary of TUG Capital Expenditure Forecast 2023-2028⁹⁰⁵

	2023	2024	2025	2026	2027	2028	Total
UG Miles	11	20	65	180	240	200	716
Unit Cost (2022\$) (\$000)	\$2,146	\$2,146	\$4,020	\$4,020	\$4,020	\$4,020	N/A
Escalation	1.054	1.106	1.133	1.143	1.151	1.167	N/A
Sub-total	\$24,872	\$47,460	\$296,072	\$826,815	\$1,110,128	\$938,570	\$3,243,917
Environmental 3%	\$746	\$1,424	\$8,882	\$24,804	\$33,304	\$28,157	\$97,318
Total Cost (Nominal \$000)	\$25,618	\$48,884	\$304,954	\$851,620	\$1,143,432	\$966,727	\$3,341,235

Cal Advocates requested the most up to date version of the “Difficulty Level of Construction” table previously located in SCE’s workpapers.⁹⁰⁶ The updated table is dated December 28, 2023. For the level of difficulty based on percentage SCE plans to underground in years 2023-2028, SCE provided the following information shown in the table below.⁹⁰⁷

Percentage of Difficulty for TUG in 2023-2028⁹⁰⁸

Difficulty Level of Construction	2023	2024	2025	2026	2027	2028
Low	0%	8%	10%	4%	0.5%	0%
Medium	98%	78%	76%	68%	45.5%	29%
High	2%	14%	14%	28%	54%	71%

Cal Advocates used the percentages of construction difficulty to calculate its 2025-2028 Targeted Undergrounding Program recommendations. Based on its calculations, Cal Advocates does not oppose SCE’s request for \$25.6 million in 2023 and \$48.9 million in 2024. For years 2023 and 2024, SCE utilizes a unit cost of \$2.1 million, which is a reasonable unit cost estimate. The \$2.1 million unit cost per mile captures and accurately estimates the cost to underground low level miles and the difficulty level of construction forecasted each year.

⁹⁰⁵ Ex. SCE-04, Vol. 05, Pt. 2 at 20.

⁹⁰⁶ Ex. CA-11 at 13.

⁹⁰⁷ Ex. CA-11 at 13.

⁹⁰⁸ Ex. CA-11 at 13.

For 2025 - 2028, Cal Advocates opposes SCE's utilization of a weighted average of \$4.02 million per mile for all forecasted miles of undergrounding projects.

SCE states "[I]t is appropriate to use a weighted average, because by definition a weighted average takes into consideration the number of miles and the associated difficulty level."⁹⁰⁹ However, SCE's estimation technique improperly utilizes a high weighted average forecast for the undergrounding cost per mile. In fact, SCE's estimate of \$4.02 million per mile weighted average does not accurately reflect the cost level of difficulty of the facilities being undergrounded nor represent the likely, actual construction costs. Moreover, SCE's weighted average approach, inflates and overestimates the already expensive and costly undergrounding construction projects.

SCE forecasts \$4.5 million for high difficulty undergrounding projects, which is the most costly of all construction costs. SCE's unexplained and unsubstantiated \$4.02 million per mile weighted average used to develop its forecasts is very close to the highest bracket of construction costs. This means that the costs for low and medium difficulty projects, which are \$1.2 million per mile and \$2.9 million per mile respectively, are not reflected through SCE's forecasting technique. SCE uses nearly all of the highest forecasted amounts for all miles forecast to be underground.

It is more prudent, accurate, and economically efficient to utilize SCE's more detailed cost information, which identifies the level of difficulty and associated costs. Cal Advocates' recommendation adjusts the 2025-2028 unit cost per mile by incorporating the difficulty level of construction, and SCE's associated costs, broken down by year. Utilizing these two factors results in a more realistic methodology for forecasting SCE's undergrounding costs.

For 2025, Cal Advocates used SCE's estimate that 10% of the 65 miles or 6.5 miles are considered low difficulty, 76% of the 65 miles or 49.4 miles are considered medium difficulty and 14% of the 65 miles or 9.1 miles that are considered high

⁹⁰⁹ Ex. CA-11 at 14.

difficulty.⁹¹⁰ Utilizing SCE’s \$1.2 million for low, \$2.9 million for medium and \$4.5 million for high difficulty, Cal Advocates’ forecast is \$197.8 million for targeted undergrounding,⁹¹¹ which is \$107.2 million less than SCE’s \$304.9 million request.

For 2026, Cal Advocates used SCE’s estimate that 4% of the 180 miles or 7.2 miles are considered low difficulty, 68% of the 180 miles or 122.4 miles are considered medium difficulty, and 28% of the 180 miles or 50.4 miles are considered high difficulty.⁹¹² Utilizing SCE’s \$1.2 million per mile for low, \$2.9 million for medium and \$4.5 million for high difficulty, Cal Advocates forecast is \$608.1 million,⁹¹³ which is \$243.5 million less than SCE’s \$851.6 million request.

For 2027, Cal Advocates used SCE’s estimate that 0.5% of the 240 miles or 1.2 miles are low difficulty, 45.5% of the 240 miles or 109.2 miles are medium difficulty and 54% of the 240 miles or 129.6 miles are high difficulty.⁹¹⁴ Even using SCE’s estimates of \$1.2 million for low, \$2.9 million for medium and \$4.5 million for high difficulty, Cal Advocates’ forecast is \$926.4 million,⁹¹⁵ which is \$215.1 million less than SCE’s \$1,143.4 million request.

⁹¹⁰ Ex. CA-11 at 15.

⁹¹¹ For 2025, Cal Advocates multiplied the 6.5 “low difficulty” miles by \$1.2 million to calculate total low difficulty miles (\$7.8 million). Cal Advocates multiplies the 49.4 miles of “medium difficulty” by \$2.9 million to calculate total medium difficulty miles costs (\$143.3 million). Cal Advocates multiplies the 9.1 miles of “high difficulty” by \$4.5 million to calculate total high difficulty miles costs (\$41.0 million). Total low, medium and high difficulty miles combined is \$192.0 million. Incorporating the environmental adder of 3% the total Cal Advocates recommendation is \$197.8 million.

⁹¹² Ex. CA-11 at 15.

⁹¹³ For 2026, Cal Advocates multiplied the 7.2 “low difficulty” miles by \$1.2 million to calculate total low difficulty miles (\$8.6 million). Cal Advocates multiplied the 122.4 “medium difficulty” miles by \$2.9 million to calculate total medium difficulty miles (\$355.0 million). Cal Advocates multiplies the 50.4 miles of “high difficulty” by \$4.5 million to calculate total high difficulty miles costs (\$226.8 million). Total low, medium and high difficulty miles combined is \$590.4 million. Incorporating the environmental adder of 3% the total Cal Advocates recommendation is \$608.1 million.

⁹¹⁴ Ex. CA-11 at 15.

⁹¹⁵ For 2027, Cal Advocates multiplied the 84 “medium difficulty” miles by \$2.9 million to calculate total medium difficulty miles (\$243.6 million). Cal Advocates multiplies the 156 miles of “high difficulty” by \$4.5 million to calculate total medium difficulty miles costs (\$702.0 million). Total medium and high difficulty miles combined is \$945.6 million. Incorporating the environmental adder of 3% the total Cal Advocates recommendation is \$974.0 million.

For 2028, Cal Advocates used SCE's estimate that 29% of the 200 miles or 58 miles are medium difficulty and 71% of the 240 miles or 142 miles are high difficulty.⁹¹⁶ Utilizing \$2.9 million for medium and \$4.5 million for high difficulty, Cal Advocates recommends \$831.4 million,⁹¹⁷ which is \$135.3 million less than SCE's \$966.7 million request.

2. The Commission should adopt Cal Advocates' recommendations for Wildfire Covered Conductor because Cal Advocates utilizes more current information and a five-year cost average.

Covered conductor refers to the primary conductor being "covered" with insulating materials to protect against the impacts of incidental contact.⁹¹⁸ Unlike the Targeted Undergrounding Program, the covered conductor system installation has a shorter estimated timeframe according to SCE than TUG.⁹¹⁹

SCE forecasts \$857.3 million in 2023, \$898.2 million in 2024, \$641.0 million in 2025, \$223.2 million in 2026, \$29.7 million in 2027, and \$29.9 million in 2028 for Wildfire Covered Conductor Projects (WCCP) capital expenditures, which includes Covered Conductor, Tree Attachments, Vibration Damper Retrofits and Fire Resistant Wrap retrofits.⁹²⁰

For SCE's capital expenditures for its Covered Conductor Program, Cal Advocates recommends:

- \$604.8 million in 2023, which is \$235.7 million less than SCE's request of \$840.5 million;

⁹¹⁶ Ex. CA-11 at 16.

⁹¹⁷ For 2028, Cal Advocates multiplied the 58 "medium difficulty" miles by \$2.9 million to calculate total medium difficulty miles (\$168.2 million). Cal Advocates multiplies the 142 miles of "high difficulty" by \$4.5 million to calculate total high difficulty miles costs (\$639.0 million). Total medium and high difficulty miles combined is \$807.2 million. Incorporating the environmental adder of 3% the total Cal Advocates recommendation is \$831.4 million.

⁹¹⁸ Ex. SCE-04, Vol. 05, Pt. 2 at 30.

⁹¹⁹ Ex. SCE-04, Vol. 05, Pt. 2 at 35.

⁹²⁰ Ex. SCE-04, Vol. 05, Pt. 2 at 29.

- \$681.9 million in 2024, which is \$197.9 million less than SCE’s request of \$879.8 million; and
- \$555.3 million in 2025, which is \$83.2 million less than SCE’s request of \$638.5 million.

SCE’s proposed 2023-2025 capital expenditures for Covered Conductor and Cal Advocate’s recommendations are shown in the table below.

Comparison of Cal Advocates 2023-2025 Wildfire Covered Conductor Recommendations (\$000)

Description	SCE Proposed ⁹²¹			Cal Advocates Recommended			Difference (SCE Proposed - Cal Advocates Recommended)		
	2023	2024	2025	2023	2024	2025	2023	2024	2025
Wildfire Covered Conductor	\$840,531	\$879,801	\$638,519	\$604,826	\$681,881	\$555,323	\$235,705	\$197,920	\$83,196

SCE’s proposed 2026-2028 capital expenditures for Covered Conductor and Cal Advocate’s recommendations are shown in the table below

⁹²¹ Ex. SCE-04, Vol. 05, Pt. 2 at 55.

**Comparison of Cal Advocates 2026-2028
Wildfire Covered Conductor Recommendations
(\$000)**

Description	SCE Proposed ⁹²²			Cal Advocates Recommended			Difference (SCE Proposed - Cal Advocates Recommended)		
	2026	2027	2028	2026	2027	2028	2026	2027	2028
Wildfire Covered Conductor	\$222,930	\$29,735	\$29,970	\$190,126	\$24,034	\$23,711	\$32,804	\$5,701	\$6,259

SCE's Covered Conductor Program consists of the following activities:

- Covered Conductor with Fire Resistant Poles
- Secondary Conductor
- Tree Attachment Remediations
- Vibration Damper Retrofits
- Fire Resistant Wrap Retrofits

Cal Advocates reviewed SCE's testimony, workpapers, data request responses, and historical expense levels the Covered Conductor activities. Based on its review, Cal Advocates does not object to SCE's 2023-2028 forecasts for Tree Attachment Remediations, Vibration Damper Retrofits and Fire Resistant Wrap Retrofits. As discussed below, Cal Advocates objects to SCE's 2023-2028 forecasts for the remaining Covered Conductor activities.

The table below shows SCE's 2023-2028 Covered Conductor capital forecast, which omits Tree Attachment Remediations, Vibration Damper Retrofits and Fire Resistant Wrap Retrofits. And the subsequent table below shows SCE's 2018-2022 recorded capital expenditures for Covered Conductor.

⁹²² Ex. SCE-04, Vol. 05, Pt. 2 at 55.

**Covered Conductor
SCE 2023-2028 Forecast Capital Cost
(\$000)⁹²³**

Description	2023	2024	2025	2026	2027	2028
Covered Conductor	\$840,531	\$879,801	\$638,519	\$222,930	\$29,735	\$29,970

**Covered Conductor
SCE 2018-2022 Recorded Capital Expenditures
(\$000)⁹²⁴**

Description	2018	2019	2020	2021	2022
Covered Conductor	\$27,654	\$239,911	\$544,093	\$897,602	\$791,274

The table below includes SCE's detailed cost breakdown of Covered Conductor work.

**Cost Breakdown of Covered Conductor Work⁹²⁵
(\$000)**

	2023	2024	2025	2026	2027	2028	Total
(1) Covered Conductor Circuit Miles	1,200	1,200	850	300	50	50	3,650
(2) Covered Conductor Unit Cost (2022\$) (\$000)	\$663	\$663	\$663	\$663	\$663	\$663	N/A
(3) Secondary Conductor Circuit Miles	-	37	26	9	2	2	76
(4) Secondary Conductor Unit Cost (2022\$) (\$000)	\$63	\$63	\$63	\$63	\$63	\$63	N/A
(5) Escalation	1.054	1.106	1.133	1.143	1.151	1.167	N/A
(6) Sub-total	\$839,026	\$883,126	\$640,790	\$228,071	\$38,278	\$38,835	\$2,668,125
(7) Environmental (Nominal \$000)	\$1,897	\$1,991	\$2,039	\$2,057	\$288	\$292	\$8,563
(8) Total (Nominal \$000)	\$840,922	\$885,116	\$642,830	\$230,128	\$38,565	\$39,127	\$2,676,688
Accounting Adjustments	\$3,537	\$4,554	\$5,836	\$3,161	\$1,706	\$1,493	\$20,287
Covered Conductor Cost Savings	(\$3,928)	(\$9,869)	(\$10,146)	(\$10,359)	(\$10,536)	(\$10,650)	(\$55,490)
Total Forecast (Nominal \$000)	\$840,531	\$879,801	\$638,519	\$222,930	\$29,735	\$29,970	\$2,641,485

For 2023-2028, SCE forecasts \$663,000 per mile of Covered Conductor, which is based on 2022 recorded information.⁹²⁶ SCE forecasts completion of 1,200 miles in

⁹²³ Ex. CA-11 at 18.

⁹²⁴ Ex. CA-11 at 18.

⁹²⁵ Ex. SCE-04, Vol. 05, Pt. 2 at 55.

⁹²⁶ Ex. SCE-04, Vol. 05, Pt. 2 at 56.

2023, 1,200 miles in 2024 and 850 miles in 2025, 300 miles in 2026, 50 miles in 2027, and 50 miles in 2028.⁹²⁷

Cal Advocates opposes to SCE's 2023 forecast of \$840.5 million for Covered Conductor. As part of SCE's 2021 GRC, the Commission approved a cumulative installation for 4,500 circuit miles of covered conductor over the 2019-2023 period.⁹²⁸ The table below shows the Commission authorized amounts for the Wildfire Covered Conductor Program for years 2019-2023.

**WCCP Authorized Amounts
(\$000)**

Subactivity	2019	2020	2021	2022	2023
Wildfire Covered Conductor Program	\$249,288	\$509,814	\$557,495	\$580,066	\$604,826

As shown above, the Commission authorized \$604.8 million for 2023 Wildfire Covered Conductor Program (WCCP). SCE's forecast is \$197.9 million above what the Commission had authorized for the Covered Conductor Program in the last GRC.⁹²⁹ However, SCE has failed to provide justification or support for why its forecast is above what is authorized and why the current Covered Conductor Decision is not adequate or sufficient. In fact, SCE does not even mention the Commission authorized amount of \$604.8 million for 2023 anywhere in its testimony and corresponding workpapers for the Grid Hardening chapter.

Thus, Cal Advocates recommends the Commission adopt \$604.8 million for this category.⁹³⁰ Pursuant to D.21-08-036, \$604.8 million is reasonable and prudent to both SCE's ratepayers and SCE. The Commission reviewed and examined the covered conductor request thoroughly and approved installation of 4,500 circuit miles during the

⁹²⁷ Ex. SCE-04, Vol. 05, Pt. 2 at 55.

⁹²⁸ D.21-08-036 at 204.

⁹²⁹ Ex. SCE Tr. 4-02 at 7.

⁹³⁰ See Ex. SCE Tr. 4-02 at 7.

2019-2023 period. Cal Advocates' recommendation of \$604.8 million, the amount authorized by the Commission in D.21-08-036, is \$235.7 million less than SCE's request of \$840.5 million.

Cal Advocates opposes SCE's 2024 forecast of \$879.8 million for Covered Conductor. The Commission adopted 1,051 miles or \$681.9 million for Covered Conductor for 2024 in D.23-11-096 as part of a settlement with Cal Advocates.⁹³¹ ⁹³² SCE estimated and utilized the average unit cost for Covered Conductor as \$649,000 per circuit mile.⁹³³ SCE established this average unit cost by using WCCP work orders from 2018 to Q1 2022.⁹³⁴ In this 2025 GRC, SCE calculated its forecast well before the Commission approved the WCCP figures for 2024 and filed its 2025 GRC Grid Hardening testimony in May 2023.⁹³⁵ Thus, SCE's current forecast for Covered Conductor in this GRC is outdated.

Cal Advocates' recommendation for 2024 Covered Conductor is \$681.9 million, which is \$197.9 million less than SCE's request of \$879.8 million.

Cal Advocates opposes SCE's 2025-2028 forecast unit cost of \$663,000 per mile for primary covered conductor miles and recommends \$649,000 per circuit mile for WCCP, which was used in 2023-2024.⁹³⁶ Primary conductor refers to covering the conductor with insulating materials to protect against the impacts of incidental contact and secondary conductor run parallel to the primary line.⁹³⁷ Cal Advocates estimated this

⁹³¹ A.19-08-013, Joint Motion by Southern California Edison Company (U 338-E), The Public Advocates Office, The Utility Reform Network, Small Business Utility Advocates, and the Coalition of California Utility Employees for Approval of 2021 General Rate Case Track 4 Settlement Agreement, Attachment 1– Agreed Upon Capital Budget, line 12. This is for Covered Conductor only.

⁹³² A.19-08-013, ATTACHMENT 1 – Agreed Upon Capital Budget, combined line 12 (Covered Conductor) and line 14 (tree attachments) equals \$698,700 for all WCCP Total.

⁹³³ Ex. SCE Tr. 4-02 at 31.

⁹³⁴ Ex. SCE Tr. 4-02 at 31.

⁹³⁵ Ex. SCE-04, Vol. 05, Pt. at 1-4.

⁹³⁶ Ex. SCE Tr. 4-02 at 31.

⁹³⁷ Ex. SCE-04, Vol. 05, Pt. 2 at 28.

average unit cost by using WCCP work orders from 2018 to Q1 2022.⁹³⁸ Also, use of a five year average is more appropriate than utilizing 2022 recorded \$663,000 per circuit mile, which SCE utilizes in its forecasts for 2023-2028. A five-year average accurately reflects and captures SCE's Covered Conductor spending activities over a longer period, rather than just focusing 2022 recorded information. Cal Advocates recommends the same unit cost be used to develop the post-test year forecasts.

For 2025, Cal Advocates recommends that the Commission adopt a unit cost of \$649,000 for the 850 miles and accepts SCE's forecast for the \$63,000 unit cost for the 26 secondary miles.⁹³⁹ Cal Advocates' recommendation for the Covered Conductor Program is \$555.3 million, which is \$83.2 million less than SCE's \$638.5 million request.⁹⁴⁰

For 2026, Cal Advocates recommends that the Commission adopt a unit cost of \$649,000 for the 300 miles and accepts SCE's forecast of \$63,000 unit cost for the secondary miles.⁹⁴¹ Cal Advocates' recommendation for the 2026 Covered Conductor is \$190.1 million, which is \$32.8 million less than SCE's \$222.9 million request.⁹⁴²

For 2027, Cal Advocates recommends that the Commission adopt a unit cost of \$649,000 for the miles and accepts SCE's forecast of \$63,000 unit cost for the 2

⁹³⁸ Ex. SCE Tr. 4-02 at 31.

⁹³⁹ Ex. SCE-04, Vol. 05, Pt. 2 at 55.

⁹⁴⁰ For 2025, Cal Advocates multiplied the 850 miles by \$649,000 to calculate total primary covered conductor miles (\$551.7 million). Cal Advocates multiplies the 26 secondary miles by \$63,000 to calculate total secondary miles costs (\$1.6 million). Total primary and secondary covered conductor miles combined is \$553.3 million. Incorporating the SCE's environmental adder (\$2.0 million) plus the accounting adjustment (\$5.8 million), minus the covered conductor cost savings of (\$10.1 million), the total Cal Advocates recommendation for Covered Conductor is \$555.3 million. Including the tree attachments (\$2.3 million) and Vibration Dampers (\$244,000), the total WCCP for 2025 is \$557.8 million.

⁹⁴¹ Ex. SCE-04, Vol. 05, Pt. 2 at 55.

⁹⁴² For 2026, Cal Advocates multiplied the 300 miles by \$649,000 to calculate total primary covered conductor miles (\$194.7 million). Cal Advocates multiplies the 9 secondary miles by \$63,000 to calculate total secondary miles costs (\$567,000). Total primary and secondary covered conductor miles combined is \$195.3 million. Incorporating the SCE's environmental adder (\$2.1 million) plus the accounting adjustment (\$3.2 million), minus the covered conductor cost savings of (\$10.4 million), the total Cal Advocates recommendation for Covered Conductor is \$190.1 million. Including the Vibration Dampers (\$246,000), the total WCCP for 2026 is \$190.4 million.

secondary miles.⁹⁴³ Cal Advocates' recommendation for the 2027 Covered Conductor is \$24.0 million, which is \$5.7 million less than SCE's \$29.7 million request.⁹⁴⁴

For 2028, Cal Advocates recommends that the Commission adopt a unit cost of \$649,000 for the miles and accepts SCE's forecast of \$63,000 unit cost for the 2 secondary miles.⁹⁴⁵ Cal Advocates' recommendation for the 2028 Covered Conductor is \$23.7 million, which is \$6.3 million less than SCE's \$30.0 million request.⁹⁴⁶

C. Emergent Technology & Inspections & Remediations

1. SCE's High Fire Risk Inspection request is reasonable, but the Commission should reject its unreasonable Remediations request.

SCE requests \$131.018 million in O&M expenses for High Fire Risk Inspections and Remediations for 2025.⁹⁴⁷ According to SCE, the costs associated with the program include various inspection programs, such as ground and aerial, as well as the remediations that result from the inspections.⁹⁴⁸ Cal Advocates recommends \$109.247 million for High Fire Risk Inspection and Remediation in 2025.

SCE requests similar expenses for inspections for 2025 compared to the 2022 amount. In 2022, SCE recorded \$51.349 million to perform all Inspections as part of its

⁹⁴³ Ex. SCE-04, Vol. 05, Pt. 2 at 55.

⁹⁴⁴ ⁷² For 2027, Cal Advocates multiplied the 50 miles by \$649,000 to calculate total primary covered conductor miles (\$32.5 million). Cal Advocates multiplies the 2 secondary miles by \$63,000 to calculate total secondary miles costs (\$126,000). Total primary and secondary covered conductor miles combined is \$32.6 million. Incorporating the SCE's environmental adder (\$288,000) plus the accounting adjustment (\$1.7 million), minus the covered conductor cost savings of (\$10.5 million), the total Cal Advocates recommendation for Covered Conductor is \$24.0 million. No attachments were requested in 2027.

⁹⁴⁵ Ex. SCE-04, Vol. 05, Pt. 2 at 55.

⁹⁴⁶ For 2028, Cal Advocates multiplied the 50 miles by \$649,000 to calculate total primary covered conductor miles (\$32.5 million). Cal Advocates multiplies the 2 secondary miles by \$63,000 to calculate total secondary miles costs (\$126,000). Total primary and secondary covered conductor miles combined is \$32.6 million. Incorporating the SCE's environmental adder (\$292,000) plus the accounting adjustment (\$1.5 million), minus the covered conductor cost savings of (\$10.7 million), the total Cal Advocates recommendation for Covered Conductor is \$23.7 million. No attachments were requested in 2028.

⁹⁴⁷ Ex. SCE-04, Vol. 05, Part 3A at 2.

⁹⁴⁸ Ex. SCE-04, Vol. 05, Part 3, Workpapers at 116.

High Fire Risk Inspections and Infrared Inspections program.⁹⁴⁹ For 2025, SCE requests \$51.847 million for this same program.⁹⁵⁰ Cal Advocates does not oppose SCE's \$51.847 million Inspections request.

The remaining \$79.744 million of the SCE 2025 request is for Remediations.⁹⁵¹ Cal Advocates recommends \$57.973 million for Remediations, which is \$21.771 million lower than SCE's request.

The number of repairs/remediation is driven by the results of various inspections via ground, aerial, infrared, corona scans, or conductor and splice assessments. Once a problem is identified, a notification is generated. A notification is then given a priority: P1, P2 or P3, depending on the severity of the risk created by the identified condition. The notification is then scheduled for remediation. Remediation work activities are dependent on the number of inspections performed and the number of findings as a result of the inspection.

According to SCE, in 2022, the utility performed 23,330 Priority 1 and Priority 2 distribution remediation notifications.⁹⁵² For 2025, SCE forecasts that it will perform 24,950 distribution remediation notifications.⁹⁵³ The 2025 SCE forecast is an increase of 1,620 notifications, or 7 percent, above the 2022 base year level. SCE claims the increased number of remediations proposed for 2025 is due to a higher find rate. However, SCE has not provided adequate support for this claim.

The table below shows SCE's 2018-2022 recorded costs, SCE's TY 2025 request and Cal Advocates' TY 2025 recommendation for High Fire Risk Inspections and Remediations.

⁹⁴⁹ Ex. SCE-04, Vol. 05, Part 3A at 65.

⁹⁵⁰ Ex. SCE-04, Vol. 05, Part 3 A at 65.

⁹⁵¹ Ex. SCE-04, Vol. 05, Part 3A at 82.

⁹⁵² Ex. SCE-04, Vol. 05, Part 3A at 77.

⁹⁵³ Ex. SCE-04, Vol. 05, Part 3A at 77.

**SCE's High Fire Risk Inspections and Remediations
2018-2022 Recorded and 2025 Forecast
(in '000s of 2022 Dollars)**

Description	2018	2019	2020	2021	2022	SCE 2025	Cal Advocates 2025
High Fire Risk Inspections and Remediations	\$5,437	\$367,453	\$204,445	\$126,899	\$100,166	\$131,018	\$109,247

Source: 2018-2022 data from Ex. SCE-04, Vol. 05, Pt. 3, Workpapers at 117; 2025 SCE data from SCE's Amended Testimony, Ex. SCE-04, Vol. 05, Pt. 3A at 2.

Cal Advocates recommends \$57.973 million for SCE's High Fire Risk Remediations, which is \$21.771 million less than SCE's request of \$79.744 million.

The table below shows a breakdown of the 2018-2022 recorded expenses, SCE's 2025 forecast, and Cal Advocates' recommendation for Remediations.

**SCE's High Fire Risk Remediations O&M Expenses
2018-2022 Recorded and 2025 Forecast
(In '000s of 2022 Dollars)⁹⁵⁴**

2018	2019	2020	2021	2022	SCE 2025	Cal Advocates 2025
-	\$247,957	\$85,305	\$51,927	\$49,359	\$79,744	\$57,973

SCE's Remediations request includes: 1) Areas of Concern (AOC) Repairs/Replacements, 2) Distribution O&M Breakdown Maintenance, 3) Distribution O&M Preventive Maintenance, and 4) HFRI Repairs/Replacements. Cal Advocates' recommendation is based on adjustments for the work activities tracked under 3) Distribution O&M Preventive Maintenance.

⁹⁵⁴ Ex. CA-10-E at 8.

SCE's request is \$57.037 million⁹⁵⁵ for Distribution O&M Preventive Maintenance Remediations while Cal Advocates forecasts \$35.266 million. In SCE's workpapers, the utility forecasts that it will remediate a total of 18,795 Priority 2 Notifications at a unit cost of \$3,000 per Notification.⁹⁵⁶ Cal Advocates' forecast instead is based on remediating a total of 14,129 Priority 2 Notifications at a unit cost of \$2,496 per notification.

SCE's Remediation work activities are a direct result of its High Fire Risk Inspections. SCE forecasts a similar level of inspections in 2025 as the base year. SCE states, "SCE anticipates that the 2025 through 2028 AOCs [inspections] scope will be similar to what was experienced in 2022."⁹⁵⁷ SCE plans to "inspect approximately 1,000 HFRA circuit miles annually, from 2025 to 2028"⁹⁵⁸ In 2022, SCE performed Infrared Inspections (IR) and Corona scans on approximately 1,000 miles of transmission circuits.⁹⁵⁹ SCE states, "SCE plans to inspect approximately 186,000 aerial distribution risk informed structures annually in 2025-2028 within HFRA... which is comparable to the amount of inspections SCE performed in 2022."⁹⁶⁰ SCE states that it plans to "aerially inspect approximately 28,500 transmission risk-informed structures annually in 2025-2028...which is comparable to the number of inspections SCE performed in 2022."⁹⁶¹ Although the type of inspection activities is somewhat different, the 2025 level of planned inspections is comparable to the base year level.

⁹⁵⁵ SCE forecasts 2 different amounts for Distribution O&M Preventive Maintenance: (1) \$57.037 million with TUG savings, and (2) \$59.439 million without TUG savings. Ex. SCE-04, Volume 05, Part 3A at 87. In a response to a data request, SCE corrects its Remediations forecast for Distribution Preventive Maintenance. SCE's update forecast is \$53.742 million for 2025 due to reflect adjustments to its employee compensation program. SCE's response to data request PubAdv-SCE-335-DAO, Q. 6.

⁹⁵⁶ Ex. SCE-04, Vol. 05, Part 3, Workpapers at 165.

⁹⁵⁷ Ex. SCE-04, Vol. 05, Part 3A at 64.

⁹⁵⁸ Ex. SCE-04, Vol. 05, Part 3A at 60.

⁹⁵⁹ Ex. SCE-04, Vol. 05, Part 3A at 60.

⁹⁶⁰ Ex. SCE-04, Vol. 05, part 3A at 48.

⁹⁶¹ Ex. SCE-04, Vol. 05, Part 3A at 52.

In 2022, SCE spent \$51.349 million to perform all High Fire Risk Inspections.⁹⁶² For 2025, SCE requests \$51.847 million for High Fire Risk Inspections.⁹⁶³ Cal Advocates does not oppose the SCE forecast for High Fire Risk Inspections, but does oppose SCE's significant increase in the forecasted number of preventive remediations for 2025.

SCE has not demonstrated that the increase in the number of remediations it expects to perform in the Test Year is reasonable. SCE proposes a find rate of 12.99 percent, and uses this rate to develop the number of Remediation units and ultimately the total O&M expense request of \$57.037 million. SCE states the find rate is, “[t]he percentage of Distribution inspections that resulted in a P2 notification and require a subsequent remediation.”⁹⁶⁴ According to SCE, P2 notifications are to be remediated between 6-12 months after discovered, and defined as follows: “P2 issues are lower risk and therefore may be resolved within 24 months based on the existing safety or reliability condition and location. If the P2 issue is located within HFRA and poses a potential fire risk, remediation work is scheduled to be completed within 12 months. In an extreme fire threat area of Tier 3, the maximum remediation time is within 6 months.”⁹⁶⁵

SCE plans to perform 206,456 High Fire Risk Informed (HFRI) inspections in 2025,⁹⁶⁶ but in order to evaluate the reasonableness of SCE’s 2025 request, SCE needed to provide the number of HFRI inspections performed in previous years, and the number of issues that the utility found that resulted in Remediations. SCE provided neither. Based on a lack of historical inspections and P2 identifications, there is no basis to conclude that SCE’s proposed number of HFRI inspections and the find rate of 12.99 percent are reasonable for 2025. SCE’s 2025 request is substantially higher than recent historical remediation work levels but the utility has not adequately justified this request.

⁹⁶² Ex. SCE-04, Vol. 05, Part 3A at 65.

⁹⁶³ Id.

⁹⁶⁴ Ex. CA-10-E at 10.

⁹⁶⁵ Ex. SCE-04, Vol. 05, Part 3A at 76.

⁹⁶⁶ Ex. CA-10-E at 10.

In 2022, SCE performed 13,394 units of Preventive Maintenance Remediations.⁹⁶⁷ For 2025, SCE estimates 18,795 units for Remediations,⁹⁶⁸ which is 5,041 units more, or 40% higher, than the base year level of 13,394 units. SCE has not justified the increase in the number of Remediations for 2025, and how it represents a reasonable test year forecast.

SCE's 2025 request currently includes P2 notification which the utility claims it identified in 2023. SCE states, "2,938 for the TY 2025 represents the actual count of Distribution P2 Remediation Notifications planned/due in 2025 that were already known at the time the forecast was developed."⁹⁶⁹ Including 2,938 P2 Notifications for 2025 is unjustified and inappropriate because these issues must be resolved within the 2023-2024 timeframe and not delayed until the Test Year. According to SCE procedures, a P2 notification, or a Priority level 2 issue, may be resolved within 6-12 months depending on the future of the potential risk and location.⁹⁷⁰ Therefore, SCE should not wait to remediate these P2 issues until 2025.

If SCE waits until 2025 to remediate the P2 issues identified in 2023, the utility would be out of compliance with its procedures. Since P2 issues must be resolved before 2025, SCE has not demonstrated that the same number of P2 issues/notifications will need to be remediated in 2025.

SCE states: "P2 remediations are generally given a compliance due date within 6 to 12 months from identification based on Tier 3 or Tier 2 findings, or within up to 36 months for lower priority P2 remediations. Therefore, remediations identified in 2023, could be completed across 2023, 2024, 2025, and 2026."⁹⁷¹ Thus, SCE's currently known number of P2 Notifications, 2,938, should be completed over the 2023-2026 time frame, with an annual estimate of 735 P2 Notifications per year. This number compares

⁹⁶⁷ Ex. CA-10-E at 10.

⁹⁶⁸ Ex. SCE-04, Vol. 05, Part 3, Workpapers, at 165.

⁹⁶⁹ Ex. CA-10-E at 11.

⁹⁷⁰ Ex. SCE-04, Vol. 05, Part 3A at 33.

⁹⁷¹ Ex. CA-10-E at 11.

closely with SCE's actual number of known issues at the time of this GRC filing, which was 628.⁹⁷² According to SCE, "[a]ctual count of known Distribution P2 remediation notifications due in 2023 at the time of GRC answer submission (628)"⁹⁷³

SCE's 2025 request should also be rejected because it is based on using incomplete 2022 data to develop the number of Remediation units for 2025. SCE's Remediation request relies on finding P2 issues from various sources of incomplete data from 2022. One data source comes from 2022 Year-To -Date information that ends in July.⁹⁷⁴ Another data source ends in August, and another ends in December of 2022.

SCE has recorded the number of P2 Notifications that the utility remediated from 2021 through August 2023, but Cal Advocates recommends using the recorded number of actual remediations performed in 2022 to develop the 2025 forecast. Cal Advocates' method uses the most complete year of recorded data and relies on actual Remediation activities to develop the test year work level. Due to a lack of historical Inspection and P2 Issue Identification data to evaluate the reasonableness of SCE's forecast, Cal Advocates recommends that the 2025 Remediation expense be based on the 2022 recorded number of Preventive Maintenance Remediations performed (13,394). plus an additional 735 P2 Notifications ($735=2938/4$) to account for the currently known issues. Thus, Cal Advocates' 2025 recommendation is 14,129 P2 Notifications.

Cal Advocates recommends using the SCE YTD August 2023 unit cost of \$2,496 per unit as the test year 2025 unit cost because this represents the most recent cost recorded for remediation. This results in a forecast of \$35.266 million for Preventive Maintenance Remediation for 2025 ($14,129 \text{ P2 notifications} \times \$2,496$), which is \$21.771 million lower than SCE's request of \$57.037 million.

The table below provides a comparison of of SCE's and Cal Advocates' 2025 expenses for High Fire Risk Remediations.

⁹⁷² Ex. CA-10-E at 11.

⁹⁷³ Ex. CA-10-E at 12.

⁹⁷⁴ Ex. CA-10-E at 12.

**SCE High Fire Risk Remediations Number of Remediations and Expenses
2018-2022 Recorded and 2025 Forecasts
(in '000s of 2022 Dollars)⁹⁷⁵**

	2018- 2020	2021	2022	2023- August	SCE 2025 Forecast	Cal Advocates 2025 Forecast
Units	0	7,974	13,394	6,871	18,795	14,129
Expenses	\$0	\$21,991	\$33,449	\$17,150	\$57,037	\$35,266

2. The Commission should not adopt SCE’s full Wildfire Mitigation and Vegetation Management Technology Solutions request.

SCE requests \$6.741 million for Wildfire Mitigation and Vegetation Management Technology Solutions,⁹⁷⁶ while Cal Advocates forecasts \$4.240 million, which is \$2.501 million lower than SCE’s request. According to SCE, the expenses are for “SCE employees, supplemental workers, and consultants, as well as software and hardware costs.”⁹⁷⁷ SCE’s request consists of: (1) \$3.925 million for Data Platform Governance and (2) \$2.816 million for Technology Support Tools. Cal Advocates does not oppose SCE’s request of \$2.816 million for Technology Support Tools. Cal Advocates’ forecast is \$1.424 million, or \$2.501 million lower than SCE’s request, for Data Platform Governance expenses.

The SCE Data Platform Governance request is \$2.719 million higher than the base year recorded amount of \$1.211 million.⁹⁷⁸ Cal Advocates recommends that the Commission reject SCE’s excessive requested increase and instead adopt a more reasonable forecast of \$1.424 million for 2025. Cal Advocates’ more reasonable recommendation is based on the 2022 recorded amount of \$1.211 million plus minor

⁹⁷⁵ Ex. CA-10-E at 13.

⁹⁷⁶ Ex. SCE-04, Vol. 05, Part 3A at 99.

⁹⁷⁷ Ex. SCE-04, Vol. 05, Part 3A at 95.

⁹⁷⁸ Ex. SCE-04, Vol. 05, Part 3A at 98.

costs of \$213,000⁹⁷⁹ for “Vendor 35 Contract” and “Other” SCE requests for 2025 under Data Platform Governance.

Cal Advocates’ recommendations and SCE’s request for 2025 are summarized in the table below.

Cal Advocates' Recommendation and SCE's 2025 Forecast			
Wildfire Mitigation and Vegetation Mgmt. Technology Solutions			
(in thousands of 2022 Dollars)			
	Cal Advocates 2025	SCE 2025	SCE>Cal Advocates
Data Platform Governance	\$1,424	\$3,925	\$2,501
Technology Support Tools	\$2,816	\$2,816	0
TOTAL	\$4,240	\$6,741	\$2,501

A breakdown of SCE’s 2018-2022 recorded expenses and 2025 request for Technology Solutions are shown in the table below.

Technology Solutions^{113, 114}
Recorded (2018-2022) - Forecast (2023-2025) by Sub-Activity
(Constant 2022 \$000)

Sub-Activity	Recorded					Forecast		
	2018	2019	2020	2021	2022	2023	2024	2025
Data Platform/Governance					\$1,211	\$4,487	\$4,435	\$3,925
Technology Support Tools		\$2,185	\$2,876	\$3,912	\$4,437	\$3,934	\$3,298	\$2,816
Totals		\$2,185	\$2,876	\$3,912	\$5,648	\$8,421	\$7,733	\$6,741

⁹⁷⁹ The \$213,000 comes from SCE’s cost breakdown for 2025 Data Platform/Governance, Ex. SCE-04, Vol. 05, Part 3A at 101.

Of the \$3.925 million for Data Platform Governance in the SCE 2025 forecast, \$3.712 million is allocated for “Software Licenses,” which is most of the total expense request. The table below shows the breakdown of the total SCE 2025 request for Data Platform Governance.

***Cost Breakdown of O&M
Data Platform/Governance
(Constant 2022 \$000)***

	2023	2024	2025
(1) SCE Labor	\$ -	\$ -	\$ -
(2) Vendor Contract	\$ 211	\$ 208	\$ 184
(3) Software Licenses	\$ 4,244	\$ 4,194	\$ 3,712
(4) Other	\$ 33	\$ 32	\$ 29
Total O&M:	\$ 4,487	\$ 4,435	\$ 3,925

Cal Advocates does not object to the costs for “Vendor Contract” or for “Other.” Cal Advocates opposes SCE’s request of \$3.712 million for Software Licenses.

According to SCE’s testimony, the basis for the “Software Licenses” request “includes the anticipated costs for increased storage, Google Cloud Platform (GCP) consumption and licensing, infrastructure and computer costs, and license refresh costs.”⁹⁸⁰ Cal Advocates asked SCE to provide the calculations and supporting documentation that the utility used to derive the \$3.712 million in “Software Licenses,” but SCE did not provide adequate support to substantiate its request.

Instead, SCE states in its response “[t]his estimate was based on historic spend in the category for the Google Cloud Platform and ... software licenses, and SCE’s experience maintaining software licenses for these and similar software.”⁹⁸¹ While claiming that its request is based on historical spending and “experience,” SCE did not provide historical recorded costs for software licenses or maintenance costs, or any other data to substantiate its “experience” methodology in the 2025 forecast. Aside from its

⁹⁸⁰ Ex. SCE-04, Vol. 05, Part 3A at 101.

⁹⁸¹ Ex. CA-10-E at 15.

conclusory response, SCE has not provided any data to support its increased request over the base year

SCE's requested increase of approximately 200 percent above base year recorded costs is excessive and lacks adequate justification. The base year represents a reasonable test year forecast since it reflects recent historical spending.

Without adequate support for this request, the 2025 request for Data Platform Governance is unreasonable. Cal Advocates recommends that the Commission reject SCE's \$3.712 million request and adopt the Cal Advocates' recommended \$1.424 million for "Software Licenses." The Commission should adopt Cal Advocates' \$4.240 million recommendation for Data Platform Governance for 2025.

3. SCE did not demonstrate the reasonableness of its Aerial Suppression request and did not account for the time various California counties will be responsible for costs.

SCE requests \$34.675 million⁹⁸² in expenses to fund a fleet of helicopters as part of its new agreements with Ventura County, LA County, and Orange County, to expand its availability of a quick reaction force (QRF) of aerial firefighting resources from 165 days per year to year-round coverage. In 2022, SCE provided funding for stand by-time for helicopters to provide 165 days of coverage for Los Angeles, Orange, and Ventura county fire agencies.⁹⁸³ Beginning December 2022, SCE entered into new funding agreements with these agencies to provide year-round coverage.⁹⁸⁴

Cal Advocates recommends that the Commission adopt \$26.516 million, which is \$8.158 million lower than SCE's request. Cal Advocates' forecast is 46% above the most recent 2022 recorded amount. The table below provides a summary of the 2018-2022 recorded and the 2025 O&M forecast for Aerial Suppression.

⁹⁸² Ex. SCE-04, Vol. 05, Part 4A at 73

⁹⁸³ Ex. SCE-04, Vol. 05, Part 4A at 71.

⁹⁸⁴ Ex. SCE-04, Vol. 05, part 4A at 72.

**Aerial Suppression
2018-2022 Recorded and 2025 Forecast
(In '000s of 2022 Dollars)**

	2018	2019	2020	2021	2022	SCE 2025	Cal Adv 2025	SCE>Cal Adv
Aerial Suppression	-	-	\$2,158	\$17,545	\$18,200	\$34,674	\$26,516	\$8,158

SCE has failed to support its request above its 2022 recorded figure. SCE's sole supporting documents are the Memorandums of Understanding (MOUs) between SCE and each of the three counties for the 2022–2023 timeframe, beginning in December 2022 and ending after either 383 or 390 days.⁹⁸⁵ SCE has not provided any support to ensure that the same terms will be in effect for the Test Year.

There are two components of funding for the use of fire helicopters to reduce wildfire risks: 1) stand-by time and 2) flight-time. All three MOUs specify that SCE would fund the costs of the stand-by portion of the lease agreements and each county would fund the flight-time when the helicopters are in use. The lease agreements for the actual helicopters and the terms of the helicopters' usage are between each county and the helicopter company.⁹⁸⁶

The terms of the MOUs between SCE and Ventura County and SCE and LA County are 383 days. The term of the MOU between SCE and Orange County is 390 days.

While the terms of the 2022-2023 MOUs are for SCE to fund year-round QRF coverage, it is possible that the terms for the 2025 MOUs would be different and could result in lower costs if the QRF coverage was reduced consistent with past years. In 2020, SCE provided funding for the QRF for the months October through December for

⁹⁸⁵ SCE's response to data request PubAdv-SCE-156-DAO, Questions 1 and 2. The terms of the MOUs between SCE and Ventura County and SCE and LA County are 383 days. The terms of the MOU between SCE and Orange County are for 390 days.

⁹⁸⁶ SCE's response to data request PubAdv-SCE-156-DAO, Question 2. SCE's MOUs with Orange County and Ventura County have contracts with Coulson. LA County does not specify the name of the helicopter company in the MOU.

use by Orange County Fire Authority.⁹⁸⁷ In 2021, SCE funded QRF costs for 180 days.⁹⁸⁸ In 2022, SCE provided expenses for 165-days of coverage.

The 2022-2023 MOUs did not specify a limit on the QRFs that would be covered. We do not know what the new MOU (2024-2025) will look like, but SCE did not consider any QRF days at all in its request for funding for the entire year.

Although SCE has forecasted the costs for aerial suppression, it has provided no information regarding the 2025 MOUs. Consequently, it is impossible for the Commission and intervenors to assess the reasonableness of its request. Based on the information provided in the 2022-2023 MOUs, Cal Advocates recommends decreasing SCE's request by \$8.158 million to account for the number of days the helicopters are used by the counties. Cal Advocates based its recommendation on the average historical recorded number of QRFs for 2021-2023.

SCE ratepayers should only pay for the number of days that the helicopters are on stand-by and not for all 365 days, which include stand-by days plus in-use days (flight-time). For the county in-use days, the counties are each responsible for the funding of the helicopters, pursuant to the MOUs.

According to the data SCE provided for the years 2021-2023, the average yearly number of days the helicopters were deployed (used) by the counties is 70 days.⁹⁸⁹ This means is for each of the last two years, the counties, and not SCE were responsible for 70 days of costs.

Under the MOUs, the funding amounts are calculated using the number of days.⁹⁹⁰ All three MOUs specify that SCE would only be funding the costs of the stand-by time, and for which the 2022-2023 MOUs show as 383 and 390 days. Without additional information from SCE and using the standard of a 365-day year, Cal Advocates finds

⁹⁸⁷ Ex. SCE-04, Vol. 05, Part 4A at 72.

⁹⁸⁸ Ex. SCE-04, Vol. 05, Part 4A at 72.

⁹⁸⁹ SCE's response to data request PubAdv-SCE-167-DAO, Q. 2. For 2021 and 2022, SCE only deployed the helicopters for the months July through December. For 2023, SCE provided the number of deployed days from January through September.

⁹⁹⁰ Ex. CA-10-E at 31.

SCE ratepayers should only be responsible for funding the stand-by time only for the remaining 295 days. This represents normal conditions upon which the test year forecast should be based. If funding was authorized for SCE to cover the entire 365 days, then ratepayers would be funding stand-by time (70 days on average) for which the counties are historically responsible for such costs.

The table below presents the number of days deployed and the number of stand-by days that Cal Advocates recommends for the calculations of the 2025 Test Year expense amount for Aerial Suppression.

SCE Number of Days Helicopter Deployment, 2021-2023

	Days Helicopters Deployed (PUBADV-SCE-167-DAO, Q.2)			
	2021 (July-Dec)	2022 (July-Dec)	2023 (Jan-Sept)	
#of Days Deployed	66	50	93	
		Total Number of Days in a Year		365
		Ventura, LA, and Orange County	Deployed Days Avg	70
		SCE	Number of Stand-by Days	295

To calculate the forecast funding for 2025, Cal Advocates used the cost information and the number of days/terms from each of the three 2022-2023 MOUs. This information is under “Total Costs” and “Number of Days.” Cal Advocates divided the total costs by the number of days to determine the daily costs. Then, Cal Advocates used the daily cost of stand-by time for each county and multiplied the daily cost by 295 days to calculate its forecast of the appropriate SCE ratepayer funding associated with each county and ultimately the grand total of Aerial Suppression O&M expenses for the 2025 test year.

**Cal Advocates' Calculations and Recommendations
2025 Aerial Suppression O&M Expenses⁹⁹¹**

County	Number of Days	Total Costs	Daily Costs	Costs for 295 of the 365 days
Ventura	383	\$ 9,340,000	\$ 24,386	\$ 7,202,124
LA County	383	\$ 9,340,000	\$ 24,386	\$ 7,202,124
Orange County	390	\$ 15,994,605	\$ 41,012	\$ 12,112,154
			Total	\$ 26,516,401

Cal Advocates recommends \$26.5 million for Aerial Suppression for 2025, which is \$8.158 million lower than SCE's \$34.675 million request.

4. The Commission should not approve SCE's full request for Enhanced Situational Awareness, particularly for High Definition cameras where SCE did not base its request on recorded data.

SCE requests \$10.056 million for the operation and maintenance of High Definition (HD) cameras, weather stations, wildfire response, modeling, and weather forecasting, as part of the Enhanced Situational Awareness cost category. Cal Advocates recommends \$6.469 million for Enhanced Situational Awareness for 2025 based on fewer HD cameras in SCE's system are needed, and lower maintenance unit costs applied to the number of HD cameras and weather stations that SCE requests for 2025.

SCE requests O&M expenses for 2025 to maintain the HD cameras it will have installed through 2024,⁹⁹² but does not plan to install additional cameras in 2025 and beyond.⁹⁹³ SCE states it plans to install 20 HD cameras each year from 2022-2024⁹⁹⁴ and requests the \$10.056 million to maintain 226 HD cameras in 2025.⁹⁹⁵

⁹⁹¹ Ex. CA-10-E at 32.

⁹⁹² Ex. SCE-04, Vol. 05, Part 4A at 76.

⁹⁹³ Ex. SCE-04, Vol. 05, Part 4A at 76.

⁹⁹⁴ Ex. SCE-04, Vol. 05, Part 4A at 76.

⁹⁹⁵ Ex. SCE-04, Vol. 05, Part 4, Workpapers at 86.

Cal Advocates disputes SCE's forecasted expense because SCE's recorded data does not confirm that it will have 226 HD cameras installed by 2025.

The table below provides a summary of the number of HD cameras installed in SCE's system and the annual O&M costs for the maintenance of the HD cameras.

**Number of HD Cameras Installed Each Year and O&M Expenses
(Expenses in '000s of 2022 Dollars)⁹⁹⁶**

Year	2018	2019	2020	2021	2022	SCE 2025	Cal Advocates 2025
HD Cameras Installed	70	91	5	0	16	20/Yr. 2022-2024	16 in 2022 20/Yr. 2023-2024
Total HD Cameras	70	161	166	166	182	226	222
Unit cost						\$19	\$11
O&M Costs	-	\$518	\$2,460	\$3,143	\$1,991	\$4,315	\$2,428

In SCE's workpapers supporting its request for O&M expenses for HD cameras, SCE's O&M unit cost per HD camera is \$19,094.⁹⁹⁷ SCE's proposal is based on a total of 226 HD cameras⁹⁹⁸ installed in its territory by 2025.⁹⁹⁹ However, in 2022 SCE installed 16 HD cameras and not 20 as it had planned.¹⁰⁰⁰ As of September 1, 2023, SCE has installed 10 cameras.¹⁰⁰¹ Even if SCE were on pace to install 20 HD cameras in 2023 and 2024, the total number of HD cameras in SCE's territory should be 222 and not 226. Therefore, Cal Advocates recommends 222 HD cameras in SCE's territory and not 226 by 2025.

⁹⁹⁶ Ex. CA-10-E at 33.

⁹⁹⁷ Ex. SCE-04, Vol. 5, Part 4A, Workpapers at 86.

⁹⁹⁸ In testimony, SCE claims it will install 226 cameras by 2025 but SCE only installed 16 HD cameras in 2022 and not 20 as it had planned. SCE-04, Volume 5, Part 4A at 86.

⁹⁹⁹ Ex. SCE-04, Vol. 05, Part 4A at 76, SCE proposes 20 HD cameras each year from 2022-2024, but Ex. SCE-04, Vol. 05, Part 4A at 85 shows a total of 16 HD cameras installed in 2022, bringing the 2019-2022 total number of HD cameras to 182.

¹⁰⁰⁰ Ex SCE-04, Vol. 05, Part 4A at 85.

¹⁰⁰¹ SCE's response to data request PubAdv-SCE-168-DAO, Q. 1(a).

SCE's unit cost is an unreasonable basis for its request because it is excessive and unsupported. SCE claims that it developed its 2025 forecast based on "subscription fees, network communication fees, and tower lease fees, which are paid on a per camera basis."¹⁰⁰² Instead of providing the historical data for each of the cost components to assess the reasonableness of SCE's unit cost and overall 2025 forecast,¹⁰⁰³ SCE only provided the recorded annual O&M expenses incurred each year from 2019-2022.

Without the detailed historical cost information to evaluate SCE's requested increase in 2025, Cal Advocates recommends instead using the base year recorded expense to maintain the total number of HD cameras installed to forecast the test year.

By applying the 2022-unit cost to the SCE request for HD Cameras installed, Cal Advocates' recommendation is \$2.428 million for 222 HD cameras, which is \$1.887 million lower than SCE's \$4.315 million request.

For Weather stations, Cal Advocates accepts SCE's request to install additional weather stations and to maintain a network of 1,808 weather stations in 2025.¹⁰⁰⁴ However, Cal Advocates opposes SCE's 2025 expense request because SCE has not adequately supported its proposed unit cost of \$2,803 to maintain each unit.¹⁰⁰⁵ Cal Advocates recommends adopting the 2022-unit cost for weather station maintenance and applying it to SCE's request for the number of weather stations in 2025. Therefore, this requires applying a unit cost of \$1,863 to 1,808 weather stations for a total expense amount of \$3.368 million.

SCE itemized the cost details for the 2025 expense request in its workpapers, but was unable to produce historical costs to support any of the maintenance cost elements. For example, SCE did not provide the 2019-2023 annual costs for: 1) maintain the weather stations; 2) data services and tech support; 3) miscellaneous costs and costs for spare parts; 4) recalibration costs; 5) SCE weather stations cloud for limited public

¹⁰⁰² Ex SCE-04, Vol. 05, Part 4A at 83.

¹⁰⁰³ Data request PubAdv-SCE-168-DAO, Q. 1.

¹⁰⁰⁴ Ex. SCE-04, Vol. 05, Part 4A at 87, and Workpapers at 87.

¹⁰⁰⁵ Ex. SCE-04, Vol. 05, Part 4, Workpapers at 87.

access; 6) field area network support and development; 7) monthly data plans; and 8) part replacements.¹⁰⁰⁶ SCE's 2025 expense request consists of these eight cost elements. Therefore, SCE has not supported its expense request and Cal Advocates' recommendation using the 2022- unit cost to determine the 2025 expense for weather stations is reasonable.

Cal Advocates does not object to SCE's \$672,000 request for Wildfire Response, Modeling, and Weather Forecasting.

Cal Advocates' total recommendation for Enhanced Situational Awareness for 2025 is \$6.469 million, which is \$3.587 million lower than SCE's \$10.056 million request.

**SCE Enhanced Situational Awareness Expenses
2018-2022 Recorded and 2025 Forecast
(in Thousands of 2022 Dollars)**

GRC Activity	Sub-work Activity	2019	2020	2021	2022	SCE 2025	Cal Adv 2025
Enhanced Situational Awareness	HD Cameras	\$ 517,881	\$ 2,460,062	\$ 3,143,312	\$ 1,990,891	\$ 4,315,000	\$ 2,428,450
Enhanced Situational Awareness	Weather Stations	\$ 1,372,582	\$ 2,281,793	\$ 2,124,086	\$ 3,047,984	\$ 5,069,000	\$ 3,368,432
	Wildfire Response, Modeling, & Weather Forecasting					\$ 672,000	\$ 672,000
		\$ 1,890,463	\$ 4,741,855	\$ 5,267,398	\$ 5,038,875	\$ 10,056,000	\$ 6,468,882

D. PSPS & Other Wildfire Activities

1. Public Safety and Power Shutoff (PSPS) Execution

SCE requests \$116.128 million in O&M expenses for Public Safety and Power Shutoffs (PSPS) and Other Wildfire Activities expenses for 2025 for: 1) PSPS Execution; 2) PSPS Customer Support; 3) Wildfire Mitigation and Vegetation Management Technology Solutions; 4) Aerial Suppression; 5) Enhanced Situational Awareness; 6) Fire Science and Advanced Monitoring; and 7) Environmental Programs.¹⁰⁰⁷

¹⁰⁰⁶ Data request PubAdv-SCE-168-DAO, Q. 4.

¹⁰⁰⁷ Ex. SCE-04, Vol. 05, Pt. 4A at 1.

Cal Advocates opposes the following requests: 1) \$20.941 million for PSPS Execution; 2) \$36.095 million for PSPS Customer Support; 3) \$35.0 million for Aerial Suppression; and 4) \$10.056 million for Enhanced Situational Awareness.

SCE requests \$20.941 million for PSPS Execution. The table below provides a breakdown of the activities and expenses SCE requests and Cal Advocates' recommendations for PSPS and Other Wildfire Activities for 2025.

Wildfire Management O&M Expenses			
(Constant 2022 \$000)			
GRC Activity	SCE 2025	Cal Advocates	SCE>Cal Advocates
PSPS Execution	\$20,941	\$16,108	\$4,833
PSPS Customer Support	\$36,095	\$29,741	\$6,354
Wildfire Mitigation and Vegetation Management Technology Solutions	\$5,364	\$5,364	\$0
Aerial Suppression	\$35,000	\$26,516	\$8,484
Enhanced Situational Awareness	\$10,056	\$6,454	\$3,602
Fire Science and Advanced Monitoring	\$8,032	\$8,032	\$0
Environmental Programs	\$639	\$639	\$0
Totals	\$116,128	\$92,854	\$23,274

The table below shows SCE's 2018-2022 recorded expenses, SCE's 2025 forecast, and Cal Advocates' recommendation for PSPS Execution.

**PSPS Execution
2018-2022 Recorded and 2025 Forecast
(In Thousands of 2022 Dollars)¹⁰⁰⁸**

	2018	2019	2020	2021	2022	SCE 2025	Cal Advocates 2025
PSPS Execution	\$ -	\$ 15,174	\$16,654	\$20,466	\$12,136	\$20,941	\$16,108

¹⁰⁰⁸ Ex. CA-10-E at 17.

PSPS refers to SCE's proactive de-energization of power lines when fire weather conditions pose a risk to its infrastructure.¹⁰⁰⁹ According to SCE this is a last resort activity to mitigate fire risks in order protect customers and equipment.¹⁰¹⁰

SCE requests \$20.941 million for the activities categorized under its PSPS Execution program, but Cal Advocates forecasts \$16.108 million for 2025, which is \$4.834 million less than SCE's request. SCE's request is an increase of \$8.805 million, or 73 percent, above the base year amount of \$12.136 million.¹⁰¹¹

Cal Advocates' recommendation is based on: 1) the number of PSPS events that SCE forecast for 2025 in its Wildfire Management Quarterly Report for 2023; 2) the fact that PSPS Execution costs are primarily based on the number of PSPS events triggered/activated; and 3) the use of 4-year most recent recorded expenses as the most appropriate forecast methodology because PSPS work activities rely on weather forecasting.

SCE admits that "there is still no accurate way of forecasting PSPS events years into the future."¹⁰¹² Rather than adopt SCE's approach, Cal Advocates recommends that the Commission adopt the four-year (2019-2022) average recorded expenses as the 2025 expense amount. Specifically, the four-year average provides adequate test year funding, since the average number of PSPS events during this time frame is 11 while the test year forecast is 7 events. Therefore, this forecast will provide adequate funding for this activity with the anticipated 7 PSPS events.

a) SCE's 2025 Forecast is Inadequately Supported

SCE's 2025 expense request for PSPS Execution is substantially higher than the 2021 recorded amount, and the 2021 amount is the highest annually recorded amount in recent years for SCE.

¹⁰⁰⁹ Ex. SCE-04, Vol. 05 Pt. 4A at 2.

¹⁰¹⁰ Ex. SCE-04, Vol. 05 Pt. 4A at 2.

¹⁰¹¹ Ex. SCE-04, Vol. 05, Pt. Workpapers at 5.

¹⁰¹² Ex. SCE-04, Vol. 05, Part 4A at 20.

SCE’s 2025 expense request is similar to the expenses associated with the number of activating events in 2021, when there were 10 PSPS events. As demonstrated in the table below, the number of PSPS events activated yearly has decreased from 16 in 2019 to 2 events as of September of 2022. For 2025, in its Wildfire Mitigation Plan quarterly report, SCE has stated that it plans to activate 7 PSPS events.¹⁰¹³

Number of Recorded and Proposed SCE PSPS Events Activation¹⁰¹⁴

Year	Number of PSPS Events
2019	16
2020	12
2021	10
“2022	6
2023, As of September	2
SCE 2025 Forecast	7

SCE’s 2025 forecast for the PSPS Execution category consists of 7 cost elements and SCE uses a variety of methods to calculate each cost element.¹⁰¹⁵ SCE, however, does not address the declining number of PSPS events nor does it consider that its proposed 7 PSPS activations for 2025 represents the base year.

The table below presents a breakdown of the 7 cost elements that comprise SCE’s 2025 forecast for PSPS Execution.

¹⁰¹³ SCE is required to file quarterly compliance filing regarding its Wildfire Mitigation Plan, pursuant to the Office of Energy Infrastructure Safety’s (OEIS, or Energy Safety) Final Data Guidelines that were adopted on December 14, 2022. <https://www.sce.com/safety/wild-fire-mitigation>

¹⁰¹⁴ Ex. CA-10-E at 19.

¹⁰¹⁵ Ex. SCE-04, Vol. 05, Part 4A at 21, and Workpapers at 7-14. SCE uses primarily (1) the 2021 recorded costs for PSPS Execution IMT, which makes up 20 percent of its total request; (2) the 2022 recorded costs plus an incremental increase of \$0.591 million, for PSPS Operations, (3) a three-year average of labor costs from 2019-2021 for Line Patrols, (4) a decrease of \$0.450 million from the 2022 for Emergency Generators, (5) the 2021 recorded amount for CRC/CCV, (6) the 2022 recorded amount for Response and Compliance, and (7) the 2025 forecast for In-Event Battery Loan Pilot.

**SCE PSPS Execution 2025 Forecast
(in '000s of Constant 2022 Dollars)¹⁰¹⁶**

Sub-work Activity	2025 Forecast
PSPS Execution IMT	\$4,086
PSPS Operations	\$5,586
Line Patrols	\$7,336
Community Resource Centers and Community Crew Vehicles	\$1,241
Emergency Generator for PSPS Mitigation	\$476
PSPS Response & Compliance	\$1,542
In-Event Battery Loan Pilot	\$674
Total	\$20,941

2. SCE fails to demonstrate how its PSPS Execution Incident Management Team (IMT) is reasonable when it is 60% above its 2022 recorded amount.

SCE requests \$4.086 million for a dedicated team of employees to prepare for and respond to PSPS events in a cohesive and integrated manner. SCE’s request is an increase of 60 percent above 2022 recorded amount of \$2.561 million.¹⁰¹⁷

Cal Advocates opposes SCE’s request because the number of PSPS activations in the TY is not forecasted to be above the 2022 level, and thus does not warrant an increase in expenses.

Based on SCE’s testimony, the 2025 forecast consists of: 1) an increase of 2 employees, above the 2022 level, which amounts to \$0.251 million¹⁰¹⁸ and 2) an increase of \$1.265 million for “supplemental pay for PSPS IMT employees who are expected to work beyond normal or regularly scheduled working hours”¹⁰¹⁹ SCE’s forecast is based on the recorded labor costs for supplemental pay in 2021 and the 2021 number of PSPS activations.

¹⁰¹⁶ Ex. CA-10-E at 20.

¹⁰¹⁷ Ex. SCE-04, Vol. 05, Part 4, Workpapers at 10.

¹⁰¹⁸ Ex. SCE-04, Vol. 05, Part 4 at 21-22.

¹⁰¹⁹ Ex. SCE-04, Vol. 05, Part 4 at 22.

SCE did not provide sufficient documentation to substantiate a 60 percent increase and based its 2025 forecast on 2021. 2021 included the highest number of PSPS activations and conveniently for SCE, the highest recorded expenses.

3. SCE’s Line Patrols request is unreasonably high despite costs decreasing.

For “Line Patrols,” which makes up 35 percent of the total request, SCE did not provide the base year expense amount. SCE states in testimony it uses the 2019-2021 three-year average of labor costs to establish the 2025 forecast.¹⁰²⁰ The table below shows costs declining during this period from \$10.516 million in 2019 to \$3.727 million in 2021.¹⁰²¹

**SCE’s Line Patrol O&M Expenses
2019-2021 Recorded and 2025 Forecast
(In Thousands of 2022 Dollars)¹⁰²²**

Recorded			Forecast
2019	2020	2021	2025 SCE
\$ 10,516	\$ 5,940	\$ 3,727	\$ 7,336

SCE states in testimony, “the primary driver of line patrolling activities each year is the number of PSPS activation events.” SCE’s expense forecast amount of \$7.336 million is between the 2019 and 2020 range, and between 12 PSPS and 16 PSPS events.¹⁰²³ SCE’s forecast contradicts its 2025 proposed number of PSPS activations, which forecasts only seven events. Cal Advocates requested the 2022 recorded costs and SCE did not provide the requested information.¹⁰²⁴ Absent 2022 data, there is insufficient evidence to support any increases above the base year amount.

¹⁰²⁰ Ex. SCE-04, Vol. 05, Part 4A at 24.

¹⁰²¹ Ex. SCE-04, Vol. 05, Part 4, Workpapers at 11.

¹⁰²² Ex. CA-10-E at 22.

¹⁰²³ SCE’s response to data request PubAdv-SCE-170, Q. 10(a).

¹⁰²⁴ Ex. CA-10-E at 21.

Due to SCE's failure to adequately support its requested increase in 2025 and the difficulty to forecast PSPS expenses, Cal Advocates recommends using the four-year average of recorded costs of the years 2019 through 2022 as the 2025 forecast. This is the most reasonable approach. SCE's 2025 forecast of 7 PSPS events is lower than the four-year average of 11 PSPS events per year. Thus, the four-year average of recorded costs will provide adequate funding for the 2025 test year. Using this reasonable approach, Cal Advocates forecasts \$16.108 million for PSPS Execution O&M expenses, which is \$4.834 million lower than SCE's request of \$20.941 million.

4. SCE's PSPS Customer Support request is unreasonably high when the PSPS forecast is decreasing.

SCE requests \$36.095 million for PSPS Customer Support.¹⁰²⁵ This category consists of activities to support its customers when SCE activates a PSPS event.¹⁰²⁶ SCE's request is an increase of \$10.740 million above the base year amount of \$25.355 million recorded for 2022.¹⁰²⁷

Cal Advocates recommends \$29.741 million for PSPS Customer Support in 2025, which is \$6.354 million lower than SCE's request. SCE has not justified ratepayer funding for additional services above and beyond the traditional responsibilities of its customer base. SCE forecasts fewer PSPS activations in the 2025 Test Year, which should lower rather than increase overall O&M spending on PSPS support activities.

A summary of the 2018-2022 recorded amount and a comparison of the 2025 forecast for PSPS Customer Support are presented below.

¹⁰²⁵ Ex. SCE-04, Vol. 05 Part 4A at 45.

¹⁰²⁶ Ex. SCE-04, Vol. 05, Part 4A at 28.

¹⁰²⁷ Ex. SCE-04, Vol. 05, Part 4A at 43.

**PSPS Customer Support
2018-2022 Recorded and 2025 Forecasts
(in '000s of 2022 Dollars)¹⁰²⁸**

	2018	2019	2020	2021	2022	SCE 2025	CalAdv 2025	SCE>Cal Adv
PSPS Customer Support	\$ 978	\$ 7,303	\$ 13,814	\$ 35,154	\$25,355	\$36,095	\$29,741	\$ 6,354

The Commission should reject SCE’s request of an increase of \$6.354 million related to 2 of the 5 PSPS activities in SCE’s forecast. First, the 2025 SCE O&M request is comparable to recorded expenses for 2021, where SCE spent \$35.154 million and activated 10 PSPS activities. However, for 2025 SCE estimates it will activate 7 PSPS events, or 30 percent fewer activations than it did in 2021, which was the year with the highest number of PSPS events. SCE's 2025 estimate of 7 PSPS is more comparable to the base year level than to 2021. The annual number of PSPS activations is declining over the 2019-2023 timeframe. As of September 2023, SCE activated 2 PSPS events.

SCE fails to support its request to increase the budget for O&M supporting its ongoing PSPS activities. For 2025, SCE estimates that the utility will only have 7 PSPS events, but requests 2025 funding for that exceeds the 2021 recorded amount of \$35.154 million where there were 10 events,¹⁰²⁹ but requests 2025 funding for that exceeds the 2021 recorded amount of \$35.154 million where there were 10 events. Thus, despite fewer PSPS events predicted, SCE appears to argue it will be less efficient in conducting its PSPS events.

SCE specifically states: “SCE expects to continue to reduce the scope, frequency, and duration of PSPS events as we make progress on our grid hardening work and execute our wildfire mitigation initiatives.”¹⁰³⁰ If the number of PSPS activations is

¹⁰²⁸ Ex. CA-10-E at 23.

¹⁰²⁹ SCE’s Wildfire Management Quarterly Report, 2nd Quarter, 2023, Table 3.

¹⁰³⁰ Ex. SCE-04, Vol. 05, Part 4A at 4.

planned to be reduced, the associated O&M expenses also decrease because the activities in this work category are related and support the PSPS activations.

Additionally, SCE has not justified many of the Enhancements that SCE requests. SCE's requested enhancements and a breakdown of the \$10.740 million increase above the base year level are summarized in the table below.

**SCE PSPS Customer Support
Increases Above Base Year Level
(in '000s of 2022 Dollars)¹⁰³¹**

2025 GRC Forecast (Constant \$000)	Labor*	Non-Labor	Total
AFN Customer Enhancements	\$ 746	\$ 3,646	\$ 4,392
Enabling Personalized PSPS Outreach and Customer Research	\$ 271	\$ 2,133	\$ 2,404
Disability Disaster & Access Resources (DDAR)	\$ 113	\$ 1,849	\$ 1,962
Customer Contact Center Support	\$ 1,617	\$ -	\$ 1,617
Portable Generator and Portable Power Station Rebate Programs	\$ 226	\$ 139	\$ 365
Total	\$ 2,973	\$ 7,767	\$ 10,740

Of the total requested \$10.740 million for PSPS Customer Support, SCE's request fails to support \$6.354 million. The sections below describe how SCE's request fails to demonstrate the reasonableness of: (1) \$4.392 million for Access and Functional Needs (AFN) Customer Enhancements and (2) \$1.962 million for Disability Disaster & Access Resources (DDAR). Cal Advocates does not dispute the remaining PSPS activities which make up \$4.386 million for PSPS Customer Support for 2025. Cal Advocates' recommendation is \$6.354 million lower than SCE's request.

5. SCE's AFN Customer Enhancements request is unreasonable because of its overly-broad AFN program definition.

SCE requests \$4.392 million for AFN Customer Enhancements. Cal Advocates objects to this requested increase and recommends no increase above the base year level for this work activity. SCE's request is not justified and the support provided for its request is inadequate because SCE's requested increase for enhanced services for

¹⁰³¹ Ex. CA-10-E at 24.

customers it considers as “AFN” is overly broad and the utility has not demonstrated adequately that its rate customers need to subsidize these services for this group of customers according to the current application.

SCE’s definition of AFN customers include not only those who are disabled, but also those customers who are: 1) “non-English speakers;” 2) 65 year or older adults; 3) homeless people; 4) those who depend on public transit; and 5) those who are pregnant. SCE also includes customers who “self-identify” as AFN and a portion of the requested increase is for SCE to send out outreach surveys to customers for them to self-identify.¹⁰³² ¹⁰³³

SCE did not clearly identify the number of AFN customers it uses to determine its 2025 forecast,¹⁰³⁴ SCE claims that as of September 2023, it has served 1,727,538 AFN customers, or 12 percent of its 15 million customers, under the PSPS Customer Support Program from 2019-2023.¹⁰³⁵ During that period, SCE defines these customers as: “AFN Enhancement customer totals includes: food boxes, MBL Acquisition Campaign, AFN Self-ID Survey, AFN Research, Joint IOU Marketing & Outreach, AFN CRC/CCV Enhancements.”¹⁰³⁶ SCE includes customers that are a part of its marketing and outreach campaigns done jointly with other Investor Owned Utilities.

In addition to its overbroad application of AFN customers and inadequate support for the number of customers served, SCE seeks funding for services that are above and beyond the responsibility of SCE’s utility customer base. According to SCE, its forecast includes costs for “providing direct support ...such as transportation and food, increasing

¹⁰³² Ex. SCE-04, Vol. 05, Part 4E, Workpapers at. 23-E2. SCE requests an increase of \$546,000 above the base year amount for the Self-Identification Survey.

¹⁰³³ SCE defines AFN as “AFN customers are defined by the California Government Code §8593.3 as “individuals who have developmental disabilities, physical disabilities, chronic conditions, injuries, limited English proficiencies, who are non-English speakers, older adults, children, people living in institutional settings, or those who are low income, homeless, or transportation disadvantaged, including but not limited to, those who are dependent on public transit and those who are pregnant”.

¹⁰³⁴ Ex. CA-10-E at 26.

¹⁰³⁵ Ex. CA-10-E at 26.

¹⁰³⁶ Ex. CA-10-E at 26.

partnerships with 25 additional CBOs...and purchasing and providing manual wheelchairs and privacy screens...to use medical equipment or breastfeed in privacy when visiting a CRC.... [Community Resource Center].”¹⁰³⁷ As discussed above, the services SCE proposes for the customers identified as AFNs are beyond the scope and responsibility of its customer base.

Cal Advocates does not object to SCE reaching out and notifying AFN customers of PSPS events to ensure the safety and wellbeing of its customers. However, SCE has not adequately justified funding for transportation, food, or other user equipment.

6. SCE fails to demonstrate why ratepayers should fund Disability Disaster & Access Resources (DDAR).

SCE requests \$1.962 million for DDAR for 2025¹⁰³⁸ and claims DDAR services will support customers with disabilities and access issues during PSPS events¹⁰³⁹ and include: battery backup, food, accessible transportation, and accessible hotel accommodations.¹⁰⁴⁰

Cal Advocates recommends no increase for DDAR services because these types of services are beyond the scope and responsibility of SCE’s utility customer base. SCE has not presented convincing evidence to explain the reason its ratepayers must fund newly-requested services for transportation and hotel accommodations.

¹⁰³⁷ Ex. SCE-04, Vol. 05, Part 4A at 46.

¹⁰³⁸ Ex. SCE-04, Vol. 05, Part 4A at 51.

¹⁰³⁹ Id.

¹⁰⁴⁰ Id.

XVI. T&D OTHER COSTS AND OTHER OPERATING REVENUE

Cal Advocates does not address this topic.

A. T&D Other Costs

B. T&D Other Operating Revenues

XVII. CUSTOMER SERVICE OPERATIONS

A. Billing and Payments

1. Billing Services

This issue is addressed in Exhibit SCE-25, Stipulation of TURN, Cal Advocates, and SCE on Billing Services GRC Activity, Credit and Payment Services GRC Activity, and Billing and Payments Capital.

2. Capital Costs in Billing and Payments Activities.

This issue has been addressed in Exhibit SCE-25, Stipulation of TURN, Cal Advocates, and SCE on Billing Services GRC Activity, Credit and Payment Services GRC Activity, and Billing and Payments Capital.

B. Customer Contacts

1. Customer Contact Center.

This issue has been addressed through Exhibit SCE-29, Stipulation of TURN, Cal Advocates, and SCE on Customer Contacts BPE.

C. Customer Service Re-Platform.

Please refer to Section XLV (Results of Financial Examination by Cal Advocates).

D. Customer Service-Related Other Operating Revenues.

SCE's Customer Service Operations Division (CSOD) is responsible for assessing the fees to charge individual customers and third parties who receive services that cause SCE to incur additional operational expenses. The revenue received for these services is accounted for as Other Operating Revenues (OOR).¹⁰⁴¹ These services include service-connection charges (fees) for establishing service, reconnecting service for disconnection for nonpayment of bills, returned check charges associated with returned checks from

¹⁰⁴¹ Ex. SCE-03, Vol. 01, Customer Service Operations at 1-2.

banks due to insufficient funds, Direct Access (DA) services, Community Choice Aggregation (CCA), Demand Response Program (DRP), and other special services.¹⁰⁴²

SCE estimates OOR to be \$29.10 million in TY 2025, based on SCE's proposed service fees, compared to \$26.48 million in the 2022 recorded OOR.¹⁰⁴³

1. Overview of SCE's Request.

SCE's OOR test-year forecast of \$29.10 million¹⁰⁴⁴ is \$10.17 million more than the 2025 OOR forecast based on SCE's currently authorized OOR fees.

In this GRC, SCE proposes to change and modify several service fees, and to add new service fees¹⁰⁴⁵ to residential and non-residential customers. SCE proposes to implement and modify the following OOR service charges¹⁰⁴⁶:

- Implement a New Paper-bill Fee;
- Increase Residential Late Payment Charge;
- Elimination of the Residential Connection Fee for Residential and Non-Residential customers;
- Increase the Edison SmartConnect Opt-Out initial set-up fee for Non-CARE¹⁰⁴⁷ customers;
- Increase the Edison SmartConnect Opt-Out monthly fee for Non-CARE customers.

Table 12-10 compares Cal Advocates' TY 2025 Forecasts and SCE's TY 2025 Forecasts of Customer Interaction (CI)-Other Operating Revenues (OOR):¹⁰⁴⁸

¹⁰⁴² Ex. SCE-03, Vol. 01 at 1-2, 119.

¹⁰⁴³ Ex. CA-12, Customer Service Operations, at 16.

¹⁰⁴⁴ Ex. SCE-03, Vol. 01 at 120.

¹⁰⁴⁵ Ex. SCE-03, Vol. 01 at 120-121.

¹⁰⁴⁶ Ex. SCE-03, Vol. 01 at 120-121.

¹⁰⁴⁷ CARE stands for California Alternate Rates for Energy.

¹⁰⁴⁸ Ex. CA-12 at 17.

Table 12-10
CI Other Operating Revenues (OOR) for TY 2025
(\$000)

Account Name (a)	Cal Advocates Recommended (b)	SCE Proposed³⁰ (c)	Amount SCE>CalAdv (d=c-b)	Percentage SCE>CalAdv (e=d/b)
Paper Bill Adj.	\$7,553	\$7,553		
Late Payment Charge - Residential	\$7,374	\$7,374	\$0	0%
Connection Charge – Residential	\$-	\$-	\$0	0%
Opt-Out CARE – Initial	\$0	\$0	\$0	0%
Opt-Out NON-CARE - Initial	\$1	\$1	\$0	0%
Opt-Out CARE - Monthly	\$14	\$14	\$0	0%
Opt-Out NON-CARE – Monthly	\$264	\$264	\$0	0%
Paper Bill Adj.	\$1,864	\$1,864		
Late Payment Charge – Non Residential	\$3,933	\$3,933	\$0	0%
Connection Charge – Non-Residential	\$-	\$-	\$0	0%
Returned Check Charge	\$1,195	\$1,195	\$0	0%
Connection Charge – At Pole	\$31	\$31	\$0	0%
Optimal Billing Period	\$8	\$8	\$0	0%
Misc. Revenue – Recovery Unauthorized Use Non-Energy	\$121	\$121	\$0	0%
Customer Information Service Request (CISR) Fees	\$318	\$318	\$0	0%
Community Choice Aggregation ³¹	\$5,210	\$5,210	\$0	0%
Direct Access Services	\$707	\$707	\$0	0%
Total³²	\$28,593	\$28,593	\$0	0%

Table 12-11 presents the recorded adjusted expenses for 2018 through 2022 for CI OOR.¹⁰⁴⁹

¹⁰⁴⁹ Ex. CA-12 at 18.

Table 12-11
2018-2022 Recorded
SCE – CI Other Operating Revenues
(\$000)

SCE - Other Operating Revenues (OOR)		R e c o r d e d				
No.	Account Name	2018	2019	2020	2021	2022
1	Paper Bill Fee - Residential	N O T A P P L I C A B L E				
2	Late Payment Charge - Residential	\$ 11,586	\$10,435	\$ 2,856	\$ 3,295	\$ 9,814
3	Connection Charge - Residential	5,807	5,612	4,054	2,906	0
4	Opt-Out CARE - Initial	2	2	2	0	0
5	Opt-Out NON-CARE - Initial	53	47	37	6	1
6	Opt-Out CARE - Monthly	30	32	36	29	14
7	Opt-Out NON-CARE - Monthly	193	188	198	138	102
8	Paper Bill Fee - Non-Residential	N O T A P P L I C A B L E				
9	Late Payment Charge - Non-Residential	6,160	5,566	3,191	5,490	7,350
10	Connection Charge - Non-Residential	2,166	2,115	1,833	1,506	1,945
11	Returned Check Charge	1,600	1,560	1,213	1,002	1,209
12	Connection Charge - At Pole	22	24	14	2	2
13	Optimal Billing Period	0	0	0	0	0
14	Misc. Revenue - Recovery Unauthorized Use Non-Energy	146	104	86	65	62
15	Customer Information Service Request (CISR) Fees	0	0	0	0	0
16	Community Choice Aggregation	391	1,477	2,638	1,619	2,485
17	Direct Access Services	175	160	114	47	60
18	TOTAL CS OOR	\$ 28,331	\$27,322	\$ 16,272	\$ 16,105	\$ 23,044

2. New Paper-bill Fee for Residential and Non-Residential Customers.

SCE proposes to implement a paper-bill fee for residential and non-residential customers,¹⁰⁵⁰ excluding California Alternate Rates for Energy (CARE) and Family Electric Rate Assistance (FERA) customers.¹⁰⁵¹ SCE proposes \$0.61 per billing statement fee, resulting in a test-year forecast of \$7.55 million for residential customers and \$1.86 million for non-residential customers.¹⁰⁵²

¹⁰⁵⁰ Ex. SCE-03, Vol. 01 at 123, 130.

¹⁰⁵¹ Ex. SCE-03, Vol. 01 at 123-124, 130.

¹⁰⁵² Ex. CA-12 at 19.

3. Cal Advocates opposes SCE's Paper-bill Fee

After reviewing SCE's testimony, exhibits, and data-request responses. Cal Advocates opposes SCE's paper-bill fee introduced in this GRC.¹⁰⁵³ It is inequitable to charge an additional fee to customers who may not have the ability to view and pay their bills through the internet or a smartphone-based app.

SCE has never charged a paper-bill fee to provide customers with a standard paper billing statement. In response to Cal Advocates data request seeking information on the current paper bill cost per piece,¹⁰⁵⁴ SCE responded: "SCE does not currently and has never before charged a paper bill fee; the proposed paper bill fee in Exhibit SCE-03, Vol. 01 would be a new fee to take effect beginning in 2025."¹⁰⁵⁵

SCE's request in this GRC is unreasonable and inappropriate, and ratepayers should not be charged for a service that is already included in present rates and forms an integral part of the utility's cost of providing service. Public Utilities Code section 451 requires, among other things, the following:

Every public utility shall furnish and maintain such adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities, including telephone facilities, as defined in Section 54.1 of the Civil Code, as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public.

All rules made by a public utility affecting or pertaining to its charges or service to the public shall be just and reasonable.

SCE's responses to Cal Advocates' data requests fail to provide adequate justification for a new paper-bill fee. Moreover, SCE appears focused on a fee-based system—rather than pursuing other options to increase customers' use of paperless billing—by imposing a new fee on its ratepayers.¹⁰⁵⁶ SCE did not assess the financial

¹⁰⁵³ Ex. CA-12 at 19.

¹⁰⁵⁴ Ex. CA-12 at 19.

¹⁰⁵⁵ Ex. CA-12 at 19.

¹⁰⁵⁶ Ex. CA-12 at 20.

impacts and burden relative to the benefits of a new paper-bill fee for residential and non-residential customers.¹⁰⁵⁷ In response to Cal Advocates' request for clarification on ratepayer benefits associated with SCE's proposed new paper-bill fee,¹⁰⁵⁸ SCE stated: "There was no cost benefit analysis performed. As Exhibit SCE-03, Volume 01, p.123 explains, the main purpose of the paper bill fee is to direct the costs associated with the delivery of a paper billing statement to only customers who continue to receive paper bills (excluding CARE/FERA customers.)"¹⁰⁵⁹

SCE's response indicates that SCE failed to consider the impact of the proposed new paper-bill fee on its customers. SCE's response further shows that SCE's proposed fee is unjustified. SCE needs to reassess the importance of its cost of service to ratepayers, because the proposed fee lacks merit in this GRC proceeding.¹⁰⁶⁰

Other states' regulatory commissions have examined the issue of paper-bill fees and have declined to include such fees as part of costs of service. In 2015, the Pennsylvania Public Utilities Commission adopted regulations that prohibit public utility companies from imposing a charge or fee, or other rate connected with providing a paper bill or invoice for services (see 52 Pa. Code section 53.85).¹⁰⁶¹

In November of 2022, West Virginia's Public Service Commission issued an order against Frontier to stop charging a paper-bill fee.¹⁰⁶² The order applies to bills for telecommunications services, including a single bill for telephone and separate or bundled non-telecommunication services, including internet services. The Public Service Commission of West Virginia found that the fee was unjustly discriminatory to (1) seniors and other customers who are inexperienced with paperless billing and (2) customers who

¹⁰⁵⁷ Ex. CA-12 at 20.

¹⁰⁵⁸ Ex. CA-12 at 20-21.

¹⁰⁵⁹ Ex. CA-12 at 20-21. CARE stands for California Alternate Rates for Energy, and FERA stands for Family Electric Rate Assistance.

¹⁰⁶⁰ Ex. CA-12 at 21.

¹⁰⁶¹ Ex. CA-12 at 21.

¹⁰⁶² West Virginia Commission Order, Case No. 22-0450-T-SC.

do not have reliable internet access, either due to lack of devices or lack of consistent and dependable internet service. West Virginia’s Public Service Commission also concluded that the fee was an unreasonable practice.¹⁰⁶³

Cal Advocates also noted that residential and non-residential customers opt to use paper billing statements, as opposed to e-billing statements. Accordingly, Cal Advocates requested additional information from SCE regarding customer’s receiving paper billing statements.¹⁰⁶⁴ In response to that question, SCE stated: “The table below provides the number of paper bill customers, excluding CARE/FERA, for years 2018 through 2022 for Residential and Non-Residential customers.”¹⁰⁶⁵

Line No.	Description	2018	2019	2020	2021	2022
1	Residential Paper Bill Customers	1,509,499	1,614,332	1,470,208	1,574,328	1,645,764
2	Non-Residential Bill Customers	534,063	492,649	496,703	397,749	389,501

Based on SCE’s data-request response, the number of residential customers receiving a paper bill has increased overall, except for a decrease in 2020, which was an abnormal year due to the pandemic.¹⁰⁶⁶ Nonetheless, the number of paper bills issued to residential customers has sequentially increased in the years 2021 and 2022.¹⁰⁶⁷

Cal Advocates also requested information from SCE on customers’ paper and electronic billing statements.¹⁰⁶⁸

SCE responded as follows: “The table below provides the number of Paper and Electronic Billing Statements for years 2018 through 2022 for all customers, including CARE/FERA customers broken out by residential and non-residential customers. It is difficult to provide the amount of reduction in paper bills due solely to the e-billing

¹⁰⁶³ Ex. CA-12 at 21-22.

¹⁰⁶⁴ Ex. CA-12 at 21-22.

¹⁰⁶⁵ Ex. CA-12 at 22.

¹⁰⁶⁶ Ex. CA-12 at 22.

¹⁰⁶⁷ Ex. CA-12 at 22.

¹⁰⁶⁸ Ex. CA-12 at 22-23.

option, especially because a customer may switch back and forth between paper bill and paperless. SCE provides below historical numbers of electronic billing statements.”¹⁰⁶⁹

Line No.	Description	2018	2019	2020	2021	2022
1	Residential Paper Billing Statements	28,857,629	27,498,529	26,935,871	26,033,053	26,125,794
2	Residential Electronic Billing Statements	22,919,025	23,740,449	25,930,790	27,177,712	27,806,435
3	Non-Residential Paper Billing Statements	6,182,201	5,453,588	5,002,684	4,032,756	3,985,048
4	Non-Residential Electronic Billing Statements	2,961,204	2,907,066	3,176,970	2,557,354	2,322,496
5	Total Paper Billing Statements	35,039,830	32,952,117	31,938,555	30,065,809	30,110,842
6	Total Electronic Billing Statements	25,880,229	26,647,515	29,107,760	29,735,066	30,128,931

SCE’s data-request response shows that customers’ preference for paper billing statements is higher compared to the preference for electronic-billing statements.¹⁰⁷⁰

SCE’s response also shows that there is minimal difference between the number of customers who prefer paper billing and the number of customers who prefer electronic billing, for the most recent year 2022.¹⁰⁷¹

To justify imposing a fee, SCE asserts, “A Paper Bill Fee may encourage increased e-billing adoption (a low-cost bill delivery method), which would result in lower overall ratepayer costs in the future.”¹⁰⁷² This assertion is misplaced and is not in the best interest of its customers.¹⁰⁷³ Customers should have the option to choose and select the billing option that best suits their needs, without having to pay a punitive fee that has historically been included in the cost of service.¹⁰⁷⁴

Moreover, SCE’s proposal to introduce a new rate fee requires proper notice and should be reviewed separately to ensure compliance with the Public Utilities Code section 451 and other applicable laws.¹⁰⁷⁵ SCE’s proposed fee for paper billing should be rejected and SCE should be directed to file an application so that any proposed paper-bill

¹⁰⁶⁹ Ex. CA-12 at 22-23.

¹⁰⁷⁰ Ex. CA-12 at 23.

¹⁰⁷¹ Ex. CA-12 at 23.

¹⁰⁷² Ex. SCE-03, Vol. 01 at 124.

¹⁰⁷³ Ex. CA-12 at 24.

¹⁰⁷⁴ Ex. CA-12 at 24.

¹⁰⁷⁵ Ex. CA-12 at 24.

fee may be properly evaluated, and so that ratepayers can submit comments and participate in public hearings.¹⁰⁷⁶

4. Cal Advocates Alternative Proposal.

If the Commission decides to consider SCE's paper-bill fee, Cal Advocates has retained a Paper Bill Adjustment in the OOR at the same level proposed by SCE for its Paper Bill Fee.¹⁰⁷⁷ However, in lieu of a new fee imposed on the ratepayers, Cal Advocates proposes that SCE devise methods to encourage its ratepayers to move toward paperless bills without imposing additional financial burden on them.¹⁰⁷⁸ SCE would bear the financial burden for developing this process, but would also benefit from any cost savings received.

Instead of adding an additional Paper Bill Fee to ratepayers, SCE should consider ways to educate, encourage, and motivate customers to elect paperless bills.¹⁰⁷⁹ The decision whether to elect a paperless would remain optional for the customer.¹⁰⁸⁰ The ratemaking adjustment will serve to shift the burden toward SCE to develop a process to generate cost savings and retain the financial benefits of savings generated by ratepayers moving to paperless bills.¹⁰⁸¹

Cal Advocates' proposed Paper Bill Adjustment, which places the responsibility and financial incentive with SCE, may encourage increased e-billing adoption.¹⁰⁸²

E. Billing Practices and Policies.

Cal Advocates does not offer a position on this issue.

¹⁰⁷⁶ Ex. CA-12 at 24.

¹⁰⁷⁷ Ex. CA-12 at 24.

¹⁰⁷⁸ Ex. CA-12 at 24.

¹⁰⁷⁹ Ex. CA-12 at 24.

¹⁰⁸⁰ Ex. CA-12 at 24.

¹⁰⁸¹ Ex. CA-12 at 24.

¹⁰⁸² Ex. CA-12 at 24-25.

XVIII. BUSINESS CUSTOMER SERVICES

Cal Advocates' issues with this area have been addressed through Exhibit SCE-26, Stipulation of TURN, Cal Advocates, Walmart, and SCE on Business Customer Services BPE and Communications, Education, and Outreach BPE; Exhibit SCE-27, Stipulation of Cal Advocates and SCE on Customer Experience Management GRC Activity; and Exhibit SCE-28, Stipulation of TURN, Cal Advocates, and SCE on Customer Programs Management GRC Activity.

XIX. CUSTOMER PROGRAMS AND SERVICE

Cal Advocates' issues with this area have been addressed through Exhibit SCE-26, Stipulation of TURN, Cal Advocates, Walmart, and SCE on Business Customer Services BPE and Communications, Education, and Outreach BPE; Exhibit SCE-27, Stipulation of Cal Advocates and SCE on Customer Experience Management GRC Activity; and Exhibit SCE-28, Stipulation of TURN, Cal Advocates, and SCE on Customer Programs Management GRC Activity.

XX. BUSINESS CONTINUATION

SCE's Business Continuation activities "support[s] SCE's critical business processes, maintains compliance with all applicable regulations, and safely manages emergency planning and response operations that minimize service disruptions to mitigate safety, reliability, and financial consequences."¹⁰⁸³ SCE requests \$52.320 million for 2023, \$60.175 million for 2024 and \$64.152 million for 2025 for Business Continuation capital expenditures.¹⁰⁸⁴ Cal Advocates recommends \$50.681 million for Business Continuation capital expenditures in 2023, \$60.093 million for 2024, and \$64.070 million for in 2025.¹⁰⁸⁵ The Seismic Resiliency Program (SRP) includes

¹⁰⁸³ Southern California Edison, 2025 General Rate Case, Business Continuation, Ex. SCE-04, Vol. 01 at 1.

¹⁰⁸⁴ Ex. SCE-04, Vol. 01 at 5.

¹⁰⁸⁵ Public Advocates Office, California Public Utilities Commission, Report on the Results of Operations for Southern California Edison Company General Rate Case Test Year 2025 Errata, Business Continuation Emergency Management, Ex. CA-14-E, at 2.

analysis, design, implementation, and initiation of sensors to fulfill FERC and internal design compliance.¹⁰⁸⁶ The SRP constitutes the majority of SCE's forecast capital spending and is separated into different categories of seismic resilience: Seismic Electric, Seismic Non-Electric, Seismic IT/Telecom, Seismic Generation, Seismic Sensors Hardware, Seismic Sensors Software, and Seismic Emergency Comms.¹⁰⁸⁷ As discussed below, Cal Advocates recommends that certain Seismic Non-Electric expenditures be reduced.

Cal Advocates does not oppose SCE's Business Continuation O&M expense forecast of \$3.147 million.

A. Planning, Continuity, and Governance

Cal Advocates does not address this topic.

B. All Hazards Assessment, Mitigation, and Analytics

1. General Office Project 1 of Seismic Non-Electric Program

Cal Advocates' review of SCE's historical forecasts, rough order of magnitude (ROM) forecasts, consultant estimates, vendor quotes, and National Institute of Standards and Technology (NIST) forecasts revealed that SCE's forecasted costs exceed the underlying forecasts for each category's costs.¹⁰⁸⁸ SCE's forecast for General Office Project 1 (GO1), which accounts for \$1.641 million of 2023's Seismic Non-Electric Program capital expenditures, could not be sufficiently verified despite Cal Advocates' request for detailed documentation for the year 2023-2025.¹⁰⁸⁹ SCE's underlying forecast for the GO1 cost warrants a downward adjustment of \$1.638 million.¹⁰⁹⁰ Thus,

¹⁰⁸⁶ Ex. SCE-04, Vol. 01WP at 59; Ex. SCE-04, Vol. 1 at 33-34.

¹⁰⁸⁷ Ex. SCE-04, Vol. 01WP at 59.

¹⁰⁸⁸ Public Advocates Office, California Public Utilities Commission, Report on the Results of Operations for Southern California Edison Company General Rate Case Test Year 2025, Business Continuation Emergency Management, Ex. CA-14 at 14.

¹⁰⁸⁹ Ex. CA-14 at 15.

¹⁰⁹⁰ Ex. CA-14 at 15.

Cal Advocates recommends that GO1’s 2023 expenditures be reduced to \$0.003 million.¹⁰⁹¹

2. New Starts + Carryover 2024 and 2025 Project

Cal Advocates’ review of SCE’s original consultant estimates, vendor estimates, ROM forecasts, historical forecasts, and NIST forecasts uncovered a discrepancy between the forecast in SCE workpapers and a vendor quote which contributes to costs in the 2024 and 2025 New Starts + Carryover categories. From 2024-2025, SCE entered \$17.000 million in costs for one of these projects.¹⁰⁹² However, SCE was not able to provide verification for most of these costs. Because SCE’s forecast could not be sufficiently verified, Cal Advocates recommends an adjustment based on available data, which reduces the forecast to \$16.837 million.¹⁰⁹³

Cal Advocates recommends a downward adjustment of \$1.638 million in 2023, \$0.082 million in 2024, and \$0.081 million in 2025.¹⁰⁹⁴ All of these adjustments apply to the Seismic Non-Electric facilities category.¹⁰⁹⁵ The \$1.638 million adjustment is derived from the General Office 1 project in SCE’s workpapers.¹⁰⁹⁶ The \$0.082 and \$0.081 million adjustments apply to a project whose name was requested to remain confidential within 2024 New Starts + Carryover and 2025 New Starts + Carryover.¹⁰⁹⁷

XXI. EMERGENCY MANAGEMENT

SCE’s Emergency Management activities “enhance emergency preparedness and response programs which include integration and coordination with the public sector

¹⁰⁹¹ Ex. CA-14 at 15.

¹⁰⁹² Ex. CA-14 at 18, FN 41.

¹⁰⁹³ Ex. CA-14 at 18, FN 42.

¹⁰⁹⁴ Ex. CA-14 at 19.

¹⁰⁹⁵ Ex. CA-14 at 19.

¹⁰⁹⁶ Ex. CA-14 at 19.

¹⁰⁹⁷ Ex. CA-14 at 17-19.

response structures and entities.”¹⁰⁹⁸ Cal Advocates does not oppose SCE’s capital expenditures forecast of \$54.589 million for 2023, \$57.136 million for 2024, and \$58.797 million for 2025 for Emergency Management.¹⁰⁹⁹

SCE forecasts \$28.183 million¹¹⁰⁰ for its Emergency Management O&M expenses for TY 2025.¹¹⁰¹ SCE’s O&M expenses contain programs: (1) Training, Drills, and Exercises, (2) Emergency Preparedness and Response, (3) Distribution, Transmission/Substation & Telecommunication Storm Response, (4) Customer Service Storm, and (5) Generation Storm.¹¹⁰² Cal Advocates recommends \$27.299 million for Emergency Management O&M expenditures, based on its analysis of SCE’s request and responses to Cal Advocates data requests.

A. Training, Drills and Exercises

Cal Advocates does not address this category

B. Emergency Preparedness and Response

Cal Advocates does not address this category.

C. Storm Response

Cal Advocates’ review of SCE’s \$1.135 million request for TY 2025 Generation Storm expenditures revealed irregularities in how SCE produced its forecast and collects costs.¹¹⁰³ First, instead of collecting incremental costs through memorandum accounts, SCE proposes to collect expected costs from 2023 within the Generation Storm

¹⁰⁹⁸ Southern California Edison, 2025 General Rate Case, Emergency Management, Ex. SCE-04, Vol. 02 at 1.

¹⁰⁹⁹ Public Advocates Office, California Public Utilities Commission, Report on the Results of Operations for Southern California Edison Company, General Rate Case Test Year 2025, Business Continuation, Emergency Management, Ex. CA-14 at 5.

¹¹⁰⁰ Ex. CA-14 at 6, FN 7. Cal Advocates discovered a discrepancy in SCE’s TY forecast of \$27.570 million for Emergency Management (Ex. SCE-04, Vol. 02 at 1, 4). Cal Advocates calculated O&M expenses included in SCE’s Ex. SCE-04, Vol. 02 for Emergency Management of \$28.183 million.

¹¹⁰¹ Ex. SCE-04, Vol. 02 at 4.

¹¹⁰² Ex. SCE-04, Vol. 01 at 18, 30, 37, 39, 42.

¹¹⁰³ Ex. SCE-04, Vol. 02 at 40.

forecast.¹¹⁰⁴ Second, without adequate explanation, SCE uses data outside the typical five-year historical range (2018-2022) for its Generation Storm forecast costs.¹¹⁰⁵

In support of its approach, SCE states:

Additional storm costs of \$0.884 million per year were added to 2025 Test Year forecast. This adder is based on the 2022 cost for remediation of storm runoff affecting SCE's generating facilities which recorded to CEMA, as the event causing the runoff was declared a disaster. While these costs were associated with a specific CEMA storm event in 2022, they are indicative of increased storm runoff in the coming years, above what has been experienced in previous years. SCE does not anticipate CEMA recovery for every storm runoff event moving forward.¹¹⁰⁶

SCE also states in response to a data request:

The specific CEMA storm event referenced in this testimony was the monsoonal rain event that occurred in SCE's service area in August 2022. SCE has not yet sought recovery of the incremental costs associated with this CEMA-eligible event and is not currently recovering the incremental costs in rates.¹¹⁰⁷

SCE confirms that costs associated with a "monsoonal rain event that occurred in SCE's service area in August 2022"¹¹⁰⁸ are recoverable in CEMA.¹¹⁰⁹ However, SCE now seeks to recover projected storm costs that occur outside of the historical forecast range as part of its Generation Storm forecast. SCE fails to explain why the documented costs of the August 2022 monsoon event justifies including these costs in this GRC rather than be subject to a review of reasonableness and incrementality in a CEMA proceeding.¹¹¹⁰

¹¹⁰⁴ Ex. SCE-04, Vol. 02 at 41.

¹¹⁰⁵ Ex. CA-14 at 7.

¹¹⁰⁶ Ex. SCE-04, Vol. 02 at 41.

¹¹⁰⁷ Ex. CA-14 at 8, FN 17.

¹¹⁰⁸ Ex. CA-14 at 8, FN 19.

¹¹⁰⁹ Ex. CA-14 at 8.

¹¹¹⁰ Ex. CA-14 at 9.

Furthermore, SCE claims that 2023 costs should be included in the historical forecast because it will reflect future storm-related costs that are likely to be incurred.¹¹¹¹ This claim ignores the fact that should the utility use recorded costs as the basis for its forecast, the extent that those costs are increasing year over year would be automatically “baked in” to that forecast..¹¹¹² Therefore, 2023 costs, if shown to be reasonable, can be included in forecasts of future rate cases.¹¹¹³

SCE not only failed to explain why it chose not to collect its 2022 storm costs via memorandum account authorized for this purpose, it also incorrectly relied on data outside of the forecast range. The 2022 storm event behind these costs occurred while SCE was receiving funding for Generation Storm Response O&M under a previous GRC.¹¹¹⁴ In a CEMA proceeding, SCE must prove that its costs are incremental. Specifically, SCE bears the burden to provide that its previously authorized funding does not cover the costs it incurred from this storm event.¹¹¹⁵ If SCE is able to include costs which are outside of the historical forecast range, then it would be able to circumvent its responsibility to prove incrementality.¹¹¹⁶ SCE will also be able to double-charge ratepayers when it receives funding for a single storm event through two separate GRC forecasts.¹¹¹⁷ Thus, Cal Advocates recommends that \$0.884 million in Generation Storm costs be reviewed in CEMA.¹¹¹⁸ Cal Advocates removes \$0.884 million in 2023 storm costs from the total proposed \$28.183 million.

Cal Advocates recommends \$27.299 million for Emergency Management O&M expenditures.

¹¹¹¹ Ex. SCE-04, Vol. 02 at 41.

¹¹¹² Ex. CA-14 at 10.

¹¹¹³ Ex. CA-14 at 10.

¹¹¹⁴ Ex. CA-14 at 11.

¹¹¹⁵ Decision Adopting Regulations To Reduce Fire Hazards Associated With Overhead Power Lines And Communication Facilities, D.12-01-032 at 151.

¹¹¹⁶ Ex. CA-14 at 11.

¹¹¹⁷ Ex. CA-14 at 11.

¹¹¹⁸ Ex. CA-14 at 11.

XXII. CYBERSECURITY

SCE proposes to establish the Cybersecurity Compliance Memorandum Account (CCMA) to record the revenue requirements associated with incremental O&M expenses and capital expenditures that are incurred to adhere to potential new cybersecurity regulations and requirements.¹¹¹⁹ SCE justifies the CCMA by citing to early-stage federal initiatives and a “still undefined ... wave of regulations”¹¹²⁰ that SCE speculates may impact mandatory cybersecurity requirements. SCE claims that the uncertain magnitude and timing of future requirements for these “speculative investments”¹¹²¹ prevents the development of an accurate forecast.¹¹²² However, SCE provides no verifiable line item detail to permit review and analysis of its O&M expense or capital expenditures forecasts. Therefore, SCE provides no justification for establishing the CCMA.¹¹²³

Furthermore, SCE proposes that recorded costs plus interest should be recovered in customers’ distribution rates after a finding of reasonableness in SCE’s Energy Resource Recovery Account (ERRA) proceeding or a subsequent GRC.¹¹²⁴ However, SCE states that it already participates in several voluntary cybersecurity initiatives in anticipation of new mandatory standards, and includes the costs of these activities in its cybersecurity expense and capital forecasts.¹¹²⁵ For example, SCE states that its voluntary “defense-in-depth”¹¹²⁶ strategy that it has adopted in its cybersecurity program is responsive to policy signals coming from state and federal government partners.¹¹²⁷

¹¹¹⁹ Southern California Edison, 2025 General Rate Case, Results of Operations, Ex. SCE-07, Vol. 01 at 47.

¹¹²⁰ Ex. SCE-07, Vol. 01 at 48.

¹¹²¹ Southern California Edison, 2025 General Rate Case, Cybersecurity, Ex. SCE-04, Vol. 03 at 18.

¹¹²² Ex. SCE-07, Vol. 01 at 48.

¹¹²³ Public Advocates Office, California Public Utilities Commission, Report on the Results of Operations for Southern California Edison Company, General Rate Case, Test Year 2025, Cybersecurity, Physical Security, Ex. CA-15 at 13.

¹¹²⁴ Ex. SCE-07, Vol. 01 at 48.

¹¹²⁵ Ex. SCE-04, Vol. 03 at 17.

¹¹²⁶ Ex. SCE-04, Vol. 03 at 17. SCE characterizes the defense-in-depth strategy as a redundant layering of independent layers of defense technology.

¹¹²⁷ Ex. SCE-04, Vol. 03 at 17.

SCE further indicates that where its cybersecurity program exceeds minimum mandatory standards, the risk-reduction benefits are balanced with the additional costs.¹¹²⁸

However, in discovery, SCE indicates that it does not track or segregate costs by those that support mandatory cybersecurity requirements versus those that are not mandatory by regulation.¹¹²⁹ SCE explains that tracking costs in this manner would be impractical and burdensome, and thus SCE was unable to quantify either the additional costs or the additional risk-reduction benefits of implementing non-mandatory standards.¹¹³⁰

However, tracking the costs of voluntary versus mandatory standards is precisely what SCE proposes to do in establishing the CCMA, despite acknowledging that such tracking is impractical and burdensome.¹¹³¹ The Commission should deny SCE's request to establish the CCMA, and instead, instruct SCE to address these costs in future GRC proceedings when the forecasted requirements and costs for implementing the as-yet undetermined mandatory standards are more certain and not speculative.

Cal Advocates and SCE entered into a stipulation (Exhibit SCE-41) that resolved the differences regarding Cybersecurity O&M expenses for TY 2025.

SCE forecasted \$353.677 million for 2023-2025 capital expenditures for Cybersecurity. This consists of recorded capital expenditures of \$106.246 million in 2023, forecast capital expenditures of \$110.299 million in 2024, and forecast capital expenditures of \$137.132 million in 2025.

Cal Advocates does not oppose SCE's 2023-2025 capital expenditures for Cybersecurity. Pursuant to the stipulation, Cal Advocates and SCE agree upon a 2023-2025 capital expenditures forecast of \$353.677 million, consisting of \$106.246 million for 2023, \$110.299 million for 2024, and \$137.132 million for 2025.

A. Cybersecurity Delivery

The stipulation in Exhibit SCE-41 resolved the differences regarding

¹¹²⁸ Ex. SCE-04, Vol. 03 at 17.

¹¹²⁹ Ex. CA-15 at 13, FN 49.

¹¹³⁰ Ex. CA-15 at 14, FN 50.

¹¹³¹ Ex. CA-15 at 14.

Cybersecurity O&M expenses for TY 2025, which includes Cybersecurity Delivery.

B. Grid Modernization Cybersecurity

The stipulation in Exhibit SCE-41 resolved the differences regarding Cybersecurity O&M expenses for TY 2025, which includes Grid Modernization Cybersecurity.

C. Software License & Maintenance

The stipulation in Exhibit SCE-41 resolved the differences regarding Cybersecurity O&M expenses for TY 2025, which includes Software License and Maintenance.

XXIII. PHYSICAL SECURITY

SCE forecasts \$23.127 million for Physical Security expenses in 2025.¹¹³² Cal Advocates did not oppose SCE's Physical Security O&M forecast for TY 2025. This area has now been addressed in Exhibit SCE-41, Stipulation of Cal Advocates and SCE on Cybersecurity and Physical Security.

SCE forecasted \$187.315 million for 2023-2025 capital expenditures for Physical Security.¹¹³³ Cal Advocates does not oppose SCE's 2023-2025 capital expenditures for Physical Security.

This area has now been addressed in Exhibit SCE-41, Stipulation of Cal Advocates and SCE on Cybersecurity and Physical Security.

XXIV. GENERATION

A. Overview

O&M generation expenses include labor, non-labor and other components. Capital expenditures associated with generation operations include activities for hydroelectric generation facilities (hydro), fossil fuel plants, Solar Photovoltaic Program (SPVP facilities), and nuclear (Palo Verde Nuclear Generating Station).

¹¹³² Ex. SCE-04, Vol. 04 at 17.

¹¹³³ Ex. SCE-15, Vol. 04 at 1.

SCE forecasts \$185.035 million for its TY 2025 Generation Operations O&M expenses.¹¹³⁴ Cal Advocates recommends that the Commission authorize \$176.627 million for SCE's Generation Operations O&M expenses, which reduces SCE's forecast by \$8.408 million.

SCE forecasts the following Generation Operations capital expenditures: \$170.477 million for 2023, \$129.751 million for 2024, and \$164.902 million for 2025. Cal Advocates recommends that the Commission authorize \$98.217 million for 2023, \$88.899 million for 2024, and \$171.357 million for 2025 Generation Operations capital expenditures. Cal Advocates' recommendation is \$72.260 million less than SCE's forecast in 2023, \$40.852 million less than SCE's forecast in 2024, and \$6.455 million more than SCE's forecast in 2025.

Given that the 2023 recorded capital expenditures for Generation, which in rebuttal SCE has proposed as its 2023 capital forecast, is very close to Cal Advocates' overall 2023 capital forecast, Cal Advocates does not oppose the 2023 recorded capital expenditures.

B. Hydro

1. Overview

SCE forecasts \$104.331 million for 2023,¹¹³⁵ \$79.536 million for 2024,¹¹³⁶ and \$67.193 million for 2025 Hydro Generation Operations capital expenditures.¹¹³⁷ Cal Advocates opposes SCE's TY 2023-2025 Hydro Capital Expenditures request and recommends \$32.072 million for 2023, \$38.684 million for 2024, and \$73.646 million for 2025.¹¹³⁸ SCE requests \$73.120 million for 2026, \$77.279 million for 2027, and \$67.363

¹¹³⁴ Southern California Edison, 2025 General Rate Case, Generation, Ex. SCE-05, Vol. 01, at 4, and Supplemental Testimony Regarding Generation - Palo Verde, p. 6 presents update forecast for Nuclear.

¹¹³⁵ Southern California Edison, 2025 General Rate Case, Generation Errata, Ex. SCE-05 Vol. 01E at 69, Table II-15.

¹¹³⁶ Ex. SCE-05 Vol. 01E at 69, Table II-15.

¹¹³⁷ Ex. SCE-05 Vol. 01E at 69, Table II-15.

¹¹³⁸ Report on the Results of Operations for Southern California Edison Company General Rate Case Test Year 2025, Energy Procurement & Generation, Ex. CA-16 at 18.

million for 2028 Hydro Capital expenditures.¹¹³⁹ Cal Advocates recommends \$86.696 million for 2026, \$107.971 million for 2027 and \$96.088 million for 2028 Hydro Capital expenditures.¹¹⁴⁰

2. Hydro Generation O&M Expenses

SCE requests \$53.475 million for its TY 2025 Hydro Generation Operations O&M expenses.¹¹⁴¹ Cal Advocates opposes this request and recommends that the Commission adopt \$45.067 million for the TY 2025 Hydro O&M Forecast.¹¹⁴²

3. Hydro Labor

SCE requests \$27.504 million for Labor, a \$4.531 million or 19.72% increase over the 2022 recorded labor expenses of \$22.973 million.¹¹⁴³ SCE's Labor forecast consists of a \$22.984 million base labor forecast (based on 2022 recorded and \$4.520 million for additional employees and adjustments to SCE's employee compensation program).¹¹⁴⁴ \$3.528 million of the requested \$4.520 million increase to the base labor forecast is proposed for hiring 30 additional employees over a three-year period;¹¹⁴⁵ SCE specifies that it plans to "hire and train at a minimum 10 new employees per year between 2023 and 2025."¹¹⁴⁶

Cal Advocates recommends \$24.724 million, \$2.780 million less than SCE's TY 2025 forecast for Labor.¹¹⁴⁷ SCE's Organization Charts do not support SCE's request to hire ten employees per year, or 30 employees total, from 2023 through TY2025. SCE

¹¹³⁹ Ex. SCE-05 Vol. 01E at 69, Table II-15.

¹¹⁴⁰ Ex. CA-16 at 18, FN 54.

¹¹⁴¹ Ex. SCE-05, Vol. 01 at 48.

¹¹⁴² Ex. CA-16 at 17.

¹¹⁴³ Ex. SCE-05, Vol. 01 at 48.

¹¹⁴⁴ Ex. CA-16 at 15, FN 36.

¹¹⁴⁵ Ex. CA-16 at 15, FN 36.

¹¹⁴⁶ Ex. CA-16 at 16, FN 37.

¹¹⁴⁷ Ex. CA-16 at 15.

provided Table II-14¹¹⁴⁸ below to represent the number of employees it seeks to hire for each position title and corresponding salary for 2023 through TY2025.

Table II-14
SCE Hydro – Future Labor Needs

Line No.	Position	FTE	Activities	FTE Market Reference Point	Total Cost
1	Technician, Instrument Control & Electrical	10	Instrument Control and Electrical Technicians are responsible for maintenance, calibration, and testing of critical instrumentation to ensure that equipment meets NERC requirements. The technicians test, repair, and replace computerized logic control systems, recording instruments, indicating instruments, and automatic control instruments. Components consist of electrical, electronic, mechanical, and pneumatic devices located at powerhouses, switchyards, dams, and remote locations that utilize controls or instrumentation.	\$120,749	\$1,207,488
2	Test Technician	3	Test Technicians are responsible for maintenance, calibration, and testing of critical electrical components such as relays, timers and switchgear to ensure that equipment meets NERC requirements. The technicians test, repair, and replace electrical control, switching, metering, or monitoring devices. Components consist of electrical, electronic, or electromechanical devices located at powerhouses, switchyards, dams, and remote locations that utilize electrical equipment.	\$127,699	\$383,098
3	Mechanical Maintenance Technician	10	Mechanical Maintenance Technicians are responsible for maintenance, design and fabrication of critical generation equipment to ensure that equipment meets optimal performance requirements. They test, repair and replace mechanical generation equipment, such as turbines, governors, pumps and water conveyance components.	\$106,272	\$1,062,720
4	Operator	7	Operate generation facilities, performing regular inspections and periodic maintenance of generation equipment, ensuring the facility is operating appropriately and in accordance with regulatory requirements.	\$124,954	\$874,675
5	Total	30			\$3,527,981

Cal Advocates also uncovered several discrepancies between SCE’s testimony, Hydro organization charts, and Table II-14’s requested employees.¹¹⁴⁹ These discrepancies included positions that did not correspond between information in the Organization Charts, Table II-14, and an Excel file; SCE’s information did not confirm the salaries of positions. Furthermore, the Excel file omitted the positions that SCE stated to be the same as those presented in Table II-14. Despite numerous data requests, SCE’s information for full-time Hydro employee positions as of 2022 and 2023 does not correspond to the full-time employee positions it has forecasted for TY2025.¹¹⁵⁰ SCE did not provide sufficient evidence to suggest that the positions it requests in Table II-14, which correspond exactly to its forecasted costs, are filled and met. The lack of corresponding support for its proposed new hires means SCE has not met its burden of

¹¹⁴⁸ Ex. SCE-05, Vol. 01 at 54, FN 82 (“...all recorded/forecasted CEMA costs have been removed from SCE’s GRC application.”).

¹¹⁴⁹ Ex. CA-16 at 16-17.

¹¹⁵⁰ Ex. CA-16 at 23.

proof to demonstrate that the utility must hire new employees to perform necessary work that benefits ratepayers. Thus, Cal Advocates opposes SCE's request for ten FTE "Technician, Instrument Control & Electrical" positions and recommends one such FTE at \$120,749 for this position title. Cal Advocates opposes SCE's request for three FTE "Test Technicians" and recommends only one FTE at \$127,699. Cal Advocates opposes SCE's request for ten FTE "Mechanical Maintenance Technicians" and recommends no additional FTEs in this position title. Cal Advocates opposes SCE's request for seven FTE "Operators" and recommends four FTEs in this position title for \$499,816. Cal Advocates' combined total recommendation Hydro Labor is thus \$748,264 million, a \$2.789 million decrease from SCE's request of \$3.528 million for staffing positions.

C. Hydro Non-Labor

1. Overview

SCE requests \$25.971 million for its TY 2025 Hydro Non-Labor expenses.¹¹⁵¹ Cal Advocates recommends \$20.343 million for the TY 2025 Non-Labor forecast. Cal Advocates' downward adjustment reflects a five-year average forecast method and SCE's failure to substantiate its \$1.895 million request for three activities: dam safety regulations, FERC license compliance and requirements, and training for the 30 proposed new hires discussed above.¹¹⁵²

2. Forecast Methodology - Cal Advocates Recommends a Five-Year Average Forecast Method

SCE's TY 2025 Hydro Non-Labor forecast relies on a three-year average (2018-2020), instead of a five-year average (2018-2022) that would incorporate more recent recorded data.¹¹⁵³ SCE's method for calculating its Hydro Non-Labor forecast is plagued with inconsistency.

¹¹⁵¹ Ex. SCE-05, Vol. 01 at 48.

¹¹⁵² Ex. CA-16 at 24.

¹¹⁵³ Ex. CA-16 at 19.

First, SCE cherry picks which three years to use. SCE claims it excludes 2021 and 2022 non-labor costs due to CEMA events during these two years.¹¹⁵⁴ This rationale falls short because SCE also experienced a CEMA event in 2020.¹¹⁵⁵

In support of its exclusion of the two most recent years of recorded data, SCE stated:

Lower costs observed in 2021 and 2022 were a direct result of the CEMA events and subsequent deferral of normal maintenance activities...If not for the 2021 and 2022 CEMA events, SCE assumes that it would have used the available resources to perform regularly scheduled maintenance activities and recorded costs would more closely match those observed in years 2018-2020.¹¹⁵⁶

When asked to provide documentation of the Hydro resource costs incurred and allocated “to repair infrastructure damaged during these CEMA events” in 2021 and 2022, SCE objected.¹¹⁵⁷ Cal Advocates asked SCE why it included 2020 non-labor costs in its three-year average forecast if 2020 included the Creek Fire CEMA event, given that SCE excluded 2021 and 2022 from its three-year average forecast due to CEMA events.¹¹⁵⁸

SCE was unable to explain the discrepancy in its inclusion of 2020 but exclusion of 2021 and 2022. After all, two CEMA events occurred in 2020, with the Apple Fire during five months of 2020, from July to November 2020. Also, SCE claims it excluded 2021 non-labor costs because of the Apple Fire, which as mentioned, occurred largely in 2020. However, both the 2020 CEMA and the 2022 CEMA events occurred in the third quarter of the respective year.¹¹⁵⁹

Second, while SCE also claims it excludes 2021 and 2022 due to the “deferral of normal maintenance activities,” it includes 2018 and 2019, which also saw the “deferral

¹¹⁵⁴ Ex. CA-16 at 2.

¹¹⁵⁵ Ex. CA-16, at 19.

¹¹⁵⁶ Ex. CA-16 at 20.

¹¹⁵⁷ Ex. CA-16 at 20.

¹¹⁵⁸ Ex. CA-16 at 20.

¹¹⁵⁹ Ex. CA-16 at 21-22.

of planned Hydro maintenance activities.” Although Cal Advocates asked SCE why it included 2018’s non-labor expenses in its three-year average forecast but excluded 2021’s and 2022’s non-labor expenses, SCE did not provide any supporting documentation to explain the inconsistency.¹¹⁶⁰

SCE has not provided evidence to support its use of a three-year average. Cal Advocates recommends a five-year average of the 2018-2022 historical costs. This five-year average for 2018-2022 is \$21.179 million, a downward adjustment of approximately \$4 million from SCE’s - \$25.196 million forecast.

3. Hydro Non-Labor Adjustments

Cal Advocates opposes SCE’s request for \$1.895 million in non-labor adjustments. SCE’s request includes (1) \$0.446 million to address “Dam and Public Safety revised regulations issued by FERC in April 2022,”¹¹⁶¹ (2) \$1.331 million to fund expected increases in existing FERC license compliance activities and new FERC license requirements forecasted for 2023,¹¹⁶² and (3) \$0.117 million to fund required training for the requested 30 additional new hires.¹¹⁶³

SCE explains that the \$0.446 million requested for regulatory requirements for dam owners is predicated upon two FERC-mandated comprehensive assessments per year.¹¹⁶⁴ As of April 15, 2024, SCE had completed one of these mandated assessments and did not provide supporting documentation for both mandated assessments.¹¹⁶⁵ Because only one of two assessments is underway as of 2023, the Commission should not approve more than half of SCE’s request, \$0.223 million.¹¹⁶⁶

¹¹⁶⁰ Ex. CA-16 at 23.

¹¹⁶¹ Ex. SCE-05, Vol. 01 at 56.

¹¹⁶² Ex. SCE-05, Vol. 01 at 56.

¹¹⁶³ Ex. SCE-05, Vol. 01 at 57.

¹¹⁶⁴ Ex. SCE-16 at 25, 33.

¹¹⁶⁵ Ex. CA-16 at 25.

¹¹⁶⁶ Ex. SCE-16 at 33.

SCE's \$1.331 million request for FERC licenses is predicated upon the issuance of FERC License orders.¹¹⁶⁷ Because the six Big Creek FERC licenses have not yet been issued, none of the corresponding components or line items in the "Hydro Non-Labor Operation and Maintenance Forecast Increases" Workpaper have commenced.¹¹⁶⁸ It is not reasonable for ratepayers to fund these costs because the projects cannot proceed until the FERC license issues. Therefore, the Commission should reject this \$1.331 million request. SCE can revisit its request when it can provide supporting documentation of the FERC license issuances and incurred costs of the related line items.¹¹⁶⁹

Cal Advocates opposes the final component of the non-Labor adjustment, \$0.117 million, requested to fund training activities for the 30 proposed new hires discussed in the Hydro Labor expenses section.¹¹⁷⁰ In light of Cal Advocates' recommendation to approve costs for only six employees per year, approximately half of SCE's request, only half of SCE's request, \$0.059 million, should be authorized.¹¹⁷¹

For the total TY 2025 Non-Labor Forecast, Cal Advocates' recommendation relies on the 2018-2022 five-year recorded average of \$21.179 million reduced by an additional \$0.148 million reduction to "exclude costs related to storm activities" and by an additional \$0.970 million to "account for operational efficiencies."¹¹⁷² Thus, Cal Advocates recommends \$20.343 million for the TY 2025 Non-Labor forecast, \$5.628 million less than SCE's proposed forecast.¹¹⁷³

¹¹⁶⁷ Ex. CA-16 at 32; Ex. SCE-16 at 34.

¹¹⁶⁸ Ex. CA-16 at 26.

¹¹⁶⁹ Ex. CA-16 at 32.

¹¹⁷⁰ Ex. CA-16 at 32-33.

¹¹⁷¹ Ex. CA-16 at 33.

¹¹⁷² Ex. CA-16 at 33.

¹¹⁷³ Ex. CA-16 at 33.

4. Hydro Generation Capital Expenditures

SCE forecasts \$104.331 million for 2023, \$79.536 million for 2024, and \$67.193 million for TY 2025 Hydro Generation Operations capital expenditures.¹¹⁷⁴ SCE requests \$73.120 million for 2026, \$77.279 million for 2027, and \$67.363 million for 2028 Hydro Capital expenditures.¹¹⁷⁵

SCE's Hydro Generation Capital Expenditures include the following categories: (1) Licensing and Implementation, (2) Decommissioning, (3) Dams and Waterways, (4) Prime Movers, (5) Electrical Equipment, (6) Structures and Grounds, and (7) Climate Adaptation Vulnerability Assessment ("CAVA").¹¹⁷⁶ Cal Advocates proposes modifications in the Dams and Waterways, Prime Movers, Licensing and Implementation, and Decommissioning.¹¹⁷⁷ Cal Advocates recommends \$32.072 million for 2023, \$38.684 million 2024, and \$73.646 million for 2025.¹¹⁷⁸

a) Dams and Waterways

SCE requests \$81.971 million request for 2023-2028 Dams and Waterways capital expenses, for Structure Improvements, Gates and Valve Replacements, and Miscellaneous.¹¹⁷⁹ Cal Advocates does not oppose SCE's request, but recommends a deferral of certain costs to more accurately reflect overall project readiness.¹¹⁸⁰ The following Table 23-1 ("Dams and Waterways 2023-2028 Forecast Capital Cost") compares SCE's 2023-2028 request with Cal Advocates' recommendation for 2023-2028.

¹¹⁷⁴ Ex. CA-16 at 27.

¹¹⁷⁵ Ex. CA-16 at 27.

¹¹⁷⁶ Ex. CA-16 at 33.

¹¹⁷⁷ Ex. CA-16 at 27.

¹¹⁷⁸ Ex. CA-16 at 34.

¹¹⁷⁹ Ex. CA-16 at 28-29.

¹¹⁸⁰ Ex. CA-16 at 31.

Table 23-1
Dams and Waterways 2023-2028 Forecast Capital Cost
(in Thousands of Nominal Dollars)

		Dams and Waterways Programs (SCE Proposed)							Dams and Waterways Programs (Cal Advocates' Recommended)						
		Capital Forecast 2023-2028 (Nominal \$000)							Capital Forecast 2023-2028 (Nominal \$000)						
Line No	Project Category	2023	2024	2025	2026	2027	2028	Totals	2023	2024	2025	2026	2027	2028	Totals
1	Structure Improvements	16,200	7,550	3,650	5,146	8,463		41,009	1,057	1,000	7,812	6,091	16,758	8,295	41,014
2	Gates and Valve Replacements	16,089	6,890	2,771	983	136	362	27,231	2,556	280	8,640	5,742	4,895	5,121	27,235
3	Misc	1,933		1,154	10,643			13,730	967	967	-	3,931	3,931	3,931	13,727
	Totals	34,222	14,440	7,575	16,772	8,599	362	81,970	4,580	2,247	16,452	15,765	25,584	17,347	81,975

Source: SCE 2023-2028 data from Ex. SCE-05, Vol. 01 at 144.

Out of the 19 projects in Structure Improvements, SCE acknowledges the following six projects, which were expected to commence in 2024, will experience a one-year delay : (1) Vermillion Service Spillway Improvement, (2) Big Creek 2 – Dam 4 Resurface Downstream Face, (3) Vermillion Auxillary Spillway Improvement, (4) Bishop – Intake 2 Spillway Repair/Modification, (5) Lake – Spillway Refurbishment (FERC Findings), (6) Sabrina Service Spillway Retrofit (Seismic/Flood loading).¹¹⁸¹ SCE explains that 2023’s “multiple atmospheric rivers, the greatest snowpack/snowmelt in recorded history and a hurricane event” in southern California impeded planned construction projects at high elevations and delayed field investigations which, in turn, delayed state and federal approvals and permits for “approximately one year.”¹¹⁸² Although SCE claims that it will complete the projects in 2024, it has not provided specific schedules or issued Requests for Proposals (RFP) for these projects.¹¹⁸³ Moreover, SCE explains that its “typical practice” is to issue RFPs “approximately 6 months to 1 year prior to project commencement.”¹¹⁸⁴ By failing to provide any specific documentation on RFPs or schedules, SCE has not demonstrated that it can complete these projects in 2024. Therefore, Cal Advocates recommends that the costs for these projects be deferred until 2025.¹¹⁸⁵

¹¹⁸¹ Ex. CA-16 at 30.

¹¹⁸² Ex. CA-16 at 30.

¹¹⁸³ Ex. CA-16 at 30.

¹¹⁸⁴ Ex. CA-16 at 31.

¹¹⁸⁵ Ex. CA-16 at 31.

SCE provided updated tables showing that the projects were shifted by one year with the same CODs of 12/01/9999. Because weather events have already delayed the construction period for these projects, it is reasonable to conclude that future, unpredictable weather events may further delay both the start and completion dates of the projects.

SCE has not demonstrated that it will complete these projects within the timeframes specified. Furthermore, SCE did not provide specific Commercial Operating Dates (CODs) for these projects, which suggests that CODs may be delayed further. Cal Advocates recommends “normalizing” the major construction costs for each of these projects due to the probability of future delays and uncertainty regarding the CODs.

Out of the 18 projects in Gates and Valve Replacements, SCE acknowledges that the following five projects that had been expected to commence in 2024, will experience a one year delay: (1) Huntington Lake - Dam Huntington Lake - Dam 1 Low Level, (2) Florence Lake - Minimum Instream Flow Infrastructure and Low-Level Outlet Valves (Phase 2), (3) Florence Lake - Spillway Gate Recoating Replacement Project, (4) Big Creek 2A - Shaver Low Level Outlet Valve Barrier Installations, (5) Big Creek 2A – Shaver Low Level Outlet Valve Barrier Installations.¹¹⁸⁶ As with the delayed Structure Improvement projects, SCE did not provide specific schedules, RFPs, and specific CODs for the delayed Gates and Valve Replacement projects.¹¹⁸⁷ It is not reasonable to burden ratepayers with large costs for proposed projects that lack certainty or documented assurance of commencement. Cal Advocates therefore recommends that costs for these projects be deferred until 2025 and construction costs normalized over the attrition years.¹¹⁸⁸

Out of the nine projects in Miscellaneous Dams and Waterways, all but one project are forecasted to commence more than two years in the future: (1) Big Creek 8 Unit 1

¹¹⁸⁶ Ex. CA-16 at 32.

¹¹⁸⁷ Ex. CA-16 at 32.

¹¹⁸⁸ Ex. CA-16 at 33.

Piping System, (2) Vermillion Red Ditch Seepage Mitigation, (3) Big Creek 4 Dam 7 Supervisory Controls Upgrade, (4) Florence Lake Ward Tunnel Power and Control Upgrade, (5) Eastwood Draft Tube Gate HPU, Induction and Locking Mechanism, (6) Big Creek Dam 7 Shaver & Vermillion Piezometer Telemetry, (7) Big Creek 8 Surge Chamber Internal Recoat, (8) Mono Flowline Flowmeter Installation.¹¹⁸⁹ Though requested, SCE did not provide any schedules, expected completion dates, RFPs, permits or contracts for any of the nine projects.¹¹⁹⁰ Thus, Cal Advocates recommends that the costs for these eight projects be normalized over the 2026-2028 attrition period. Cal Advocates also recommends that the \$1.933 million cost of the Big Creek 1 Flowline Communication Upgrade project be normalized over the 2023-2024 period to account for portions of the project placed in service.¹¹⁹¹

b) Prime Movers

SCE requests \$73.560 million for 2023-2028, distributed among (1) Generator Coils and Rewinds, (2) Miscellaneous, and (3) Excitation, Governor, and Control Systems.¹¹⁹² Cal Advocates recommends \$63.550 million for Prime Movers for 2023-2028, a \$10.011 million decrease from SCE's request. Cal Advocates does not oppose SCE's requests in (2) Miscellaneous and (3) Excitation, Governor, and Control Systems. However, the Commission should modify SCE's capital forecasts in Generator Coils and Rewinds in the absence of specific schedules and lack of justification.¹¹⁹³

First, SCE states that it relies on condition assessments, not a "strict" schedule, to arrange for generator rewinds; SCE's provision of condition assessments do not reliably predict what projects will be completed in the future, because as SCE acknowledges, "specific generators requiring rewinds may vary from the forecast presented in

¹¹⁸⁹ Ex. CA-16 at 33.

¹¹⁹⁰ Ex. CA-16 at 33.

¹¹⁹¹ Ex. CA-16 at 34.

¹¹⁹² Ex. SCE-05, Vol. 01 at 169, and Table II-31 at 170.

¹¹⁹³ Ex. CA-16 at 35.

testimony.”¹¹⁹⁴ Second, SCE cannot specify which generators will require rewinds but forecasts “one to two generator rewinds a year” based on a historical “average” of one to two generator rewinds per year.¹¹⁹⁵ However, sole reliance on historical records for generator rewinds provides an inadequate basis for forecasting such costs especially since SCE has previously explained that “previous work schedules have little bearing on the performance of future work.”¹¹⁹⁶ In response to Cal Advocates’ request for historically comparable projects and supporting cost documentation, SCE provided documented costs for only one historically comparable project, which cost \$4.956 million.¹¹⁹⁷ Thus, Cal Advocates recommends that the cost of each of SCE’s seven proposed Generator Coils and Rewinds projects be decreased to \$4.956 million.¹¹⁹⁸

In response to Cal Advocates’ request for RFPs, SCE was asked but did not provide RFP information for the Big Creek 2A – Unit 1 Generator Winding, Big Creek 1 – Unit 2 Generator Winding, and Big Creek 8 Unit 2 Generator Winding projects, Cal Advocates recommends that the start date for each of these projects be shifted to 2025.¹¹⁹⁹ Furthermore, SCE forecasts that the following projects will occur more than two years into the future: (1) Big Creek 1 – Unit 2 Generator Winding, (2) Big Creek 3 – Unit 4 Generator Roto Electrical, (3) Big Creek 2 Unit 3 Generator Winding, (4) Big Creek 2 Unit 4 Generator Winding, still in the “conceptual engineering design phase.”¹²⁰⁰ Given these projects are still in the early stages, there is insufficient information to demonstrate that they will be completed in a single year. Accordingly, it would be more reasonable to normalize their costs over the attrition years.¹²⁰¹

¹¹⁹⁴ Ex. CA-16 at 36, FN 110.

¹¹⁹⁵ Ex. CA-16 at 36.

¹¹⁹⁶ Ex. CA-16 at 37, FN 111.

¹¹⁹⁷ Ex. CA-16 at 37.

¹¹⁹⁸ Ex. CA-16 at 37.

¹¹⁹⁹ Ex. CA-16 at 37.

¹²⁰⁰ Ex. CA-16 at 38.

¹²⁰¹ Ex. CA-16 at 38.

Lastly, Cal Advocates recommends shifting the Mammoth Pool Unit 2 Stator Cooling Upgrade project to 2024-2025, instead of as proposed (2023-2024), because SCE states that this project is still in the RFP process.¹²⁰² As discussed earlier, SCE’s practice is to issue RFPs approximately six months to one year prior to project commencement.

c) Licensing and Implementation

SCE forecasts \$138.429 million for 2023-2028 in the following six categories:

(1) Big Creek Rehabilitation and New Facility Construction, (2) Infrastructure Modifications, (3) Relicensing Proceedings, (4) License Implementation, (5) Decommissioning (Small Hydro Assets), and (6) Road/Bridge Rehabilitation.¹²⁰³ Cal Advocates recommends \$114.270 million in total for 2023-2028 for Licensing and Implementation/Relicensing, which breaks down to \$11.837 million for 2023, \$16.926 million for 2024, \$19.012 million for 2025, \$17.732 million for 2026, \$22.488 million for 2027, and \$26.275 million for 2028.¹²⁰⁴ Cal Advocates’ recommendations for Licensing and Implementation consist of reductions in Big Creek Rehabilitation and New Facility Construction and in Infrastructure Modifications. Cal Advocates does not oppose the requested amounts for the other four categories.

(1) Big Creek Rehabilitation and New Facility Construction

Within Big Creek Rehabilitation and New Facility Construction, SCE requests \$17.050 million for 2023-2028 for the project “Vermillion Boat Launch and Campground Refurbishments”.¹²⁰⁵ SCE requests this project start in 2024.¹²⁰⁶ Cal Advocates recommends that this project’s costs be shifted to 2026 because SCE acknowledges that the RFP and contract issuance will not occur until 2026, and that the project is still in the

¹²⁰² Ex. CA-16 at 38.

¹²⁰³ Ex. CA-16 at 38.

¹²⁰⁴ Ex. CA-16 at 38.

¹²⁰⁵ Ex. SCE-05, Vol. 01 at 73.

¹²⁰⁶ Ex. SCE-05, Vol. 01 at 73.

“conceptual design phase.”¹²⁰⁷ SCE acknowledges that an RFP is typically issued six months to one year prior to project commencement.¹²⁰⁸ Additionally, SCE states a project in the “conceptual design phase” refers to a project that is forecast to occur more than two years in the future.¹²⁰⁹ Moreover, “FERC licenses have not yet been issued and formal consultation” with the U.S. Forest Service “has not started.”¹²¹⁰ SCE states that the permitting process will not begin until after the FERC license is issued, and the design process has advanced.¹²¹¹

Cal Advocates does not recommend normalizing this project’s costs given the large and unreliable cost of \$17 million.¹²¹² Given that the RFP will not occur until at least 2026, and FERC and USFS approvals have not been obtained, the Commission should also instruct SCE to return with its request when it can document the necessary RFPs and permits.¹²¹³

SCE acknowledges the following Big Creek Rehabilitation and New Facility Construction projects, due to start in 2024, will experience a one-year delays due to weather events in 2023: (1) Mammoth Pool Recreation Complex, (2) Mono Campground and Day Use Area, (3) Florence Lake – Recreation Complex Rehabilitation, and (4) Huntington Lake – Dam 3 Day Use Area.¹²¹⁴ In addition to one-year delays, three of these projects have not reached the RFP stage and warrant a deferral of Commission consideration until SCE can provide supporting documentation of RFPs and permits.¹²¹⁵ Except for one project, SCE did not provide a list of permits. And, as Cal Advocates has

¹²⁰⁷ Ex. CA-16 at 40.

¹²⁰⁸ Ex. CA-16 at 41.

¹²⁰⁹ Ex. CA-16 at 40.

¹²¹⁰ Ex. CA-16 at 47.

¹²¹¹ Ex. CA-16 at 43.

¹²¹² Ex. CA-16 at 41.

¹²¹³ Ex. CA-16 at 41.

¹²¹⁴ Ex. CA-16 at 41-43.

¹²¹⁵ Ex. CA-16 at 41-43.

already noted, SCE acknowledges that an RFP is typically issued six months to one year prior to project commencement.¹²¹⁶

Cal Advocates recommends delaying some of these projects further based on SCE's discovery responses. For the Mammoth Pool Recreation Complex project, for which SCE requests \$12.437 million from 2023-2028, Cal Advocates recommends moving the start date of this project to 2025 instead of 2024 because the project is in the "preliminary design phase," and has not undergone RFP issuance.¹²¹⁷ According to SCE, the RFP will not issue until "after consultation with the USFS, which is planned to occur at the end of the final engineering design phase in 2024."¹²¹⁸ Advocates does not recommend that these costs be normalized because these projects will still occur over a two year span and will not differ from the current schedule. Similarly, for the Mono Campground and Day Use Area project, for which SCE requests \$ 8.372 million for 2023-2028, Cal Advocates recommends that costs be shifted to begin in 2026. The project is in the conceptual design phase and the RFP and contract issuance cannot occur until after consultation with the USFS, which is planned for the preliminary design phase in 2026.¹²¹⁹ Cal Advocates does not recommend that these costs be normalized because these projects will still occur over a two year span and will not differ from the current schedule.

SCE requests \$6.300 million for the Huntington Lake – Dam 3 Day Use Area project for 2025-2028. This project is in the conceptual design phase and there is no RFP and contract.¹²²⁰ SCE states that "early consultation with the USFS" is planned for early 2024.¹²²¹ However, SCE does not provide sufficient evidence to support its position that

¹²¹⁶ Ex. CA-16 at 43-47.

¹²¹⁷ Ex. CA-16 at 43-47.

¹²¹⁸ Ex. CA-16 at 41-44.

¹²¹⁹ Ex. CA-16 at 42, FN 127.

¹²²⁰ Ex. CA-16 at 43, FN 132.

¹²²¹ Ex. CA-16 at 43, FN 133.

the project will be completed with only a one-year delay.¹²²² SCE has stated that RFP and contract issuance can only occur after the final engineering phase.¹²²³ That means this project will not likely reach RFP and contract issuance before 2025. Consequently, the Commission should not approve the larger costs of this project until after the RFP issues and USFS approval and required permits are obtained.¹²²⁴ The Commission should not normalize these costs because it is unreasonable to burden ratepayers with these sizeable and uncertain costs.

(2) Infrastructure Modifications

SCE requests \$ 8.011 million for 2023-2028 for the Big Creek 3 – Dam 6 Forebay Instream Flow Release project.¹²²⁵ Cal Advocates recommends shifting this project's costs to 2025 because SCE acknowledges no required contracts or RFPs have been issued.¹²²⁶ Deferring this project's cost aligns with Cal Advocates' previous recommendations to shift costs until after the RFP has been issued.¹²²⁷ Given past weather-related delays , it is reasonable to expect that weather events may again delay the project.¹²²⁸ It is not reasonable to burden ratepayers with the uncertainty of this project's costs. Therefore, Cal Advocates recommends that the large construction costs be normalized over the 2026-2028 attrition period.¹²²⁹

SCE requests \$5.439 million for its 2023-2028 forecast for the Mammoth Pool – Minimum Instream Flow Release project. Cal Advocates recommends that this project's costs be shifted to the 2025-2028 period because it is connected to the Mammoth Pool Recreation Complex project, discussed above. Because its connected project's costs

¹²²² Ex. CA-16 at 43.

¹²²³ Ex. CA-16 at 43.

¹²²⁴ Ex. CA-16 at 44.

¹²²⁵ Ex. CA-16 at 44.

¹²²⁶ Ex. CA-16 at 45, FN 136.

¹²²⁷ Ex. CA-16 at 45.

¹²²⁸ Ex. CA-16 at 45.

¹²²⁹ Ex. CA-16 at 45.

should be moved to 2025, the Mammoth Pool Minimum Instream Flow Release project costs should also be shifted to 2025.¹²³⁰

SCE requests \$ 3.379 million for 2023-2028 for the Big Creek – Dam 5 Forebay Instream Flow Release.¹²³¹ SCE forecasts that construction would occur more than two years into the future and acknowledges that the project is still in the conceptual design engineering phase.¹²³² Thus, Cal Advocates recommends that the project costs be shifted to 2026, consistent with its previous recommendations for projects still in the conceptual design phase and that are unlikely to incur costs by 2025.¹²³³

SCE requests \$ 6.113 million for 2023-2028 for the Big Creek 2 – Dam 4 LLOV Replacement and MIF Infrastructure Install project. SCE explains that the construction RFP has been issued and it is reviewing contractor proposals with an expected completion date in January 2024.¹²³⁴ However, SCE’s construction schedule indicates that Construction Phase 2 is expected to end in October 2025, and that construction costs will be incurred over the 2024-2025 period. SCE also forecasts that “FERC/DSOD approvals” are expected in August 2024.¹²³⁵ Cal Advocates recommends that this project be adopted, with SCE’s recommendation that the project be delayed by one year, and normalized from 2024-2025.¹²³⁶

d) Decommissioning

SCE requests \$111.100 million for 2023-2028 for Hydro Decommissioning projects, which includes the Borel Hydro Project, the San Geronio Hydro Project, and Rush Creek (Agnew and Rush Meadow Dams).¹²³⁷ While Cal Advocates does not

¹²³⁰ Ex. CA-16 at 46.

¹²³¹ Ex. CA-16 at 45.

¹²³² Ex. SCE-05, Vol. 01 at 79.

¹²³³ Ex. CA-16 at 47.

¹²³⁴ Ex. CA-16 at 45.

¹²³⁵ Ex. CA-16 at 46.

¹²³⁶ Ex. CA-16 at 44.

¹²³⁷ Ex. CA-16 at 47.

oppose SCE's total request, it opposes the timing of when the costs will be incurred.¹²³⁸ Specifically, the San Geronio Hydro Decommissioning Project should be delayed until 2025 with costs normalized from 2025-2028.¹²³⁹

SCE states that the project has been delayed by one year due to weather-related reasons.¹²⁴⁰ SCE did not confirm that the project costs would follow an updated schedule with a one-year delay and did not provide a schedule with listed costs,¹²⁴¹ so Cal Advocates is unable to confirm that SCE's proposed costs for the project will follow exactly a one-year delay with all else unchanged. Therefore, normalizing the costs is more reasonable than simply shifting costs of the project. Furthermore, SCE did not provide requested documentation for FERC approval, USFS permits or consultations with local entities.¹²⁴² Because SCE has not provided sufficient documentation to demonstrate that these costs will shift by exactly one year, SCE has not shown that even a one-year delay is reasonable. It is reasonable to expect that this project's timing and actual expenditures can change.¹²⁴³ Therefore, these costs should be normalized and shifted until 2025 to allow SCE more time to obtain the required contracts and permits.¹²⁴⁴

Based on the recommendation to delay the costs for the San Geronio Hydro Decommissioning Project to 2025, Cal Advocates recommends \$0.850 million for 2023, \$0 for 2024, \$10.300 million for 2025, \$30.550 million for 2026, \$38.050 million for 2027, and \$31.350 million for 2028 for total Hydro Decommissioning projects.¹²⁴⁵

¹²³⁸ Ex. CA-16 at 47.

¹²³⁹ Ex. CA-16 at 48.

¹²⁴⁰ Ex. CA-16 at 48, FN 142.

¹²⁴¹ Ex. CA-16 at 49.

¹²⁴² Ex. CA-16 at 49, FN 149.

¹²⁴³ Ex. CA-16 at 49.

¹²⁴⁴ Ex. CA-16 at 49.

¹²⁴⁵ Ex. CA-16 at 47.

D. Fossil Fuel (including Mountainview and Peakers)

SCE requests \$29.703 million for its TY 2025 O&M expenses¹²⁴⁶ for Mountainview, and \$8.626 million for its TY 2025 O&M expenses for Peakers. SCE requests \$39.615 million for its 2023-2025 capital expenditures for Mountainview, and \$2.674 million for its 2023-2025 capital expenditures for Peakers. Cal Advocates does not oppose SCE's Fossil Fuel (Mountainview and Peakers) requests.

E. Fuel Cell

SCE does not forecast O&M expenses for Fuel Cell but does forecast \$1.511 million for its 2023-2025 capital expenditures for Fuel Cell. Cal Advocates does not oppose SCE's request Fuel Cell requests.

F. Solar

SCE requests \$44.863 million for its 2023-2025 capital expenditures to decommission the SPVP. SCE forecasts \$4.347 million for its total SPVP TY 2025 O&M expense. Cal Advocates does not oppose these requests.

G. Catalina

SCE requests \$5.781 million for its TY 2025 O&M expenses and \$4.077 million for its 2023-2025 capital expenditures, for Catalina. Cal Advocates does not oppose SCE's Catalina requests.

H. Nuclear

SCE requests \$83.104 million for total Nuclear O&M expenses for TY 2025. SCE requests \$37.486 million for 2023, \$40.764 million for 2024, and \$42.976 million for 2025. SCE does not oppose SCE's requests for nuclear O&M expenses for TY 2025 and Capital Expenditures for 2023-2025.

¹²⁴⁶ Ex. CA-16 at 34.

XXV. ENERGY PROCUREMENT

The Energy Procurement and Management (EPM) organization procures and schedules electricity to supplement SCE's utility-owned resources.¹²⁴⁷ O&M energy procurement expenses involve Portfolio Planning and Analysis, Contract Origination, Energy Contract Management, Trading and Market Operations, and Compliance and Governance Services.¹²⁴⁸ Capital expenditures for EPM include communications equipment and required configurations, emergency communication equipment to support CAISO Schedule Coordinator functions, CAISO market initiatives, and the SCE generation portfolio.

A. Energy Procurement O&M

SCE forecasts \$29.711 million for its TY 2025 Energy Procurement O&M expenses. Cal Advocates recommends that the Commission authorize \$26.763 million for SCE's Energy Procurement O&M expenses, which reduces SCE's forecast by \$2.949 million.¹²⁴⁹

Cal Advocates does not oppose SCE's Non-Labor forecast associated with EPM O&M expenses. However, Cal Advocates recommends \$25.331 million for Labor O&M expenses.¹²⁵⁰

SCE's proposed Labor forecast of \$28.279 million for TY2025 includes \$3.714 million to address a staffing shortfall, and \$1.492 million to reflect employee compensation program changes.¹²⁵¹ SCE uses its 2022 recorded figure, \$23.547 million,

¹²⁴⁷ Southern California Edison, 2025 General Rate Case, Energy Procurement, Ex. SCE-05, Vol. 02 at 8.

¹²⁴⁸ Public Advocates Office California Public Utilities Commission, Report on the Results of Operations for Southern California Edison Company General Rate Case Test Year 2025, Energy Procurement & Generation, Ex. CA-16 at 2.

¹²⁴⁹ Ex. CA-16 at 8.

¹²⁵⁰ Ex. CA-16 at 8.

¹²⁵¹ Ex. SCE-05, Vol. 02 at 10-11. The 2025 Test Year labor forecast of \$28.279 million also reflects \$0.473 million reduction for operational efficiencies related to improved prioritization of work activities and optimization of scheduling and staffing functions (Ex. CA-16 at 9).

as the basis for its proposed 2025 Test Year Labor forecast.¹²⁵² In contrast, Cal Advocates' recommendation relies on SCE's 2022 recorded total Labor and Non-Labor expenses of \$24.444 million, SCE's 2018-2022 recorded average expenses of \$27.201 million (total combined Labor and Non-Labor), SCE's 2018-2022 recorded average of \$25.366 million for Labor, the 2021 Authorized Amount of \$26.760 million,¹²⁵³ and conflicting ongoing evidence within SCE's organizational charts as the basis for its recommendation.¹²⁵⁴

SCE methodology is problematic for several reasons. First, SCE's request substantially exceeds historical, recorded labor costs of the past five years.¹²⁵⁵ SCE's 2018-2022 recorded average for Labor is \$25.366 million, approximately \$3 million lower than its TY 2025 Labor forecast.¹²⁵⁶

Second, the higher 2020 and 2021 recorded Labor costs do not constitute reliable historical support for the higher forecast that SCE requests because, as SCE acknowledges, the recorded Labor increase in those two years resulted from "a lower-than-expected paid absence rate (i.e., paid vacation, funded from SCE's general corporate account), and a labor mischarge to a balancing account that was reversed and correctly charged to O&M to prevent double recovery."¹²⁵⁷ The Commission should treat the 2020-2021 Labor increase as a one-time non-recurring event. Thus, Cal Advocates' method using the recorded 2018-2022 historical record for Labor provides a more reasonable forecast.¹²⁵⁸

¹²⁵² EPM O&M work activities are 1) Contract Origination, 2) Energy Contract Management, 3) Portfolio Planning, 4) Trading and Market Operations, and 5) Compliance and Governance Services.

¹²⁵³ Ex. SCE-05, Vol. 02 at 6.

¹²⁵⁴ Ex. CA-16 at 7.

¹²⁵⁵ Ex. CA-16 at 8.

¹²⁵⁶ Ex. CA-16 at 8.

¹²⁵⁷ Ex. SCE-05, Vol. 02 at 10, lines 1-3.

¹²⁵⁸ Ex. CA-16 at 9.

Third, SCE does not offer adequate information to demonstrate any problems caused by the “staffing shortfalls” that drive its request to fund a net 21 employees.¹²⁵⁹ SCE states that EPM proposes to hire 21 staff members over the next three years (i.e., increasing headcount by seven employees each year),¹²⁶⁰ and provided its Table II-1¹²⁶¹ that shows the number of employees to be hired per position title as well as corresponding salaries for TY 2025. A review of Table II-1, SCE’s EPM Organization Charts,¹²⁶² the historical 2018-2022 EPM O&M record, and the TY2021 Authorized amount of \$26.760 million suggests that SCE’s \$3.714 million request for the additional 21 employees for 2023-TY 2025 cannot be substantiated. In fact, the information provided in SCE’s EPM Organization Charts and Table II-1 conflict and do not demonstrate that SCE will add seven employees per year from 2023-TY2025 to total 21 employees.¹²⁶³

SCE states, “As of November 14, 2023, SCE’s EPM Department has increased its overall employee headcount by 6, as compared to 2022 year-end (164 vs. 158). In addition, the EPM Department currently has 7 open position requisitions that it is seeking to fill.”¹²⁶⁴ The Organization Charts do not confirm this. Moreover, SCE’s organizational charts provide more specifics on position titles than Table II-1 and adds additional titles such as “Spec.,” “Sr.,” “MFE” and others. To include these additional titles would inaccurately skew the forecast much higher than it should be by increasing the number of hired employees beyond SCE’s reported intent to hire only six employees. Thus, the Commission should only consider positions with no added titles (“Spec.,” “MFE,” “Sr.,” etc.).

¹²⁵⁹ Ex. SCE-05, Vol. 02 at 10, FN 7.

¹²⁶⁰ Ex. SCE-05, Vol. 02 at 10.

¹²⁶¹ Ex. SCE-05, Vol. 02 at 12.

¹²⁶² Ex. CA-16 at 10.

¹²⁶³ Ex. CA-16 at 10.

¹²⁶⁴ Ex. CA-16 at 10.

Based on corresponding information in the Organization Charts and Table II-1, the Commission should approve only those costs associated with the addition of two FTE “Energy Marketing & Trading Financial Analysts” and three FTE “Productive Analytic Data Scientists.”¹²⁶⁵ This combination yields \$764,944, instead of SCE’s \$3.713 million request for staff additions. Thus, the Commission should forecast an EPM Labor total of \$25.331 million (2022 recorded \$23.547 million increased by \$764,944 and \$1.492 million for the previously mentioned compensation program, less \$0.473 million for operational efficiencies). The total combined Labor and Non-Labor EPM O&M expenses should be \$26.763 million, and is more aligned with the EPM Recorded 2018-2022 Historical Record, 2018-2022 recorded average expenses of \$27.201 million (total combined Labor and Non-Labor), SCE’s 2018-2022 recorded average of \$25.366 million for Labor, the 2021 Authorized Amount of \$26.760 million.¹²⁶⁶

B. Energy Procurement Capital

SCE forecasts the following Energy Procurement capital expenditures: \$2.169 million for 2023, \$0.986 million for 2024, and \$1.011 million for 2025. Cal Advocates does not oppose SCE’s Energy Procurement capital expenditures for 2023, 2024, and 2025.¹²⁶⁷

XXVI. ENTERPRISE TECHNOLOGY

A. Technology Planning, Design, and Support

Enterprise Technology Capital Expenditures comprises (1) Operating/Organizational Unit (OU) Capitalized Software (Technology Solutions) - Capital, and (2) Enterprise Technology – Capital.¹²⁶⁸ For Enterprise Technology – Capital, Cal Advocates had recommended \$395.412 million for 2023-2025 capital

¹²⁶⁵ Ex. CA-16 at 11.

¹²⁶⁶ Ex. SCE-05, Vol. 02 at 6.

¹²⁶⁷ Given that the 2023 recorded capital expenditures in EPM which, in its rebuttal testimony, SCE has proposed as its 2023 capital forecast, is very close to Cal Advocates overall 2023 capital forecast, Cal Advocates would agree to the 2023 recorded capital expenditures.

¹²⁶⁸ Ex. CA-17, Enterprise Technology and Enterprise Planning & Governance, at 3-4, 28-29.

expenditures, consisting of \$116.177 million for 2023, \$127.972 million for 2024 forecast, and \$151.263 million for 2025. For OU Capitalized Software (Technology Solutions) - Capital, Cal Advocates had recommended \$341.466 million for 2023-2025 capital expenditures, consisting of \$112.721 million for 2023, \$117.883 million for 2024, and \$110.862 million for 2025.¹²⁶⁹

Enterprise Technology Capital Expenditures have been addressed in Exhibit SCE-32, Stipulation of Cal Advocates and SCE on Capital Forecast for Enterprise Technology and OU Capitalized Software (Technology Solutions).

B. Technology Delivery.

Cal Advocates offers no position on this issue.

C. Digital and Process Transformation.

Cal Advocates offers no position on this issue.

D. Service Management Office and Operations.

Table 17-4 shows SCE's recorded 2018-2022 Enterprise Technology Operations and Maintenance (O&M) expenses, SCE's Test Year (TY) 2025 request, and Cal Advocates' TY recommendation.¹²⁷⁰

¹²⁶⁹ Ex. CA-17 at 3-4, 28-29; Exhibit SCE-32, Stipulation of Cal Advocates and SCE on Capital Forecast for Enterprise Technology and OU Capitalized Software (Technology Solutions).

¹²⁷⁰ Ex. CA-17 at 7.

Table 17-4
Summary Enterprise Technology O&M
Recorded Expenses from 2018 – 2022 and TY 2025 Expenses
(in Constant \$000's)

	2018	2019	Record 2020	2021	2022	SCE 2025	Cal Advocates 2025
Tech. Plan	11,994	6,739	5,936	5,459	5,543	7,267	7,267
Tech. Deliv.	12,880	11,772	9,823	7,530	8,265	10,096	8,497
Digi Pro	908	5,688	5,405	5,191	4,298	11,408	4,298
Fixed Price	78,378	75,564	81,845	78,753	73,291	73,855	73,855
Soft Maint.	82,506	80,179	82,119	88,199	101,600	160,997	108,590
Tech. Infra.	30,610	25,815	24,816	21,559	21,754	24,605	24,605
Total	217,276	205,757	209,944	206,691	214,951	288,228	227,112

Source: Ex. SCE-06, Vol. 01, pp. 16, 19, 35, 44, 47, 71E and 81.

1. Technology Planning, Design, and Support

For Technology Planning, Design, and Support, SCE proposed \$7.267 million for its TY 2025 forecast. Cal Advocates does not oppose this forecast.¹²⁷¹

2. Technology Delivery Expense

SCE proposed \$10.096 million for its 2025 Test Year forecast for Technology Delivery expenses. Cal Advocates does not oppose the labor position of the forecast, but opposes the non-labor position. Cal Advocates' resulting recommended TY 2025 forecast is \$8.497 million, a \$1.599 million difference.¹²⁷²

Table 17-6 shows SCE's 2018-2022 recorded Technology Delivery expenses, SCE's TY 2025 request, and Cal Advocates' recommendation.¹²⁷³

¹²⁷¹ Ex. CA-17 at 7.

¹²⁷² Ex. CA-17 at 8-9.

¹²⁷³ Ex. CA-17 at 8-9.

Table 17-6
Technology Delivery
Recorded Expenses from 2018 – 2022 and TY 2025 Expenses
(in Constant \$000's)

	2018	2019	Record 2020	2021	2022	SCE 2025	Cal Advocates 2025
Labor	3,524	5,958	6,070	5,439	6,218	6,450	6,450
Non-Labor	9,356	5,814	3,752	2,091	2,047	3,646	2,047
Total	12,880	11,772	9,823	7,530	8,265	10,096	8,497

Source: Ex. SCE-06, Vol. 01, p. 19.

SCE’s TY 2025 forecast of \$3.646 million for the non-labor portion of Technology Delivery expenses is purportedly based on identifying individual projects and the projects’ respective costs (i.e., itemization) for each year from 2026 through 2028. SCE then increased the forecast by 3% (each year) for the years 2026 through 2028. The forecasts for each year are combined and divided by six to make the forecast “normalized.”¹²⁷⁴

Cal Advocates recommends using the last recorded year’s expenses of \$2.047 million for the TY 2025 forecast because there is a downward trend in non-labor expenses. This downward trend would support the use of the last recorded year’s expenses, consistent with Commission guidance. In D.04-07-022, the Commission stated that if recorded expenses in an account have shown a trend in a certain direction over three or more years, the most recent recorded year in the trend is an appropriate base estimate for the test year.¹²⁷⁵

Cal Advocates opposes SCE’s forecast for two reasons. First, SCE provides no evidence that SCE’s itemized approach is a better predictor of actual expenses as opposed to an approach using a trending estimate. Second, SCE’s previous methodology resulted in significant overcollection.¹²⁷⁶

¹²⁷⁴ Ex. SCE-06, Vol. 01, workpapers, at 20.

¹²⁷⁵ D.04-07-022, Opinion on Base Rate Revenue Requirement and Other Phase 1 Issues, at 15-16 (citing D.89-12-057, 34 CPUC 2d 199, 231).

¹²⁷⁶ Ex. CA-17 at 8-9.

In Exhibit SCE-06, Volume 01, at 21, SCE states that its 2021 recorded O&M for Technology Delivery of \$7.530 million is less than the 2021 GRC's authorized amount of \$12.469 million, by \$4.939 million. According to SCE, Technology Delivery's underrun was driven by changes in Capital Related Expenses and O&M projects. In particular, the drivers were: (1) further assessment of planned work that determined capital treatment to be the more appropriate treatment for the project (certain previously forecasted expenses were actually capitalized, resulting in SCE's spending less than what was authorized), and (2) the optimization of expenses in the delivery phases for certain software.¹²⁷⁷

A difference of about 60% (between what was authorized and what was actually spent) should not be ignored. In light of SCE's past history of forecasting inaccuracy, and the downward trend in non-labor expenses from 2018 to 2022, the Commission should reject SCE's itemized forecast and should use the last recorded year's expenses of \$2.047 million for the TY 2025 forecast of the non-labor portion of Technology Delivery expenses.¹²⁷⁸

3. Digital Process and Transformation.

For Digital Process and Transformation, SCE proposed \$11.408 million for its 2025 Test Year forecast. Cal Advocates instead recommends \$4.298 million, which represents a \$7.110 million difference. Cal Advocates does not oppose SCE's non-labor portion of the forecast, but Cal Advocates opposes the labor portion of the forecast. Table 17-7 sets forth SCE's recorded expenses, SCE's forecast, and Cal Advocates' forecast.¹²⁷⁹

¹²⁷⁷ Ex. SCE-06, Vol. 01 at 21.

¹²⁷⁸ Ex. CA-17 at 8-9.

¹²⁷⁹ Ex. CA-17 at 10-11.

Table 17-7
Digital Process and Transformation
Recorded Expenses from 2018 – 2022 and TY 2025 Expenses
(in Constant \$000's)

	2018	2019	Record 2020	2021	2022	SCE 2025	Cal Advocates 2025
Labor	133	3,681	3,256	2,872	2,879	9,989	2,879
Non-Labor	774	2,007	2,150	2,319	1,419	1,419	1,419
Total	908	5,688	5,405	5,191	4,298	11,408	4,298

Source: Ex. SCE-06, Vol. 01, p. 35.

Cal Advocates recommends the last recorded year of \$2.879 million as its TY 2025 recommendation.¹²⁸⁰ Cal Advocates' recommendation is based on the stability of SCE's labor expenses for three or more years.¹²⁸¹ This stable trend would support the use of the last recorded year's expenses. This is consistent with past Commission practice. D.04-07-022, the Commission stated that if recorded expenses in an account have been relatively stable for three or more years, then the most recent recorded year in that trend is an appropriate base estimate for the test year.¹²⁸²

4. Service Management Office & Operations (SMOO) – Fixed Price Technology.

Cal Advocates does not oppose SCE's recommended \$73.855 million for SCE's 2025 Test Year forecast of expenses under SMOO – Fixed Price Technology.¹²⁸³

5. SMOO – Software Maintenance & Replacement.

SCE proposes \$160.997 million for its 2025 Test Year forecast of expenses under SMOO – Software Maintenance & Replacement.¹²⁸⁴ Cal Advocates' forecast is \$108.590 million, a difference of \$52.407 million.¹²⁸⁵ As shown in Table 17-9, SCE's Software

¹²⁸⁰ Ex. CA-17 at 10-11.

¹²⁸¹ Ex. SCE-06, Vol. 01 at 35.

¹²⁸² Ex. CA-17 at 11-12. See also D.04-07-022 at 15-16 (citing D.89-12-057, 34 CPUC 2d 199, 231).

¹²⁸³ Ex. CA-17 at 13.

¹²⁸⁴ Ex. CA-17 at 13.

¹²⁸⁵ Ex. CA-17 at 13.

Maintenance and Replacement forecast comprises three categories: (1) Cloud-Based Subscription; (2) Perpetual Licenses; and (3) Application Refresh.¹²⁸⁶

Table 17-9
Software Maintenance and Replacement
Recorded Expenses from 2018 – 2022 and TY 2025 Expenses
(in Constant \$000's)

	2018	2019	Record 2020	2021	2022	SCE 2025	Cal Advocates 2025
Cloud Sub.	18,822	25,002	28,108	36,491	39,861	57,010	53,361
Perp. License	51,503	40,898	38,643	36,253	36,825	68,288	36,825
App. Refresh	12,181	12,757	15,061	15,267	25,091	35,699	18,404
Soft. Maint.	0	1,522	307	187	22	0	0
Soft. Service	0	0	0	(1)	0	0	0
Total	82,506	80,179	82,119	88,199	101,600	160,997	108,590

Source: Ex. SCE-06, Vol. 01, p. 47.

Cal Advocates opposes SCE's TY 2025 request for each of these categories because SCE's previous GRC forecast was based on a similar itemized approach, which resulted in gross inaccuracy.¹²⁸⁷ SCE failed to provide enough evidence to support an overall incremental increase of almost 59% from the last recorded year (2022) to the TY 2025. SCE has also not provided enough evidence to support an increase of about 94%, based on a stable four-year average (\$83.251 million) of historical costs from 2018-2021.¹²⁸⁸

a) Cloud-Based Subscriptions.

For Cloud-Based Subscriptions expenses, Cal Advocates recommends a \$53.361 million forecast for TY 2025, or \$3.649 million less than SCE's forecast.¹²⁸⁹ SCE's TY 2025 forecast for Cloud-Based Subscriptions is \$57.010 million.¹²⁹⁰ SCE's forecast is

¹²⁸⁶ Ex. CA-17 at 13; Ex. SCE-06, Vol. 01 at 47.

¹²⁸⁷ Ex. CA-17 at 13-14; Ex. SCE-06, Vol. 01 at 47.

¹²⁸⁸ Ex. CA-17 at 13-14; Ex. SCE-06, Vol. 01 at 47.

¹²⁸⁹ Ex. CA-17 at 15-16.

¹²⁹⁰ Ex. CA-17 at 14-15.

purportedly supported by Exhibit SCE-06, Volume 1, Confidential Workpapers, which itemizes over 240 separate line-item forecasts covering approximately seventy pages.¹²⁹¹ SCE used this approach in the previous GRC and considers this approach best, as opposed to averaging or trending.¹²⁹² Table 17-10 compares SCE’s 2025 Test Year normalized forecast with SCE’s 2022 recorded expenses.¹²⁹³

Table 17-10
Cloud Based Subscriptions
Comparison of Previous GRC Forecast to Actual Expenses
(in \$’s)

Categories	Sum of 2022 Recorded (A)	Sum of 2025 TY Normalized (B)	Sum of 2025 TY Normalized (-) 2022 Recorded (B-A)
(1) Growing business needs to digitize our environment and support SCE initiatives impactful to customer satisfaction, affordability, reliability, safety and quality.	12,456,996	22,703,735	10,246,739
(2) Movement to the cloud as most new functionalities are primarily not available on premises and related limitations on accounting rules.	11,774,616	18,828,114	7,053,498
(3) Year-over-year vendor price increases and growth in licenses from new users.	15,629,388	15,477,833	(151,555)
Grand Total	39,861,000	57,009,681	17,148,681

Source: SCE’s response to data request PubAdv-SCE-243-LMW Q.6.

Cal Advocates opposes SCE’s itemized approach to forecasts. SCE assertion that an itemized forecast “best represents the costs required for operational support of existing

¹²⁹¹ Ex. CA-17 at 14-15.

¹²⁹² Ex. SCE-06, Vol. 01 at 62.

¹²⁹³ Ex. CA-17 at 15-16. SCE’s Table 17-10 included the word “sum” in the headings of the column. Even though Cal Advocates is not certain what the word “sum” adds to SCE’s data, the table nonetheless states both SCE’s recorded expenses from 2022 and SCE’s 2025 Test Year normalized forecast.

applications”¹²⁹⁴ is not supported by the record. Therefore, Cal Advocates recommends using historical data (notably the last recorded year) as opposed to SCE’s “itemized” approach.¹²⁹⁵ The historical data reflects an upward trend that can be translated to a test-year forecast.¹²⁹⁶ Cal Advocates’ methodology starts with the last recorded year and increases that amount by \$3 million per year from 2023 through 2028. The sum of the years 2023 through 2028 is then normalized. The \$3 million increase not only approximates SCE’s comments that “software maintenance renewals increase by an average of approximately \$3.0 M per year for on-going subscription/cloud costs transitioned from projects that previously were capitalized,”¹²⁹⁷ but also approximates historical increases (e.g., 2015 - 2016, 2019 - 2020, and 2021 - 2022), as seen in Table 17-11.¹²⁹⁸

¹²⁹⁴ Ex. SCE-06, Vol. 01 at 62.

¹²⁹⁵ Ex. CA-17 at 17-18.

¹²⁹⁶ Ex. CA-17 at 17-18.

¹²⁹⁷ Ex. CA-17 at 15, FN 13.

¹²⁹⁸ Ex. CA-17 at 17-18.

Table 17-11
Cloud Based Subscriptions
Recorded Expenses 2015 - 2022
and
SCE's and Cal Advocates' Forecast Expense Normalization
2023 – 2028
(in 2022 Constant \$000's)

	2015	2016	2017	2018	2019	2020	2021	2022
Historical Cloud O&M	10,444	12,817	21,441	18,822	25,002	28,108	36,491	39,861
	2023	2024	2025	2026	2027	2028		
SCE Non-Normalized Amount	43,307	50,327	55,636	56,911	56,822	58,670		
SCE Normalized (2025-2028) Amount				57,010				
Cal Advocates' Non-Normalized Amount	42,861	45,861	48,861	51,861	54,861	57,861		
Cal Advocates' Normalized (2025-2028) Amount				53,361				

Source: SCE's response to data request PubAdv-SCE-083-LMW, Q.4b.

b) Perpetual License

For Perpetual License expenses, Cal Advocates recommends using the last recorded year of \$36.825 million as its TY 2025 forecast¹²⁹⁹ instead of SCE's \$68.288 million forecast.¹³⁰⁰ Cal Advocates' recommendation is supported in D.04-07-022, a case in which the Commission found that if recorded expenses in an account have shown a

¹²⁹⁹ Ex. CA-17 at 19.

¹³⁰⁰ Ex. CA-17 at 13.

trend in a certain direction over three or more years, the most recent recorded year in the trend is an appropriate base estimate for the test year.¹³⁰¹

Table 17-13 compares SCE's Perpetual License forecast with actual expenses from SCE's prior GRC.¹³⁰²

Table 17-13
Perpetual License
Comparison of Previous GRC Forecast to Actual Expenses
(in 2022 Constant \$000's)

	2019	2020	2021	2022
Previous Forecast	58,324	57,134	61,293	66,887
Actual	40,898	38,643	36,253	36,825
Difference – License (Underspent)	17,426	18,491	25,040	30,062

Source: SCE's response to data request PubAdv-SCE-083-LMW, Q.14a.

As shown in Table 17-13, SCE's Perpetual Licenses expenses have been trending downward. SCE's forecast fails to consider this downward trend in its forecast. SCE's forecast is further flawed due to: (1) the number of line items SCE attempts to forecast; and (2) the poor results of a similar itemized methodology used in the previous GRC.¹³⁰³

SCE's TY 2025 Perpetual License forecasts rely on the same workpapers (Ex. SCE-06, Vol. 1, Confidential Workpapers) as SCE's Cloud-Based forecast.¹³⁰⁴ Similar to SCE's Cloud-Based forecast, the Perpetual License forecast comprises over 500¹³⁰⁵ separately forecasted (itemized) line items. SCE considered an "itemized" approach as "best" for the Perpetual License forecast.¹³⁰⁶

Given all the factors that affect a forecast, itemizing over 500 separate Project Identifications (IDs) is an unjustified and unreasonable method.¹³⁰⁷ Indeed, SCE's own

¹³⁰¹ See also D.04-07-022, at 15-16 (citing D.89-12-057, 34 CPUC 2d 199, 231).

¹³⁰² Ex. CA-17 at 21.

¹³⁰³ Ex. CA-17 at 19.

¹³⁰⁴ Ex. CA-17 at 18.

¹³⁰⁵ Ex. CA-17 at 18, FN 16.

¹³⁰⁶ Ex. SCE-06, Vol. 01 at 62; Ex. CA-17 at 18-20.

¹³⁰⁷ Ex. CA-17 at 20.

testimony concludes that historical data, rather than an itemized approach, should be used to forecast OU capitalized software projects. With respect to OU capitalized software projects, SCE stated that “the rapid pace of changing technology no longer supports an itemized forecast for OU capitalized software projects more than two years in the future.”¹³⁰⁸ SCE also added:

SCE utilized an itemized forecast for our OU capitalized software projects in rate cases prior to 2021. However, since the Commission also has a long-standing practice of evaluating the reasonableness of forecasts based on recorded data, we submitted and were authorized a forecast in the 2021 rate case based on the historical spend within our OU capitalized software portfolio. Because the rate case plan does not require utilities to forecast capital expenditures on an itemized basis, SCE has presented capital forecasts in various areas in our rate cases that are based on last year recorded or multi-year averaged historical data, particularly when external drivers can be unpredictable. In various forums, the Commission has indicated that relying on historical data to forecast future costs is reasonable.¹³⁰⁹

Cal Advocates’ finds that SCE’s approach to forecast OU Capitalized Software Projects can also apply to Perpetual Licenses, based on similar external challenges that SCE noted in its testimony.¹³¹⁰

Further, Cal Advocates opposes SCE’s forecast because of the poor results of a similar methodology used in the previous 2021 GRC (Application 19-08-013) in which SCE’s “itemized” approach underestimated expenses by over \$91 million from 2019 through 2022.¹³¹¹ Regardless of the reasons for this underspending, SCE seeks to use a similar “itemized” forecast in this current application for hundreds of varying line-item costs (projects). However, SCE failed to show sufficient evidence that itemizing is a better predictor than using historical data.¹³¹²

¹³⁰⁸ Ex. SCE-06, Vol. 02, at 141 (capitalization modified).

¹³⁰⁹ Ex. SCE-06, Vol. 02 at 139-140.

¹³¹⁰ Ex. CA-17 at 20.

¹³¹¹ Ex. CA-17 at 21, FN 21.

¹³¹² Ex. CA-17 at 21-22.

Based on the Commission’s guidance to use historical data, Cal Advocates recommends using the last recorded year of \$36.825 million as the TY 2025 forecast for Perpetual Licensing.¹³¹³

c) Application Refresh.

SCE’s TY 2025 forecast of \$35.699 million comprises five categories noted in Table 17-14.¹³¹⁴

Table 17-14
Application Refresh
Recorded Expenses from 2018 – 2022 and TY 2025 Expenses
(in Constant \$000’s)

	2018	2019	Record 2020	2021	2022	SCE 2025
Labor	7,930	8,462	11,217	10,529	10,864	12,485
Non-Labor:						
O&M Projects	1,057	1,848	1,241	2,671	10,864	12,328
Consulting Services	2,851	2,038	2,407	1,853	3,044	6,536
Ongoing Maintenance	0	0	0	0	0	4,146
Employee Related	344	409	196	214	329	204
Total	12,181	12,757	15,061	15,267	25,091	35,699

Source: Labor: Ex. SCE-06, Vol. 01, p. 71/71E. Non-Labor: SCE’s response to data request PubAdv-SCE-172-LMW Q.15.

Cal Advocates does not oppose SCE’s labor forecast but opposes the non-labor forecast.¹³¹⁵ In particular, Cal Advocates recommends adjustments to the following subcategories under the non-labor forecast: (1) O&M Projects; (2) Consulting and Professional Services (CP&S); and (3) Ongoing Maintenance.¹³¹⁶

¹³¹³ Ex. CA-17 at 19-20.

¹³¹⁴ Ex. CA-17 at 22.

¹³¹⁵ Ex. CA-17 at 23.

¹³¹⁶ Ex. CA-17 at 23-24.

SCE used an itemized approach in its 2021 GRC, but SCE underspent the amount authorized.¹³¹⁷ SCE also used a similar itemized approach in this current GRC for the Application Refresh forecast.¹³¹⁸

In addition to finding the itemized approach to be an overall problem in the Application Refresh forecast, Cal Advocates also found specific problems with O&M Projects, CP&S, and Ongoing Maintenance.¹³¹⁹

(1) O&M Projects

Cal Advocates recommends a TY 2025 non-labor forecast for O&M projects of \$2.671 million as opposed to SCE's forecast of \$12.328 million, a difference of \$9.657 million.¹³²⁰ Cal Advocates' forecast is based on 2021 expenses because 2022 costs contained expense deferrals, delays, reprioritizations, and freezes.¹³²¹ In light of these anomalies, 2022 costs do not properly represent ongoing non-labor costs.

Cal Advocates asked SCE whether projects forecasted were a necessity or were discretionary. Doing so not only allowed Cal Advocates to compare SCE's 2023 project forecast to year-to-date actual implementation, but doing so also allowed Cal Advocates to determine to what degree projects forecasted in SCE's previous GRC were actually implemented as planned.¹³²² SCE replied that each project was a necessity;¹³²³ and SCE also asserted:

Actual costs incurred in any specific program or project may vary from what was forecast because the 2025 GRC forecasts were developed in 2023, several years before SCE's 2025 Test Year. Moreover, SCE's programs necessarily adapt when emergent needs arise, new or better data becomes available, external factors impact

¹³¹⁷ Ex. CA-17 at 23-24.

¹³¹⁸ Ex. CA-17 at 23-24; Ex. SCE-06, Vol. 01 at 76-77.

¹³¹⁹ Ex. CA-17 at 23-24.

¹³²⁰ Ex. CA-17 at 24.

¹³²¹ Ex. CA-17 at 24.

¹³²² Ex. CA-17 at 24.

¹³²³ Ex. CA-17 at 24, FN 25.

SCE, unforeseen changes to the system occur, new or modified compliance requirements are introduced, etc.¹³²⁴

In relation to the status of its 2023 recorded projects, SCE stated the following:

Several projects were deferred due to competing priorities or in progress capital efforts. Please refer to SCE's response to PubAdv-13 SCE-172-LMW, Q.4 for SCE's discretion on which projects and programs are authorized and started in 2023 due to priorities and other considerations.¹³²⁵

In relation to the results of its forecast pursuant to the previous GRC, SCE stated the following:

Actual costs incurred in any particular program or project may vary from what was forecast because the 2021 GRC forecasts were developed in 2019, several years before the Commission authorized SCE's forecast in D.21-08-036. Moreover, SCE's programs necessarily adapt when emergent needs arise, new or better data becomes available, external factors impact SCE, unforeseen changes to the system occur, new or modified compliance requirements are introduced, etc.

SCE notes that even though the recorded O&M project line items are different than what was previously planned, the intent is the same. All O&M projects are meant to refresh our technologies or address emergent technology needs to ensure reliability and availability to employees and customers.¹³²⁶

Based on SCE's responses, it is clear that actual results can vary significantly from planned results. SCE's forecasting methodology is unreliable and lacks sufficient detail to justify SCE's proposed increase in spending.¹³²⁷

Cal Advocates proposes a forecast based on historical data and results, consistent with Commission precedent. As discussed, Cal Advocates' forecast is based on 2021's

¹³²⁴ Ex. CA-17 at 25, FN 26.

¹³²⁵ Ex. CA-17 at 25, FN 27.

¹³²⁶ Ex. CA-17 at 25, FN 28.

¹³²⁷ Ex. CA-17 at 25-26.

recorded expenses due to the anomalies in 2022.¹³²⁸ Cal Advocates recommends a TY 2025 non-labor forecast for O&M projects of \$2.671 million as opposed to SCE's forecast of \$12.328 million.¹³²⁹

(2) Consulting and Professional Services

Cal Advocates recommends a TY 2025 non-labor forecast for Consulting and Professional Services (CP&S) O&M expenses of \$3.044 million, as opposed to SCE's forecast of \$6.536 million.¹³³⁰ In accordance with Commission precedent, Cal Advocates recommends using the last recorded year based on SCE's stable historical expenditures.¹³³¹ Indeed, the Commission accepted the use of the last recorded year in D.04-07-022, a case in which the Commission stated that if recorded expenses in an account have shown a trend in a certain direction over three or more years, the most recent recorded year in the trend is an appropriate base estimate for the test year.

Therefore, Cal Advocates' recommendation is based on longstanding Commission guidance.¹³³²

Cal Advocates asked SCE to provide the status of its 2023 CP&S efforts (which had a 2023 forecast of \$5.2 million) for those initiatives in which SCE forecast \$50,000 or more.¹³³³ As of November 2, 2023, \$2.7 million¹³³⁴ of SCE's projects were "in progress" with almost all of the start dates being January 1, 2023, and almost all completion dates being December 31, 2023.¹³³⁵ Additionally, \$1.9 million¹³³⁶ of SCE's 2023 forecast are for initiatives that have "not started," and have no start or completion

¹³²⁸ Ex. CA-17 at 24-26.

¹³²⁹ Ex. CA-17 at 24-26.

¹³³⁰ Ex. CA-17 at 26-27.

¹³³¹ Ex. CA-17 at 26-27. See also D.04-07-022, at 15-16 (citing D.89-12-057, 34 CPUC 2d 199, 231).

¹³³² Ex. CA-17 at 26.

¹³³³ Ex. CA-17 at 26.

¹³³⁴ Ex. CA-17 at 26, FN 29.

¹³³⁵ Ex. CA-17 at 26.

¹³³⁶ Ex. CA-17 at 26, FN 30.

dates indicated.¹³³⁷ SCE's responses mean that 52% of SCE's forecast were not expected to be completed until December 31, 2023, and 37% lack any start or completion dates.¹³³⁸

SCE admits that its proposed itemized approach to forecasting CP&S O&M expenses is similar to the approach used in the 2021 GRC, which resulted in underspending for 2021 and 2022:

Yes, SCE used similar forecast methodology for 2021 and 2025. The total amount authorized by the Commission was \$6,080,636 in 2022 constant for both 2021 and 2022. The recorded costs for 2021 were \$2,796,197 in 2022 constant. The underspend in 2021 was due to the CSRP program's implementation being pushed from 2020 to 2021. This program shift occurred post 2021 GRC submission resulting in an unanticipated freeze of 9 months in 2021 that impacted work and the CSRP line item in C&PS. In 2022 the recorded costs were \$4,302,478. The underspend was because applications remained stable and did not require support from the vendor in 2022 to resolve business impact event issues.¹³³⁹

SCE's previous 2023 itemized forecast already shows a strong likelihood of underspending based on the initiatives' starting and completion dates.¹³⁴⁰ Thus, use of historical data is more reasonable, reliable, and justifiable.¹³⁴¹

Cal Advocates recommends using the last recorded year based on SCE's stable historical expenditures. This recommendation would result in a recommended TY 2025 non-labor forecast for CP&S O&M expenses of \$3.044 million, as opposed to SCE's forecast of \$6.536 million.

¹³³⁷ Ex. CA-17 at 26.

¹³³⁸ Ex. CA-17 at 26.

¹³³⁹ Ex. CA-17 at 26-27, FN 31.

¹³⁴⁰ Ex. CA-17 at 26-27.

¹³⁴¹ Ex. CA-17 at 26-27.

(3) Ongoing Maintenance.

Cal Advocates recommends a TY 2025 non-labor forecast for Ongoing Maintenance of \$0, as opposed to SCE's forecast of \$4.146 million.¹³⁴² SCE determined its forecast based on a percentage multiplied by historical OU Capitalized Software costs.¹³⁴³ Cal Advocates' recommendation is based on SCE's failure to track any "ongoing" expenses; and, additionally, it appears that these expenses are already accounted for in operations.¹³⁴⁴

Cal Advocates' recommendation is based on SCEs' data-request response below:

As stated in the answer to PubAdv-SCE-172-LMW Q15, ongoing O&M is captured through the various O&M charges and is not tracked as a separate budget line item, therefore, there are not separate 2018-2022 recorded costs available for Ongoing O&M. Presently, SCE does not have an established process to track these ongoing O&M costs separately. Moving forward, SCE will work to establish a tracking mechanism for these costs, such that SCE can provide visibility to the Ongoing O&M costs in the future.¹³⁴⁵

In addition, SCE stated:

Ongoing maintenance is absorbed through specific components in operations including O&M Projects, Consulting & Professional Services, End User Computing O&M, Perpetual License, Cloud & SaaS¹³⁴⁶ O&M, Hardware maintenance, and Managed Services Provider (MSP) support costs. SCE is billed by the respective vendors providing maintenance support and pays for these through our standard accounting using SAP Work Orders (WO).¹³⁴⁷

¹³⁴² Ex. CA-17 at 27.

¹³⁴³ Ex. CA-17 at 27.

¹³⁴⁴ Ex. CA-17 at 27.

¹³⁴⁵ Ex. CA-17 at 27-28, FN 32.

¹³⁴⁶ Software as a Service.

¹³⁴⁷ Ex. CA-17 at 27-28, FN 33.

SCE’s comments indicate that SCE fails to track any “ongoing” expenses, and these expenses are evidently absorbed into operations.¹³⁴⁸ Accordingly, Cal Advocates recommends a TY 2025 non-labor forecast for Ongoing Maintenance of \$0.

6. Technology Infrastructure Maintenance and Replacement.

SCE proposed \$24.605 million for its TY 2025 forecast for Technology Infrastructure Maintenance and Replacement. Cal Advocates does not oppose this forecast.¹³⁴⁹

XXVII. OPERATING UNIT CAPITALIZED SOFTWARE.

Operating Unit Capitalized Software falls under Enterprise Technology Capital Expenditures. This issue is addressed through Exhibit SCE-32, Stipulation of Cal Advocates and SCE on Capital Forecast for Enterprise Technology and OU Capitalized Software (Technology Solutions).

XXVIII. ENTERPRISE PLANNING AND GOVERNANCE (NON-INSURANCE)

SCE requests \$174.093 million for Enterprise Planning & Governance O&M expenses. In comparison, Cal Advocates recommends \$157.112 million, or \$16.981 million less than SCE.¹³⁵⁰

Table 17-30 shows SCE’s 2018-2022 recorded costs for Enterprise Planning and Governance expenses, SCE’s TY request, and Cal Advocates’ recommendation.¹³⁵¹

¹³⁴⁸ Ex. CA-17 at 27-28.

¹³⁴⁹ Ex. CA-17 at 28.

¹³⁵⁰ Ex. CA-18 at 1-2.

¹³⁵¹ Ex. CA-17 at 53-54.

Table 17-30
Summary Enterprise Planning & Governance O&M
Recorded Expenses from 2018 – 2022 and TY 2025 Expenses
(in Constant \$000's)

	2018	2019	Record 2020	2021	2022	SCE 2025	Cal Advocates 2025
Fin. Oversight	27,864	27,579	29,918	36,348	25,371	38,846	38,846
Insurance	278,196	438,578	499,428	508,367	519,494	405,142	392,113
Total	306,060	466,157	529,346	544,715	544,865	443,988	430,959

Source: Ex. SCE-06, Vol. 01, pp. 7/7E, 14/14E2, 18, 19, 20, 32, 45/45E3, 73, 87/87E, 98/98E, 111 and 115.

A. Financial Oversight and Transactional Processing.

Cal Advocates proposes a different franchise fee factor than SCE.¹³⁵² Cal Advocates does not address SCE's initial franchise fee expense forecast of \$122.871 million¹³⁵³, because the forecast will be continuously updated as needed in the Results of Operations (RO) Model.

SCE forecasted a franchise fee factor of 0.9294%¹³⁵⁴ based on a four-year average from 2019 – 2022. However, the franchise fee factor has exhibited a distinct downward trend over the past five years. Therefore, Cal Advocates proposes a franchise fee factor of 0.9199%, which is based on the latest recorded year.¹³⁵⁵

Cal Advocates' recommendation is consistent with Commission guidance regarding use of recorded expenses in an account that has shown a trend in a certain direction over three or more years; and the Commission found that in such cases, the most recent recorded year in the trend is an appropriate base estimate for the test year.¹³⁵⁶ SCE's franchise fee factor has shown a very clear downward trend from 2018 through

¹³⁵² Ex. CA-17 at 53-54.

¹³⁵³ Ex. SCE-06, Vol. 03 at 25 (Table II-7).

¹³⁵⁴ Ex. SCE-06, Vol. 03 at 25 (Table II-7).

¹³⁵⁵ Ex. SCE-06, Vol. 03 at 25 (Table II-7).

¹³⁵⁶ D.04-07-022, Opinion on Base Rate Revenue Requirement and Other Phase 1 Issues, at 15-16 (citing D.89-12-057, 34 CPUC 2d 199, 231).

2022. Thus, Cal Advocates' recommendation of a franchise fee factor of 0.9199% (from the last recorded year) is reasonable and should be adopted.¹³⁵⁷

B. Legal

The Legal costs component of O&M expenses is associated with the work activities of three departments: Law, Claims, and Worker's Compensation. Cal Advocates' TY 2025 recommendation for SCE's Legal O&M expenses is \$87.408 million, consisting of the following: \$44.643 million for Law, \$25.107 million for Claims, and \$17.205 million for Worker's Compensation.¹³⁵⁸ Cal Advocates' TY 2025 recommendation for Worker's Compensation is the same as SCE's.¹³⁵⁹

Cal Advocates' overall recommendation is \$8.324 million lower than SCE's TY 2025 forecast of \$95.732 14 million.¹³⁶⁰

1. Law

Cal Advocates' TY 2025 forecast for the Law category expenses is \$44.643 million, which is organized into the following work activities: (1) In-House legal costs, \$28.338 million; (2) Outside Counsel, \$13.231 million; and (3) Corporate Governance & Miscellaneous legal costs, \$3.074 million.¹³⁶¹

a) In-house Legal

Cal Advocates recommends a forecast of \$28.338 million for in-house legal expenses for TY 2025, the amount the Commission approved for attrition year 2024 in SCE's last GRC.¹³⁶² Cal Advocates recommends that this same level of in-house legal O&M expenses be retained for TY 2025, which is \$1.368 million lower than SCE's forecast of \$29.706 million.¹³⁶³

¹³⁵⁷ Ex. SCE-06, Vol. 03 at 25 (Table II-7).

¹³⁵⁸ Ex. CA-18 at 5.

¹³⁵⁹ Ex. CA-18 at 5.

¹³⁶⁰ Ex. CA-18 at 5.

¹³⁶¹ Ex. CA-18 at 6.

¹³⁶² Ex. CA-18 at 7.

¹³⁶³ Ex. CA-18 at 7.

In making this recommendation, Cal Advocates considered several factors, including the following: the five-year historical trend for this account; comparison of authorized expenses and spent expenses during the five-year period; ratepayer burden; and the negative impact SCE's current spending pattern would have on the remaining attrition years of the 2021 GRC.¹³⁶⁴

SCE based its TY forecast on the last-recorded-year forecasting methodology.¹³⁶⁵ SCE asserts that its in-house legal costs have been stable.¹³⁶⁶ However, as shown in Table 18-5,¹³⁶⁷ SCE's recorded in-house legal expenses account during the most recent years had a downward trend. The downward trend illustrated for this account in Table 18-5 indicates that current rates provide more than enough cost recovery.¹³⁶⁸

Table 18-5
In-House
Recorded Expenses from 2018-2022 and TY 2025 Expenses
(in Constant \$000's)

Description	2018	2019	2020	2021	2022	SCE 2025	Cal Advocates 2025
Labor	\$24,886	\$24,374	\$27,313	\$26,558	\$25,006	\$28,261	\$26,921
Non-Labor	\$2,290	\$1,930	\$1,614	\$1,552	\$1,378	\$1,445	\$1,417
Total	\$27,176	\$26,305	\$28,927	\$28,109	\$26,438	\$29,706	\$28,338
% Change From Previous Year		-3%	10%	-3%	-6%		

Moreover, a comparison of authorized costs vs. spent costs for the years 2021 through 2022 shows that SCE collected approximately \$2 million more in rates than it spent. As a result, ratepayers overpaid for services received during the 2-year period by approximately \$2 million.¹³⁶⁹

¹³⁶⁴ Ex. CA-18 at 7-8.

¹³⁶⁵ Ex. CA-18 at 7-8; Ex. SCE-06, Vol. 03, workpapers at 149.

¹³⁶⁶ Ex. CA-18 at 7-8; Ex. SCE-06, Vol. 03, workpapers at 149.

¹³⁶⁷ Ex. CA-18 at 7-8.

¹³⁶⁸ Ex. CA-18 at 7-8.

¹³⁶⁹ Ex. CA-18 at 7-8.

The costs in this category are declining and the cumulative savings from historical underspending is sufficient to fund any incremental cost SCE encounters in the Test Year.¹³⁷⁰

Therefore, Cal Advocates' recommendation of \$28.338 million for in-house legal expenses for TY 2025 is reasonable and appropriate; the Commission reviewed and authorized the same amount for attrition-year 2024 in SCE's last GRC.¹³⁷¹ Also this recommended amount is incremental to the last-year-recorded expenses that SCE based its 2025 TY forecast upon and provides 95% of the funding that SCE requests for the test year.¹³⁷²

b) Outside Counsel

Cal Advocates recommends a forecast of \$13.231 million for outside-counsel legal expenses, which is \$1.687 million lower than SCE's request.¹³⁷³ Cal Advocates' forecast is based on a five-year average, including the 2021 recorded expenses, plus a downward adjustment of \$1.5 million to reflect program-enhancement savings that SCE anticipates during the GRC cycle.¹³⁷⁴

The primary difference between SCE's and Cal Advocates' forecasts is the number of historical years used in calculating the test-year forecast. SCE excluded the 2021 recorded expenses from its calculation, but Cal Advocates included the 2021 recorded expenses.¹³⁷⁵ SCE states that it excluded 2021 recorded costs from its forecast calculation because there was a significant insurance-recovery offset of \$5.7 million to the recorded level of expenses.¹³⁷⁶ Cal Advocates disagrees with SCE's decision to

¹³⁷⁰ Ex. CA-18 at 7-8.

¹³⁷¹ Ex. CA-18 at 7-8.

¹³⁷² Ex. CA-18 at 7-8.

¹³⁷³ Ex. CA-18 at 9-10.

¹³⁷⁴ Ex. CA-18 at 9-10.

¹³⁷⁵ Ex. CA-18 at 8-10.

¹³⁷⁶ Ex. CA-18 at 8-9.

exclude the 2021 recorded costs, because—as SCE acknowledged—the \$5.7 million insurance recovery in 2021 is a recovery of prior-year ratepayer-funded expenses.¹³⁷⁷

Accordingly, historical recorded outside-legal costs are overstated.¹³⁷⁸ The 2021 recorded expenses must be included in calculations of the Test Year forecast to reflect the savings from the insurance recovery in future rates.¹³⁷⁹

For the calculation of the Test Year forecast, SCE used a four-year average—excluding 2021 recorded expenses in its calculation of the Test Year forecast—so that savings from the insurance recovery do not flow back to ratepayers during the rate case cycle.¹³⁸⁰

Cal Advocates used a five-year-averaging methodology but included the recorded 2021 expenses in its calculation, thereby allowing cost savings from the insurance recovery to flow back to ratepayers through a lower TY expense forecast.¹³⁸¹

A five-year average of historical costs, which includes the 2021 insurance recovery of \$5.6 million costs, is a more accurate calculation of Test Year expenses because it recognizes that inflated prior year historical costs should not be rolled into the future rates.¹³⁸² Therefore, Cal Advocates recommends a forecast of \$13.231 million for outside-counsel legal expenses, which is \$1.687 million lower than SCE’s request.¹³⁸³

2. Claims

The Claims department is responsible for providing general oversight over collection and for pursuing recovery based on damage to SCE facilities or equipment caused by third parties.¹³⁸⁴ The Claims department also works on claims made against

¹³⁷⁷ Ex. CA-18 at 9-10.

¹³⁷⁸ Ex. CA-18 at 9-10.

¹³⁷⁹ Ex. CA-18 at 9-10.

¹³⁸⁰ Ex. CA-18 at 9-10.

¹³⁸¹ Ex. CA-18 at 9-10.

¹³⁸² Ex. CA-18 at 9-10.

¹³⁸³ Ex. CA-18 at 9-10.

¹³⁸⁴ Ex. CA-18 at 10-11.

SCE involving personal injuries and property damage.¹³⁸⁵ Additionally, the Claims department investigates and provides support for matters involving injuries, and other complex matters.¹³⁸⁶

SCE's Claims expenses forecast for TY 2025 is \$30.828 million and comprises the following GRC activities: (1) \$3.821 million for Administrative and General expenses; (2) \$15.900 million for Claims - Injuries and Other Damages; and (3) \$11.107 million for Claims - Write-Offs.¹³⁸⁷

For Claims - Injuries and Other Damages, Cal Advocates recommends a TY 2025 forecast of \$11.665 million. For Claims - Write-offs, Cal Advocates recommends a TY 2025 forecast of \$9.621 million. And Cal Advocates agrees with SCE's recommended TY 2025 forecast for Administrative and General expenses.¹³⁸⁸

a) Claims - Injuries & Other Damages

For Claims – Injuries and Other Damages, Cal Advocates recommends a TY 2025 forecast of \$11.866 million. Table 18-8 provides the labor and non-labor breakdown of historical data, SCE's O&M forecast, and Cal Advocates' recommendations.¹³⁸⁹

Table 18-8
Claims Injuries & Other Damages
Recorded Expenses from 2018-2022 and TY 2025 Expenses
(in Constant \$000's)

Description	2018	2019	2020	2021	2022	SCE 2025	Cal Advocates 2025
Labor	\$259	\$314	\$200	\$206	\$27	\$201	\$201
Non-Labor	\$20,701	\$14,983	\$19,714	\$13,791	\$9,306	\$15,669	\$11,655
Total	\$20,960	\$15,297	\$19,914	\$13,997	\$9,333	\$15,900	\$11,866
% Change From Previous Year		-27%	31%	-30%	-33%		

¹³⁸⁵ Ex. CA-18 at 10-11.

¹³⁸⁶ Ex. CA-18 at 10-11.

¹³⁸⁷ Ex. CA-18 at 10-11.

¹³⁸⁸ Ex. CA-18 at 10-11.

¹³⁸⁹ Ex. CA-18 at 11-12.

SCE's forecast is based on a five-year average of recorded costs from 2018 to 2022.¹³⁹⁰ According to SCE, "using this forecasting methodology is consistent with Commission guidance as found in D.89-12-057, and in subsequent line of cases including D.04-07-022. In this line of cases, the Commission stated that if recorded expenses have significant fluctuations from year to year, or expenses are influence by external forces beyond the utility's control, then an average of recorded expenses is an appropriate way to develop a base forecast."¹³⁹¹

In contrast, Cal Advocates recommends a Test Year forecast of \$11.655 million, which is \$4.235 million lower than SCE's forecast of \$15.900 million.¹³⁹² Cal Advocates' forecast is based on a two-year average instead of the five-year average SCE used. Cal Advocates relies on recorded costs in 2021 and 2022 (the last two years of historical data) because recorded costs in these years provide the most relevant, and timely data, and best portray the future direction of this account.¹³⁹³

First, as shown in Table 18-8, above, the fluctuations of recorded expenses from 2018 to 2022 show a discernable downward trend from a high of \$20.960 million in 2018 to a low of \$9.333 million in 2022.¹³⁹⁴ The decrease in recorded costs in 2021 and 2022 compared to prior years is discernable and more representative of this account's future downward trend.¹³⁹⁵

Second variability is often associated with the level of recorded expenses in this account. According to SCE, these expenses are apparently susceptible to "influence by

¹³⁹⁰ Ex. CA-18 at 11-12.

¹³⁹¹ Ex. CA-18 at 11-12.

¹³⁹² Ex. CA-18 at 11-12.

¹³⁹³ Ex. CA-18 at 11-12.

¹³⁹⁴ Ex. CA-18 at 11-12.

¹³⁹⁵ Ex. CA-18 at 11-12.

external forces beyond the utility’s control.”¹³⁹⁶ Forecasted costs often turn out to be much higher than the actual spending levels—all to the ratepayers’ disadvantage.¹³⁹⁷

Historical data shows that SCE collected more than required to cover the cost of providing services related to this account.¹³⁹⁸ SCE’s authorized non-labor expense for base-year 2021 is \$16.635 million compared to its recorded and spent expense of \$13.791 million.¹³⁹⁹ Consequently, SCE collected \$2.846 million more in rates than it spent.¹⁴⁰⁰

SCE’s 2022 authorized non-labor expenses were \$16.112 million, compared to recorded and spent expenses of \$9.333 million.¹⁴⁰¹ Here, SCE collected \$6.779 million more in rates than it spent.¹⁴⁰²

For 2021 and 2022 combined, ratepayers overpaid for services by approximately \$9.625 million.¹⁴⁰³ Although there is clear evidence of rate aggrandizement, there is no procedure to refund overcollections to ratepayers; the burden on ratepayers is compounded by the fact that energy rates in California are among the highest in the nation.¹⁴⁰⁴

Cal Advocates’ recommended Test Year forecast of \$11.655 million ensures that SCE has sufficient funds to cover costs of services to ratepayers, with the understanding that ratepayers should not overpay for the services provided.¹⁴⁰⁵

¹³⁹⁶ Ex. CA-18 at 11-12.

¹³⁹⁷ Ex. CA-18 at 11-12.

¹³⁹⁸ Ex. CA-18 at 11-12.

¹³⁹⁹ Ex. CA-18 at 11-12.

¹⁴⁰⁰ Ex. CA-18 at 11-12.

¹⁴⁰¹ Ex. CA-18 at 11-12.

¹⁴⁰² Ex. CA-18 at 12-13.

¹⁴⁰³ Ex. CA-18 at 12-13.

¹⁴⁰⁴ Ex. CA-18 at 12-13.

¹⁴⁰⁵ Ex. CA-18 at 12-13.

b) Claims - Write-Offs

SCE's TY 2025 forecast for Claims - Write-Offs is \$11.107 million, based on a three-year average of recorded costs.¹⁴⁰⁶ Cal Advocates, in contrast, recommends \$9.621 million. Table 18-9 provides the labor and non-labor breakdown of historical data, SCE's O&M forecast, and Cal Advocates' recommendations.¹⁴⁰⁷

Table 18-9
Claims Write-offs
Recorded Expenses from 2018-2022 and TY 2025 Expenses
(in Constant \$000's)

Description	2018	2019	2020	2021	2022	SCE 2025	Cal Advocates 2025
Labor	\$0	\$0	\$0	\$0	\$0	\$0	\$
Non-Labor	\$20,592	\$17,245	\$12,605	\$13,346	\$7,369	\$11.107	\$9,621
Total	\$20,592	\$17,245	\$12,605	\$13,346	\$7,369	\$11,107	\$9,621
% Change From Previous Year		-16%	-27%	6%	-45%		

According to SCE, the calculation of write-offs consists of the following steps: (1) on a monthly basis, outstanding claims receivable balances are multiplied by the five-year historical ratio of write-offs; and (2) the result is compared to the previous month's balance in the Provision for Uncollectible Damage Claims account. A debit or credit is made to this account to adjust to the new balance in order to derive the balance for the month.¹⁴⁰⁸

Cal Advocates does not oppose SCE's use of a three-year average of recorded annual costs to estimate its Test Year forecast for this account. However, Cal Advocates opposes SCE's use of a five-year historical data ratio to calculate monthly balances.¹⁴⁰⁹

Cal Advocates believes a three-year—rather than a five-year—historical data ratio should be used to calculate monthly account balances.¹⁴¹⁰ This method is consistent with

¹⁴⁰⁶ Ex. CA-18 at 13-14.

¹⁴⁰⁷ Ex. CA-18 at 13-14.

¹⁴⁰⁸ Ex. CA-18 at 13-14.

¹⁴⁰⁹ Ex. CA-18 at 13-14.

¹⁴¹⁰ Ex. CA-18 at 13-14.

the calculation of SCE's TY 2025 forecast that is based on a three-year average of recorded costs.¹⁴¹¹

In response to data request PubAdv-SCE-112-BEN, SCE recalculated the TY forecast and the monthly write-offs balances for Annual Write-Offs expenses for 2019-2022, using a three-year historic ratio rather than the five-year historic ratio.¹⁴¹² Based on SCE's recalculation, the TY 2025 forecast is \$9.621 million, which is \$1.485 million lower than SCE's forecast of \$11.107 million.¹⁴¹³

Claims Write-Offs is another account that is susceptible to influence by external forces beyond the utility's control.¹⁴¹⁴ Comparing authorized vs. actual spending shows SCE's authorized non-labor expense for 2021 is \$16.595 million compared to recorded spending of \$13.346 million.¹⁴¹⁵ As a result, SCE collected \$3.249 million more in rates than it spent.

For 2022, SCE's authorized non-labor expense was \$14.840 million compared to recorded and spent expenses of \$7.369 million. Thus, SCE collected approximately \$7.472 million more in rates than it spent.¹⁴¹⁶

For the two years combined (2021 and 2022), ratepayers overpaid for services by approximately \$10.721 million.¹⁴¹⁷ Cal Advocates anticipates that when the 2023 and 2024 data become available, a similar analysis is likely to find a higher and growing underspending for this account.¹⁴¹⁸

Cal Advocates' TY 2025 forecast for Claims - Write-Offs is \$9.621 million. This recommended amount will provide SCE sufficient funds to cover its costs of services to

¹⁴¹¹ Ex. CA-18 at 13-14.

¹⁴¹² Ex. CA-18 at 13-14.

¹⁴¹³ Ex. CA-18 at 13-14.

¹⁴¹⁴ Ex. CA-18 at 13-14.

¹⁴¹⁵ Ex. CA-18 at 13-14.

¹⁴¹⁶ Ex. CA-18 at 13-14.

¹⁴¹⁷ Ex. CA-18 at 13-14.

¹⁴¹⁸ Ex. CA-18 at 13-14.

ratepayers, with the understanding that ratepayers should not overpay for the services provided.¹⁴¹⁹

C. Business and Financial Planning

The Business and Financial Planning costs component of O&M expenses is associated with the following work activities: Business Planning; Corporate Services; and Modeling, Analysis, and Forecasting.¹⁴²⁰ Cal Advocates recommends \$62.170 million for SCE's TY 2025 Business and Financial Planning O&M expenses, consisting of \$32.751 million for Business Planning, \$23.645 million for Corporate Services, and \$5.774 million for Modeling, Analysis and Forecasting.¹⁴²¹ Cal Advocates' recommendation for the Business and Financial Planning costs component of O&M expenses is \$7.816 million lower than SCE's TY 2025 forecast of \$69.986 million.¹⁴²²

Table 18-10 summarizes SCE's recorded costs for years 2018-2022, SCE's forecast for Test Year 2025, and Cal Advocates' recommendations.¹⁴²³

Table 18-10
BUSINESS AND FINANCIAL PLANNING
Recorded Expenses from 2018-2022 and TY 2025 Expenses
(in Constant \$000's)

Description	2018	2019	2020	2021	2022	SCE 2025	Cal Advocates 2025
Business Planning	\$40,208	\$38,541	\$36,644	\$34,089	\$27,520	\$37,233	\$32,751
Corporate Services	\$20,905	\$22,736	\$21,790	\$21,652	\$21,846	\$24,350	\$23,645
Modeling, Analysis and Forecasting	\$4,656	\$4,783	\$4,838	\$5,439	\$4,714	\$8,402	\$5,774
Total	\$65,769	\$66,060	\$63,272	\$61,180	\$54,080	\$69,985	\$62,170

¹⁴¹⁹ Ex. CA-18 at 13-14.

¹⁴²⁰ Ex. CA-18 at 15.

¹⁴²¹ Ex. CA-18 at 15-16.

¹⁴²² Ex. CA-18 at 15-16.

¹⁴²³ Ex. CA-18 at 15-16.

1. Business Planning.

Business Planning is purportedly a corporate level activity occurring within all organizational units. Examples include strategic planning, operations performance management, financial planning, and regulatory and economic forecasting.¹⁴²⁴ SCE's forecast of Business Planning expenses for TY 2025 is \$37.233 million, approximately \$9.713 million or 35% above year 2022, the last recorded year's expenses.¹⁴²⁵ Table 18-11 presents both the historical data for 2018 through 2022; SCE's request, divided by labor and non-labor expenses; and Cal Advocates' recommendations. Cal Advocates recommends that the Commission adopt a TY forecast of \$32.751 million.¹⁴²⁶

Table 18-11
Business Planning
Recorded Expenses from 2018-2022 and TY 2025 Expenses
(in Constant \$000's)

Description	2018	2019	2020	2021	2022	SCE 2025	Cal Advocates 2025
Labor	\$24,847	\$25,404	\$25,882	\$24,340	\$22,257	\$28,896	\$24,160
None-Labor	\$15,361	\$13,137	\$10,762	\$9,750	\$5,263	\$8,336	\$7,591 \$8,591
Total	\$40,208	\$38,541	\$36,644	\$34,089	\$27,520	\$37,233	\$32,751
% Change From Previous Year		-4%	-5%	-7%	-19%	35%	19%

The labor component of SCE's \$28.896 million forecast is based on the use of the last-recorded-year (2022) expenses, plus an adjustment of \$6.639 million for various activities that SCE claims are incremental and necessary to compensate for hiring difficulties experienced in 2022 and to meet some critical challenges anticipated in 2025.¹⁴²⁷

¹⁴²⁴ Ex. SCE-06, Vol. 03 at 73, FN 80.

¹⁴²⁵ Ex. CA-18 at 15-16.

¹⁴²⁶ Ex. CA-18 at 15-16; Ex. CA-18-E at 16.

¹⁴²⁷ Ex. CA-18 at 15-16; Ex. CA-18-E at 16.

The non-labor component forecast of \$8.336 million is based on the last-recorded-year expenses of \$5.263 million plus an increase of \$3.073 million to account for incremental adjustments for various activities anticipated in 2025.¹⁴²⁸

Cal Advocates recommends a TY forecast of \$32.751 million for Business Planning, which is \$4.482 million lower than SCE's forecast of \$37.233 million.¹⁴²⁹ Cal Advocates' forecast consists of a labor component of \$24.160 million, and a non-labor component of \$8.591 million.¹⁴³⁰ Cal Advocates' forecast is based on a three-year average of recorded costs from 2020 to 2022.¹⁴³¹ Cal Advocates' recommendation relies on several relevant factors, including historical trends of recorded expenses as shown in Table 18-11, the inequity exposed from the risk of inaccurate forecasting in the past, and the need to mitigate future rate-increase burden on ratepayers.¹⁴³²

The historical trendline in this account between 2018 to 2022, shows that recorded expenses moved in a downward direction, starting from -4% in 2019 and peaking at -19% in 2022.¹⁴³³ This downward trend is in contrast to SCE's test-year forecast, which reflects a decrease of -19% in 2022, to the 35% increase proposed for TY 2025.¹⁴³⁴

The downward trend shown in this account also exposes the inequity that ratepayers experience when there is a disconnect between the authorized and the actual spending during the five-year trend of recorded historical data.¹⁴³⁵ For example, for this account in 2021, the authorized expenses were \$39.021 million, and the recorded expenses were \$34.089. SCE collected \$4.575 million more in rates than it spent.¹⁴³⁶

¹⁴²⁸ Ex. CA-18 at 15-16.

¹⁴²⁹ Ex. CA-18 at 16-17.

¹⁴³⁰ Ex. CA-18 at 16-17; Ex. CA-18-E at 16.

¹⁴³¹ Ex. CA-18 at 16-17.

¹⁴³² Ex. CA-18 at 16-17.

¹⁴³³ Ex. CA-18 at 16-17.

¹⁴³⁴ Ex. CA-18 at 16-17.

¹⁴³⁵ Ex. CA-18 at 16-17.

¹⁴³⁶ Ex. CA-18 at 16-17.

For 2022, the authorized expenses were \$38.376 million, and the recorded amount was \$27.520 million.¹⁴³⁷ SCE collected \$10.856 million in rates more than it spent. For both years combined, SCE collected \$15.431 million more in rates than it spent. This amount will likely be significantly higher when data is available to compare the authorized vs. recorded spending for the two attrition years (2023 and 2024) remaining in the current GRC cycle.¹⁴³⁸

Given the recorded data, which shows that SCE collected \$15.431 million more from ratepayers that was not used for intended purposes, Cal Advocates' test-year recommendation of \$32.715 million is reasonable.¹⁴³⁹ Cal Advocates' forecast provides SCE with an increase of \$5.231 million, or 20% above the last recorded year, in contrast to SCE's request for a 35% increase.¹⁴⁴⁰ Cal Advocates recommendation provides SCE with adequate resources to fund activities included in its test-year forecast.¹⁴⁴¹

2. Corporate Services

Corporate Services includes enterprise-wide financial services, such as financing, risk management, tax, and trust investments. SCE's forecast for TY 2025 is \$24.350 million. Cal Advocates' TY 2025 recommendation is \$23.994 million.¹⁴⁴²

Table 18-12 presents both the historical data; SCE's request, broken down by labor and non-labor costs; and Cal Advocates' recommendations.¹⁴⁴³

¹⁴³⁷ Ex. CA-18 at 16-17.

¹⁴³⁸ Ex. CA-18 at 16-17.

¹⁴³⁹ Ex. CA-18 at 16-17.

¹⁴⁴⁰ Ex. CA-18 at 16-17.

¹⁴⁴¹ Ex. CA-18 at 16-17.

¹⁴⁴² Ex. CA-18 at 17-18.

¹⁴⁴³ Ex. CA-18 at 17-18.

Table 18-12
Corporate Services
Recorded Expenses from 2018-2022 and TY 2025 Expenses
(in Constant \$000's)

Description	2018	2019	2020	2021	2022	SCE 2025	Cal Advocates 2025
Labor	\$8,450	\$8,541	\$9,300	\$9,632	\$9,824	\$12,032	\$11,357
Non-Labor	\$12,582	\$14,267	\$12,566	\$12,086	\$12,071	\$12,369	\$12,339
Other	(\$127)	(\$73)	(\$76)	(\$65)	(\$48)	(\$51)	(\$51)
Total	\$20,905	\$22,736	\$21,790	\$21,652	\$21,846	\$24,350	\$23,994
% Change From Previous Year		9%	-4%	.01%	.09%		

SCE's labor component forecast is \$12.032 million, which is based on the last recorded year (\$9.824 million) as the base estimate, plus an upward adjustment of \$2.208 million to account for increased staffing need for new work, the shift of resources in certain areas, and to reflect changes made to SCE's employee compensation program.¹⁴⁴⁴

The non-labor component of the forecast is \$12.071 million, which is based on the last recorded year, plus an upward adjustment of \$0.298 million for required incremental contract work.¹⁴⁴⁵

Cal Advocates recommends that the Commission adopt a test-year forecast of \$23.994 million for Corporate Services, which is \$0.356 million lower than SCE's forecast of \$24.350 million.¹⁴⁴⁶

Cal Advocates' forecast is based on a five-year average of the recorded labor expenses and non-labor expenses plus the upward adjustment of \$2.208 million that SCE requests for increased staffing for new work functions; the shift of resources in certain areas; and the changes made to SCE's employee-compensation program.¹⁴⁴⁷ Cal Advocates did not include SCE's request for \$0.298 million for incremental contract work because periodic, temporary staffing shortfalls are regularly expected business

¹⁴⁴⁴ Ex. CA-18 at 17-18.

¹⁴⁴⁵ Ex. CA-18 at 17-18.

¹⁴⁴⁶ Ex. CA-18 at 17-18.

¹⁴⁴⁷ Ex. CA-18 at 17-18.

activity. The associated cost should be considered a typical and unextraordinary business expense, reasonably absorbed by shifting existing and forecasted staffing resources.¹⁴⁴⁸

SCE's attempts to pad its TY forecast with incremental common-place expenses is rate aggrandizement and should not be condoned.¹⁴⁴⁹ Cal Advocates recommends a test-year forecast of \$23.994 million, which ensures SCE has sufficient funds to cover its costs of services to ratepayers, while ensuring ratepayers do not overpay for the services provided.¹⁴⁵⁰

3. Modeling, Analysis, and Forecasting.

Modeling, Analysis, and Forecasting performs the following functions: (1) long-term forecasting involving sales, demand, planning, and market price forecasts, as well as future energy-related costs; (2) system-resource planning; (3) developing and maintaining various emerging planning framework and methodologies; and (4) climate adaptation and resilience planning to incorporate options to mitigate future risks.¹⁴⁵¹

SCE's forecast for TY 2025 is \$10.234 million.¹⁴⁵² Table 18-13 presents the historical data, SCE's request by labor and non-labor and Cal Advocates' recommendation.¹⁴⁵³

¹⁴⁴⁸ Ex. CA-18 at 17-18.

¹⁴⁴⁹ Ex. CA-18 at 17-18.

¹⁴⁵⁰ Ex. CA-18 at 18-19.

¹⁴⁵¹ Ex. CA-18 at 19-20.

¹⁴⁵² Ex. CA-18 at 19-20.

¹⁴⁵³ Ex. CA-18 at 19-20.

Table 18-13
Modeling, Analysis and Forecasting
Recorded Expenses from 2018-2022 and TY 2025 Expenses
(in Constant \$000's)

Description	2018	2019	2020	2021	2022	SCE 2025	Caldvocat es 025
Labor	\$3,586	\$3,708	\$3,785	\$4,106	\$3,728	\$5,542	\$4,652
Non-Labor	\$1,070	\$1,075	\$1,053	\$1,334	\$986	\$2,860 ⁷	\$1,122
Total	\$4,656	\$4,783	\$4,838	\$5,439	\$4,714	\$8,402⁸	\$5,774
% Change From Previous Year		3%	1%	12%	-13%		

SCE's labor forecast of \$5.542 million is based on the last-recorded-year cost (\$3.728 million in year 2022) plus an upward adjustment of \$1.813 million to reflect additional staffing requirements. The result is a projected increase of 48% above the year 2022's recorded costs.¹⁴⁵⁴

SCE's non-labor forecast for the Test Year is \$2.860 million, based on using an itemized approach amounting to \$1.086 million, plus \$1.874 million for required incremental contract work.¹⁴⁵⁵ The projected increase is 190% above year 2022's recorded costs.¹⁴⁵⁶

A significant portion of the TY forecast for this account is associated with fulfilling the mandate of D.20-08-046,¹⁴⁵⁷ which directed utilities to file a Climate Adaptation Vulnerability Assessment (CAVA) every four years.¹⁴⁵⁸ SCE filed its first CAVA report in 2022; the next filing will be in 2026.¹⁴⁵⁹ Costs associated with the 2022

¹⁴⁵⁴ Ex. CA-18 at 19-20.

¹⁴⁵⁵ Ex. CA-18 at 19-20.

¹⁴⁵⁶ Ex. CA-18 at 19-20.

¹⁴⁵⁷ D.20-08-046, Order Instituting Rulemaking to Consider Strategies and Guidance for Climate Change Adaptation, in proceeding Rulemaking 18-04-019.

¹⁴⁵⁸ Ex. CA-18 at 19-20.

¹⁴⁵⁹ Ex. CA-18 at 19-20.

CAVA filing were captured in a CAVA Memorandum Account and were recovered through the Energy Resource Recovery Account (ERRA) balancing account.¹⁴⁶⁰

In response to Cal Advocates' data request, PubAdv-SCE-362-BEN, SCE stated that its TY 2025 forecast of \$8.402 million for Modeling, Forecasting, and Analysis includes labor expense of \$0.89 million and non-labor expense of \$1.738 million, totaling \$2.628 million, which is related to the CAVA requirement that it anticipates filing in 2026.¹⁴⁶¹ CAVA-related costs should not be included in the test-year forecast, because they are not annual occurrences.¹⁴⁶² Otherwise, such CAVA-related costs would become embedded in rates and receive attrition treatment throughout the GRC cycle.¹⁴⁶³

Consequently, Cal Advocates recommends that \$2.628 million in CAVA-related costs be removed from SCE's TY 2025 forecast. SCE could seek recovery of costs recorded in its CAVA Memorandum Account (CAVAMA) through an ERRA filing.¹⁴⁶⁴

D. Supply Chain Management and Supplier Diversity and Development

Supply Chain Management (SCM) Business Planning Element (BPE) consists of the following work activities: Logistics, Graphics, and Center of Excellence (LG&CE); and Supplier Diversity and Development (SD&D).¹⁴⁶⁵ Cal Advocates does not oppose SCE's TY 2025 forecast for Logistic, Graphics, and Center of Excellence.

But Cal Advocates recommends a TY 2025 forecast of \$3.275 million for Supplier Diversity and Development, which is \$0.321 million lower than SCE's forecast of \$3.596 8 million.¹⁴⁶⁶

¹⁴⁶⁰ Ex. CA-18 at 19-20.

¹⁴⁶¹ Ex. CA-18 at 19-20.

¹⁴⁶² Ex. CA-18 at 19-20.

¹⁴⁶³ Ex. CA-18 at 19-20.

¹⁴⁶⁴ Ex. CA-18 at 19-20.

¹⁴⁶⁵ Ex. CA-18 at 20-21.

¹⁴⁶⁶ Ex. CA-18 at 20.

Table 18-14 summarizes recorded costs for the years 2018 through 2022, SCE’s request for Test Year 2025, and Cal Advocates’ recommendations for Test Year 2025.¹⁴⁶⁷

Table 18-14
SUPPLY CHAIN MANAGEMENT
Recorded Expenses from 2018-2022 and TY 2025 Expenses
(in Constant \$000’s)

Description	2018	2019	2020	2021	2022	SCE 2025	Cal Advocates 2025
Logistic, Graphics, and Center of Excellence	\$4,656	\$4,330	\$4,168	\$7,335	\$7,144	\$4,259	\$4,259
Supplier Diversity Development	\$3,638	\$3,623	\$3,612	\$2,968	\$2,535	\$3,596	\$3,275
Total	\$8,294	\$7,953	\$7,780	\$10,303	\$9,679	\$7,855	\$7,534
% Change From Previous Year		-5%	-2%	32%	-6%		

SCE’s TY 2025 forecast for SD&D is \$3.596 million. SCE uses different methodologies to forecast the labor and non-labor portions of the test-year estimates.¹⁴⁶⁸ The labor portion of the forecast is based on 2022, the last-recorded-year data, plus \$0.349 million for labor expenses.¹⁴⁶⁹ For the non-labor portion, SCE uses the last-recorded-year data, plus adjustments for non-labor expenses. SCE states that, “as a result, the 2025 non-labor forecast is approximately the four-year average of 2018-2021 expenses when non-labor expenses were relatively flat.”¹⁴⁷⁰

According to SCE, there was a net decrease of approximately \$.243 million in labor costs for 2019 through 2021.¹⁴⁷¹ For Test Year 2022, labor costs were described to be flat.¹⁴⁷² Similarly, non-labor, costs were described to be flat for 2018 through 2021,

¹⁴⁶⁷ Ex. CA-18 at 20.

¹⁴⁶⁸ Ex. CA-18 at 21.

¹⁴⁶⁹ Ex. CA-18 at 21.

¹⁴⁷⁰ Ex. CA-18 at 21.

¹⁴⁷¹ Ex. CA-18 at 21.

¹⁴⁷² Ex. CA-18 at 21.

but decreased approximately \$0.482 million in 2022.¹⁴⁷³ SCE attributes the trends in historical labor expenses and historical non-labor expenses to be a result of the global COVID pandemic and related societal disruptions that affected spending.¹⁴⁷⁴

Table 18-15 provides the labor and non-labor breakdown of historical data, SCE's O&M forecast, and Cal Advocates' recommendations.¹⁴⁷⁵

Table 18-15
Supplier Diversity Development
Recorded Expenses from 2018-2022 and TY 2025 Expenses.
(in Constant \$000's)

Description	2018	2019	2020	2021	2022	SCE 2025	Cal Advocates 2025
Labor	\$1,087	\$1,167	\$1,362	\$924	\$971	\$1,320	\$1,102
Non-Labor	\$2,551	\$2,456	\$2,250	\$2,045	\$1,563	\$2,276	\$2,173
Total	\$3,638	\$3,623	\$3,612	\$2,968	\$2,535	\$3,596	\$3,275
% Change From Previous Year		-.04%	-.03%	-18%	-15%		

Cal Advocates recommends that the Commission adopt a Test Year forecast of \$3.275 million for Supplier Diversity & Development, which is \$0.321 million lower than SCE's forecast of \$3.596 million.¹⁴⁷⁶ The primary difference between the SCE and Cal Advocates forecasts is because Cal Advocates bases its forecast on a five-year average of recorded costs for both labor expenses and labor expenses, combined, with no adjustment for SCE's proposed incremental non-labor costs.¹⁴⁷⁷ The percentage changes from year to year show a downward trend between 2018-2022 for this account.¹⁴⁷⁸

In addition to reviewing the trend shown from historical data for this account, Cal Advocates reviewed historical variances between what had been authorized in SCE's last

¹⁴⁷³ Ex. CA-18 at 21.

¹⁴⁷⁴ Ex. CA-18 at 21.

¹⁴⁷⁵ Ex. CA-18 at 21-22.

¹⁴⁷⁶ Ex. CA-18 at 22-23.

¹⁴⁷⁷ Ex. CA-18 at 22-23.

¹⁴⁷⁸ Ex. CA-18 at 22-23.

GRC, and the amount actually spent during the last two years of recorded data.¹⁴⁷⁹ In 2021, SCE's authorized O&M was \$0.631 million higher than the amount spent. For 2022, SCE's authorized O&M was \$1.074 million higher than the amount spent. For both years, 2021 and 2022, SCE collected approximately \$1.804 million more in rates than it spent.¹⁴⁸⁰

Based on the data for the two attrition years (2023 and 2024), the level of unspent authorized funding is likely to be significantly higher because the authorized budgets for 2023 and 2024 attrition years are higher than authorized levels for 2021 and 2022.¹⁴⁸¹ Consequently, SCE's request for an incremental labor adjustment is unreasonable and should be denied. Ratepayers have provided funds through rates for labor-cost requirements that were not fully used during the current GRC cycle.¹⁴⁸² Savings from unspent funds should be used to implement any incremental funding that SCE needs during the next GRC cycle.¹⁴⁸³ Accordingly, Cal Advocates' five-year average of 2018 through 2022 for the SD&D expense should provide sufficient cost recovery.¹⁴⁸⁴

XXIX. INSURANCE

A. Liability Insurance (Wildfire)

Cal Advocates supported SCE's position, and a decision has been issued on the matter.

B. Liability Insurance (Non-Wildfire)

Cal Advocates had recommended a TY 2025 forecast of \$58.672 million for non-wildfire liability insurance.¹⁴⁸⁵ This issue is now addressed through Ex. SCE-34, Stipulation of TURN, Cal Advocates, and SCE on Non-Wildfire Insurance.

¹⁴⁷⁹ Ex. CA-18 at 22-23.

¹⁴⁸⁰ Ex. CA-18 at 22-23.

¹⁴⁸¹ Ex. CA-18 at 22-23.

¹⁴⁸² Ex. CA-18 at 22-23.

¹⁴⁸³ Ex. CA-18 at 22-23.

¹⁴⁸⁴ Ex. CA-18 at 22-23.

¹⁴⁸⁵ Ex. CA-17 at 57-58.

Cal Advocates had recommended a TY 2025 forecast of \$60,000 for nuclear liability insurance.¹⁴⁸⁶ This issue is now addressed through Ex. SCE-34, Stipulation of TURN, Cal Advocates, and SCE on Non-Wildfire Insurance.

C. Property Insurance

Cal Advocates had recommended \$19.494 million for property insurance's forecast for the TY 2025.¹⁴⁸⁷ This issue is now addressed through Ex. SCE-34, Stipulation of TURN, Cal Advocates, and SCE on Non-Wildfire Insurance.

Cal Advocates had recommended a recognition of \$1.235 million in broker commission refunds for TY 2025 forecast refunds.¹⁴⁸⁸ This issue is now addressed through Ex. SCE-34, Stipulation of TURN, Cal Advocates, and SCE on Non-Wildfire Insurance.

Cal Advocates had recommended a TY 2025 forecast of \$155,000 for nuclear property insurance.¹⁴⁸⁹ This issue is now addressed through Ex. SCE-34, Stipulation of TURN, Cal Advocates, and SCE on Non-Wildfire Insurance.

XXX. EMPLOYEE BENEFITS, TRAINING AND SUPPORT

A. Employee Support

Employee Support has been addressed through a partial stipulation set forth in Exhibit SCE-31, Stipulation of TURN, Cal Advocates, and SCE on Employee Support.

B. Employee Benefits & Programs

SCE forecasts \$516.089 million for Employee Benefits and Programs O&M expenses in TY 2025. Cal Advocates' recommendation for SCE's Employee Benefits and Programs O&M expenses is \$393.587 million. Cal Advocates' recommendation is \$122.502 million less than SCE's request.¹⁴⁹⁰

¹⁴⁸⁶ Ex. CA-17 at 60-61.

¹⁴⁸⁷ Ex. SCE-34, Stipulation of TURN, Cal Advocates, and SCE on Non-Wildfire Insurance; Ex. CA-17 at 55-57.

¹⁴⁸⁸ Ex. CA-17 at 58-59.

¹⁴⁸⁹ Ex. CA-17 at 60-61.

¹⁴⁹⁰ Ex. CA-19, Employee Benefits, Training and Support (Part 1 of 2) at 1.

The following summarizes Cal Advocates' recommendations regarding SCE's Employee Benefits and Programs O&M expenses for TY 2025.¹⁴⁹¹

- Cal Advocates recommends \$43.195 million for SCE's Short-Term Incentive Program (STIP), which is \$71.991 million lower than SCE's TY request of \$115.186 million.
- Cal Advocates recommends no ratepayer funding for SCE's Long-Term Incentive Program (LTI), which is \$22.017 million lower than SCE's TY request of \$22.017 million.
- Cal Advocates recommends \$14.394 million for SCE's Executive Compensation, which is \$3.044 million lower than SCE's TY request of \$17.438 million.
- Cal Advocates recommends \$126.312 million for SCE's Medical Programs, which is \$16.703 million lower than SCE's TY request of \$143.015 million.
- Cal Advocates recommends \$8.336 million for SCE's Executive Benefits, which is \$8.336 million lower than SCE's TY request of \$16.672 million.
- Cal Advocates recommends no ratepayer funding for SCE's Recognition Programs, which is \$0.411 million lower than SCE's TY request of \$0.411 million.¹⁴⁹²

Regarding the remaining Employee Benefits and Programs O&M expenses, Cal Advocates does not oppose SCE's requests for the following cost categories: Pension (service cost), \$79.086 million; Pension (non-service cost), -\$34.152 million; 401(k) Savings Plan, \$122.609 million; Post-Retirement Benefits Other than Pension (PBOP) (service cost), \$20.772 million; PBOP (non-service cost), -\$20.772 million; Disability Management Admin, \$1.112 million; Disability Programs, \$13.572 million; Dental Programs, \$12.281 million; Vision Programs, \$2.080 million; Group Life, \$1.239 million; Severance, \$1.288 million; Miscellaneous Benefits, \$2.235 million.¹⁴⁹³

¹⁴⁹¹ Ex. CA-19 at 1-2.

¹⁴⁹² Ex. CA-19 at 1-2.

¹⁴⁹³ Ex. CA-19 at 1-3.

Table 19-1 compares SCE’s historical data from 2018 to 2022, Cal Advocates’ TY 2025 recommendation, and SCE’s TY 2025 request for Employee Benefits and Programs O&M expenses.¹⁴⁹⁴

Table 19-1
Employee Benefits and Programs Expenses
2018-2022 Recorded and 2025 Forecasts
(\$000)

Description	2018	2019	2020	2021	2022	SCE 2025 Forecast	Cal Advocates 2025 Forecast
	\$	\$	\$	\$	\$	\$	\$
STIP	\$151,913	\$189,066	\$196,519	\$203,192	\$181,998	\$115,186	\$43,195
LTI	\$9,013	\$10,082	\$9,103	\$14,553	\$18,117	\$22,017	\$0
Exec. Compensation	\$17,230	\$14,747	\$16,447	\$16,771	\$17,438	\$17,438	\$14,394
Recognition	\$856	\$687	\$199	\$418	\$411	\$411	\$0
Pension (service cost)	\$120,492	\$108,941	\$116,648	\$125,371	\$115,348	\$79,086	\$79,086
Pension (non-service cost)	-\$73,540	-\$57,536	-\$76,091	-\$93,583	-\$115,348	-\$34,152	-\$34,152
401(k) Savings	\$71,567	\$80,295	\$91,507	\$95,913	\$100,423	\$122,609	\$122,609
PBOP (service cost)	\$36,316	\$29,570	\$37,412	\$39,902	\$33,361	\$20,772	\$20,772
PBOP (non-service cost)	-\$18,914	-\$23,220	-\$37,412	-\$39,902	-\$33,361	-\$20,772	-\$20,772
Medical Programs	\$85,278	\$85,598	\$78,067	\$92,677	\$103,981	\$143,015	\$126,312
Dental Plans	\$11,256	\$11,139	\$11,799	\$11,563	\$10,757	\$12,281	\$12,281
Vision Service Plans	\$2,330	\$2,227	\$2,339	\$2,503	\$1,903	\$2,080	\$2,080
Disability Mgmt. Admin	\$597	\$867	\$1,125	\$1,043	\$1,077	\$1,112	\$1,112
Disability Programs	\$15,203	\$10,662	\$11,827	\$11,902	\$12,113	\$13,572	\$13,572
Group Life	\$1,229	\$1,253	\$1,240	\$1,244	\$1,239	\$1,239	\$1,239
Severance	\$4,722	\$2,651	\$856	\$1,672	\$1,170	\$1,288	\$1,288
Miscellaneous Benefits	\$2,976	\$2,813	\$2,415	\$2,267	\$2,228	\$2,235	\$2,235
Executive Benefits	\$14,545	\$9,446	\$7,919	\$10,524	\$17,624	\$16,672	\$8,336
Total	\$453,069	\$479,288	\$471,919	\$498,030	\$470,479	\$516,089	\$393,587

Source: SCE’s response to data request (DR) PubAdv-SCE-023-CE3, Q.01, Ex. SCE-06, Vol. 04 E3, p. 68 & p. 140, and Ex. SCE-06, Vol. 04 E, p. 27.

1. Short-Term Incentive Program (STIP)

According to SCE, “STIP is the annual variable pay program that gives employees an opportunity to earn a cash award based on achieving Company [SCE] goals and

¹⁴⁹⁴ Ex. CA-19 at 3.

individual performance.”¹⁴⁹⁵ After removal of the financial-goals metric in STIP, ratepayers should fund no more than half of the STIP program.¹⁴⁹⁶

In SCE’s 2021 GRC, the Commission adopted \$82.818 million as the appropriate level of ratepayer funding for STIP for 2021; SCE spent \$203.192 million on STIP that year.¹⁴⁹⁷ For TY 2025, SCE requests \$115.186 million in ratepayer funding for STIP, an increase of 39% above what was previously authorized.¹⁴⁹⁸ Cal Advocates recommends ratepayer funding of \$43.195 million for SCE’s TY 2025 STIP expenses, which is \$71.991 million lower than SCE’s request.¹⁴⁹⁹

In SCE’s 2021 GRC, SCE weighted the metric for “financial goals” at 30% of the STIP, but the Commission disallowed ratepayer funding for the financial-goals portion of the STIP.¹⁵⁰⁰ The Commission noted the following about the STIP and SCE’s financial-performance goal:

SCE has the burden of demonstrating that the costs related to the program criteria are reasonable. We find that SCE has failed to demonstrate that costs related to the Financial Performance goal category are reasonable, and therefore, adopt Cal Advocates’ and TURN’s [The Utility Reform Network’s] recommendations to exclude ratepayer funding for this goal (30 percent weight). Ratepayers can receive certain benefits from a financially healthy company. However, as in past GRCs, we continue to find that this goal is primarily intended to benefit shareholders. The goal may or may not result in secondary benefits to ratepayers since a goal of “achieving core earnings” does not always align shareholder and ratepayer interests. For example, the Commission has found that incentives to increase earnings do not always align with incentives to address safety or reliability issues.¹⁵⁰¹

¹⁴⁹⁵ Ex. SCE-06, Vol. 04, Employee Benefits, Training and Support at 63.

¹⁴⁹⁶ Ex. CA-19 at 5.

¹⁴⁹⁷ Ex. SCE-06 at 66.

¹⁴⁹⁸ Ex. CA-19 at 4.

¹⁴⁹⁹ Ex. CA-19 at 4.

¹⁵⁰⁰ D.21-08-036, Decision on Test Year 2021 General Rate Case for Southern California Edison Company, at 431-432.

¹⁵⁰¹ D.21-08-036 at 431-432.

Similarly in this GRC, SCE requested a reduced financial-goal metric of 25%, which still amounts to \$28.797 million of SCE’s TY STIP request. Cal Advocates recommends that the Commission continue its longstanding policy of disallowing the financial-goal metric; and the Commission should adopt an equal sharing of the remaining costs after removing the financial-related STIP.¹⁵⁰²

Shareholders should be expected to bear at least half of the STIP’s costs—no matter what the metrics are.¹⁵⁰³ The Commission also agreed with Cal Advocates on this matter in the past. In D.14-08-032, the Commission stated that “shareholders benefit from STIP. For some measures, shareholders benefit as much as or more than ratepayers.”¹⁵⁰⁴ Therefore, shareholders should be funding as much as, or more than, ratepayers.¹⁵⁰⁵ Furthermore, STIP will be paid at a lower level if targets are unmet; and it is within SCE’s management’s discretion whether to pay STIP at all in any given year.¹⁵⁰⁶ For these reasons, ratepayers should not be required to fund such a large “blank check” to SCE management.¹⁵⁰⁷

SCE’s ratepayers are facing economic struggles with increasing electric rates and bills; and this type of discretionary spending should be reined in.¹⁵⁰⁸ Ratepayers are already funding base pay, which covers the basic compliance and operations described in SCE’s 2025 Company Goals.¹⁵⁰⁹ These goals include the following: “progress toward eliminating serious injuries and fatalities,” “maintain effective controls,” “sustain execution quality in operations,” and “improve reliability performance.”¹⁵¹⁰

¹⁵⁰² Ex. CA-19 at 4.

¹⁵⁰³ Ex. CA-19 at 4-5.

¹⁵⁰⁴ D.14-08-032, Decision Authorizing Pacific Gas and Electric Company's General Rate Case Revenue Requirement for 2014-2016 at 520.

¹⁵⁰⁵ Ex. CA-19 at 4-5.

¹⁵⁰⁶ Ex. CA-19 at 4-5.

¹⁵⁰⁷ Ex. CA-19 at 4-5.

¹⁵⁰⁸ Ex. CA-19 at 5.

¹⁵⁰⁹ Ex. CA-19 at 5.

¹⁵¹⁰ Ex. SCE-06, workpapers Vol. 04, Book B at 10.

Finally, Cal Advocates’ recommendation and calculation of the ratepayer-funded portion of STIP are consistent with the Commission’s decision and Cal Advocates’ recommendation in Pacific Gas and Electric Company’s (PG&E’s) recent TY 2023 GRC. In that proceeding, regarding PG&E’s STIP, the Commission found it reasonable in D.23-11-069 to disallow ratepayer funding for the “financial goals metric,” based on past precedent.¹⁵¹¹ In PG&E’s 2023 GRC, the Commission recounted that Cal Advocates had recommended “a total 2023 STIP forecast of \$87.212 million,” based on the reasoning that the Commission should “remove the STIP financial metric ‘Earnings from Operations’ from ratepayer funding and adopt an equal sharing of the remaining costs between ratepayers and shareholders.”¹⁵¹² The Commission ultimately adopted a STIP expense forecast for 2023 of \$87.212 million, which was the recommended ratepayer funding amount proposed by Cal Advocates.¹⁵¹³

Likewise, in SCE’s 2021 GRC, the Commission excluded ratepayer funding for the STIP’s “Financial Performance goal category” and decided to “limit STIP funding based on historical STIP to labor ratios and exclude ratepayer funding for 50 percent of the STIP program goals, which we find primarily benefit shareholders.”¹⁵¹⁴

Based on these past Commission decisions, ratepayers should fund no more than half of the STIP program—to be calculated after the removal of the financial-goals metric.¹⁵¹⁵ Cal Advocates’ STIP’s expense forecast of ratepayer funding is \$43.195 million, as shown in Table 19-2.¹⁵¹⁶

¹⁵¹¹ D.23-11-069, Decision on Test Year 2023 General Rate Case for Pacific Gas and Electric Company, at 606-609.

¹⁵¹² D.23-11-069 at 606, 608.

¹⁵¹³ D.23-11-069 at 606-609.

¹⁵¹⁴ D.21-08-036 at 431-433.

¹⁵¹⁵ Ex. CA-19 at 5-6.

¹⁵¹⁶ Ex. CA-19 at 5-6.

Table 19-2
Short-Term Incentive Plan
SCE and Cal Advocates Proposed Ratepayer Funding Levels (\$000)

	Proposed percentages		Proposed dollar amounts	
	SCE	Cal Advocates	SCE	Cal Advocates
Safety & Resiliency Goals	55.00%	27.50%	\$63,352	\$31,676
Performance & Operational Goals	20.00%	10.00%	\$23,037	\$11,519
Financial Goals	25.00%	0.00%	\$28,797	\$0
Total	100.00%	37.50%	\$115,186	\$43,195

Source: Ex SCE-06, workpapers Vol. 04, Bk. B, p. 10. The Financial Goals metric is labeled as “Achieve SCE core earnings target.”

2. Long-Term Incentive Plan (LTI)

SCE requested \$22.017 million for its Long-Term Incentive Plan (LTI), but Cal Advocates recommends that the amount be zero.¹⁵¹⁷ SCE acknowledged that the Commission has admonished SCE for continuing to seek rate recovery for LTI, but continues to request rate recovery for LTI.¹⁵¹⁸

SCE relies on Assembly Bill (AB) 1054 to support its LTI request. This reliance is misplaced. AB 1054 does not include any language that says ratepayers should be required to fund incentives like LTI; and SCE fails to cite any language from AB 1054 to support its argument that ratepayers should be funding incentives like LTI.¹⁵¹⁹ Nothing in AB 1054 undercuts the principle set forth in California Public Utilities Code section 706 that states: “An electrical corporation or gas corporation shall not recover expenses for compensation from ratepayers. Compensation shall be paid solely by shareholders of the electrical corporation or gas corporation.”

¹⁵¹⁷ Ex. CA-19 at 6.

¹⁵¹⁸ Ex. SCE-06, Vol. 04 at 69.

¹⁵¹⁹ Assembly Bill No. 1054, https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201920200AB1054; Ex. SCE-06, Vol. 04 at 70-71.

In D.21-08-036 (issued after AB 1054 was passed in 2019), the Commission denied SCE's request for ratepayer funding of its LTI stating :

Going back to at least the 2009 GRC, the Commission has excluded SCE's LTI costs from rates because LTI does not align executives' interests with ratepayer interests. SCE does not present any new arguments that would warrant a departure from this longstanding policy. We continue to find that LTI is primarily designed to reward SCE employees for promoting shareholder interests. . . . Moreover, LTI is closely tied to the stock performance of EIX [Edison International] since LTI awards take the form of equity in EIX.

SCE's arguments that reconsideration of this issue is merited in light of AB 1054 are not convincing. Although AB 1054 requires electrical corporations to establish a compensation structure which provides a significant portion of executive officer compensation based on performance, we agree with Cal Advocates that nowhere does AB 1054 indicate that ratepayers should fund LTI. In fact, AB 1054 did not amend the provision in [Public Utilities Code] Section 706, which prohibits compensation for officers, which would include LTI, from being recovered from ratepayers.

Based on the foregoing, we see no reason to discontinue our longstanding policy of denying ratepayer recovery for LTI. Therefore, SCE's request to include these costs in rates is denied.¹⁵²⁰

This determination is consistent with Commission precedent. In D.13-05-010, the Commission found that because "stock-based compensation is tied to financial performance over a period of time, that connection clearly demonstrates that a premium is being placed on the companies' financial performance."¹⁵²¹ Similarly, in D.15-11-021, the Commission stated : "SCE has not demonstrated that LTI furthers the provision of safe and reliable service at just and reasonable rates. We continue our consistent practice and reject rate recovery of SCE's LTI program."¹⁵²² The Commission also noted in

¹⁵²⁰ D.21-08-036 at 424-424 (footnotes omitted).

¹⁵²¹ D.13-05-010, Decision on General Rate Cases of San Diego Gas & Electric Company and Southern California Gas Company, at 884.

¹⁵²² D.15-11-021, Decision on Test Year 2015 General Rate Case for Southern California Edison Company, at 266.

recent decisions that the Commission has “held that LTI is not recoverable from ratepayers because LTI does not align executives’ interests with ratepayer interests.”¹⁵²³ SCE provides no new evidence or authority to indicate that SCE’s LTI program is now aligned with ratepayer interests; a long-term stock-based compensation plan is not primarily designed to align with ratepayer interests.¹⁵²⁴

Cal Advocates continues to recommend that ratepayers not fund LTI. Cal Advocates recommends an adjustment of \$22.017 million for LTI, resulting in zero ratepayer funding.¹⁵²⁵

3. Executive Compensation.

SCE forecasts \$17.438 million of expenses for Executive Compensation (salaries and incentive pay), non-labor expenses, and outside services; but Cal Advocates recommends \$14.394 million.¹⁵²⁶

Cal Advocates’ review of SCE’s testimony, workpapers, and data-request responses finds that Executive Compensation includes annual short-term incentives.¹⁵²⁷ According to SCE, the Executive Incentive Compensation Plan (EICP) is “SCE’s short-term incentive compensation program for its executives.”¹⁵²⁸ According to SCE, “STIP and the EICP are aligned with the same set of measurable and challenging [SCE] performance goals”;¹⁵²⁹ and indeed, SCE refers to the STIP program and EICP program collectively as STIP.¹⁵³⁰ However, the forecast for EICP is already included in the STIP program expenses.¹⁵³¹ The workpapers supporting SCE’s STIP TY requests stated, “This

¹⁵²³ D.15-11-021, Decision on Test Year 2015 General Rate Case for Southern California Edison Company, at 266.

¹⁵²⁴ Ex. CA-19 at 7.

¹⁵²⁵ Ex. CA-19 at 6-7.

¹⁵²⁶ Ex. CA-19 at 8.

¹⁵²⁷ Ex. SCE-06, Vol. 04 at 55-56.

¹⁵²⁸ Ex. SCE-06, Vol. 04 at 59.

¹⁵²⁹ Ex. SCE-06, Vol. 04 at 63.

¹⁵³⁰ Ex. SCE-06, Vol. 04 at 62.

¹⁵³¹ Ex. SCE-06, workpapers Vol. 04, Book B at 33, 39, 45, and 51.

activity presents costs associated with Short Term Incentive Program (STIP) and Executive Incentive Compensation Plan (EIC) for executives who are not officers.”¹⁵³²

Because EICP was already requested in the STIP program’s expenses, EICP should not also be recovered through the Executive Compensation activity. Accordingly, Cal Advocates recommends a downward adjustment of \$3.044 million.¹⁵³³

4. Medical Programs

SCE forecasts \$143.015 million for TY Medical Programs expenses, which represents an increase of \$39.034 million over the 2022 base year.¹⁵³⁴ Cal Advocates forecast for Medical Programs is \$126.312 million.¹⁵³⁵

Starting in 2024, SCE will reduce the employee share of healthcare premiums across all medical plans. SCE will also reduce certain medical plans’ co-pays and out-of-pocket costs, and will implement a standard/closed prescription drug formulary for the pharmacy program.¹⁵³⁶

Cal Advocates develops its forecast of medical expenses based on the increase of 21.47% that occurred from the three-year period of 2019 – 2022, which is approximately 7% per year.¹⁵³⁷ The recent historical recorded data shows some variability in the expense from year to year.¹⁵³⁸ In some years, costs have remained flat or decreased slightly while more recent data shows higher annual increases.¹⁵³⁹ SCE seems to rely more on the sharper increase to develop its test-year forecast, and this reliance results in a steep increase from the base-year level of \$103.981 million to a test-year increase to

¹⁵³² Ex. SCE-06, workpapers Vol. 04, Book B at 33, 39, 45, and 51.

¹⁵³³ Ex. CA-19 at 8.

¹⁵³⁴ Ex. SCE-06, Vol. 04 at 114-115.

¹⁵³⁵ Ex. CA-19 at 9.

¹⁵³⁶ Ex. SCE-06, Vol. 04 at 118.

¹⁵³⁷ Ex. SCE-06, Vol. 04 at 114-115.

¹⁵³⁸ Ex. SCE-06, Vol. 04 at 114-115.

¹⁵³⁹ Ex. SCE-06, Vol. 04 at 114-115.

\$143.015 million.¹⁵⁴⁰ Cal Advocates proposes a more moderate but still sizable increase in Test Year funding relative to the base year recorded data by relying on the three-year increase, from 2019 – 2022, of 21.47%.¹⁵⁴¹ Cal Advocates applies this same three-year 21.47% increase to the three-year 2022 – 2025 timeframe.¹⁵⁴² The 2002 recorded figure of \$103.981 million is increased by 21.47% to arrive at the appropriate 2025 test-year forecast of \$126.312 million. This percentage represents a sizable increase of \$22.331 million over the base-year amount of \$103.981 million.¹⁵⁴³

SCE has a Medical Programs Balancing Account, which ensures that ratepayers will ultimately fund the actual cost to provide medical benefits to SCE’s employees.¹⁵⁴⁴ Therefore, if medical expenses increase beyond the level forecasted by Cal Advocates, any additional expense will be captured in the balancing account and SCE is at no risk for recovery.¹⁵⁴⁵

Finally, Cal Advocates’ forecast of \$126.3 million is most reasonable and compelling because it still represents a considerable increase in contrast to the more recent 2023 recorded expense of \$104.2 million for medical programs.¹⁵⁴⁶

5. Executive Benefits

SCE’s TY request for Executive Benefits is \$16.672 million. Cal Advocates recommends ratepayer funding of no more than 50%, resulting in a total TY Executive Benefits expense of \$8.336 million.¹⁵⁴⁷

¹⁵⁴⁰ Ex. CA-19 at 9.

¹⁵⁴¹ Ex. CA-19 at 9.

¹⁵⁴² Ex. CA-19 at 9.

¹⁵⁴³ Ex. CA-19 at 9.

¹⁵⁴⁴ Ex. SCE-06, Vol. 04 at 121.

¹⁵⁴⁵ Ex. CA-19 at 9-10.

¹⁵⁴⁶ Ex. SCE-11, 2023 Recorded Data at A-9.

¹⁵⁴⁷ Ex. CA-19 at 10-11.

Executive Benefits includes the Executive Retirement Plan.¹⁵⁴⁸ SCE's Executive Retirement Plan is a non-qualified pension plan that provides benefits that executives cannot otherwise receive in the qualified SCE Retirement Plan due to compensation and payout limits imposed by the Internal Revenue Code on that SCE Retirement Plan.¹⁵⁴⁹ Accordingly, this non-qualified Executive Retirement Plan provides benefits to covered employees on the same basis as in the retirement plan offered to all other SCE employees—but without the compensation limitations or payout limitations of the retirement plan offered to all other employees.¹⁵⁵⁰

The Commission has ordered ratepayers to pay 50%—at most—of this type of expense.¹⁵⁵¹ SCE did not make an adjustment to its forecast for Executive Benefits to reflect any sharing of this program cost with shareholders.¹⁵⁵² In light of the Commission's history and precedent, Cal Advocates recommends ratepayer funding of no more than 50%, resulting in a total TY Executive Benefits expense of \$8.336 million.

Cal Advocates' proposal is consistent with prior Commission precedent on this issue. Recently, the Commission addressed the matter in D.21-08-036 as follows: "Furthermore, since SCE's 2009 GRC, the Commission has consistently allowed rate recovery of 50 percent of SCE's Executive Benefits forecast. The Commission adopted this approach in past GRCs because Executive Benefits are based, in part, on executive bonuses, not all of which are recoverable in rates. The Commission has also found that these costs should be equally shared between ratepayers and shareholders because both receive benefits from the retention of executives and managers. These rationale continue to apply in this case."¹⁵⁵³

¹⁵⁴⁸ Ex. SCE-06, Vol. 04 at 140.

¹⁵⁴⁹ Ex. SCE-06, Vol. 04 at 140.

¹⁵⁵⁰ Ex. SCE-06, Vol. 04 at 140.

¹⁵⁵¹ D.14-08-032 at 535; D.15-11-021 at 260-261, and D.19-05-020, Decision on Test Year 2018 General Rate Case for Southern California Edison Company, at 193.

¹⁵⁵² Ex. SCE-06, Vol. 04 at 140-144.

¹⁵⁵³ D.21-08-036 at 421-422 (footnotes omitted).

6. Recognition

Cal Advocates recommends zero ratepayer funding for SCE's Recognition Program expense, resulting in a reduction of \$0.411 million.¹⁵⁵⁴

SCE's Recognition Program involves both cash and non-cash awards.¹⁵⁵⁵ Cash awards are given in the form of spot bonuses, and SCE states that these cash awards are an important tool for recognizing and rewarding employees for exceptional performance and outstanding achievement.¹⁵⁵⁶ Non-cash awards are given—under the “Encore” non-cash recognition program—as program points that can be granted by co-workers with the prior approval of the next-level supervisor.¹⁵⁵⁷

The Commission has recently denied ratepayer funding for these types of programs. In D.23-11-069, the Commission found the following:

Within the context of the overall increase proposed by this rate case, the Commission does not find it reasonable for ratepayers to support the costs of small trinkets, such as engraved belt buckles, with a 2023 expense forecast of \$893,000 based on PG&E's assertion such items promote the “interests of customers.” PG&E has other programs for employee recognition with metrics that are more closely tied to customer interests. PG&E may continue this program but not at ratepayer expense for this rate case period, 2023-2026.¹⁵⁵⁸

The Commission should adopt Cal Advocates' recommendation for zero ratepayer funding for SCE's Recognition Program Expense, resulting in a reduction of \$0.411 million.¹⁵⁵⁹

¹⁵⁵⁴ Ex. CA-19 at 11-12.

¹⁵⁵⁵ Ex. SCE-06, Vol. 04 at 74-76.

¹⁵⁵⁶ Ex. SCE-06, Vol. 04 at 74-76.

¹⁵⁵⁷ Ex. SCE-06, Vol. 04 at 76.

¹⁵⁵⁸ D.23-11-069 at 633.

¹⁵⁵⁹ Ex. CA-19 at 11-12.

C. Employee Training

Employee Training comprises three GRC activities: (1) Employee Training and Development, (2) Transmission & Distribution – Training Seat Time, and (3) Transmission & Distribution – Training Delivery and Development.¹⁵⁶⁰ Table 20-7 below shows SCE’s recorded adjusted expenses for Employee Training activities for 2018-2022, Cal Advocates’ TY 2025 forecasts, and SCE’s TY 2025 forecasts. In Table 20-7, the category of Employee Training and Development has been addressed through a partial stipulation in Exhibit SCE-33, Stipulation of Cal Advocates and SCE on Training & Development.¹⁵⁶¹

Table 20-7
Employee Training O&M Expenses
2018-2022 Recorded and 2025 Forecast
(\$000)

Description	2018	2019	2020	2021	2022	SCE 2025	Cal Advocates 2025
Employee Training and Development	\$23,559	\$27,590	\$18,739	\$16,314	\$17,455	\$25,592	\$17,997
T&D – Training Seat Time	\$27,398	\$28,562	\$16,368	\$19,912	\$21,235	\$37,023	\$25,309
T&D – Training Delivery and Development	\$19,258	\$18,236	\$16,653	\$15,263	\$15,824	\$23,199	\$16,431
Total	\$70,213	\$74,388	\$51,759	\$51,489	\$54,514	\$85,814	\$59,737

Source: Ex. SCE-06, workpapers Vol. 04, Book C E3, pp. 195 & 237 E3; Ex. SCE-06, Workpapers Vol. 04, Bk C, p. 244

1. Employee Training and Development

Employee Training and Development has been addressed through a partial stipulation set forth in Exhibit SCE-33, Stipulation of Cal Advocates and SCE on Training & Development.

2. Transmission & Distribution – Training Seat Time

SCE requests \$37.023 million for Transmission & Distribution – Training Seat Time for TY 2025, which is an increase of \$15.789 million compared to SCE’s 2022 recorded

¹⁵⁶⁰ Ex. CA-20, Employee Benefits, Training and Support (Part 2 of 2) at 11.

¹⁵⁶¹ Ex. CA 20 at 11-12.

expenses of \$21.234 million.¹⁵⁶² Cal Advocates recommends \$25.309 million for SCE’s Training Seat Time activities. Cal Advocates’ recommendation is \$11.714 million less than SCE’s TY 2025 forecast of \$37.023 million.¹⁵⁶³

Table 20-9 below shows SCE’s recorded adjusted expenses for Transmission and Distribution (T&D) – Training Seat Time for 2018-2022 costs, Cal Advocates’ TY 2025 forecast, and SCE’s TY 2025 forecasts.¹⁵⁶⁴

Table 20-9
T&D – Training Seat Time O&M Expenses
2018-2022 Recorded and 2025 Forecast
(\$000)

Description	2018	2019	2020	2021	2022	SCE 2025	Cal Advocates 2025
Training Seat Time Labor	\$21,669	\$22,786	\$13,699	\$17,749	\$17,897	\$31,904	\$21,566
Training Seat Time Non-Labor	\$5,728	\$5,776	\$2,669	\$2,163	\$3,338	\$5,119	\$3,748
Total	\$27,398	\$28,562	\$16,368	\$19,912	\$21,235	\$37,023	\$25,314

Source: 2018-2022 data from Ex. SCE-06, Workpapers Vol. 04, Bk C, p. 244.

According to SCE, Transmission & Distribution – Training Seat Time work includes “both informal and formal training for the Transmission and Distribution workforce.”¹⁵⁶⁵

Cal Advocates reviewed SCE’s historical expense levels and SCE’s TY forecasts, and compared SCE’s TY request with SCE’s authorized and recorded costs from the TY 2021 GRC. SCE forecasted an increase of \$15.789 million from its base year 2022.

Figure 20-7 shows the sharp increase in training costs that SCE requests in this GRC; Figure 20-7 also shows, as a comparison, the more reasonable increase that Cal Advocates recommends.¹⁵⁶⁶

¹⁵⁶² Ex. SCE-06, workpapers Vol. 04, Book C E3 at 195 E3.

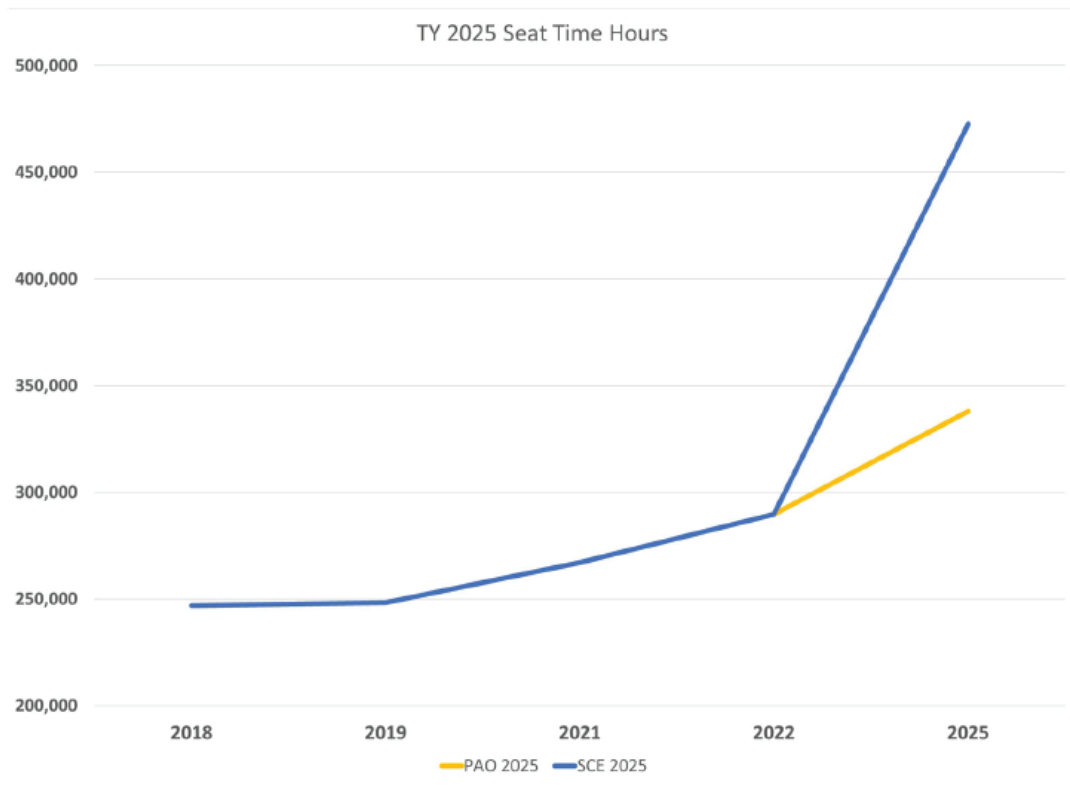
¹⁵⁶³ Ex. CA 20 at 17.

¹⁵⁶⁴ Ex. CA 20 at 17.

¹⁵⁶⁵ Ex. SCE-06, Vol. 04 at 168.

¹⁵⁶⁶ Ex. CA 20 at 17-18.

Figure 20-7
2018-2022 Recorded / 2025 Forecast
(Seat Time Hours)



Source: 2018-2022 data from SCE response DR Pub-Adv-SCE-282-LRS, Q.01a.

Seat Time labor expenses, as defined by SCE, “account for the time employees spend in training classes as a participating learner,” and Seat Time labor expenses are “forecasted for T&D employees, who charge the majority of their daily labor to capital work orders within their organizational units.”¹⁵⁶⁷ Based on this description of Seat Time labor expenses, Cal Advocates sought to understand how Seat Time labor is forecasted. This review required analyzing how many T&D employees charged most of their labor to capital work orders.¹⁵⁶⁸

¹⁵⁶⁷ Ex. SCE-06, Vol. 04 at 169-170.

¹⁵⁶⁸ Ex. CA 20 at 18-19.

In a data request, Cal Advocates asked: “How many SCE Transmission and Distribution employees charge a majority of their daily labor to capital work order?”¹⁵⁶⁹ SCE responded: “The number of T&D employees charging daily labor hours for their primary role is dynamic and varies from day to day depending on the employee’s operational unit, and they type of work they are assigned. While a majority of this work is charged to capital work orders, employees attending T&D training classes charge T&D Training Seat-Time to align with the GRC activity and O&M expenses regardless of whether an employee charges O&M or Capital work orders for their regular daily labor.”¹⁵⁷⁰

Because SCE was unable to provide more specificity and clarity about how many T&D employees the seat-time forecast is based on, Cal Advocates based its forecast on, among other things, SCE’s workpaper statements that “T&D Training utilizes total Seat Time hours to forecast total Seat Time expenses,”¹⁵⁷¹ and that Seat Time hours are “total student learning hours as a function of course duration.”¹⁵⁷²

Based on SCE’s workpapers, the Seat Time hours forecast is then multiplied by the average standard hourly rate for each job classification of those attending training—all to find the TY 2025 forecasted Seat Time expenses.¹⁵⁷³ And, according to SCE’s workpapers, the forecasted number of Seat Time hours indicated whether SCE needs an increase or decrease in funding for Training Seat Time.¹⁵⁷⁴

To forecast Seat Time hours, Cal Advocates first reviewed recorded Seat Time hours from 2018 to 2022. Cal Advocates then calculated the percentage change from year to year.¹⁵⁷⁵ Because of the COVID-19 pandemic, Cal Advocates recognized that

¹⁵⁶⁹ Ex. CA 20 at 18-19, FN 47.

¹⁵⁷⁰ Ex. CA 20 at 18-19, FN 47.

¹⁵⁷¹ Ex. SCE-06, workpapers, Vol. 04, Book C at 249.

¹⁵⁷² Ex. SCE-06, workpapers, Vol. 04, Book C at 249.

¹⁵⁷³ Ex. SCE-06, workpapers, Vol. 04, Book C at 249.

¹⁵⁷⁴ Ex. SCE-06, workpapers, Vol. 04, Book C at 249.

¹⁵⁷⁵ Ex. CA 20 at 19-20.

2020 data was an outlier and removed it from the forecast. The average percent change in Seat Time hours from 2018, 2019, 2021, and 2022, was found to be 5.5% increase each year.¹⁵⁷⁶ This percentage increase, applied to the three years from 2022 to 2025, results in an overall increase of 16.6% for that time.¹⁵⁷⁷ The 16.6% percent increase was then applied to the 2022 recorded Seat Time hours (289,828) to develop a Cal Advocates' Seat Time hours forecast of 338,055 hours for 2025.¹⁵⁷⁸ Of note, Cal Advocates' forecast of 338,055 hours is lower than SCE's forecast of 472,741 Seat Time hours.¹⁵⁷⁹

Cal Advocates then multiplied its forecast of 338,055 Seat Time hours by the average hourly rate provided by SCE (\$56.89) resulting in Cal Advocates' labor forecast of \$19.232 million.¹⁵⁸⁰ Therefore, Cal Advocates recommends an adjustment of \$7.660 million, based on its forecast of Seat Time hours.

In addition to the seat time hours, under Transmission & Distribution – Training Seat Time, there is a line item for Safety Training, which is a new activity in this GRC. There is no historical record for this training in the Transmission and Distribution program.¹⁵⁸¹ Though Cal Advocates recognizes the importance of safety training generally, ratepayers already fund safety-related training; and there is little to no mention in testimony or in SCE's data responses how this proposed training differs from safety-related training already provided.¹⁵⁸² SCE has failed to show that this program is justifiably above and beyond safety-training programs that were already provided. Ratepayers should not provide funding for expenses that are neither adequately justified nor explained.

¹⁵⁷⁶ Ex. CA 20 at 19-20.

¹⁵⁷⁷ Ex. CA 20 at 19-20.

¹⁵⁷⁸ Ex. CA 20 at 19-20.

¹⁵⁷⁹ Ex. CA 20 at 19-20.

¹⁵⁸⁰ Ex. CA 20 at 19-20; Ex. SCE-06, workpapers, Vol. 04, Book C at 249.

¹⁵⁸¹ Ex. CA 20 at 19-20.

¹⁵⁸² Ex. CA 20 at 19-20.

This new line item for “Safety Training” represents a program that is burdensome for ratepayers because it is insufficiently developed and inadequately supported.¹⁵⁸³ Therefore, Cal Advocates recommends not funding this requested training in T&D – Training Seat Time labor; and this recommendation results in an adjustment of \$2.678 million.¹⁵⁸⁴

T&D – Training Seat Time non-labor expenses are a function of the labor forecast and include expenses for travel, lodging, and meals associated with employees’ attending training.¹⁵⁸⁵ Non-labor expenses are forecasted by taking the Seat Time labor forecast and multiplying that by an average rate of expected class expenses, which is 17%.¹⁵⁸⁶ Cal Advocates does not object to SCE’s forecast of 17% as the rate for expected class expenses. Cal Advocates multiplied its Seat Time labor forecast of \$19.232 million by SCE’s average rate of 17% to develop Cal Advocates’ forecast of \$3.269 million for TY 2025.¹⁵⁸⁷ Cal Advocates forecast is \$1.376 million lower than SCE’s.

Based on the three recommended adjustments of \$7.660 million, \$2.678 million, \$3.269 million, Cal Advocates recommends that the Commission adopt a \$25.309 million forecast for SCE’s Training Seat Time activities, which is \$11.714 million less than SCE’s TY 2025 forecast of \$37.023 million.

3. Transmission & Distribution – Training Delivery and Development

SCE requests \$23.199 million for Transmission & Distribution – Training Delivery and Development for TY 2025, which is an increase of \$7.375 million over its 2022 recorded expenses of \$15.824 million.¹⁵⁸⁸ T&D – Training Delivery and

¹⁵⁸³ Ex. CA 20 at 20-21.

¹⁵⁸⁴ Ex. CA 20 at 20-21.

¹⁵⁸⁵ Ex. CA 20 at 20-21.

¹⁵⁸⁶ Ex. SCE-06, workpapers, Vol. 04, Book C at 249.

¹⁵⁸⁷ Ex. CA 20 at 20-21.

¹⁵⁸⁸ Ex. CA 20 at 21-22.

Development represents the costs associated with instructional facilitation of T&D training.¹⁵⁸⁹

Cal Advocates recommends that the Commission adopt \$16.432 million for SCE's Training Delivery and Development activities. Table 20-10 shows SCE's recorded adjusted expenses for Employee T&D – Training Delivery and Development activities for 2018-2022, Cal Advocates' TY 2025 forecasts, and SCE's TY 2025 forecasts.¹⁵⁹⁰

Table 20-10
Employee T&D – Training Delivery and Development
2018-2022 Recorded and 2025 Forecast
(\$000)

Description	2018	2019	2020	2021	2022	SCE 2025	Cal Advocates 2025
Training Delivery & Development Labor	\$10,468	\$11,417	\$11,571	\$11,473	\$11,873	\$17,880	\$11,490
Training Delivery & Development Non-Labor	\$8,790	\$6,820	\$5,820	\$3,790	\$3,951	\$4,384 \$5,319	\$4,492 \$4,942
Total	\$19,258	\$18,236	\$16,654	\$15,263	\$15,824	\$23,199	\$16,434 \$16,432

Source: 2018-2022 data from SCE-06, Workpapers, Vol. 04 Bk. C E3, p. 237 E3.

SCE forecasted a \$7.374 million increase from base year 2022. Cal Advocates recommends \$16.432 million for T&D – Training Delivery and Development, which is \$6.767 million less than SCE's forecast.¹⁵⁹¹

Cal Advocates has applied the same forecasting method that it used in its analysis of Training Seat Time for Training Delivery and Development.¹⁵⁹² Because delivery of training is dependent on training volume, Cal Advocates used the same rate of increase as for seat time hours and applied this same rate to personnel hours.¹⁵⁹³ Cal Advocates first applied the same 16.6% rate of increase to SCE's 2022 recorded personnel hours, which

¹⁵⁸⁹ Ex. SCE-06, Vol. 04 at 180-181.

¹⁵⁹⁰ Ex. CA 20 at 21-22; Ex. CA-20-E at 22.

¹⁵⁹¹ Ex. CA 20 at 21-22.

¹⁵⁹² Ex. CA 20 at 21-22.

¹⁵⁹³ Ex. CA 20 at 21-22.

was 149,013.¹⁵⁹⁴ This application resulted in a TY 2025 estimate for personnel hours of 173,808, which was then multiplied by SCE’s average labor rate of \$60.60.¹⁵⁹⁵ The result is \$10.533 million, which is \$5.869 million less than SCE’s recommendation of \$16.402 million for the “labor” line item under the larger labor section of T&D – Training Delivery and Development.¹⁵⁹⁶

Like what Cal Advocates found in its analysis of T&D – Training Seat Time, Cal Advocates also found unjustified the Safety Training labor expenses and Safety Training non-labor expenses in T&D – Training Delivery and Development. Therefore, Cal Advocates recommends that \$521,724 be adjusted out for the Safety Training labor expenses; and Cal Advocates recommends that \$376,634 should be adjusted out for Safety Training non-labor expenses.

Accordingly, after applying the two labor-related downward adjustments of \$5.869 million and \$521,724, Cal Advocates recommends a forecast of \$11.490 million for the labor portion of Training Delivery and Development. And after applying a non-labor-related downward adjustment of \$376,634, Cal Advocates recommends a \$4.942 million for the non-labor portion of Training Delivery and Development. Therefore, Cal Advocates recommends that the Commission adopt \$16.432 million as the TY 2025 forecast for SCE’s Training Delivery and Development activities.

XXXI. TOTAL COMPENSATION STUDY

Cal Advocates does not offer a position on this issue at this time.

XXXII. ENVIRONMENTAL SERVICES

(Cal Advocates), The Utility Reform Network (TURN), and Southern California Edison Company (SCE) (collectively referred to as the Parties) submitted a stipulation for the purposes of resolving all contested Environmental Services issues in this proceeding on May 24, 2024.

¹⁵⁹⁴ Ex. CA 20 at 21-22.

¹⁵⁹⁵ Ex. CA 20 at 21-22.

¹⁵⁹⁶ Ex. CA 20 at 21-22. See also SCE-06, Volume 04, BookCE4 workpapers, at 248.

The stipulation represents an agreement on revenue requirement only and is not intended to address or resolve issues of Commission policy with respect to the costs at issue in Environmental Services.

The Commission should find that this stipulation is reasonable in light of the record, consistent with law, and in the public interest.¹⁵⁹⁷

A. Environmental Services O&M

1. 2025 O&M Labor for Environmental Management and Development

The Parties agree upon a 2025 expense forecast of \$15.973 M for Environmental Services' 2025 O&M Labor for Environmental Management and Development.

As a result of this stipulation, the Parties agree to a 2025 O&M Labor and Non-Labor forecast for Environmental Management and Development with Labor \$15.973 million and Non-Labor \$2.566 million for a total of \$18.539 million.¹⁵⁹⁸

2. 2025 O&M Non-Labor for Environmental Programs

The Parties agree on a 2025 expense forecast of \$17.941 M for Environmental Services' 2025 O&M Non-Labor for Environmental Programs.

As a result of the stipulation, the Parties agree to 2025 O&M Labor for Environmental Programs at \$1.329 million and Non-Labor at \$17.941 million for a total of \$19.270 million.¹⁵⁹⁹

B. Environmental Services Capital

1. 2023-2025 Capital for Environmental Programs

The Parties agree on a 2023-2025 capital expenditures forecast of \$7.375 million with \$1.185 million for 2023, \$3.064 million for 2024, and \$3.126 million for 2025.¹⁶⁰⁰

¹⁵⁹⁷ Ex. SCE-30 at 1.

¹⁵⁹⁸ Ex. SCE-30 at 2.

¹⁵⁹⁹ Ex. SCE-30 at 2.

¹⁶⁰⁰ Ex. SCE-30 at 3.

C. SCE Request for SONGS-Related Cost Recovery re: Marine Mitigation

SCE forecasts \$22.694 million for Environmental Programs. Environmental Programs encompass **\$17.069** million for Environmental Compliance Programs (e.g., air quality, archaeology, biology, hazardous waste, Mohave site maintenance, water quality) and **\$5.625** million for **San Onofre Marine Mitigation**.

SCE's non-labor forecast of \$5.579 million for Marine Mitigation activity is \$1.753 million above the recorded \$3.826 million in 2022.

The historical recorded funding includes: \$3.186 million in 2018; \$4.769 million in 2019; \$4.808 million in 2020; and \$4.817 million in 2021.

In response to Cal Advocates' data request¹⁶⁰¹ regarding the percentage of work completed as of September 30, 2023, SCE stated: "SCE estimates 4% complete in absolute kelp area standard of 4800 acres, 11% complete for fish standing stock standard of 896 tons, and 12.5% complete for relative performance standard requirement of 32 years."

Cal Advocates also asked SCE to provide costs incurred for the activity, as of September 30, 2023. SCE stated: "For the amount SCE has incurred for "EP Marine Mitigation" as of September 30, 2023, SCE does not have final, adjusted recorded cost data available for 2023."¹⁶⁰² ¹⁶⁰³

Based on the information SCE provided and its historical recorded costs for the Marine Mitigation activity, Cal Advocates recommends that the Commission adopt a \$4.661 million forecast (SCE's forecasted amount for 2023) for TY 2025. Cal

¹⁶⁰¹ Ex. CA-21 at 16.

¹⁶⁰² "SCE supports providing 2023 recorded data in this proceeding but requests a due date of March 11, 2024. SCE states that the 2023 data is not available until mid-February 2024 and that SCE requires some additional time to review, analyze, and adjust the data to ensure accuracy. SCE's proposed due date is reasonable and will still allow for the timely consideration of the 2023 recorded data in this proceeding. Therefore, SCE's proposed due date is adopted and incorporated into the proceeding schedule." September 5, 2023 Assigned Commissioner's Scoping Memo and Ruling at p. 9.

¹⁶⁰³ SCE did not provide unadjusted costs for 2023. It only quoted what the scoping memo directed it to do, to provide costs in March 2024. Cal Advocates issued its DR on 9/29/2023 and SCE's response was received on 10/13/2023. On April 25, 2024 SCE provided revised DR response "Revised PubAdv-SCE-200-FNZ 02, 03, 04, 05, 06" with 2023 Actual costs of \$4,234,634 for Marine Mitigation.

Advocates' forecast is more representative of a reasonable test year cost for this activity. SCE recorded \$3,826 million for 2022, and the four-year average from 2019-2022 for the Marine Mitigation program is \$4,555 million.

For 2023, SCE forecasted \$4.661 million. In its revised data request response "Revised PubAdv-SCE-200-FNZ 02, 03, 04, 05, 06," provided on April 25, 2024, the total recorded cost for the Marine Mitigation is \$4,235 million.

Cal Advocates' recommendation of \$4.661 million is \$0.92 million less than SCE's forecast of \$5.579 million for the 2025 Marine Mitigation activity.

Cal Advocates reviewed SCE's TY 2025 testimony, workpapers, and historical recorded costs; and Cal Advocates' issued data requests to conduct further discovery. Based on that information, Cal Advocates does not oppose SCE's TY 2025 non-labor forecast for the following adjustments:

- *Adjustment 2:*
New Programs for \$1.016 million;
- *Adjustment 3:*
Additional Support Air Quality Compliance for \$1.403 million;
Additional Support Permitting Support for \$0.113 million;
Additional Support Generation Program for \$0.074 million;
Additional Support (HMBP/SPCC) for \$0.784 million;
Additional Support Drinking Water for \$0.833 million;
Additional Support Spill Response for \$0.147 million;
- *Adjustment 5:*
Miscellaneous costs and adjustments \$4.140 million.

XXXIII. AUDIT SERVICES

SCE requests \$8.619 million¹⁶⁰⁴ (\$5.768 million labor, and \$2.851 million non-labor)¹⁶⁰⁵ for its Audit Services activities for TY 2025, which is \$1.824 million above the 2022 recorded costs of \$6.796 million. SCE states this increase is due to backfilling vacancies, hiring additional auditors, and co-sourcing audit support.¹⁶⁰⁶

Cal Advocates recommends adjusting the 2018-2022 expenses for SCE's Audits, as discussed in Exhibit CA-29.¹⁶⁰⁷ The table below presents SCE's 2018-2022 recorded costs and TY 2025 forecast, and the next table presents Cal Advocates' recommended adjustments.

Audit Services
2018-2022 Recorded / 2025 Forecast
(\$000)

Description	2018 Recorded	2019 Recorded	2020 Recorded	2021 Recorded	2022 Adjusted	2025 Forecast	Cal Advocates 2025
Labor	\$4745	\$4,238	\$4,961	\$4,699	\$4,512	\$5,768	\$4,743
Non-Labor	\$3,689	\$3,824	\$3,485	\$3,625	\$2,284	\$2,851	\$2,851
Total	\$8,434	\$8,062	\$8,446	\$8,324	\$6,796	\$8,619	\$7,594

Source: 2018-2025 data from SCE's response PubAdv-SCE-059-FNZ Attachment.

¹⁶⁰⁴ Ex. SCE-06, Vol. 06 at 85.

¹⁶⁰⁵ SCE's labor request of \$5.768 million includes \$0.252 million for changes to the employee compensation program.

¹⁶⁰⁶ Ex. SCE-06, Vol. 06 at 97, lines 28-30.

¹⁶⁰⁷ Ex. Ca-29 at 7.

Description	2018 Recorded	2019 Recorded	2020 Recorded	2021 Recorded	2022 Recorded	2025 Forecasted	Cal Advocates 2025
SCE's Labor Forecast	\$4,745	\$4,238	\$4,961	\$4,699	\$4,512	\$5,768	\$4,743
SCE's Non-Labor	\$3,689	\$3,824	\$3,485	\$3,625	\$2,284	\$2,851	\$2,851
Total	\$8,434	\$8,062	\$8,446	\$8,324	\$6,796	\$8,619	\$7,594
Cal Advocates' Recommended Adjustment (Ex. CA-29)	(\$731)	(\$2,257)	(\$587)	(\$219)	(\$601)		
Total Ex.CA-29 Adjustment	\$7,703	\$5,805	\$7,859	\$8,105	\$6,195		

SCE's TY 2025 request of \$5.768 million for Audit-related labor costs for TY 2025 is based on its adjusted 2022 recorded cost of \$4.512 million. Cal Advocates' 2022 recorded costs includes a downward adjustment of \$0.601 million for attorney-client privileged internal audits.¹⁶⁰⁸ As such, Cal Advocates recommends using the adjusted amount of \$3.911 million for the 2022 base amount, resulting in \$4.743 million for Audit-related labor in the TY 2025 cost forecast.¹⁶⁰⁹

SCE's labor forecast request includes \$1.005 million for backfilling of two vacant positions, and hiring for 7 new positions for TY 2025.¹⁶¹⁰ However, SCE failed to demonstrate the need for these positions because it did not provide five years of data Cal Advocates requested from 2018-2022 showing the: 1) recorded costs for audits up to June 30, 2023; 2) position titles; 3) hiring dates; 4) separation dates; 5) duties; 6) responsibilities; 7) salaries of the FTEs in the Audit department; 8) documentation of

¹⁶⁰⁸ Ex. CA-29 at 7. Cal Advocates recommends remaining estimated 2018-2022 records costs to perform the internal audits asserted as attorney client privilege.

¹⁶⁰⁹ D.09-03-025, at 317 ("Since DRA does not challenge SCE's assertion of attorney-client privilege, the Commission need not address the reasonableness of the assertion. Thus, the issue is whether SCE has met its burden of proof. Since SCE chose to assert its claim of attorney-client privilege, it must meet its burden of proof in some other way. ... [S]ince the audits SCE chose to withhold from review were not randomly picked, the results of the review of the non-privileged audits can not reasonably be applied to the withheld audits. ... 159 audits were conducted in 2006, of which 11 (6.9%) were privileged. Therefore, a reasonable disallowance for 2006 would be 6.9% of such costs.").

¹⁶¹⁰ Ex. SCE-06, Vol. 06 at 96 lines 29-31; at 97 lines 1-4.

SCE's reorganization activities; 9) data on any existing proposals to create new departments that would require new positions in the TY request; and 10) number of FTEs allocated to Audits for the past five years (2018-2022).¹⁶¹¹ ¹⁶¹² ¹⁶¹³

SCE did not provide the requested information for 2023, which would have included the number of employees from 2018-2021 and also did not provide the number of employees performing Audit activities from 2018-2023. Thus, SCE is not able to substantiate its need for these new positions in TY 2025.

For SCE's TY 2025 Audit-related labor forecast, Cal Advocates disagrees with SCE's request for 2 additional Information Technology (IT) cyber auditors, and 3 additional auditors.

For SCE's TY 2025 Audit-related labor forecast, Cal Advocates does not oppose SCE's request for backfilling two of the seven positions SCE requested.

Cal Advocates does not oppose the funding of \$0.832 million for SCE's proposed TY hiring activities. The \$0.832 million is a sum of \$0.580 million (2 backfilled positions + 2 new positions), and \$0.252 million (employee compensation program).

SCE requests \$2.851 million for Audit-related non-labor costs for TY 2025, which is \$0.567 million above the 2022 recorded costs of \$2.284 million for co-sourcing resources and increased travel levels.

Cal Advocates reviewed SCE's TY 2025 testimony, workpapers, and historical recorded costs. Cal Advocates also issued data requests to conduct further discovery. Thus, Cal Advocates does not oppose SCE's Audit-related \$2.851 million non-labor request for the TY.

¹⁶¹¹ Ex. CA-21 at 30.

¹⁶¹² Ex. CA-21 at 30.

¹⁶¹³ Ex. CA-21 at 30.

XXXIV. ETHICS & COMPLIANCE

A. Cal Advocates adjusts SCE's Ethics & Compliance requests.

SCE requests \$16.586 million¹⁶¹⁴ (\$10.927 million labor, and \$5.659 million non-labor)¹⁶¹⁵ for its Ethics and Compliance activities for TY 2025, which is \$3.076 million over the 2022 recorded expenses of \$13.510 million.¹⁶¹⁶

Cal Advocates recommends \$14.020 million for SCE's Ethics and Compliance O&M expenses, which is \$2.566 million less than SCE's TY 2025 forecast of \$16.586 million.

The table below summarizes SCE's 2018-2022 recorded costs, SCE's TY 2025 request, and Cal Advocates' recommendation for Ethics and Compliance.

**Ethics & Compliance
2018-2022 Recorded / 2025 Forecast
(\$000)¹⁶¹⁷**

Description	2018 Recorded	2019 Recorded	2020 Recorded	2021 Recorded	2022 Recorded	2025 Forecast	Cal Advocates 2025
Labor	\$8,680	\$8,566	\$9,470	\$9,421	\$8,926	\$10,927	\$9.013
Non-Labor	\$5,471	\$6,032	\$5,432	\$4,189	\$4,584	\$5,659	\$5,007
Total	\$14,151	\$14,598	\$14,902	\$13,610	\$13,510	\$16,586	\$14,020

¹⁶¹⁴ Ex. SCE-06, Vol. 06 at 89. Figure IV-22 and accompanying table.

¹⁶¹⁵ SCE's labor request of \$10.927 million, includes \$0.486 million for changes to employee compensation program. See Ex. CA-19 for discussion regarding changes to employee compensation program.

¹⁶¹⁶ Ex. SCE-06, Vol. 06 at 89. Figure IV-22 and accompanying table.

¹⁶¹⁷ Ex. CA-21 at 32.

SCE requests adding 11 positions in Ethics and Compliance, resulting in a \$1.515 million¹⁶¹⁸ increase above the 2022 recorded costs. SCE explains these new positions are needed for the following Ethics and Compliance activities: 1) backfilling of 3 vacant positions; 2) converting 1 memorandum account-funded position to be base O&M funded; and 3) adding 7 positions.¹⁶¹⁹

Similar to its request for additional Audit Services positions, SCE has not demonstrated the need for these 11 new positions because it did not provide as Cal Advocates requested: 1) E&C-related 2023 recorded costs, as of June 30, 2023;¹⁶²⁰ 2) 2018-2022 position titles; 3) 2018-2022 hiring dates; 4) 2018-2022 separation dates; 5) 2018-2022 duties; 6) 2018-2022 responsibilities; 7) 2018-2022 salaries of the FTEs in the E&C department; 8) whether SCE is in the process of reorganization, or in the process of creating a new department that requires the new positions.

Despite SCE providing very specific position titles and tasks for the new Ethics and Compliance positions,¹⁶²¹ SCE has not been able to identify the employees that had been assigned to perform these activities from 2018-2022. However, SCE is able to clearly provide the job descriptions and tasks of the Ethics and Compliance employees from 2022 through 2025.¹⁶²²

SCE has not argued it has experienced any compliance issues due to the increased work. In fact, SCE did not provide any documentation for review or evaluation regarding the need for new positions. SCE has also not been able to provide any documentation demonstrating that it has been unable to perform all required Ethics and Compliance activities in 2022 at the current level of staffing. SCE did not provide any verifiable documentation for evaluation in order to justify its TY proposal of 11 additional FTEs.

¹⁶¹⁸ Ex. CA-21 at 32.

¹⁶¹⁹ Ex. CA-21 at 32.

¹⁶²⁰ Ex. CA-21 at 33.

¹⁶²¹ Ex. CA-21 at 34.

¹⁶²² Ex. CA-21 at 34.

SCE states that its O&M forecasts are developed at the GRC Activity level by labor and non-labor expense. Therefore, standard GRC estimating methodologies are based on historical recorded costs (e.g., Last Recorded Year (LRY), Five-Year average, etc.), and TY O&M labor forecasts are not developed using SCE's departmental Full Time Equivalent headcounts. Accordingly, Cal Advocates follows SCE's approach and utilizes the Five-Year average to estimate labor costs for 2025.

SCE's forecast of \$10.927 is unreasonable. Instead, based on its review and analysis of SCE's TY 2025 testimony, workpapers, and historical recorded costs, Cal Advocates recommends that the Commission adopt \$9.013 million for SCE's labor expense for Ethics and Compliance activities for TY 2025.

SCE requested \$5.659 million for TY 2025 Ethics and Compliance non-labor expenses. SCE issued an errata on December 15, 2023, which revised the forecast for non-labor expenses to \$5.007 million, or \$0.652 million less than its original request.¹⁶²³

Cal Advocates reviewed SCE's TY 2025 testimony, workpapers, and historical recorded costs for the non-labor expenses and issued data requests to conduct further discovery. Based on its analysis, Cal Advocates does not oppose SCE's TY 2025 non-labor forecast of \$5.007 million for Ethics and Compliance.

XXXV. SAFETY PROGRAMS

A. Safety Operations & Maintenance (O&M)

SCE's Safety Programs Business Plan Elements (BPE) work activities include health, wellness, and safety oversight. The Safety Programs BPE work activities also include services at SCE's corporate level.

SCE forecasts \$31.161 million (\$19.040 million labor, and \$12.121 million non-labor) for its Safety Programs, which is \$4.902 million over 2022's recorded expenses of \$26.259 million. SCE's TY 2025 O&M expense forecast is based mostly on historical recorded costs and includes both 2022's recorded adjusted expenses and adjustments for proposed projects and activities.

¹⁶²³ Ex. WPSCE-06, Vol. 06E (Errata).

Cal Advocates' TY 2025 recommendation for SCE's Safety Programs O&M expenses is \$25.615 million, which is \$5.546 million less than SCE's TY 2025 forecast of \$31.161 million.

1. Cal Advocates adjusts SCE's Safety Programs Request by \$3.088 million.

SCE's 2021 GRC decision authorized \$27.50 million for the Safety Programs BPE.¹⁶²⁴ SCE recorded \$27.401 million, which is lower than the \$27.50 million authorized amount.¹⁶²⁵

Cal Advocates recommends adjusting 2021 non-labor expenses by \$3.088 million for the Employee and Contractor program.¹⁶²⁶ The table below summarizes SCE's 2018-2022 recorded costs, SCE's TY 2025 request, and Cal Advocates' recommendations for the Employee and Contractor Safety (ECS) activity¹⁶²⁷ and Safety Programs:

¹⁶²⁴ Ex. CA-21 at 18.

¹⁶²⁵ Ex. SCE-06, Vol. 06, Section III, Various pages.

¹⁶²⁶ See Ex. CA-29 for the discussion and analysis on SCE's Employee & Contractor Safety activities and the basis for Cal Advocates' adjustment of \$3.088 million.

¹⁶²⁷ See Ex. CA-29 at 9. The basis for Cal Advocates' adjustment of \$3.088 million is based on 15 one-time transaction expenses not recurring.

Safety Programs
2018-2022 Recorded / 2025 Forecast
(\$000)

Description	2018 Recorded	2019 Recorded	2020 Recorded	2021 Recorded	2022 Recorded	2025 Forecast	Cal Advocates 2025
Employee and Contractor Safety (ECS)	\$5,872	\$7,768	\$6,140	\$13,906	\$12,972	\$8,617	\$8,352
Safety Activities – Transmission & Distribution	\$21,396	\$17,762	\$9,604	\$8,165	\$10,551	\$17,469	\$12,420
Safety Strategy Transformation	\$1,379	\$1,723	\$2,007	\$1,752	\$2,316	\$4,271	\$4,039
Public Safety	\$328	\$1,345	\$703	\$490	\$420	\$804	\$804
Total	\$28,975	\$28,598	\$18,454	\$24,313	\$26,259	\$31,161	\$25,615
Ex. CA-29 ¹⁶²⁸ Adjustment to (ECS)	\$(0)	\$(0)	\$(0)	\$(3,088)	\$(0)	\$(0)	\$(0)
Total Adjusted	\$28,975	\$28,598	\$18,454	\$24,313	\$26,259	\$31,161	\$25,615

Source: 2018-2025 data from SCE's response PubAdv-SCE-059-FNZ Attachment.

2. Cal Advocates does not object to SCE's Employee and Contractor Safety.

SCE forecasts \$8.616 million¹⁶²⁹ (\$4.284 million labor, and \$4.333 million non-labor)¹⁶³⁰ for its Employee and Contractor Safety O&M expenses for TY 2025, which is \$0.264 million over 2022's recorded expense of \$12.972 million.

The table below summarizes SCE's 2018-2022 recorded costs, SCE's TY 2025 request, and the Cal Advocates' TY 2025 recommendation:

¹⁶²⁸ See Ex. CA-29 for the discussion and analysis on SCE's Employee & Contractor Safety activities and the basis for Cal Advocates' adjustment of \$3.088 million.

¹⁶²⁹ Ex. SCE-06, Vol. 06 at 52. Figure II-14.

¹⁶³⁰ SCE's labor request of \$4.284 million includes \$0.274 million for changes to the employee compensation program.

**Employee and Contractor Safety
2018-2022 Recorded / 2025 Forecast
(\$000)**

Description	2018 Recorded	2019 Recorded	2020 Recorded	2021 Recorded	2022 Recorded	2025 Forecast	Cal Advocates 2025
Labor	\$4,528	\$5,555	\$4,570	\$5,114	\$3,711	\$4,284	\$4,019
Non-Labor	\$1,344	\$2,213	\$1,570	\$11,880	\$9,261	\$4,333	\$4,333
Ex. CA-29 Adjustments ¹⁶³¹	\$(0)	\$(0)	\$(0)	\$(3088)	\$(0)	\$(0)	\$(0)
Total	\$5,872	\$7,768	\$6,140	\$13,906	\$12,972	\$8,352	\$8,352

For Employee and Contractor Safety, SCE requested \$4.284 million for TY 2025 labor expenses. SCE's errata, filed on December 15, 2023, revised the forecast for labor expenses to \$4.019 million, which is \$0.264 million lower than the original forecast.¹⁶³² Cal Advocates does not object to SCE's revised labor forecast of \$4.019 million.

SCE requests \$4.333 million in non-labor expenses, which is \$4.928 million lower than the recorded non-labor costs of \$9.261 million in 2022. Cal Advocates reviewed SCE's TY 2025 testimony, workpapers, and historical recorded costs and issued data requests to conduct further discovery. Based on its analysis of the information provided, Cal Advocates does not object to SCE's \$4.333 million TY 2025 non-labor forecast for Employee and Contractor Safety Activity.¹⁶³³

¹⁶³¹ See Ex. CA-29 for the discussion and analysis on SCE's Employee & Contractor Safety activities and the basis for Cal Advocates' adjustment of \$3.088 million for 2021.

¹⁶³² Ex. WPSCE-06, Vol. 06E (Errata).

¹⁶³³ Ex. CA-21 at 20.

3. Cal Advocates adjusts SCE’s Safety Strategy Transformation request by \$0.264 million.

SCE’s TY 2025 forecast for Safety Strategy Transformation (SST) activity is \$4.271 (\$2.325 million labor, and \$1.946 million non-labor),¹⁶³⁴ which is \$2 million over 2022 recorded expenses of \$2.316 million.

Cal Advocates recommends \$4.039 million for SCE’s Safety Strategy Transformation O&M expenses, which is \$0.264 million less than SCE’s TY 2025 forecast of \$4.271 million.

The table below summarizes SCE’s 2018-2022 recorded costs, SCE’s TY 2025 request, and Cal Advocates’ recommendation for Safety Strategy Transformation:

**Safety Strategy Transformation
2018-2022 Recorded / 2025 Forecast
(\$000)**

Description	2018 Recorded	2019 Recorded	2020 Recorded	2021 Recorded	2022 Recorded	2025 Forecast	Cal Advocates 2025
Labor	\$24	\$1,190	\$1,488	\$1,102	\$1,470	\$2,325	\$2,093
Non-Labor	\$1,355	\$533	\$519	\$650	\$846	\$1,946	\$1,946
Total	\$1,379	\$1,723	\$2,007	\$1,752	\$2,316	\$4,271	\$4,039

Source: 2018-2025 data from SCE’s response PubAdv-SCE-059-FNZ Attachment.

SCE’s \$2.325 million labor forecast for TY 2025 is \$0.865 million over the \$1.470 million 2022 recorded expenses. SCE’s TY request includes additional funding of \$0.766 million for an additional 5 employees over SCE’s 2022 staffing level of 11 employees—for a total of 16 FTEs for TY 2025.¹⁶³⁵

¹⁶³⁴ SCE’s labor request of \$2.325 million includes \$0.090 million for changes to the employee compensation program.

¹⁶³⁵ Ex. CA-21 at 21.

The following is the number of employees in SCE's Safety Strategy Transformation group over the last five years:¹⁶³⁶

- 0 FTEs in 2018
- 10 FTEs in 2019
- 10 FTEs in 2020
- 6 FTEs in 2021
- 11 FTEs in 2022

SCE's request for an additional 5 FTEs is almost a 46% increase in its workforce of the 11 FTEs it had in 2022, bringing the number of employees to 16 FTEs for the SST Program. However, SCE currently has 2 vacant positions. Cal Advocates requested the status of the backfilling these positions. SCE responded that, as of September 30, 2023, the positions remained vacant, and SCE did not explain how long the positions have been vacant.¹⁶³⁷

Cal Advocates also sought additional information regarding SCE's ability to meet operational and compliance requirements.¹⁶³⁸ SCE states it is able to meet its all operational and compliance requirements in the Safety Strategy Transformation group despite the two vacant positions. SCE further states it did not transfer one employee from GRC Activity Employee and Contractor Safety into the Safety Strategy Transformation group, and is not creating a new department with the requested new positions.

SCE has not provided information to justify its request for additional funding for 5 new positions in TY 2025. SCE is in compliance and able to perform all activities without needing to backfill the current vacancies. It also has not shown that there is incremental work or a need create a new department its current operations.

¹⁶³⁶ Ex. CA-21 at 21.

¹⁶³⁷ Ex. CA-21 at 21.

¹⁶³⁸ Ex. CA-21 at 22.

Thus, Cal Advocates recommends that the Commission adopt \$2,093 million, which is a downward adjustment of \$0.233 million relative to SCE's request of a \$2.325 million labor forecast for TY 2025 for SST activity.

For SCE's TY 2025 forecast for non-labor expenses for SST activities, SCE requests \$1.946 million, which is \$1.1 million over the 2022 recorded expenses of \$0.846 million. SCE claims that this TY increase is associated with a proposed expansion of SCE's Human Organization Performance (HOP) activities. Cal Advocates has analyzed SCE's request and does not oppose SCE's TY 2025 forecast of \$1.946 million for SST activity.

4. Cal Advocates adjusts SCE's Safety Activities-Transmission and Distribution by \$5.049 million.

SCE's TY 2025 forecast for Safety Activities-Transformation and Distribution (T&D) is \$17.469 million (\$11.825 million labor, and \$5.644 million non-labor),¹⁶³⁹ which is \$6.918 million over its 2022 recorded expenses of \$10.551 million.

Cal Advocates recommends that the Commission adopt \$12.419 million for SCE's Safety Activities-Transformation and Distribution O&M expenses, which is \$5.049 million less than SCE's TY 2025 forecast of \$17.469 million.¹⁶⁴⁰

The table below summarizes SCE's 2018-2022 recorded costs, SCE's TY 2025 request, and Cal Advocates' recommendation for T&D Safety Activities:

¹⁶³⁹ SCE's labor request of \$11.825 million includes \$0.317 million for changes to the employee compensation program.

¹⁶⁴⁰ Ex. CA-21 at 23.

Safety Activities-Transmission and Distribution
2018-2022 Recorded / 2025 Forecast
(\$000)

Description	2018 Recorded	2019 Recorded	2020 Recorded	2021 Recorded	2022 Recorded	2025 Forecast	Cal Advocates 2025
Labor	\$12,946	\$12,292	\$7,125	\$6,501	\$8,857	\$11,825	\$9,153
Non-Labor	\$8,450	\$5,470	\$2,479	\$1,664	\$1,694	\$5,644	\$3,266
Total	\$21,396	\$17,762	\$9,604	\$8,165	\$10,551	\$17,469	\$12,419

Source: 2018-2025 data from SCE's response PubAdv-SCE-059-FNZ Q2 Follow Up.

SCE developed the TY 2025 labor base forecast of \$11.365 million¹⁶⁴¹ using a three-year average of the 2018, 2019, and 2022 recorded costs, adjusted for inflation. SCE stated that “this three-year average serves as the appropriate starting point for the Test Year forecast by more accurately reflecting the base level of T&D Safety activities for the Test Year and excluding 2020 and 2021 which were severely impacted by the COVID pandemic.”¹⁶⁴² SCE further stated that “the three-year average is consistent with Commission guidance in D.89-12-057, and subsequently in D.04-07-022, the CPUC stated that if recorded expenses have significant fluctuations from year to year, or expenses are influenced by external forces beyond the utility's control, an average of recorded-expenses is appropriate.”¹⁶⁴³

Cal Advocates opposes SCE's TY base forecast of \$11.365 million. In developing its TY forecast, SCE excluded the recorded amounts for years 2020, and 2021. Instead, Cal Advocates opposes SCE's TY base forecast of \$11.365 million. For developing the TY forecast of \$11.365 million calculated SCE excluded the recorded amounts for years 2020, and 2021. SCE's recorded expenses for years 2018 and 2019, which were utilized in SCE's TY calculation, are the highest recorded for the five-year period (2018-2022).

¹⁶⁴¹ Ex. SCE-06. Vol. 06 at 74, lines 17-20.

¹⁶⁴² Ex. SCE-06. Vol. 06 at 74, lines 25-27.

¹⁶⁴³ Ex. SCE-06. Vol. 06 at 74, lines 21-25.

SCE's use of years with the highest recorded costs results in an inflated TY 2025 forecast.

SCE's recorded expenses for years 2018 and 2019, which were utilized in SCE's TY calculation, are the highest recorded for the five-year period (2018-2022). By using three years of data, including the years with the highest recorded costs, SCE has inflated its TY 2025 forecast. In contrast, Cal Advocates recommends a four-year average (2019-2022) as the basis for calculating the base forecast. This four year average is \$8.694 million¹⁶⁴⁴ for SCE's labor expenses for Safety Activities-Transformation and Distribution.

SCE requested a \$0.143 million adjustment, based on a projected return in TY 2025 to spending levels similar to spending levels before the COVID pandemic. Cal Advocates does not oppose SCE's \$0.143 million adjustment.

Cal Advocates calculated that the total TY 2025 labor estimate for T&D Safety activities is \$9.153 million,¹⁶⁴⁵ which is \$2.671 million lower than SCE's total labor forecast of \$11.825 million.

SCE developed its TY 2025 non-labor base forecast of \$5.204 million using a three-year average of the 2018, 2019, and 2022 recorded costs,¹⁶⁴⁶ adjusted for inflation. SCE states that \$5.20 million is an appropriate basis for the TY 2025 forecast because it better reflects the base level of T&D Safety activities in 2025 and excludes 2020 and 2021 which were abnormally low due to COVID impacts.¹⁶⁴⁷

¹⁶⁴⁴ This base forecast is developed by taking the four year average of SCE's historical costs. In this case \$8.694 is the base forecast before adding SCE's adjustments of \$0.137 million for changes to the employee compensation, and adjustment of \$0.143 million for Projected return to levels prior to the COVID pandemic. \$8.694 is the average of the recorded labor costs from 2019-2022 and does not include the \$0.143 million. It is the base forecast as it is only the average of the four historical years, and does not include the two adjustments SCE is requesting: Adjustment 1: \$0.317 million employee compensation and Adjustment 2: \$0.143 million projected return to pre pandemic levels.

¹⁶⁴⁵ Cal Advocates' estimate of \$9.153 million includes \$0.317 million for changes to the employee compensation program.

¹⁶⁴⁶ Ex. CA-21 at 25.

¹⁶⁴⁷ Ex. SCE-06. Vol. 06 at 75, lines 4-6.

SCE further stated:¹⁶⁴⁸

This methodology is supported by Commission guidance in D.89-12-057, and subsequently in D.04-07-022 due to significant fluctuations from year to year, which were severely influenced by external forces beyond the utility's control. an average of recorded expenses is appropriate.

Cal Advocates objects to SCE's elimination of 2020 and 2021 despite SCE's arguments that both labor and non-labor costs decreased substantially during the pandemic.¹⁶⁴⁹ Cal Advocates utilized 2018 and 2019, which have the highest recorded costs. SCE's use of years with the highest recorded costs results in an inflated TY 2025 forecast. In contrast, Cal Advocates' utilization of a four-year average (2019-2022) as the basis for Cal Advocates' TY recommendation of \$3.266 million for the Safety Activities-Transformation and Distribution non-labor expenses is more reasonable.

The Commission should adopt Cal Advocates' recommendation of \$3.266 million, which is a downward adjustment of \$2.378 million from SCE's non-labor forecast of \$5.644 million.

B. Safety Programs Capital

1. Cal Advocates adjusts SCE's request for its Automated External Defibrillator Replacements.

For SCE's Safety Program capital expenditure, SCE forecasts \$2.799 million¹⁶⁵⁰ for Automated External Defibrillator (AED) Replacements from 2024 through 2029.¹⁶⁵¹ SCE stated that the AED Replacement program is a new activity for Safety Strategy Transformation which started in 2020.

SCE's forecast includes 1,900 AED units at \$1,473 per unit for a total of \$2.799 million for 2025. SCE states that the AED units have a manufactured life expectancy of eight years, but plans to replace all AED units every five years because of battery-pack life, reliability of the device, and technology enhancements.

¹⁶⁴⁸ Ex. SCE-06. Vol. 06 at 75, lines 7-9.

¹⁶⁴⁹ Ex. SCE-06. Vol. 06 at 74, lines 3-13,

¹⁶⁵⁰ Ex. SCE-06, Vol. 06 at 35, lines 4-7.

¹⁶⁵¹ Ex. SCE-06, Vol. 06 at 35, lines 4-7.

When asked why the forecast of \$2.799 million is for six years, from 2024 through 2029, instead of from 2023 through 2028, SCE stated:

The forecast from the supplemental work paper is showing 2024-2029 because, from a planning perspective, because SCE needs to ensure replacement preparation starting in 2024.

The table below summarizes SCE’s 2023-2025 request and Cal Advocates’ 2023-2025 recommendations for Safety Programs capital expenditure:

**Safety Programs
2023-2025 Forecasted Capital Expenditures
(\$000 Nominal)**

Description	SCE Proposed			Cal Advocates Recommendations			Difference (SCE Proposed - Cal Advocates Recommended)		
	2023 Forecast	2024 Forecast	2025 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2023 Forecast	2024 Forecast	2025 Forecast
Safety Strategy & Transformation	\$0	0	\$2,799	\$0	\$0	\$700	\$0	\$0	\$2,099
Safety Strategy & Transformation Total	\$0	\$0	\$2,799	\$0	\$0	\$700	\$0	\$0	\$2,099

Cal Advocates does not oppose SCE’s proposed replacement of the AED units every five years. SCE has justified the replacement schedule is based on battery-pack life, reliability of the device, and technology enhancements. SCE’s AED activity for SST was initiated in 2020. Therefore, with a five-year replacement plan, the installed AED units will be in service until 2024.

Cal Advocates does not agree with SCE’s request to recover \$2.799 million in one year (2025), as it would be burdensome for ratepayers. Instead, Cal Advocates recommends that recover the \$2.799 million cost for the AEDs over a five-year period. Cal Advocates also recommends that SCE recover \$0.700 million in 2025—a downward adjustment of \$2.099 million when compared with SCE’s request of \$2.799 million for 2025 for its AED Replacement program.

XXXVI. ENTERPRISE OPERATIONS

SCE forecasts \$60.645 million for its TY 2025 Enterprise Operations O&M expenses.¹⁶⁵² Cal Advocates does not oppose SCE's O&M request.¹⁶⁵³

SCE requests \$158.125 million for 2023, \$208.081 million for 2024 and \$293.519 million for 2025 for Enterprise Operations capital expenditures.¹⁶⁵⁴ Cal Advocates does not oppose SCE's capital expenditures forecasts for Transportation Services of \$6.409 million in 2023, \$6.178 million in 2024, and \$5.865 million in 2025.¹⁶⁵⁵ For Facility and Land Operations, Cal Advocates does not oppose SCE's capital expenditures forecasts for Facility Management Capital Programs of \$45.850 million in 2023, \$48.745 million in 2024, and \$78.134 million in 2025.¹⁶⁵⁶ However, Cal Advocates recommends adjustments to the following Facility and Land Operations cost categories: (1) Infrastructure Upgrades; (2) Facility Repurpose Projects; (3) Substation Reliability Upgrades; (4) Projects Under \$3 million; and (5) Land Operations. Based on these adjustments, Cal Advocates recommends capital expenditures of \$134.444 million for 2023, \$172.852 million for 2024, and \$226.172 million for 2025.¹⁶⁵⁷

A. Transportation Services Department

Transportation Services capital expenditure covers the management of the vehicle and equipment fleet employed for a wide range of SCE operations. The Transportation Services capital forecast is divided into three categories: Aircraft Operations; Fleet Asset Management; and Fleet Operations and Maintenance.¹⁶⁵⁸ SCE forecasts \$6.409 million

¹⁶⁵² Southern California Edison, 2025 General Rate Case, Enterprise Operations, Ex. SCE-06, Vol. 07E3 at 2E3.

¹⁶⁵³ Public Advocates Office California Public Utilities Commission, Report on the Results of Operations for Southern California Edison Company General Rate Case Test Year 2025 Enterprise Operations, Ex. CA-22 at 1.

¹⁶⁵⁴ Ex. SCE-06, Vol. 07 at 164.

¹⁶⁵⁵ Ex. CA-22 at 5.

¹⁶⁵⁶ Ex. SCE-06, Vol. 07 at 14-15 (Table II-4).

¹⁶⁵⁷ Ex. CA-22 at 2.

¹⁶⁵⁸ Ex. CA-22 at 30, FN 73.

in 2023, \$6.178 million in 2024, and \$5.865 million in 2025.¹⁶⁵⁹ SCE's 2023-2025 forecasts for its capital activities were based mostly on first-unit deliveries of electric vehicle test units, equipment for aircraft helicopters, and equipment for SCE's Sensing and Unmanned Aircraft System (UAS) program.¹⁶⁶⁰ Cal Advocates does not oppose SCE's request for Transportation Services Capital.¹⁶⁶¹

B. Facilities and Land Operations

Capital expenditures of Facility and Land Operations consist of five categories. For Facility and Land Operations Total capital expenditures, SCE requests \$151.716 million for 2023, \$201.903 million for 2024, and \$287.654 million for 2025.¹⁶⁶² Cal Advocates recommends that the Commission adopt \$128.035 million in 2023, \$166.674 million in 2024, and \$220.307 million in 2025.¹⁶⁶³ Cal Advocates' capital forecasts are based on SCE's 2022 recorded adjusted capital expenditures, SCE's historical capital expenditure levels, and SCE's TY forecasts. The record in this proceeding shows that SCE's forecast exceeds 2022 recorded capital expenditures year over year.¹⁶⁶⁴ Moreover, SCE's forecast for 2023 exceeds recorded 2022 by \$35.469 million, 2024 exceeds 2022 by \$85.656 million, and 2025 exceeds 2022 by \$171.407 million.¹⁶⁶⁵ The five-year recorded average from 2018-2022 is \$89.840 million.¹⁶⁶⁶ SCE's 2024 and 2025 forecasts are more than double the five-year recorded average.¹⁶⁶⁷

1. Infrastructure Upgrades

For Infrastructure Upgrades capital expenditures, Cal Advocates recommends

¹⁶⁵⁹ Ex. CA-22 at 30, FN 74.

¹⁶⁶⁰ Ex. CA-22, at 30, FN 75.

¹⁶⁶¹ Ex. CA-22, at 30.

¹⁶⁶² Ex. CA-22 at 3

¹⁶⁶³ Ex. CA-22 at 2.

¹⁶⁶⁴ Ex. CA-22, at 9.

¹⁶⁶⁵ Ex. CA-22, at 10.

¹⁶⁶⁶ Ex. CA-22, at 10.

¹⁶⁶⁷ Ex. CA-22, at 10.

\$30.907 million in 2023, \$47.715 million in 2024, and \$94.142 million in 2025, compared to SCE’s forecast of \$45.326 million in 2023, \$71.565 million in 2024, and \$156.748 million in 2025.¹⁶⁶⁸

SCE forecasts a nearly threefold increase for 2023 over recorded Infrastructure Upgrades costs from 2022, a nearly four-and-a-half-fold increase for 2024 over 2022, and almost a tenfold increase for 2025 over 2022.¹⁶⁶⁹ SCE’s request for the Infrastructure Upgrades in this GRC includes fourteen projects. Of the fourteen projects, Cal Advocates made recommendations for the following: the Edison Training Academy, Vehicle Maintenance Facilities, GO 4 Workplace Upgrades, Fleet Charging Program, Covina CSAS Building Remodel, and Barstow Service Center Expansion.

a) Edison Training Academy

This is SCE’s third request for Edison Training Academy funds. Although SCE was authorized funding for this project in both the 2018 and 2021 GRCs, it spent less than ten percent of authorized funds on this specific project.¹⁶⁷⁰ From the \$138.6 million combined total authorized in 2018 (\$92 million) and in 2021 (\$46.6 million) for the Edison Training Academy, previously requested as the T&D Training Center, SCE has only recorded \$3.8 million toward this project.¹⁶⁷¹ SCE states that the project’s unspent funds of \$134.8 million were “reprioritized” and allocated to other programs and activities; however, SCE acknowledges that it is not SCE’s practice to “trace funds it reprioritized.”¹⁶⁷² Without a record of how those funds were spent, Cal Advocates cannot be certain went to “emergent needs” or “unforeseen exogenous events.”

To date, SCE has made minimal progress on this project. SCE states that the Edison Training Academy is currently in phase zero, which entails demolition, grading, installation of offsite utilities, and landscaping. Despite an estimated completion date of

¹⁶⁶⁸ Ex. CA-22, at 11.

¹⁶⁶⁹ Ex. CA-22, at 10.

¹⁶⁷⁰ Ex. CA-22 at 13.

¹⁶⁷¹ Ex. CA-22 at 14, FN 23.

¹⁶⁷² Ex. CA-22 at 14, FN 24.

December 31, 2028,¹⁶⁷³ the last day of this GRC cycle, the project is still in a very early phase and SCE has already experienced a nine-month delay in the project schedule due to delays in the permitting process.¹⁶⁷⁴ In light of these facts, Cal Advocates recommends \$0 in 2023, \$0 in 2024, and \$0 in 2025 for the Edison Training Academy, compared to SCE's forecast of \$8.430 million in 2023, \$13.224 million in 2024, and \$32.183 million in 2025.¹⁶⁷⁵

It is unlikely that SCE could recover from the delay over the next five years, as a total of approximately 80 permits are needed at each phase of the project and SCE has only secured a plan check and permits for Phases Zero and One.¹⁶⁷⁶ Delays beyond SCE's control have occurred in the permitting process, due to the City of Corona's COVID-19 backlog, staffing shortages, and implementation issues with its new IT system.¹⁶⁷⁷

SCE has a history of long-delayed projects requested and funded in multiple GRCs. In these instances, the Commission has determined that ratepayers should only fund these projects once they are completed. In SCE's 2018 GRC, for example, the Commission noted that SCE's repeated requests and authorizations for "significant funding to modernize its service centers" over a ten-year period, through three GRC cycles.¹⁶⁷⁸ The Commission thus ordered SCE to place several service center modernization projects into a memorandum account stating that it will

determine in a future proceeding whether the expenditures recorded from January 1, 2018 (the beginning of this GRC period) onward should be recovered in rates. It is our intent that SCE's ratepayers do not pay costs incurred from 2018 onward for these long-delayed projects until SCE demonstrates it has completed the work using the funds authorized in this

¹⁶⁷³ Ex. CA-22 at 14, FN 27.

¹⁶⁷⁴ Ex. CA-22 at 15.

¹⁶⁷⁵ Ex. CA-22 at 13, FN 21.

¹⁶⁷⁶ Ex. CA-22 at 15.

¹⁶⁷⁷ Ex. CA-22 at 15, FN 28.

¹⁶⁷⁸ Decision on Test Year 2018 General Rate Case for Southern California Edison Company, D.19-05-020 at 203.

decision.¹⁶⁷⁹

Despite spending less than 3% of the funds previously authorized and collected from ratepayers, SCE once again requests funding for the Edison Training Academy. The amount requested this third time exceeds the 2021 GRC authorized amount.¹⁶⁸⁰ Each time a project is delayed, the costs to ratepayers increase due to inflation of labor and/or construction materials.¹⁶⁸¹ Had SCE completed the project when it was first authorized, the increase in cost due to inflation would not be an issue.¹⁶⁸² As such, the Commission should scrutinize this request in light of SCE's prior requests, project authorization, and spending pattern. Ratepayers should not have to pay multiple times for the same projects that SCE does not complete. Given the lack of progress, as well as previous authorizations and ratepayer funding of this very delayed project, the Commission should reject SCE's request to fund this project yet again. Instead, SCE should be directed to record costs associated with this project into a memorandum account that would not be eligible for cost recovery until after the project is completed. Recording costs into a memorandum account ensures that SCE cannot continue to reallocate funds away from this project.¹⁶⁸³

b) Vehicle Maintenance Facilities

Cal Advocates recommends \$0.400 million in 2023, \$0.800 million in 2024, and \$2.748 million in 2025, compared to SCE's forecast of \$0.500 million in 2023, \$1.000 million in 2024, and \$3.435 million in 2025.¹⁶⁸⁴ In the 2021 GRC, the Commission denied SCE's request for \$22.646 million for the Vehicle Maintenance¹⁶⁸⁵ because it was,

¹⁶⁷⁹ D.19-05-020 at 203.

¹⁶⁸⁰ Ex. CA-22 at 16.

¹⁶⁸¹ Ex. CA-22 at 16.

¹⁶⁸² Ex. CA-22 at 16.

¹⁶⁸³ Ex. CA-22 at 15.

¹⁶⁸⁴ Ex. SCE-06, Vol. 07 at 64.

¹⁶⁸⁵ Decision On Test Year 2021 General Rate Case For Southern California Edison Company, D.21-08-036 at 454.

“not convinced that SCE will move forward with this project within the timeline presented.”¹⁶⁸⁶ Since the denial, the project has made *some* progress (SCE has recorded \$0.366 million); however, the Vehicle Maintenance Facilities project remains in the design phase with an estimated completion date is December 31, 2028, or the last day of this GRC cycle.¹⁶⁸⁷ In response to Cal Advocates’ data request for quotes, invoices, and/or estimates, SCE provided scant support, which lacked specific planning estimates, cost descriptions and cost breakdowns.¹⁶⁸⁸ It also provided virtually no background on CMGI, the entity that prepared the supporting documentation provided to Cal Advocates. As justification for failing to provide information to support its request, SCE stated “CMGI is not a contractor or vendor that performs-work on specific SCE Facility Capital projects. CMGI does not create bids, quotes, or invoices, nor does it act as a project or construction manager for these projects.”¹⁶⁸⁹ When asked how CMGI’s planning estimates historically compare to contractor bids, SCE responded that “SCE does not historically track how often contractor bids received are higher or lower than the planning estimates provided by CMGI.”¹⁶⁹⁰ Without gauging the accuracy of CMGI’s estimates compared to contractor bids, Cal Advocates cannot analyze whether CMGI’s planning estimates are on par with the contractor bids.¹⁶⁹¹ Therefore, Cal Advocates recommends a twenty percent reduction, to mitigate the risk of an inflated estimate.¹⁶⁹²

c) GO4 Workplace Upgrades

Cal Advocates recommends \$1.706 million in 2023, \$4.651 million in 2024, and \$17.346 million in 2025, compared to SCE’s forecast of \$2.133 million in 2023, \$5.814

¹⁶⁸⁶ D.21-08-036 at 454.

¹⁶⁸⁷ Ex. CA-22 at 17, FN 34.

¹⁶⁸⁸ Ex. CA-22 at 17.

¹⁶⁸⁹ Ex. CA-22 at 17, FN 36.

¹⁶⁹⁰ Ex CA-22 at 17, FN. 37.

¹⁶⁹¹ Ex. CA-22 at 17.

¹⁶⁹² Ex. CA-22 at 17.

million in 2024, and \$21.683 million in 2025.¹⁶⁹³ Of the \$13.615 million authorized by the Commission in the 2021 GRC for GO4 Workplace Upgrades, SCE has only recorded \$1.275 million.¹⁶⁹⁴ When asked for supporting documentation such as quotes, invoices, and/or estimates from contractors and/or vendors, SCE again provided scant supporting details on the GO4 Workplace Upgrades.¹⁶⁹⁵ Because the GO4 Workplace Upgrades project recorded less than ten percent of what was authorized in the last GRC and the cost estimate lacked appropriate detailed support, Cal Advocates recommends a twenty percent reduction to SCE's forecast.¹⁶⁹⁶ A twenty percent reduction will mitigate the risk of an inflated estimate.¹⁶⁹⁷

d) Fleet Charging

Cal Advocates recommends \$10.223 million in 2023, \$8.437 million in 2024, and \$36.922 million in 2025, compared to SCE's forecasts of \$15.520 million in 2023, \$15.020 million in 2024, and \$62.320 million in 2025.¹⁶⁹⁸ Cal Advocates' lower forecast accounts for the fact that SCE requests more chargers than vehicles.¹⁶⁹⁹

In the 2021 SCE GRC, SCE forecasted Fleet Charging costs of \$11.989 million for 2019-2023; through 2022, SCE recorded \$17.870 million to align with California fleet electrification goals driven by clean fuel vehicle initiatives.¹⁷⁰⁰ From 2018-2023, SCE installed 683 electric fleet charging stations, which included chargers for forklifts, level 2, level 3, and jobsite energy management systems.¹⁷⁰¹ By 2028, SCE plans to have a total of 1,569 level 2 stalls installed to support a planned fleet of 285 light and 1,031

¹⁶⁹³ Ex. SCE-06, Vol. 07 at 73.

¹⁶⁹⁴ Ex. CA-22 at 18, FN 39.

¹⁶⁹⁵ Ex. CA-22 at 18.

¹⁶⁹⁶ Ex. CA-22 at 18.

¹⁶⁹⁷ Ex. CA-22 at 18.

¹⁶⁹⁸ Ex. SCE-06, Vol. 07 at 73.

¹⁶⁹⁹ Ex. CA-22 at 20.

¹⁷⁰⁰ Ex. SCE-06, Vol. 07 at 73.

¹⁷⁰¹ Ex. SCE-06, Vol. 07 at 74 Table II-10. Second Errata 11-9-23.

medium-duty Electric Vehicles (EVs). SCE also plans to install 869 level 3 Direct Current (DC) charging stalls for a total of 871 DC chargers, and adding 159 heavy-duty plug-in vehicles (for a total of 160) by the end of 2028. Only a small subset of medium-duty vehicles require an overnight DC charger, while the majority can use level 2 chargers. Thus, by 2028, the number of planned level 2 chargers will exceed the number of planned light and medium-duty EVs by 251 and the number of planned level 3 DC chargers will exceed the number of planned heavy-duty plug-in vehicles by 711. Because there will be more level 2 and level 3 charger than the forecasted vehicles¹⁷⁰² for 2023-2025, SCE's requests for chargers is excessive and should be reduced.¹⁷⁰³

Cal Advocates' testimony demonstrates the redundancy of SCE's requested chargers. First, each vehicle that SCE requests needs between 1.7 and 18.8 hours to fully charge, with the majority needing between 8.8 and 14.4 hours to fully charge when the battery is fully depleted.¹⁷⁰⁴ Because the electric vehicles will not be on a single charger 24 hours a day, multiple vehicles could use each charger.¹⁷⁰⁵ If vehicles could be charged on a rotational basis, SCE would need even fewer chargers than it requests. Second, as SCE acknowledges, vehicles can be shared when needed even if they are assigned to different districts.¹⁷⁰⁶ Without those redundant chargers, SCE will still be able to charge all current and requested EVs.¹⁷⁰⁷ Third, according to the manufacturer, the useful life of the smart EV chargers installed across SCE's workplace charging infrastructure is ten years.¹⁷⁰⁸ By the time SCE's 2029 GRC is filed, the redundant EV chargers that were installed in 2023 through 2025 would almost be halfway through the expected useful life

¹⁷⁰² Ex. CA-22 at 19.

¹⁷⁰³ Ex. CA-22 at 20.

¹⁷⁰⁴ Ex. CA-22 at 20, FN 45.

¹⁷⁰⁵ Ex. CA-22, at 20.

¹⁷⁰⁶ Ex. CA-22 at 20, FN 47.

¹⁷⁰⁷ Ex. CA-22 at 21.

¹⁷⁰⁸ Ex. CA-22 at 21.

without a dedicated vehicle to charge.¹⁷⁰⁹ Lastly, SCE’s fleet-charging installation program still allows for the construction of additional infrastructure and chargers, if needed, in the future.¹⁷¹⁰ SCE states that it “plans to utilize the most suitable construction approach of each project. These approaches include trenching, above-ground Conduit, and removal and remediation of asphalt in the parking area impacted.”¹⁷¹¹ This design methodology allows SCE to add additional infrastructure and chargers when needed in the future more easily.¹⁷¹²

For these reasons, the Commission should remove the redundant chargers from this GRC forecast and reduce SCE’s request by \$5.297 million in 2023, \$6.583 million in 2024, and \$25.398 million in 2025.¹⁷¹³

e) Covina CSAS (Customer Service Automated System Facility)

Cal Advocates recommends \$0.660 million in 2023, \$10.480 million in 2024, \$0 million in 2025, compared to SCE’s request of \$0.825 million for 2023, \$13.100 million for 2024, and \$0 million for 2025 for this project.¹⁷¹⁴ The Commission authorized \$4.933 million for the same project in 2021; however, SCE only recorded \$0.313 million, less than ten percent of the authorized amount.¹⁷¹⁵ Moreover, when in response to a data request, SCE did not provide sufficient supporting documentation such as quotes, bids or invoices from contractors and/or vendors.¹⁷¹⁶ Without gauging the accuracy of estimates, Cal Advocates cannot analyze the reasonableness of SCE’s request. The Commission should apply a 20 percent reduction to SCE’s forecast to mitigate the risk of an inflated

¹⁷⁰⁹ Ex. CA-22 at 21.

¹⁷¹⁰ Ex. CA-22 at 21.

¹⁷¹¹ Ex. CA-22 at 21, FN 49.

¹⁷¹² Ex. CA-22 at 21.

¹⁷¹³ Ex. CA-22 at 21.

¹⁷¹⁴ Ex. SCE-06, Vol. 07, at 85. Ex. SCE-06, Vol. 7 at 85.

¹⁷¹⁵ Ex. CA-22 at 21, FN 51.

¹⁷¹⁶ Ex. CA-22 at 22.

estimate.¹⁷¹⁷ This amount still provides sufficient funding to advance the project; if additional funding becomes necessary, SCE can seek to establish that necessity in the next GRC.

f) Barstow Service Center Expansion

The Barstow Service Center is a “dynamic distribution hub.”¹⁷¹⁸ Cal Advocates recommends \$0 in 2023, \$0.240 million in 2024, and \$0 in 2025 compared to SCE’s forecast of \$0 in 2023, \$0.300 million in 2024, and \$0 in 2025.¹⁷¹⁹ The Commission authorized \$7.285 million for the same project in the 2018 GRC; however, SCE has only recorded \$0.030 million, less than one half of a percent of the authorized amount.¹⁷²⁰ Moreover, SCE estimates a completion date of December 31, 2028, the last day of the GRC cycle, and must still evaluate staff, facility and storage needs before it can begin the design and permitting process.¹⁷²¹ As occurred in the other projects, SCE did not provide bids, quotes or invoices from contractors and/or vendors to support its cost estimate for the project.¹⁷²² Without gauging the accuracy of estimates, Cal Advocates cannot analyze the reasonableness of SCE’s request. The Commission should therefore apply a 20 percent reduction to SCE’s forecast to mitigate the risk of an inflated estimate.¹⁷²³ This amount still provides sufficient funding to advance the project; if additional funding becomes necessary, SCE can seek to establish that necessity in the next GRC.

¹⁷¹⁷ Ex. CA-22 at 22.

¹⁷¹⁸ Ex. SCE-06, Vol. 07 at 91.

¹⁷¹⁹ Ex. SCE-06, Vol. 07 at 90.

¹⁷²⁰ Ex. CA-22 at 22, FN 53.

¹⁷²¹ Ex. CA-22 at, FN 54.

¹⁷²² Ex. CA-22 at 23.

¹⁷²³ Ex. CA-22 at 23.

2. Facility Repurpose Projects

For Facility Repurpose Projects Cal Advocates recommends \$39.628 million in 2023, \$43.780 million in 2024, and \$17.652 million in 2025 compared to SCE's forecast of \$45.653 million in 2023 \$50.496 million in 2024, and \$19.699 million in 2025.¹⁷²⁴

a) Alhambra Regional Operations Facility Renovations

Cal Advocates recommends \$18.330 million in 2023, \$23.293 million in 2024, and \$3.349 million in 2025, compared to SCE's forecast of \$22.913 million in 2023, \$29.116 million in 2024, and \$4.187 million in 2025.¹⁷²⁵ The Commission authorized \$58.967 million for the same project in the 2021 GRC; however, SCE has only recorded \$4.005 million, less than ten percent of the authorized amount. Moreover, SCE estimates a completion date of December 31, 2028, the last day of the GRC cycle¹⁷²⁶, and upon request, not provide bids, quotes or invoices from contractors and/or vendors to support its cost estimate for the project.¹⁷²⁷ As such, the Commission should apply a 20 percent reduction to SCE's forecast to mitigate the risk of an inflated estimate.¹⁷²⁸ This amount still provides sufficient funding to advance the project; if additional funding becomes necessary, SCE can seek to establish that necessity in the next GRC.

b) Westminster Combined Facility Renovations

Cal Advocates recommends \$5.774 million in 2023, \$3.572 million in 2024, and \$4.835 million in 2025, compared to SCE's forecast of \$7.217 million in 2023, \$4.465 million in 2024, and \$6.044 million in 2025.¹⁷²⁹ The Commission authorized \$26.863 million for the same project in the 2021 GRC; however, SCE has only recorded \$3.133

¹⁷²⁴ Ex. CA-22 at 23.

¹⁷²⁵ Ex. SCE-06, Vol. 07 at 107.

¹⁷²⁶ Ex. CA-22 at 24, FN 59.

¹⁷²⁷ Ex. CA-22 at 24.

¹⁷²⁸ Ex. CA-22 at 24.

¹⁷²⁹ Ex. SCE-06, Vol. 07 at 111.

million, less than 12 percent of the authorized amount.¹⁷³⁰ Moreover, SCE estimates a completion date of December 31, 2028, the last day of the GRC cycle¹⁷³¹, and upon request, not provide bids, quotes or invoices from contractors and/or vendors to support its cost estimate for the project.¹⁷³² As such, the Commission should apply a 20 percent reduction to SCE's forecast to mitigate the risk of an inflated estimate.¹⁷³³ This amount still provides sufficient funding to advance the project; if additional funding becomes necessary, SCE can seek to establish that necessity in the next GRC.

3. Substation Reliability Upgrades

The Substation Maintenance and Test Building program is designed to replace temporary and outdated facilities. Substation maintenance and test facilities co-locate electricians that perform maintenance and inspections on assets (e.g., circuit breakers, relays, transformers, etc.) critical to grid reliability.¹⁷³⁴ For Substation Reliability Upgrades Cal Advocates recommends \$1.214 million in 2023, \$5.343 million in 2024, and \$20.642 million in 2025 compared to SCE's forecast of \$1.349 million in 2023, \$5.937 million in 2024, and \$22.936 million in 2025.¹⁷³⁵

a) Antelope Maintenance and Test Building, Pardee Maintenance and Test Building, and Santa Clara Maintenance and Test Building

For the Antelope Maintenance and Test Building, the Pardee Maintenance and Test Building, and Santa Clara Maintenance and Test Building Cal Advocates recommends \$0.405 million in 2023, \$1.781 million in 2024, and \$6.881 million in 2025 for each project, compared to SCE's forecast of \$0.450 million in 2023, \$1.979 million in

¹⁷³⁰ Ex. CA-22 at 25, FN 61.

¹⁷³¹ Ex. CA-22 at 25.

¹⁷³² Ex. CA-22 at 25.

¹⁷³³ Ex. CA-22 at 25.

¹⁷³⁴ Ex. SCE-06, Vol. 07 at 124.

¹⁷³⁵ Ex. CA-22 at 26.

2024, and \$7.645 million in 2025 for each project.¹⁷³⁶ The Maintenance and Test Building projects are forecasted to cost thirty percent more than the recorded average of previously completed projects.¹⁷³⁷ However, SCE was unable to provide information to support its cost estimate with bids, quotes, or invoices from contractors and/or vendors.¹⁷³⁸ Without gauging the accuracy of estimates, Cal Advocates cannot analyze the reasonableness of SCE's request. Therefore, the Commission should reduce SCE's forecast to Cal Advocates' recommendations.

4. Projects Less than \$3 Million

For Projects Less Than \$3 million Cal Advocates recommends \$8.245 million in 2023, \$2.800 million in 2024, and \$6.200 million in 2025 compared to SCE's forecast of \$11.245 million in 2023 \$2.800 million in 2024, and \$6.200 million in 2025.

a) Arrowhead Service Center Land Purchase

According to SCE, the purpose of the Arrowhead Service Center Land Purchase project is to support "the need for a larger parcel for the Arrowhead District's operational requirements, as the existing service center is too small to accommodate crew, vehicles, employee parking, and equipment and materials storage."¹⁷³⁹ SCE's \$3.0 million request is premature. SCE has not yet secured an appropriately sized, flat parcel in the district.¹⁷⁴⁰ As of September 27, 2023, SCE has gathered relevant information and visited available parcels, but has not initiated the formal due diligence process or purchased the parcel.¹⁷⁴¹

As such, the Commission should remove this request from this GRC and order that the Arrowhead Service Center Land Purchase be recorded in the Service Center Modernization Program Memorandum Account (SCMPMA), established in SCE's 2018

¹⁷³⁶ Ex. SCE-06, Vol. 07 at 127, 128, and 129.

¹⁷³⁷ Ex. CA-22 at 27.

¹⁷³⁸ Ex. CA-22 at 27.

¹⁷³⁹ Ex. SCE-17, Vol. 05 at 55.

¹⁷⁴⁰ Ex. SCE-06, Vol. 07 at 36.

¹⁷⁴¹ Ex. CA-22 at 28.

GRC,¹⁷⁴² for future recovery.¹⁷⁴³ Thus, Cal Advocates recommends \$0 in 2023, \$0 in 2024, and \$0 in 2025, compared to SCE's forecast of \$3.0 million in 2023, \$0 in 2024, and \$0 in 2025.¹⁷⁴⁴

5. Land Operations

For Land Operations Cal Advocates recommends \$2.191 million in 2023, \$18.291 million in 2024, and \$3.537 million in 2025 compared to SCE's forecast of \$2.293 million in 2023, \$22.360 million in 2024, and \$3.938 million in 2025.

a) San Jacinto Laydown Yard

Cal Advocates recommends \$0.406 million in 2023, \$16.277 million in 2024, and \$1.603 million in 2025, compared to SCE's forecast of \$0.508 million in 2023, \$20.346 million in 2024, and \$2.003 million in 2025.¹⁷⁴⁵ SCE has yet to make significant progress to warrant its request. In 2022, SCE recorded \$15,000 for planning expenditures.¹⁷⁴⁶ For 2023, SCE forecasts \$508,000 to perform due diligence, secure entitlements, and place a deposit on the selected site,¹⁷⁴⁷ but as of September 2023, had not yet begun the formal due diligence process, secured entitlements, or placed a deposit for the selected site.¹⁷⁴⁸ Upon request, SCE did not support its cost estimate with bids, quotes, or invoices from contractors and/or vendors. Thus, the Commission should apply a twenty percent reduction to SCE's forecast to mitigate the risk of an inflated estimate.¹⁷⁴⁹ This amount still provides sufficient funding to advance the project; if additional funding becomes necessary, SCE can seek to establish that necessity in the next GRC.

¹⁷⁴² Ex. CA-22 at 15.

¹⁷⁴³ Ex. CA-22 at 28.

¹⁷⁴⁴ Ex. SCE-06, Vol. 07 at 157.

¹⁷⁴⁵ Ex. SCE-06, Vol. 07 at 111.

¹⁷⁴⁶ Ex. CA-22 at 29.

¹⁷⁴⁷ Ex. SCE-06, Vol. 07 at 160.

¹⁷⁴⁸ Ex. CA-22 at 29, FN. 72.

¹⁷⁴⁹ Ex. CA-22 at 29.

XXXVII. POLICY AND EXTERNAL ENGAGEMENT

A. Develop and Manage Policy and Initiatives

SCE's Develop and Manage Policy and Initiatives activity consists of work performed within the Regulatory Affairs organization, comprised of six functions: regulatory case management; case administration; CPUC engagement; CAISO/FERC/CEC engagement; environmental affairs at the state, local and federal levels; and pricing design and research.¹⁷⁵⁰ SCE requests \$19.838 million in O&M expense for TY 2025 for the Develop and Manage Policy Initiatives activity. Cal Advocates does not oppose SCE's TY 2025 expense request of \$19.838 million for Develop and Manage Policy and Initiatives expenses.

B. Education, Safety, and Operations

SCE's Education, Safety and Operations activity consists of work performed within the Local Public Affairs organization, responsible for "managing and directing external engagement with government officials, staff, businesses, and local community stakeholders representing 185 cities, 15 counties, and 13 Native American federally recognized tribes in the SCE service area."¹⁷⁵¹ Cal Advocates does not oppose SCE's TY 2025 expense request of \$7.723 million for Education, Safety and Operations expenses.

C. Professional Education and Development

The Professional Development and Education activity consists of "customer-funded dues and memberships, which help SCE stay current on important emerging industry trends and best practices."¹⁷⁵² SCE requests \$2.113 million in O&M expense for SCE's TY 2025 for the Professional Development and Education activity.¹⁷⁵³ Edison Electric Institute (EEI) membership dues comprise most of SCE's request. Cal

¹⁷⁵⁰ Ex. SCE-06, Vol. 08 at 4-8.

¹⁷⁵¹ Ex. SCE-06, Vol. 08 at 15.

¹⁷⁵² Ex. SCE-06, Vol. 08 at 25.

¹⁷⁵³ Ex. CA-23 at 9.

Advocates opposes SCE's forecast of \$1.893 million for EEI¹⁷⁵⁴ but does not oppose dues and memberships for the other organizations.¹⁷⁵⁵

EEI is an association of U.S. investor-owned electric companies, international affiliates, and industry associates; SCE states that EEI enables SCE to streamline and improve operations, and to reduce costs of internal processes to safely provide reliable, resilient and affordable electric service.¹⁷⁵⁶

SCE reduced its EEI membership dues request by removing a portion of the dues that it states are attributable to "influencing legislation and political campaign activity," which SCE acknowledges is a shareholder cost.¹⁷⁵⁷ According to SCE, "13 percent of expenses classified in the [2023 EEI] invoice as 'Regular Activities of Edison Electric Institute,' 20 percent of expenses classified as 'Industry Issues,' and 100 percent of expenses classified in the invoice as '2023 Contributions to The Edison Foundation' are considered shareholder expenses and were removed from SCE's request."¹⁷⁵⁸

In the SCE TY 2021 GRC decision, the Commission did not allow SCE to recover full EEI membership dues even with SCE's voluntary reductions.¹⁷⁵⁹ D.21-08-036's discussion of EEI dues explains the Commission's rationale for approving ratepayer funding at 50 percent of SCE's request: it "has generally been the Commission's policy to deny ratepayer funding of EEI dues unless a utility provides sufficient evidence to establish clear ratepayer benefits."¹⁷⁶⁰ The Commission further found that ratepayer funding may be authorized when SCE provides a itemization or "breakdown of EEI's membership activities or dues that would enable the Commission to determine how much

¹⁷⁵⁴ Southern California Edison, 2025 General Rate Case, Policy, External Engagement, and Ratemaking, Ex. SCE-06, Vol. 8 at 38.

¹⁷⁵⁵ Report on the Result of Operations for Southern California Edison General Rate Case Test Year 2025, Policy, External Engagement and Ratemaking, Ex. CA-23 at 9.

¹⁷⁵⁶ Ex. CA-23 at 9.

¹⁷⁵⁷ Ex. CA-23 at 10, FN25.

¹⁷⁵⁸ Ex. CA-23 at 10, FN26.

¹⁷⁵⁹ Ex. SCE-06, Vol. 08 at 39.

¹⁷⁶⁰ Decision on Test Year 2021 General Rate Case for Southern California Edison Company, D.21-08-036, at 461-462.

of the dues are attributable to activities the Commission has previously deemed improper for ratepayer recovery.”¹⁷⁶¹

In this GRC, SCE once again provides the EEI invoice to support its request.¹⁷⁶² While it has voluntarily deducted a portion of the membership fee, SCE has not provided an itemized breakdown of EEI’s activities to allow the Commission to determine whether other EEI activities, and their associated costs, should be excluded from ratepayer funding. SCE has not provided sufficient evidence to meet its burden to justify ratepayer recovery for any portion of the EEI membership dues.

Thus, Cal Advocates recommends an adjustment of \$1.893 million for EEI membership dues, resulting in its recommendation of \$0.220 million.

D. Ratemaking Cost Recovery Business Planning Element

The Ratemaking Cost Recovery activity consists of work performed in the Regulatory Affairs organization that includes “(1) managing the recovery of SCE’s costs for providing service to its customers, (2) calculating and presenting to the Commission for approval the costs SCE may charge customers for purchasing fuel and power, including the Energy Resource Recovery Account (ERRA) proceedings, and (3) overseeing SCE’s tariffs that set forth the terms and conditions of SCE’s services to its customers.”¹⁷⁶³

SCE requests \$5.361 million for TY 2025, which is lower than its authorized 2021 expenses of \$5.791 million and similar to 2020 recorded expenses of \$5.312 million.¹⁷⁶⁴ SCE’s 2025 non-labor expense request is \$481,000, the same as 2022 recorded non-labor expenses.¹⁷⁶⁵ SCE’s 2025 labor expense request is \$4.880 million, based on 2022 recorded labor plus \$0.936 million “attributable primarily to the filling of vacant positions by the Test Year along with certain changes to SCE’s employee compensation

¹⁷⁶¹ D.21-08-036 at 462 (citing D.15-11-021 at 365-366).

¹⁷⁶² Ex. SCE-06, Vol. 8 at 39.

¹⁷⁶³ Ex. SCE-06, Vol. 08 at 41.

¹⁷⁶⁴ Ex. CA-23 at 12.

¹⁷⁶⁵ Ex. CA-23 at 12.

program.”¹⁷⁶⁶ In response to a data request, SCE indicated that after a decline in FTEs in 2022, the number of FTEs in 2023 and forecast for TY 2025 will return to approximately 2021 levels.¹⁷⁶⁷

Cal Advocates does not oppose SCE’s TY 2025 expense request of \$5.361 million for Ratemaking Cost Recovery expenses.

XXXVIII. RESULTS OF OPERATIONS

A. Results of Operations

The revenue requirements are calculated by a computer model developed by SCE and referred to as the Results of Operations (RO) model. The data inputs, provided by various Cal Advocates witnesses, are then used by the RO model to calculate the Summary of Earnings.¹⁷⁶⁸

SCE filed its TY 2025 GRC application on May 31, 2023, and provided Cal Advocates with an accompanying RO model (Build 1.0) on June 6, 2023.¹⁷⁶⁹ SCE provided updated RO models on July 14, 2023 (RO 1.1), August 14, 2023 (RO 1.2), November 9, 2023 (RO 1.3), and December 15, 2023 (RO 1.4) to support revised proposed Commission revenue requirements (CPUC jurisdictional revenue requirement that SCE seeks) and errata’s filed.¹⁷⁷⁰

Cal Advocates uses the latest version of the RO model (RO 1.4) that was provided on December 15, 2023 to calculate the Summary of Earnings.¹⁷⁷¹

Cal Advocates performed limited testing of the RO model and determined that it reflects a reasonable calculation of the Summary of Earnings.¹⁷⁷²

¹⁷⁶⁶ Ex. SCE-06, Vol. 08 at 45.

¹⁷⁶⁷ Ex. CA-23 at 13, FN 39.

¹⁷⁶⁸ Report on the Results of Operations for Southern California Edison Company, General Rate Case Test Year 2025, Results of Operations, OOR, Taxes, Ex. CA-26 at 1.

¹⁷⁶⁹ Ex. CA-26 at 2.

¹⁷⁷⁰ Ex. CA-26 at 3.

¹⁷⁷¹ Ex. CA-26 at 3.

¹⁷⁷² Ex. CA-26 at 3.

Cal Advocates' witnesses provided input data for the RO model. The discussions and analyses of the input data are contained in the corresponding Cal Advocates exhibits. Cal Advocates made some minor modifications to RO 1.4 and some manual inputs to accommodate some witnesses' request, so that the RO can reflect their recommendations.¹⁷⁷³

The Summary of Earnings are summarized in eight tables contained in Exhibit CA-26:

- Table CA-26-1 is Cal Advocates' recommended CPUC revenue requirement at present and proposed rates.
- Table CA-26-2 is SCE's requested CPUC revenue requirement at present and proposed rates.
- Table CA-26-3 compares Cal Advocates' and SCE's CPUC revenue requirement at proposed rates.
- Table CA-26-4 compares Cal Advocates' and SCE's CPUC revenue requirement at present rates.
- Table CA-26-5 is Cal Advocates' recommended total company revenue requirement at proposed rates. The table details revenue for total company and the allocation between CPUC and FERC jurisdictions. The CPUC allocation includes a Rate Base adjustment¹⁷⁷⁴ as well as a Wildfire Insurance Regulatory Assets.
- Table CA-26-6 is SCE's requested total company revenue requirement at present and proposed rates. The table details revenues for total company and the allocation between CPUC and FERC jurisdiction. The CPUC allocation includes a Rate Base adjustment as well as a Wildfire Insurance Regulatory Asset.
- Table CA-26-7 is Cal Advocates' CPUC revenue requirement for post-test years at proposed rates.

¹⁷⁷³ Ex. CA-26 at 3.

¹⁷⁷⁴ The Rate Base adjustment is a rate base offset that was adopted in SCE's previous GRC decision D.15-11-021. As discussed in that decision, p. 431, "we adopt a simple rate base offset to offset the future tax expense related to the change in accounting for repair deductions," and on page 455, "the offset is implemented as a direct line item adjustment to rate base, independent of other factors. The rate base offset in turn impacts other revenue-dependent portions of the model (e.g., taxes, franchise requirements). The value of the offset is amortized (on a straight line basis) over the course of 27 years (2016 to 2042)."

- Table CA-26-8 is SCE’s requested CPUC revenue requirement for post-test years at proposed rates.¹⁷⁷⁵

The values shown in Tables CA-26-1 to CA-26-8 are extracted from the same version of the RO model with different inputs.¹⁷⁷⁶ The numbers shown in the SCE columns were extracted from RO 1.4, provided by SCE on December 15, 2023.¹⁷⁷⁷ The figures displayed in Cal Advocates’ columns were extracted RO 1.4 with Cal Advocates’ recommended adjustments to expense and capital.

B. CPUC-Jurisdictional Revenue Requirement

Cal Advocates does not address this topic.

C. GRC Ratemaking Proposals, including Memorandum and Balancing Accounts

Cal Advocates conducted a review of SCE’s financial and accounting records¹⁷⁷⁸ because SCE applied for authorization to increase its Test Year (TY) 2025 General Rate Case (GRC) revenue requirements.¹⁷⁷⁹ Cal Advocates sought to ensure that records and the supporting information are reasonable and proper for ratemaking purposes under the Commission’s established rules and regulations.¹⁷⁸⁰ Cal Advocates’ authority and mandate to review these records is set forth in California Public Utilities Code sections 314, 314.5, and 309.5. SCE’s financial and accounting records were last examined by Cal Advocates during SCE’s Test Year 2021 GRC, A.19-08-013.¹⁷⁸¹

¹⁷⁷⁵ Ex. CA-26, at 1.

¹⁷⁷⁶ Ex. CA-26, at 12-19.

¹⁷⁷⁷ Ex. CA-26, at 3.

¹⁷⁷⁸ Ex. CA-29, Financial Examination at 1.

¹⁷⁷⁹ Ex. CA-29 at 1.

¹⁷⁸⁰ Ex. CA-29 at 1-2.

¹⁷⁸¹ Ex. CA-29 at 1.

Based on Cal Advocates' review of SCE's compliance requirements and certain memorandum and balancing accounts, Cal Advocates recommends adjustments to the following balancing accounts and memorandum accounts:¹⁷⁸²

- Z-Factor Memorandum Account (ZFMA). SCE proposed to expand the applicability of the ZFMA to include the GRC test year, as opposed to only GRC attrition years.¹⁷⁸³
- General Liability Insurance Balancing Account (GLIBA). Cal Advocates' issues for this account are now addressed through Ex. SCE-34, Stipulation of TURN, Cal Advocates, and SCE on Non-Wildfire Insurance.¹⁷⁸⁴
- NextGen ERP SAP Memorandum Account (NGESMA). Cal Advocates' issues for this account are now addressed through Exhibit SCE-32, Stipulation of Cal Advocates and SCE on Capital Forecast for Enterprise Technology and OU Capitalized Software (Technology Solutions)¹⁷⁸⁵
- Historic Sporting Events Cost Tracking Memorandum Account (HSECTMA).¹⁷⁸⁶
- SCE proposes to establish the Cybersecurity Compliance Memorandum Account (CCMA). Cal Advocates discusses its recommendation for CCMA in another section.¹⁷⁸⁷
- Cal Advocates recommends that the Commission authorize the recovery of only verified, actual, and recorded costs incurred in the memorandum accounts through December 31, 2022.¹⁷⁸⁸
 - SCE requested recovery of \$95.570 million in eleven memorandum accounts,¹⁷⁸⁹ but Cal Advocates recommends

¹⁷⁸² Ex. CA-29 at 1-2.

¹⁷⁸³ Ex. CA-29 at 1-2.

¹⁷⁸⁴ Ex. CA-29 at 1-2.

¹⁷⁸⁵ Ex. CA-29 at 1-2.

¹⁷⁸⁶ Ex. CA-29 at 1-2.

¹⁷⁸⁷ Ex. CA-29 at 1-2.

¹⁷⁸⁸ Ex. CA-29 at 2-3.

¹⁷⁸⁹ The element memorandum accounts are the following: (1) Seismic Retrofit for Non-Electric Facilities Memorandum Account; (2) Customer Service Re-Platform Memorandum Account; (3) Service Center Modernization Projects Memorandum Account; (4) Distribution Deferral Administrative Costs Memorandum Account; (5) Emergency Customer Protections Memorandum Account; (6) Residential Disconnections Implementation Cost Memorandum Account; (7) NEM Online Application System

recovery of \$55.671 22 million. Under the TY 2025 in this GRC proceeding,

- SCE proposes to recover the balances, up to December 31, 2024, for costs recorded through December 31, 2022, and for costs forecasted for 2023 and 2024 that are yet to be actually incurred and recorded in the memorandum accounts. But the forecasted 2023 and 2024 memorandum costs that SCE proposes to recover are estimates and are not actual recorded costs.¹⁷⁹⁰
- Cal Advocates does not oppose the recovery of actual recorded costs through December 31, 2022 (\$55.671 million); but Cal Advocates opposes the recovery of SCE's forecast of 2023 and 2024 costs (\$39.899 million), which are not actually incurred and recorded in the memorandum accounts. SCE can request recovery of actual recorded 2023 and 2024 memorandum-account costs in the next GRC proceeding or through other appropriate application.
- The Commission should authorize the recovery of only verified, actual, and recorded costs incurred in the memorandum accounts through December 31, 2022.
- Cal Advocates recommends that the Customer Service Re-Platform Memorandum Account, the Seismic Retrofit for Non-Electric Facilities Memorandum Account, and the NEM¹⁷⁹¹ Online Application System Memorandum Account remain open.¹⁷⁹²

1. SCE's proposed modification of balancing and memorandum accounts

a) Z-Factor Memorandum Account (ZFMA).

Cal Advocates discusses this account in further detail in section XLI (Post Test Year Ratemaking).

Memorandum Account; (8) California Consumer Privacy Act Memorandum Account; (9) Avoided Cost Calculator Memorandum Account; (10) Community Choice Aggregators Audit Memorandum Account; and (11) Wildfire Mitigation Plan Memorandum Account. See Ex. CA-29 at 2, FN 1.

¹⁷⁹⁰ Ex. CA-29 at 2-3.

¹⁷⁹¹ Net Energy Metering.

¹⁷⁹² Ex. CA-29 at 2-3.

2. SCE's proposed new balancing and memorandum accounts.

a) Establishment of the General Liability Insurance Balancing Account (GLIBA).

Cal Advocates' issues for this account are now addressed through Exhibit SCE-34, Stipulation of TURN, Cal Advocates, and SCE on Non-Wildfire Insurance.

b) Establishment of the NextGen ERP SAP Memorandum Account (NGESMA).

Cal Advocates' issues for this account are now addressed through Exhibit SCE-32, Stipulation of Cal Advocates and SCE on Capital Forecast for Enterprise Technology and OU Capitalized Software (Technology Solutions).

c) Establishment of the Historic Sporting Events Cost Tracking Memorandum Account (HSECTMA).

Cal Advocates discusses this account in further detail in section XI (Load Growth, Transmission Projects, and Engineering).

d) Establishment Cybersecurity Compliance Memorandum Account (CCMA).

Cal Advocates discusses this account in further detail in section XXII (Cybersecurity).

3. SCE's Proposed Recovery of Memorandum-Account Balances.

SCE requested recovery of its forecast of the balances in the following memorandum accounts, up to December 31, 2024:¹⁷⁹³

- Seismic Retrofit for Non-Electric Facilities Memorandum Account (SRNEFMA)
- Customer Service Re-Platform Memorandum Account (CSRPMA)
- Service Center Modernization Projects Memorandum Account (SCMPMA)

¹⁷⁹³ Ex. CA-29 at 12-13.

- Distribution Deferral Administrative Costs Memorandum Account (DDACMA)
- Emergency Customer Protections Memorandum Account (ECPMA)
- Residential Disconnections Implementation Cost Memorandum Account (RDICMA)
- NEM Online Application System Memorandum Account (NEMOASMA)
- California Consumer Privacy Act Memorandum Account (CCPAMA)
- Avoided Cost Calculator Memorandum Account (ACCMA)
- Community Choice Aggregators Audit Memorandum Account (CCAAMA)
- Wildfire Mitigation Plan Memorandum Account (WMPMA)¹⁷⁹⁴

For these eleven memorandum accounts, SCE's requested recovery comprises both recorded costs (\$55.671 million) from 2018 through 2022, and forecasted costs (\$39.899 million) for 2023 and 2024.

To understand SCE's claims for recorded costs for 2018 through 2022, Cal Advocates requested the recorded costs and journal entries that support the request for seven of the eleven accounts. Cal Advocates found no discrepancy in those seven accounts' recorded costs and journal entries, to the extent that those accounts had entries from 2018 through 2022. On the basis of this examination, Cal Advocates accepts SCE's recorded amount of \$55.671 million for all eleven accounts.

However, Cal Advocates opposes recovery of the forecasted amounts that have not been actually incurred or recorded. Cal Advocates cannot verify costs that have not been incurred and recorded in 2023 and 2024.

a) Cal Advocates' Review of SCE's Memorandum-Accounts Expenses.

Cal Advocates requested a breakdown of the SCE's recorded balances and journal entries from 2018 through 2022 in seven of the aforementioned eleven memorandums

¹⁷⁹⁴ Ex. CA-29 at 12-13.

accounts Cal Advocates reviewed.¹⁷⁹⁵ These accounts were CSRPMA, SCMPMA, DDACMA, ECPMA, RDICMA, CCPAMA, and ACCMA.¹⁷⁹⁶

After reviewing the journal entries, Cal Advocates did not note any discrepancies that required adjustments for 2018 to 2022's recorded costs for CCPMA, CSRPMA, and RDICMA.¹⁷⁹⁷

Of note, SCE proposed to eliminate the Customer Service Re-Platform Memorandum Account (CSRPMA) once the final amounts recorded in the CSRPMA have been transferred to the distribution subaccount of the Base Revenue Requirement Balancing Account (BRRBA) for recovery in customers' rates. Cal Advocates recommends that CSRPMA remain open.¹⁷⁹⁸

Furthermore, SCE proposed to eliminate the SRNEFMA once the balance, as of December 31, 2024, is transferred to the distribution subaccount of the BRRBA. Cal Advocates recommends that SRNEFMA remain open.¹⁷⁹⁹

Lastly, SCE proposed to eliminate the NEMOASMA once the recovery of the balances in the NEMOASMA, as of December 31, 2024, is approved. Cal Advocates recommends that NEMOASMA remain open.¹⁸⁰⁰

¹⁷⁹⁵ Ex. CA-29 at 13.

¹⁷⁹⁶ Ex. CA-29 at 13.

¹⁷⁹⁷ (1) Seismic Retrofit for Non-Electric Facilities Memorandum Account; (2) Customer Service Re-Platform Memorandum Account; (3) Service Center Modernization Projects Memorandum Account; (4) Distribution Deferral Administrative Costs Memorandum Account; (5) Emergency Customer Protections Memorandum Account; (6) Residential Disconnections Implementation Cost Memorandum Account; (7) NEM Online Application System Memorandum Account; (8) California Consumer Privacy Act Memorandum Account; (9) Avoided Cost Calculator Memorandum Account; (10) Community Choice Aggregators Audit Memorandum Account; and (11) Wildfire Mitigation Plan Memorandum Account.

¹⁷⁹⁸ Ex. CA-29 at 15-16.

¹⁷⁹⁹ Ex. CA-29 at 16.

¹⁸⁰⁰ Ex. CA-29 at 16.

b) Cal Advocates' recommendation on SCE's request for recovery of memorandum-accounts balances that are based on forecasted costs.

SCE requested recovery of \$95.570 million in eleven memorandum accounts for costs actually recorded through December 31, 2022, and for costs forecasted for 2023 and 2024 that are yet to be actually incurred in the memorandum accounts.¹⁸⁰¹

SCE provided the actual recorded costs through December 31, 2022, totaling \$55.671 million; and SCE forecasted the 2023 and 2024 amounts, totaling \$39.899 million, but which are yet to be actually recorded in the memorandum accounts.¹⁸⁰²

Cal Advocates does not oppose the recovery of actual recorded costs through December 31, 2022. However, Cal Advocates opposes any recovery of SCE's forecasted 2023 and 2024 costs that have not actually been incurred and recorded.¹⁸⁰³ Cal Advocates does not oppose the recovery of costs of \$55.671 million, which are actually recorded through December 31, 2022.¹⁸⁰⁴

Cal Advocates opposes SCE's proposal to recover the forecasted 2023 and 2024 memorandum costs estimated to be \$39.899 million but are yet to be incurred and recorded in the memorandum accounts.¹⁸⁰⁵ The forecasted 2023 and 2024 memorandum costs that SCE proposes to recover in this TY 2025 GRC are estimates and are not actual recorded costs.¹⁸⁰⁶

SCE's attempt to recover forecasted costs on a prospective basis is inappropriate for recovery of costs recorded to memorandum accounts.¹⁸⁰⁷ The recovery of memorandum accounts is retrospective and the request for recovery occurs after the costs

¹⁸⁰¹ Ex. CA-29 at 13-14.

¹⁸⁰² Ex. CA-29 at 13-14.

¹⁸⁰³ Ex. CA-29 at 13-14.

¹⁸⁰⁴ Ex. CA-29 at 13-14.

¹⁸⁰⁵ Ex. CA-29 at 14.

¹⁸⁰⁶ Ex. CA-29 at 14.

¹⁸⁰⁷ Ex. CA-29 at 14.

are actually incurred and recorded to the memorandum account.¹⁸⁰⁸ Indeed, in D.10-04-001, the Commission showed that memorandum accounts are for tracking actually incurred costs: “A memorandum account allows a utility to track costs arising from events that were not reasonably foreseen in the utility’s last general rate case. By tracking these costs in a memorandum account, a utility preserves the opportunity to seek recovery of these costs at a later date.”¹⁸⁰⁹ And in D.03-05-076, the Commission emphasized that memorandum accounts “were designed to allow utilities the opportunity to record costs incurred.”¹⁸¹⁰

So, SCE can request recovery of the actual recorded 2023 and 2024 memorandum-account costs for recovery in its next GRC proceeding or through other appropriate application.¹⁸¹¹ But Cal Advocates recommends that the Commission authorize the recovery of only verified, actual, and recorded costs incurred in the memorandum accounts through December 31, 2022. Table 29-04 presents SCE’s requests and Cal Advocates’ recommendation on the recovery of costs in the eleven memorandum accounts.¹⁸¹²

¹⁸⁰⁸ Ex. CA-29 at 14.

¹⁸⁰⁹ D.10-04-001, Decision Authorizing Memorandum Accounts to Track Legal and Regulatory Expenses Incurred in this Proceeding, at 4. See also D.10-04-001, at 4, FN 5 (“When seeking recovery, the utility must also demonstrate that the costs are not covered by other authorized rates, it is appropriate for ratepayers to pay for those categories of costs in addition to otherwise authorized rates, the utility acted prudently when it incurred those costs, and the level of costs is reasonable.”)

¹⁸¹⁰ D.03-05-076, Opinion on Motion for Memorandum Account, at 7, FN 5.

¹⁸¹¹ Ex. CA-29 at 14.

¹⁸¹² Ex. CA-29 at 15.

Table 29-04
Recovery of Costs in Memorandum Accounts¹⁹
(Nominal \$000)

Memorandum Account	Cal Advocates' Recommendation for Recovery of Recorded Balance as of 12/31/2022 in TY 2025 GRC	SCE's Request for Recovery of Recorded Balance as of 12/31/2022 in TY 2025	Difference between Cal Advocates' Recommendation & SCE's Request for Recovery of Recorded Balance as of 12/31/2022 in TY 2025 GRC	Cal Advocate's Recommendation for Recovery of Estimated 2023 & 2024 Costs in TY 2025 GRC	SCE's Request for Recovery of Estimated 2023 & 2024 Costs in TY 2025 GRC	Difference between Cal Advocates Recommendation & SCE's Request for Recovery of Estimated 2023 & 2024 Costs in TY 2025 GRC
SRNEFMA	-	-	\$0	\$0	\$3,401	\$3,401
CSRPMA	\$18,369	\$18,369	\$0	\$0	\$16,869	\$16,869
SCMPMA	\$17,671	\$17,671	\$0	\$0	\$6,520	\$6,520
DDACMA	\$192	\$192	\$0	\$0	\$570	\$570
EPCMA	\$18	\$18	\$0	\$0	\$54	\$54
RDICMA	\$3,771	\$3,771	\$0	\$0	\$3,783	\$3,783
NEMOASMA	\$1,213	\$1,213	\$0	\$0	\$40	\$40
CCPAMA	\$3,675	\$3,675	\$0	\$0	\$1,163	\$1,163
ACCMA	\$462	\$462	\$0	\$0	\$270	\$270
CCAAMA	-	-	\$0	\$0	\$488	\$488
WMPMA	\$10,212	\$10,212	\$0	\$0	\$6,739	\$6,739
Total	\$55,671	\$55,671	\$0	\$0	\$39,899	\$39,899

4. SCE's proposed elimination of memorandum accounts.

a) Customer Service-Re-Platform Memorandum Account (CSRPMA).

SCE proposed to eliminate the CSRPMA once the final amounts recorded in the CSRPMA have been transferred to the distribution subaccount of the Base Revenue Requirement Balancing Account (BRRBA) for recovery in customers' rates. Cal Advocates recommends that CSRPMA remain open.¹⁸¹³

The account should remain open because Cal Advocates opposes SCE's proposal to recover the estimated balance for costs, up to December 31, 2024, that includes forecasted 2023 and 2024 costs in the CSRPMA. Cal Advocates recommends that SCE request recovery of the actual recorded 2023 and 2024 memorandum-account costs through another appropriate application.¹⁸¹⁴

¹⁸¹³ Ex. CA-29 at 15-16.

¹⁸¹⁴ Ex. CA-29 at 15-16.

**b) Seismic Retrofit for Non-Electric Facilities
Memorandum Account (SRNEFMA).**

SCE proposed to eliminate the SRNEFMA once the balance, as of December 31, 2024, is transferred to the distribution subaccount of the BRRBA. Cal Advocates recommends that SRNEFMA remain open.¹⁸¹⁵

The account should remain open because Cal Advocates opposes SCE's proposal to recover the December 31, 2024 balance that includes forecasts of 2023 and 2024 costs.¹⁸¹⁶ Cal Advocates recommends that SCE request recovery of the actual recorded 2023 and 2024 memorandum-account costs through another appropriate application.¹⁸¹⁷

**c) NEM Online Application System Memorandum
Account (NEMOASMA).**

SCE proposes to eliminate the NEMOASMA once the recovery of the balances in the NEMOASMA, as of December 31, 2024, is approved. Cal Advocates recommends that NEMOASMA remain open.¹⁸¹⁸

The account should remain open because Cal Advocates opposes SCE's proposal to recover the December 31, 2024 balance that includes forecasts of 2023 and 2024 costs.¹⁸¹⁹ Cal Advocates recommends that SCE request recovery of the actual recorded 2023 and 2024 memorandum account costs through another appropriate application.¹⁸²⁰

5. Compliance requirements.

Cal Advocates reviewed SCE's testimony on its compliance requirements and makes no recommendation on SCE's compliance action items at this time.¹⁸²¹

¹⁸¹⁵ Ex. CA-29 at 16.

¹⁸¹⁶ Ex. CA-29 at 16.

¹⁸¹⁷ Ex. CA-29 at 16.

¹⁸¹⁸ Ex. CA-29 at 16.

¹⁸¹⁹ Ex. CA-29 at 16.

¹⁸²⁰ Ex. CA-29 at 16.

¹⁸²¹ Ex. CA-29 at 16-17.

D. Forecasts of Sales, Customers, and New Meter Connections.

1. Overview of SCE Residential Customer and New Meter Connection Models

SCE's residential customer and new meter connection models are constructed based on the assumption that new customers are determined mainly by the Housing Starts Forecast (with a lag extending from zero up to 24 months, depending on the region).¹⁸²² The Housing Starts forecast is a blended forecast derived from Moody's Analytics and Information Handling Service (IHS) Markit.¹⁸²³

Both residential new customers and new meter connections are closely tied to activity in the residential construction sector, with lags of up to 12 months. This means that a change in the number of new meter connections or new customers is typically a result of a change in the number of Housing Starts that occurred up to 12 months earlier.¹⁸²⁴

SCE used EViews, a Windows statistical package, for the time-series-oriented econometric analysis to run the residential customer and new meter connection models for TY 2025.¹⁸²⁵

a) SCE Housing Starts Forecast as Main Driver

The Commission should reject the methodology SCE uses to forecast customers because both vendors on which SCE relies for its residential customer regression equations have produced inflated forecasts.¹⁸²⁶ SCE used Housing Starts forecast data from Moody's Analytics as the main driver for its residential customer regression equations for 2021. But reliance on Moody's Analytics produced an over-forecast of

¹⁸²² Ex. SCE-07, Vol. 01 Bk. A at 167.

¹⁸²³ Ex. SCE-07, Vol. 01 Bk. A at 167.

¹⁸²⁴ Ex. SCE-07, Vol. 01 Bk. A at 167.

¹⁸²⁵ Report on the Results of Operations for Southern California Edison Company General Rate Case Test Year 2025, Result of Operations, OOR, Taxes, Ex. CA-27 at 3.

¹⁸²⁶ Public Advocates Office California Public Utilities Commission, Report on the Results of Operations for Southern California Edison Company General Rate Case, Test Year 2025, Sales, Customers, and New Meter Connections, Mobilehome Park Costs, Ex. CA-27 at 3.

residential customers compared to recorded historical customer values: 54,421 for 2019, 52,522 for 2020, and 68,422 for the 2021 Test Year.¹⁸²⁷

Data from the residential new meter connection outputs for 2021 and 2025 GRC show that SCE's use of the Housing Starts forecast as the main driver for its regression equations leads to inflated results.¹⁸²⁸ In the 2021 GRC, SCE relied on Moody's Housing Starts forecast, which inflated the residential customer forecast and resulted in an overestimated number of customers compared to the recorded historical customer values provided in the 2025 GRC.

SCE has acknowledged the overly optimistic housing starts outlooks provided by its other Housing Starts vendor, Information Handling Service (IHS) Global Insight.¹⁸²⁹ In discovery, SCE states that during the 2018 and 2021 GRCs, it used Moody's Analytics for housing starts forecast of sales, customers, and new meter connection forecasts, rather than an average forecast from both Moody's and HIS Global Insights due to the "overly optimistic housing starts outlooks from IHS Global Insight at the time."¹⁸³⁰ Thus, because both vendors provide overly optimistic Housing Starts forecasts, even averaging both vendors will negatively impact ratepayers.

Despite both vendors' inflated forecasts, SCE refuses to average one of its inflated (e.g., Moody's Analytics Housing Starts) forecasts with an accurate forecast to eliminate the inflationary effects. SCE stated:

SCE does not agree with the assertion that one forecast can be considered inflated and one can be considered more accurate. As SCE explained in detail in its responses to Question 09, SCE believes that it is more prudent for SCE to average both vendors' forecasts for this GRC cycle time to generate more balanced outlooks over the entire forecast period based on SCE's assessment. Both vendor forecasts are driven by different key assumptions and

¹⁸²⁷ Ex. CA-27 at 3.

¹⁸²⁸ Ex. CA-27 at 3.

¹⁸²⁹ Ex. CA-27 at 8.

¹⁸³⁰ Ex. CA-27 at 8, FN 8.

are subject to potential over-and under-forecasting from time to time.¹⁸³¹

Because SCE knew during the 2018 and 2021 GRCs that IHS Global Insight Housing Starts forecast was overly optimistic, it decided to use Moody's Analytics Housing Starts forecast instead. Despite being aware that **both** vendors' data is overly optimistic, SCE decided to merge the two vendors' forecasted data to mitigate inflationary effects. This is still insufficient to normalize the Housing Starts inflated data from both vendors. The use of an inflated Housing Starts forecast added to another inflated forecast will impact ratepayers pockets in SCE's service territory.

As illustrated in Exhibit CA-27's Table 27-4 and Figure 27-1, SCE is over-forecasting more than under-forecasting from the last GRC's overly optimistic customer forecast of 54,421 for 2019, 52,522 for 2020, and 68,422 for the 2021 Test Year. Despite acknowledging the inaccuracies that result from reliance on Moody's Analytics Housing Starts data, as demonstrated in the 2018 and 2021 GRC, SCE chose to "average both vendor forecasts for 2025".¹⁸³² SCE also acknowledges that it does not know how Moody's Analytics and S&P Global Market Intelligence produce the Housing Starts forecast for SCE's service territory.¹⁸³³

b) Cal Advocates' Recommendation for SCE's Residential Customers and New Meter Connection Forecasts.

The questionable accuracy of the Housing Starts forecast data from SCE's vendors will harm SCE's ratepayers in this GRC. As a more straightforward method, Cal Advocates recommends applying a 10-year monthly moving average to SCE's main driver for all residential customers and new meter connection equations, to forecast for TY 2025. As a basis for its recommendation, Cal Advocates used the same forecasting software, variables, and raw data SCE used, including both vendors' Housing Starts

¹⁸³¹ Ex. CA-27 at 8, FN 10.

¹⁸³² Ex. CA-27 at 8, FN 10.

¹⁸³³ Ex. CA-27 at 9, FN 12.

forecast data, to re-run SCE's equations. Cal Advocates' final recommendation for SCE's Residential Customers and New Meter Connections is shown in Tables 27-1 and 27-2 in Exhibit CA-27.

E. Present Rate Revenue

Cal Advocates does not address this topic.

F. Cost Escalation

Cal Advocates does not address this topic.

G. Other Operating Revenue (Excluding Non-Tariffed Products And Services)

Other Operating Revenue (OOR) is revenue received by SCE from transactions not directly associated with the sale of electric energy and is recorded in FERC accounts 450 through 456. OOR is subtracted from total operating costs to determine the test year revenue requirement because it reduces the revenue that must be collected through customer rate levels.¹⁸³⁴ Table 26-9 in Exhibit CA-29 summarizes SCE's request and Cal Advocates' recommendation for OORs. Cal Advocates reviewed SCE's testimony and workpapers and does not oppose SCE's forecast of Other Operating Revenue.¹⁸³⁵

H. Other Operating Revenues – Non-Tariffed Products and Services

Cal Advocates does not oppose SCE's forecast of Other Operating Revenue.

I. Operation and Maintenance Expense Forecast

This section is covered in the appropriate sections of this Brief.

J. Overhead Allocation

Cal Advocates does not address this topic.

K. Reinvestments in Utility-Owned Generation Resources

Cal Advocates does not address this topic.

¹⁸³⁴ Ex. SCE-07, Vol. 01 at 118.

¹⁸³⁵ Cal Advocates' OOR forecast includes its proposed \$25 million productivity adjustment addressed in Ex. CA-28.

XXXIX. RATE BASE

The rate base is the net investment value on which the company's return is determined. It represents the deposited depreciated asset value of SCE's properties used to provide service to customers. The major components of Rate Base are: Net Plant-In-Service, Working Capital, and Accumulated Deferred Income Taxes. SCE is allowed to earn a return on the sum of these rate base components. All rate base components are developed on a weighted average basis. Cal Advocates' rate base estimates reflect adjustments made by several different witnesses.

A. Plant in Service, Reserves, and Depreciation Expense

Net Plant-In-Service generally comprises the equipment that is used and useful in rendering services to SCE's customers.¹⁸³⁶ Cal Advocates' Net Plant-In-Service estimates are generated through the Results of Operations (RO) model and are based on its capital expenditure forecasts.¹⁸³⁷ This section does not discuss recommendations for Net Plant-In-Service.

B. Working Capital (Excluding Customer Deposits)

Working Capital includes Materials and Supplies, Mountainview Emission Credits, Working Cash, and Working Capital Adjustments.¹⁸³⁸ Working Capital Adjustments are offsets to rate base and consist of Customer Advances, Customer Deposits, and Unfunded Pension Reserves.¹⁸³⁹ Working cash includes two components: (1) working funds required for day-to-day operations, or operational cash, and (2) funds used to pay operating expenses in advance of receiving customer revenues, or lead-lag working cash.¹⁸⁴⁰ The lead-lag working cash estimate is developed using the lead-lag

¹⁸³⁶ Report on the Result of Operations for Southern California Edison Company General Rate Case Test Year 2025, Rate Base and Working Capital. Ex. CA-24 at 3.

¹⁸³⁷ Ex. CA-25 at 3.

¹⁸³⁸ Ex. CA-25 at 3.

¹⁸³⁹ Ex. CA-25 at 3.

¹⁸⁴⁰ Ex. CA-25 at 6.

approach described in Standard Practice (SP) U-16.¹⁸⁴¹ Cal Advocates' analysis responds to SCE's working cash calculations as provided in SCE's workpapers to Ex. SCE-07.

1. Materials and Supplies

Materials and Supplies refers to inventory maintained for either new plant construction or O&M activities for existing plant. SCE forecasts a 2025 Materials and Supplies inventory totaling \$325.5 million.¹⁸⁴² Cal Advocates has reviewed SCE's testimony and workpapers related to Materials and Supplies and does not oppose SCE's request.

2. Mountainview Emission Credits

Mountainview Emission Credits are credits required by the South Coast Air Quality Management District (SCAQMD) to operate SCE's Mountainview plant.¹⁸⁴³ The Mountainview Emission Credits were obtained at a value of \$18.8 million and are recovered as O&M costs in ERRA as they are consumed. SCE forecasts the TY 2025 Mountainview Emission Credits using a three-year annual growth rate of 13.28% in TY 2025.¹⁸⁴⁴ However, a five-year compound annual growth rate of 2.24% more accurately forecasts the TY 2025 Mountainview Emission Credits,¹⁸⁴⁵ given several factors that do not support SCE's forecasted Emission Credit amounts.

SCE relied on the recorded Mountainview Emission Credit amounts for the years 2020 through 2022 to calculate its compound annual growth rate. SCE's recorded Mountainview Emission Credits reached a previous high in 2018 and then decreased gradually until 2022. Beginning in 2022, SCE's Emission Credits followed a similar trend: SCE's total Emission Credits peaked in May 2022 at \$6.919 million and decreased to \$6.302 million in December 2022. When Cal Advocates asked SCE to explain why

¹⁸⁴¹ Ex. CA-25 at 6.

¹⁸⁴² Southern California Edison, 2025 General Rate Case, Rate Base, Depreciation Expense, and Taxes Ex. SCE-07, Vol. 02 at 24, Table IV-10.

¹⁸⁴³ Ex. SCE-07, Vol. 02 at 25.

¹⁸⁴⁴ Ex. SCE-07, Vol. 02 at 25.

¹⁸⁴⁵ Ex. CA-25 at 4.

the Mountainview Recorded 2022 costs increased significantly compared to prior years.¹⁸⁴⁶ SCE responded:

Mountainview's permit requires that it holds a certain amount of Reclaimed Trading Credits ("RTCs") in its account prior to the start of each compliance year. The RTCs were purchased in 2022 to fulfill that compliance obligation through the 2025 compliance year. The uptick in RTCs due to the following purchases made on 5/13/2022.¹⁸⁴⁷

The purchased Mountainview Emission Credit contracts amount to \$4.252 million and will expire by 2025.¹⁸⁴⁸ The expiring contracts represent a majority of SCE's total Mountainview Emission Credits. However, when asked whether it plans to replace the RTC contracts expected to expire between 2023 and 2025 with similar sized contracts.¹⁸⁴⁹

SCE responded:

It is still unknown if SCAQMD will continue the RECLAIM program beyond 2025. They have not provided any new information in quite some time. Without guidance from SCAQMD we don't know if we'll need to continue purchasing RTCs beyond that point, and if so, what the amounts would be.¹⁸⁵⁰

By mid-2023, several of SCE's contracts totaling \$994,000 will expire. By mid-2024, a contract worth \$1.049 million will expire.¹⁸⁵¹ By mid-2025, several contracts totaling \$2.208 million will expire.¹⁸⁵² The expected contract expirations will lead to a significant reduction in SCE's Emission Credits by 2025 if SCE does not purchase further contracts.¹⁸⁵³

¹⁸⁴⁶ Ex. Ca-25 at 4.

¹⁸⁴⁷ Ex. CA-25 at 4, FN 6.

¹⁸⁴⁸ Ex. CA-25 at 4, FN 7.

¹⁸⁴⁹ Ex. CA-25 at 5, FN 8.

¹⁸⁵⁰ Ex, CA-25 at 6, FN 9.

¹⁸⁵¹ Ex. CA-25 at 5.

¹⁸⁵² Ex. CA-25 at 5.

¹⁸⁵³ Ex. CA-25 at 5.

However, SCE claims that without further guidance from SCAQMD, the utility cannot determine whether future contracts will be purchased to replace the expiring contracts and if new contracts are, in fact, purchased, what the minimum amounts would be. As SCE cannot reliably predict future contracts without further guidance from SCAQMD, SCE's Emission Credit amounts will be halved by 2025.

To forecast the Emission Credits, the Commission should adjust the three-year compound annual growth rate of 13% to a five-year compound annual growth rate of 2.24%. The five-year compound annual growth rate would decrease TY 2025 Mountainview Emission Credits from \$8.556 to \$6.289 million.¹⁸⁵⁴ Because SCAQMD may provide the necessary guidance about future Emission Credit contracts closer to 2025, SCE could replace the expiring contracts with similar sized contracts.¹⁸⁵⁵

According to SCE,

the amounts in each contract are different for several reasons. We are required to hold the same amount of total RTCs each year, but our starting allocations change year-to-year per the RECLAIM program rules. The gap (or shortfall) we have to make up is always changing, and we only purchase the minimum amount needed to cover the shortfall for each year.¹⁸⁵⁶

The five-year compound annual growth rate would account for potential Emission Credit contracts that SCE may purchase while accounting for current contracts expected to expire by 2025.

3. Working Cash: Operational Cash

Standard Practice U-16 calls for the recognition of certain balance sheet items that must be funded by investors to meet the utility's day-to-day operational needs.¹⁸⁵⁷

Operational cash supplied by investors includes special deposits, working funds, prepayments not otherwise accounted for in the lead-lag study, and other accounts

¹⁸⁵⁴ Ex. CA-25 at 5.

¹⁸⁵⁵ Ex. CA-25 at 5.

¹⁸⁵⁶ Ex. CA-25 at 6, FN 10.

¹⁸⁵⁷ Ex. CA-25 at 6.

receivable.¹⁸⁵⁸ The previous operational cash sources are offset by other operational cash not supplied by investors including paid absence, user taxes, and workers' compensation. SCE forecasts a total operational cash requirement surplus of \$55.79 million for TY 2025 due to operational cash not supplied by investors surpassing that supplied by investors.¹⁸⁵⁹

Cal Advocates has reviewed SCE's testimony and workpapers related to operational cash and does not oppose SCE's request.¹⁸⁶⁰ However, due to other witnesses' forecasts modeled in the RO model, Cal Advocates' forecasts in various functions will differ from SCE's forecast.¹⁸⁶¹

4. Lead-Lag Working Cash

SP U-16 provides additional working cash to recognize the utility's average payment of expenses in advance of the receipt of offsetting revenues, or lead-lag working cash.¹⁸⁶² The methodology for determining the lead-lag working cash involves calculating the revenue lag and reducing it by the weighted average of the utility's expense lags.¹⁸⁶³

a) Revenue Lag

SCE proposes a revenue lag of 57.5 days.¹⁸⁶⁴ SCE's 2022 revenue lag increased substantially from years prior. SCE claims that the major source of the increase in the revenue lag is due to the "significant level of customer arrearages SCE has experienced

¹⁸⁵⁸ Ex. CA-25 at 6.

¹⁸⁵⁹ Ex. SCE-07, Vol. 02 at 26, Table IV-11.

¹⁸⁶⁰ Ex. CA-25 at 7.

¹⁸⁶¹ Ex. CA-25 at 7.

¹⁸⁶² Ex. CA-25 at 7.

¹⁸⁶³ Ex. CA-25 at 7.

¹⁸⁶⁴ Ex. SCE-07, Vol. 02 at 34.

since the start of 2020.”¹⁸⁶⁵ Moreover, SCE attributed the significant increase in the recorded 2022 Collection Lag to the growth in the balance of arrearages.¹⁸⁶⁶

The recorded 2022 Collection Lag increased by a significant amount compared to prior years as the cumulative balance of arrearages has grown to its current level of approximately \$1B as of the end of 2022. The cumulative balance started to grow in 2020 at the beginning of the pandemic and has continued to rise to its current levels through 2022 resulting in a growing collection lag each year.¹⁸⁶⁷

As of June 2023, SCE’s total customer arrearages amount was \$996.753 million.¹⁸⁶⁸ By November 2023, SCE’s total customer arrearages increased to \$1.2 billion.¹⁸⁶⁹ SCE participated in both rounds of California Arrearage Payment Program (CAPP) funding and received \$423 million in aid from the State.¹⁸⁷⁰

SCE restarted the collection of arrearages for Small, Medium, and Large Commercial customers in July 2022.¹⁸⁷¹ Furthermore, SCE’s approaches customer collection volume reductions by

restarting collections following a disconnection moratorium (that lasted about 2 years for commercial customers, and 2.5+ years for residential customers) resulting from the COVID-19 pandemic.¹⁸⁷²

As far as forecasted reduction in customer collection volumes, SCE states,¹⁸⁷³

¹⁸⁶⁵ Ex. SCE-07, Vol. 02 at 34.

¹⁸⁶⁶ Ex CA-25 at 8, FN 16.

¹⁸⁶⁷ Ex. CA-25 at 8, FN 16.

¹⁸⁶⁸ Ex. CA-25 at 8, FN 17.

¹⁸⁶⁹ Ex. CA-25 at 8, FN 18.

¹⁸⁷⁰ Ex. CA-25 at 8, FN 19.

¹⁸⁷¹ Ex. CA-25 at 8, FN 21.

¹⁸⁷² Ex. CA-25 at 9, FN 24.

¹⁸⁷³ Ex. CA-25 at 9, FN 25.

On average, SCE reduced its 2023 planned collection volume for residential customers by about 70% from June through December 2023. SCE currently plans to gradually increase collection volumes in 2024 and to reach normal volumes before the start of 2025. Normal collection volumes are defined as 260,000 monthly final call notifications and 40,000 monthly disconnections (residential and non-residential).¹⁸⁷⁴

Based on SCE's responses, Cal Advocates recommends a five-year average revenue lag to incorporate Pre-Pandemic revenue lag day amounts, adjusting the lag day to 49.5, not 57.2 as SCE proposes. SCE's resumption of commercial collections and the utility's expected plan to increase residential collection volumes to pre-Pandemic levels by 2025 warrant an adjustment to the TY 2025 revenue lag day. Incorporating SCE's past revenue lag day amounts from before the COVID-19 moratoriums would assist in forecasting the utility's expected return to pre-Pandemic collection rates by 2025.

If the Commission does not adopt the five-year average for the revenue lag, Cal Advocates alternatively recommends a three-year average revenue lag based upon the recorded revenue lags for the years 2020 through 2022. The three-year average revenue lag would be 52.2, a revenue lag amount between SCE's requested 57.2 and the five-year average of 49.52.

The three-year average would account for SCE's burden of \$1.2 billion in customer arrearages while also incorporating SCE's plans to increase customer collections to pre-Pandemic levels by 2025. Averaging the higher 2022 revenue lag amount with revenue lags from 2020 and 2021 would exclude the pre-Pandemic revenue lags when customer arrearages were significantly lower. SCE's accumulated \$1.2 billion in customer arrearages should be factored into the revenue lag, but the fact that SCE has already restarted both commercial and residential arrearage collection plans should be included as well.

¹⁸⁷⁴ Ex. CA-25 at 9, FN 26

b) Expense Lag

SCE proposes using a weighted average expense lag of 30.7 days.¹⁸⁷⁵ Cal Advocates recommends modifying the forecasted 2025 weighted average expense lag to 41.8 days due to three adjustments: (1) the Purchase Order lag day portion of the composite Goods and Services lag increased to 45 days; (2) the total Federal Income Tax lag days increased to 365 days; (3) the total California State Corporate Franchise Tax lag days increased to 328.5 days.¹⁸⁷⁶

(1) Goods and Services Lag Day

The Goods and Services lag day is a composite consisting of Purchase Order (PO) and Non-Purchase Order transactions. SCE calculated the weighted lag day by taking the difference between the bank transfer date and the goods receipt date for each transaction, and then multiplying the difference by the payment amount to determine the weighted lag payment.¹⁸⁷⁷ SCE's Lead-Lag proposal for Goods and Services is a total of 39 days based on PO (42.4 lag days) and Non-PO transactions (6.4 lag days). SCE provided the recorded lag day calculations for the years 2018 through 2022 within their workpapers.¹⁸⁷⁸ SCE achieved PO payment lag days above 45 days for both the years 2020 and 2021, with lag days of 47.4 and 46.9 respectively.

Cal Advocates recommends that a PO lag day of at least 45 should be included in SCE's Goods and Services Lag Day calculation. In past annual Goods and Services calculations, SCE had the ability to maintain payment lags for PO invoices above 45 days, with the 2022 lag day having a significant reduction by 5 days. By taking a three-year average of SCE's PO lag days from 2020 through 2022, the average PO lag day is determined to be 45.5.

¹⁸⁷⁵ Ex. SCE-07, Vol. 02 at 32, Table IV-14.

¹⁸⁷⁶ Ex. CA-25 at 11.

¹⁸⁷⁷ Ex. CA-25 at 11, FN 29.

¹⁸⁷⁸ Ex. SCE-07, Vol. 02WP, Book A at 219-220.

Additionally, the Commission has previously adopted a PO lag day of 45. In SCE's 2021 GRC, the Commission adopted a PO of 45 days and agreed that a large utility like SCE can maintain a PO lag day of at least 45 days.¹⁸⁷⁹ Based upon SCE's past yearly performances of PO days above 45 days and the Commission's reasoning regarding PO lag days from the 2021 GRC, Cal Advocates recommends a PO Day of at least 45. As the Goods and Services lag day is a composite, a PO lag day of at least 45 would increase the Goods and Services composite from 39.2 lag days to 41.2 lag days.

(2) Federal Income Tax Lag Day

The Federal Income Tax lag day represents the number of days between when the current tax expenses are accrued to when they are due under statutory law.¹⁸⁸⁰ SCE forecasts a Federal Income Tax lag day amount of 54 days based on the forecasted 2025 taxable income and Monthly Distribution Percentages.¹⁸⁸¹ Due to net operating loss and tax credit carryovers, SCE has not paid federal income taxes since 2009. SCE claims that due to the new corporate alternative minimum tax (CAMT) required under the Inflation Reduction Act, SCE will have a tax liability and is expected to pay taxes in the 2025 GRC.¹⁸⁸²

Cal Advocates recommends that the Federal Income Tax lag day should be increased to 365 days due to: (1) SCE's recorded years of operating under net operating losses; (2) SCE's expectation of operating under net operating losses through 2025; and (3) SCE's history of not paying federal income tax since 2009.

SCE has operated under net operating losses for the last several years. Furthermore, SCE incurred significant deductible tax costs due to the net operating loss from 2018 through 2022.¹⁸⁸³ In other words, SCE generated additional net operating losses from 2018 through 2022 and did not utilize net operating losses to reduce taxable

¹⁸⁷⁹ D.21-08-036 at 494-496.

¹⁸⁸⁰ Ex. SCE-07, Vol. 02 at 38.

¹⁸⁸¹ Ex. CA-25 at 12, FN 33.

¹⁸⁸² Ex. SCE-07, Vol. 02 at 38.

¹⁸⁸³ Ex. CA-25 at 13, FN 36.

income during these years.¹⁸⁸⁴ SCE expects to continue operating under net operating losses through 2025, offsetting the tax burden required under the CAMT. When asked whether SCE expects to incur any significant deductible tax costs due to operating in a new loss for the years 2023-2025.¹⁸⁸⁵

SCE responded as follows:

SCE forecasts that all NOLs (net operating losses) carried forward from 2022 will be utilized by 2026, and thus will offset 2023 through 2025 taxable income.¹⁸⁸⁶

Additionally, SCE has not paid federal income taxes in 14 years. In SCE's 2021 GRC, the Commission found that SCE's status of not paying taxes for over a decade justified an adjustment to the utility's Federal Income Tax lag day.¹⁸⁸⁷ Moreover, the Commission recently ruled in PG&E's 2023 GRC that the Federal Income Tax lag day should be increased because the utility "rarely made actual cash payments in recent years and the same holds true for the forecasted years of this GRC".¹⁸⁸⁸ SCE's status of not having paid federal income tax for several GRC cycles and the utility's expectation to use net operating losses to offset taxable income warrants an adjustment to the Federal Income Tax lag day.

(3) California State Corporation Franchise Tax Lag Day

The California State Corporation Franchise Tax lag day represents the number of days between when the current tax expenses are accrued to when they are due under statutory law.¹⁸⁸⁹ SCE forecasts a California State Franchise Tax lag day amount of 40

¹⁸⁸⁴ Ex. CA-25, at 14.

¹⁸⁸⁵ Ex. CA-25 at 14-15.

¹⁸⁸⁶ Ex. CA-25 at 15.

¹⁸⁸⁷ D.21-08-036 at 498-501.

¹⁸⁸⁸ D.23-11-069, Decision On Test Year 2023 General Rate Case For Pacific Gas And Electric Company, at 692.

¹⁸⁸⁹ Ex. SCE-07, Vol. 02 at 38.

days based on forecasted 2025 taxable income and Monthly Distribution Percentages.¹⁸⁹⁰ Due to net operating losses and other tax credit carryovers, SCE has not paid State taxes since 2016.¹⁸⁹¹

The Commission should increase the California State Corporation Franchise Tax lag day to 328.5 days due to: (1) SCE's recorded years of operating under net operating losses; (2) SCE's expectation of operating under net operating losses through 2025; and (3) SCE's history of not paying the California State Corporation Franchise Tax for two GRC cycles. The 328.5 lag day incorporates the 90% net operating loss reduction limit required by the State of California.

SCE has operated under net operating losses for the last several years, and generated additional net operating losses from 2018 through 2022; therefore, SCE did not utilize net operating losses to reduce taxable income during these years. Moreover, SCE expects to incur significant deductible tax costs due to operating in a new loss for the years 2023-2025. SCE forecasts that, "all NOLs (net operating losses) carried forward from 2022 will be utilized by 2026, and thus will offset 2023 through 2025 taxable income."

SCE is forecasted to pay a reduced portion of California State Corporation Franchise Taxes in the 2025 GRC. SCE explains:

The utilization of net operating losses against taxable income is limited to 90% in California. Additionally, SCE expects to fully utilize California net operating losses by 2026 and owe taxes during the general rate case cycle.¹⁸⁹²

SCE's taxable income will be significantly offset through net operating losses.

¹⁸⁹⁰ Ex. CA-25 at 14.

¹⁸⁹¹ Ex. SCE-07, Vol. 02 at 38.

¹⁸⁹² Ex. CA-25 at 15, FN 45.

Furthermore, SCE expects to utilize the NOL against taxable income in 2023, 2024, 2025 and 2026, and expects to completely utilize the NOL in 2026.¹⁸⁹³

Throughout the entirety of years applicable in the TY 2025 GRC, SCE's taxable income will be adjusted through net operating losses. Additionally, SCE has not paid California State Corporation Franchise Taxes for seven years. In SCE's 2021 GRC, the Commission found that SCE's status of not paying state taxes for over a GRC cycle warranted an adjustment to their California State Corporation Franchise Tax lag day.¹⁸⁹⁴ The Commission recently determined in PG&E's 2023 GRC that the utility's lag day should be increased because the utility "rarely made actual cash payments in recent years and the same holds true for the forecasted years of this GRC".¹⁸⁹⁵ SCE has similarly not paid the California State Corporation Franchise Tax for two GRC cycles and will pay a reduced amount of state income taxes while operating under net operating losses.

5. Customer Advances

Customer advances are refundable amounts provided by developers prior to the construction of new distribution facilities that will be served by SCE. SCE does not pay the developers for holding their advances. Customer advances are an interest-free source of funds and act as an offset to rate base.¹⁸⁹⁶ SCE forecasts a 2025 customer advance balance of \$69.48 million for 2023, 2024, and 2025. Cal Advocates recommends applying the Non-Labor O&M Escalation Rate to SCE's held customer advances.

SCE's testimony states "the amount of customer advances expected to be refunded is becoming more difficult to estimate because of changing energy market from solar and distributed energy resources, which could have a declining effect on customer usage. These external factors are all beyond the control of the utility and can influence the expected amount of customer advances received, refunded, and forfeited."¹⁸⁹⁷

¹⁸⁹³ Ex. CA-25 at 15, FN 47.

¹⁸⁹⁴ D.21-08-036 at 498-501.

¹⁸⁹⁵ D.23-11-069 at 690-694.

¹⁸⁹⁶ Ex. SCE-07, Vol. 02 at 42.

¹⁸⁹⁷ Ex. SCE-07, Vol. 02 at 43,

Because SCE claims that customer advance balances are difficult to predict for years within the GRC cycle due to external factors, the Commission should apply the Non-Labor O&M Escalation Rate to account for future changes of held customer advances over the years within the GRC cycle. The escalation rate would adjust the customer advance balances over time similarly to how SCE escalates other Working Capital sections. If adopted by the Commission, the customer advance balance for TY 2025 would be escalated to \$73.68 million.

6. Unfunded pension reserves

Unfunded pension reserves are the portion of accumulated provision for employee retirement benefits that SCE does not hold in external trust funds and are a liability to SCE until payments are made.¹⁸⁹⁸ The after-tax amount is an offset to rate base.¹⁸⁹⁹ SCE forecasts a TY2025 unfunded pension reserves balance of \$44.99 million.

Cal Advocates has reviewed SCE's testimony and workpapers related to unfunded pension reserves and does not oppose SCE's request. However, due to other witnesses' forecasts modeled in the RO model, Cal Advocates' unfunded pension reserves forecast will differ from SCE's forecast.

C. Customer Deposits

Customer deposits are funds collected from customers for security against non-payment. Customer deposits are refunded to customers upon the customer fully paying their bills for twelve consecutive months or used as credit against their bills in the event of non-payment.¹⁹⁰⁰ Historically, the Commission required that SCE's customer deposits act as an offset to rate base.¹⁹⁰¹ SCE requests that instead of treating customer deposits as an offset to rate base, SCE proposes to make a downward revenue requirement adjustment equal to the difference between SCE's authorized long-term cost of debt

¹⁸⁹⁸ Ex. SCE-07, Vol. 02 at 43.

¹⁸⁹⁹ Ex. SCE-07, Vol. 02 at 44.

¹⁹⁰⁰ Ex. SCE-07, Vol. 02 at 44.

¹⁹⁰¹ Ex. SCE-07, Vol. 02 at 45.

(4.39%) and the 90-day commercial paper rate multiplied by \$128.9 million, SCE's 2024 forecasted customer deposit balance.¹⁹⁰² Additionally, SCE requests to deposit 10% of customer deposits in minority-owned financial institutions.¹⁹⁰³

Cal Advocates recommends that SCE's customer deposits not be deducted from the operational cash requirement as consistent with the original Standard Practice U-16. In the original Commission Standard Practice U-16, interest-bearing customer deposits were excluded from a utility's operational cash requirement.¹⁹⁰⁴ Only within the last twenty years has the Commission begun to view SCE's customer deposits as a reduction to operational cash requirement¹⁹⁰⁵ as a result of SCE's significant customer deposit balances.

Given the variability of these customer deposits, the Commission should exclude SCE's customer deposits from the utility's operational cash requirement. Removing customer deposits from SCE's operational cash requirement calculation would account for the variable and revolving balances of SCE's customer deposit accounts and align with the Commission's original standard practice.

D. Taxes

SCE forecasts total taxes of \$1.4044 billion for test year 2025. Total taxes include Taxes on Income of \$753.6 million, Payroll and Other Taxes of \$75.0 million, and Ad Valorem Taxes of \$575.8 million.

1. Taxes Based on Income

The following section provides a brief background on regulated tax expense and a discussion of certain specific tax deductions, credits and other tax policy issues related to determining taxable income for ratemaking purposes, as well as other issues affecting

¹⁹⁰² Ex. SCE-07, Vol. 02 at 45.

¹⁹⁰³ Ex. SCE-07, Vol. 02 at 51.

¹⁹⁰⁴ California Public Utilities Commission Utilities Division, "Determination of Working Cash Allowance, Standard Practice U-16," September 13, 1968 at 3-7.

¹⁹⁰⁵ D.04-07-022 at 249-255.

revenue requirements for taxes other than income. Unless otherwise noted, all discussions apply equally to both federal and state income tax expense.

a) Basis for Regulated Income Tax Expense

While the mathematical model used to calculate tax expense is seemingly unequivocal, the underlying accounting conventions, applicable tax rates, and the determination of what constitutes allowable deductions is a function of current federal and state tax law, including new laws expected to affect the Test Year, regulatory tax policy as determined by numerous Commission decisions, Cal Advocates' recommended tax policy, and the Commission's adopted tax policy. Much of existing Commission tax policy was established in a 1984 Commission decision;¹⁹⁰⁶ numerous subsequent decisions adopted a variety of changes in ratemaking tax policy in order to comply with changes in federal and state tax laws. Consequently, although a mathematical model may be used, there are a number of estimated factors driving income tax expense requiring a review to attempt to assess the reasonableness of SCE's request.¹⁹⁰⁷

The Test Year's income tax expense estimate should reflect, to the extent possible, the current deduction of expenses in which there is a book/tax timing difference.¹⁹⁰⁸ In D.84-05-036, the Commission stated, "[f]or the present, we will continue our current policy regarding flow-through treatment of timing differences consistent with applicable tax law."¹⁹⁰⁹ Cal Advocates assumes the Commission will continue to adopt policies

¹⁹⁰⁶ Investigation on the Commission's Own Motion into the Method to be Utilized by the Commission to Establish the Proper Level of Income Tax Expense for Ratemaking Purposes of Public Utilities and Other Regulated Entities, D.84-05-036 (Cal. P.U.C. May 2, 1984).

¹⁹⁰⁷ Report on the Results of Operations for Southern California Edison Company General Rate Case Test Year 2025, Ex. CA-26 at 5.

¹⁹⁰⁸ Ex. CA-26 at 5.

¹⁹⁰⁹ See D.84-05-036, discussion at Section I, at 32-33a. The Commission did not adopt additional normalization requirements beyond those required for depreciation.

which result in the Test Year tax estimate reflecting, to the extent possible,¹⁹¹⁰ the flow-through of forecasted expenditures.

Another important factor is the ratemaking concept of normalization, which aims to adjust a utility's operating expenses in the Test Year by eliminating abnormal, non-annual events that are known and certain to change in a regularly recurring manner.¹⁹¹¹ For example, accelerated depreciation is a tax expense, which is normalized over the life of an asset when computing ratemaking tax expense; it is known and certain that toward the end of the life of an asset, straight-line (book) depreciation will exceed accelerated tax depreciation.¹⁹¹² However, at the conclusion of the asset's life, the total depreciation charges under both book and tax methods will be equivalent.¹⁹¹³

Income tax normalization permits a utility to include as its current ratemaking expense an amount of income tax expense that is higher than what the utility will actually pay.¹⁹¹⁴ This is based on the theory that the taxes saved by the accelerated depreciation (taken on the real-world tax returns) are merely deferred.¹⁹¹⁵ Utilities generally use accelerated methods of depreciation on their real-world tax returns, while using the straight-line method for book purposes.¹⁹¹⁶ Internal Revenue Service (IRS) rules require that utilities use book depreciation rates on all plant purchased or constructed after 1980 when computing regulated tax expense.¹⁹¹⁷ To mitigate the effect of normalization, the tax effect of the differences between accelerated and straight-line depreciation is booked to a deferred tax reserve; the deferred taxes are used to reduce rate base.¹⁹¹⁸

¹⁹¹⁰ Cal Advocates recommended treatment for certain tax deductions and benefits is limited by Income Tax Normalization requirements of the Internal Revenue Code, as well as tax policy established in D.84-05-036. For example, currently, disallowed expenses cannot be used as tax deductions.

¹⁹¹¹ Ex. CA-26 at 5.

¹⁹¹² Ex. CA-26 at 6.

¹⁹¹³ Ex. CA-26 at 6.

¹⁹¹⁴ Ex. CA-26 at 6.

¹⁹¹⁵ Ex. CA-26 at 6.

¹⁹¹⁶ Ex. CA-26 at 6.

¹⁹¹⁷ Ex. CA-26 at 6.

¹⁹¹⁸ Ex. CA-26 at 6.

Because of current tax law, utilities are required to adopt normalization for depreciation on assets placed in service after 1980. However, there is no federal tax requirement that normalization be used for other tax timing differences. In fact, it is the policy of this Commission to flow through non-plant tax timing differences. Consequently, all federal and state tax timing differences should be flowed through to the ratepayer to the extent allowed by Commission policy, and federal and state tax law.

b) Overview of SCE's Request

SCE states that income tax expense for ratemaking purposes is a function of revenue requirement, cost-of-service amounts and capital expenditures adopted by this Commission, as adjusted to comply with income tax rules.¹⁹¹⁹ For federal income tax purposes, SCE used the corporate tax rate of 21%. For state income tax purpose, SCE used the corporate tax rate of 8.84% to compute CCFT.

c) Cal Advocates' Analysis

Cal Advocates does not oppose the methodologies used by SCE to calculate income tax expenses.

2. Payroll and Other Taxes

SCE must pay federal payroll taxes, state payroll taxes, and other miscellaneous taxes that are levied on SCE. This includes Old-Age, Survivors, and Disability Insurance (OASDI) Tax, Hospital Insurance (HI) Tax, Federal Unemployment Tax Act (FUTA) Tax, State Unemployment Insurance (SUI) Tax, California Employment Training (CET) Tax, and miscellaneous taxes that include city business license tax, hazard waste tax, federal highway use tax, excise taxes, certain non-California payroll taxes, and other local, state, and federal miscellaneous taxes, in addition to taxes charged to and by operators of jointly-owned facilities.¹⁹²⁰

¹⁹¹⁹ Ex. SCE-07, Vol. 2 at 53.

¹⁹²⁰ Ex. SCE-07, Vol. 2 at 67.

a) Overview of SCE's Request

SCE forecasts Payroll and Other Taxes of \$75.0 million for the test year.¹⁹²¹ Payroll taxes are forecasted using 2022 recorded taxable wages and then adjusted for changes in employee head count and other labor factors. Only the payroll taxes levied on the employer are included for recovery. OASDI, a component of the Federal Insurance Contribution Act (FICA) tax, is levied on both employer and employee at the rate of 6.2% of applicable wages paid to employee. In 2023, the limitation is \$160,200.¹⁹²² Hospital Insurance (HI) tax, the other component of FICA tax, is levied at the rate of 1.45%, without limit.¹⁹²³

b) Cal Advocates' Analysis

Cal Advocates does not take issue with the methodologies used by SCE to forecast payroll and other taxes. The differences in forecasts result from differences in other expense areas.

3. Property Taxes

SCE pays ad valorem (property) taxes to the taxing authorities of each state in which taxable property is located.¹⁹²⁴ SCE property outside the state of California that is subject to ad valorem taxes includes an interest in a nuclear generating power plant in Arizona, transmission-related properties in Arizona and Nevada, vacant land subject to local assessment in Nevada, and various assets in Washington, D.C.¹⁹²⁵

a) Overview of SCE's Request

For California property taxes, the California State Board of Equalization (SBE) derives both a Cost Indicator and a Capitalized Earnings Indicator of market value.¹⁹²⁶

¹⁹²¹ Ex. SCE-07, Vol. 2 at 53.

¹⁹²² For earnings in 2024, the wage base limit is \$168,600.

¹⁹²³ Ex. CA-26 at 7.

¹⁹²⁴ Ex. CA-26 at 8.

¹⁹²⁵ Ex. SCE-07, Vol. 2 at 68.

¹⁹²⁶ Ex. CA-26 at 8.

The two indicators are then correlated by the SBE to derive a unitary market value corresponding to SCE utility property.¹⁹²⁷ Once market value has been determined, the SBE allocates the unitary value to the various counties based upon the Reconstruction Cost New Less Depreciation (RCNLD) of the property.¹⁹²⁸ The counties use these allocated values to determine the taxes payable by SCE.¹⁹²⁹

SCE derived the ratio of the Cost Indicator to the SBE adopted market value for the most recent fiscal year. This ratio was then applied to the forecast Cost Indicators to estimate the corresponding adopted market value.¹⁹³⁰

For California state property taxes, SCE states that total property taxes are estimated by multiplying the total estimated assessed value by the system average tax.¹⁹³¹ Property tax rates for the forecast years reflect a trended value based upon the prior five recorded fiscal years.¹⁹³² The fiscal year amounts are converted to a calendar year basis and capitalized taxes are subtracted to derive the property tax expense.¹⁹³³

b) Cal Advocates' Analysis

Cal Advocates does not take issue with the methodologies used by SCE to forecast property taxes.

4. Tax Accounting Memorandum Account (TAMA 2018)

SCE proposes to extend the 2018 Tax Accounting Memorandum Account (TAMA) until at least the end of 2028.¹⁹³⁴

¹⁹²⁷ Ex. CA-26 at 8.

¹⁹²⁸ Ex. CA-26 at 8.

¹⁹²⁹ Ex. SCE-07, Vol. 2 at 69.

¹⁹³⁰ Ex. SCE-07, Vol. 2 at 69.

¹⁹³¹ Ex. CA-26 at 8.

¹⁹³² Ex. CA-26 at 8.

¹⁹³³ Ex. CA-26 at 8.

¹⁹³⁴ Ex. SCE-07, Vol. 2 at 63.

SCE sees no reason to disturb the rationale giving rise to the Commission's determination, and therefore proposes to continue the TAMA in this rate case cycle.¹⁹³⁵

Cal Advocates does not object to SCE's proposal.

XL. SCE ASSET DEPRECIATION STUDY

Depreciation is the recovery of the original cost of fixed capital assets less the estimated net salvage over the useful life of the property applying an equitable plan of charges through operating expenses. In ratemaking, recovery of depreciation expense is through a single depreciation rate with components that provide for capital recovery, the cost of removal, and salvage. Determination of the level of expense is based on the function of the level of plant balance and of the parameters (net salvage value and service life) that are applied to the gross salvage amount received less the cost of removing the asset. Depreciation expense is related to the magnitude of a company's plant-in-service. As new plant is placed in service, the level of depreciation concomitantly increases. This expense enables a company to recover the original cost of capital investments, less any estimated net salvage, over the useful life of the asset.

The Federal Energy Regulatory Commission's (FERC) definition of depreciation is set forth in 18 Code of Federal Regulation (CFR), Part 101:

Depreciation, as applied to depreciable electric plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of electric plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, and action of the element, inadequacy, obsolescence, changes in the art, changes in demand and requirements of the public authorities.

The Commission approved SCE's current depreciation accrual rates in D.21-08-036. Consistent with the guidelines described in the January 3, 1961, Commission Standard Practice (SP) U-4, *Determination of Straight-Line Remaining Life*

¹⁹³⁵ Ex. CA-26 at 9.

Depreciation Accruals, SCE utilized in its Depreciation Study the straight-line remaining-life methodology to develop its proposed 2025 depreciation accruals rates. This method uses the following formula to calculate the annual depreciation accruals: Depreciation = Plant Balance – Reserve – Gross Salvage + Cost of Removal Remaining Service Life of Asset(s). Cal Advocates agrees with this method of determining Depreciation.

For TY 2025, SCE requests \$155.8 million for electric generation (EG) – related depreciation expense, \$535.2 million for electric transmission (ET) – related depreciation expense, \$1.560 billion for electric distribution (ED) – related depreciation expense, and \$334.5 million for general plant, **totaling \$2.878 billion.**¹⁹³⁶

Cal Advocates’ recommendations include:

- The Commission should reject ‘SCE’s requested TY 2025 depreciation expense of \$2.566 billion¹⁹³⁷ and adopt Cal Advocates’ recommended expense \$2.585.5 billion,¹⁹³⁸
- The Commission should adopt no change to the current authorized negative net salvage rates for FERC accounts 362, 365, 366, 367 and 368.¹⁹³⁹
- The Commission should adopt an annual small hydro decommissioning accrual of \$55.2 million, versus SCE’s proposed \$62.1 million.¹⁹⁴⁰

A. T&D Net Salvage

Cal Advocates has reviewed and does not oppose SCE’s negative net salvage proposals for the FERC accounts within the Transmission Plant, Distribution Plant and General Buildings categories except as discussed herein. Cal Advocates recommends different negative net salvage rates than proposed by SCE for FERC accounts 362, and 365-368. These accounts correspond to Distribution Plant: “Station Equipment,”

¹⁹³⁶ Ex. SCE-07, Vol. 02, p. 22, Table III-8.

¹⁹³⁷ Ex. SCE-07, Vol. 03, p. 2, Table I-1.

¹⁹³⁸ Ex. CA-26 (Cal Advocates’ Results of Operations (RO) Model).

¹⁹³⁹ D.21-08-036 at 508-512.

¹⁹⁴⁰ Ex. SCE-07, Vol. 03, p. 88, Table V-30.

“Overhead Conductors & Devices,” “Underground Conduit,” Underground Conductors & Devices,” and “Line Transformers.”

The following tables compare SCE’s proposed net salvage rates for FERC Accounts to Cal Advocates’ with the currently authorized rates and shows the impact to the annual accrual for TY 2025.

Net Salvage Rates – SCE’s Proposal¹⁹⁴¹

FERC Account	SCE Authorized	SCE Proposed	SCE Impact (millions)
362	-29%	-40%	\$7.30
365	-134%	-190%	\$39.40
366	-43%	-80%	\$25.10
367	-70%	-100%	\$62.30
368	-28%	-50%	\$51.50
Total			\$185.60

¹⁹⁴¹ Ex. SCE-07, Vol. 03 at 3, Table I-2 at 13, Table III-4.

**Net Salvage Rates – Cal Advocates Recommendations
(in millions)**

FERC Account	SCE Authorized	Cal Advocates Proposed	Cal Advocates Impact
362	-29%	-29%	\$0
365	-134%	-134%	\$0
366	-43%	-43%	\$0
367	-70%	-70%	\$0
368	-28%	-28%	\$0
Total			\$0

Cal Advocates’ recommendations include: 1) \$155.8 million for SCE’s electric generation (EG) – related depreciation expense; 2) \$535.2 million for electric transmission (ET) – related depreciation expense; 3) \$1.560 billion for electric distribution (ED) – related depreciation expense; and 4) \$334.5 million for general plant.¹⁹⁴²

Despite Cal Advocates’ recognition of SCE’s need to recover the cost of removal associated with capital expenditures, SCE’s proposed increases reflect a limited recognition of gradualism. The Commission in D.14-08-032, *Decision Authorizing Pacific Gas and Electric Company’s General Rate Case Revenue Requirement for 2014-2016* illustrates gradualism’s authority in setting negative net salvage rates. In this decision, the Commission stated: The principle of gradualism applies where there is a recognized need to revise estimated parameters, but where the change is allowed to occur incrementally over time rather than all at once. Applying gradualism thus limits the approved increase that would otherwise be warranted, all else being equal, and mitigates the short-term impact of large changes in depreciation parameters. Also, it is advisable to

¹⁹⁴² Ex. CA-26 (Cal Advocates’ Results of Operations (RO) Model).

be cautious in making large changes in estimates of service lives and net salvage for property that will be in service for many decades, as future experience may show the current estimates to be incorrect.¹⁹⁴³

Cal Advocates has applied the Commission's policy and principle of gradualism to its proposals in response to SCE's current recommendations of negative net salvage rates.

The Commission worried that full adoption of PG&E's negative salvage rates would harshly affect current ratepayers and emphasized the need for gradualism instead. The Commission also emphasized its goal of balancing "the equities of current and future ratepayers." Applying gradualism is also helpful in not changing substantially service life estimates and net salvage for property that will be in service for decades since current estimates often prove to be incorrect.¹⁹⁴⁴

SCE requests increasing net salvage rates for FERC accounts 362, 365, 366, 367 and 368 by roughly \$178.7 million, for a total increase of \$198.8 million in annual accrual for negative net salvage of transmission plant, distribution plant, and general buildings. Cal Advocates' recommendation will result in a \$59.9 million increase, or \$138.9 million less than SCE's proposed increase. Cal Advocates' recommendation recognizes that retaining the current negative net salvage rates will continue to allow for funding of the reserve while providing for a moderate increase as plant is added to the account. It will serve to avoid an immediate, additional increase in funding the reserve relative to SCE's proposed increase in the negative net salvage rates.

Cal Advocates' recommendation is also based on the significant expenditures recently made for wildfire mitigation and hardening the system since these investments have increased rates significantly. Denial of the negative net salvage rates SCE proposed will serve to moderate the TY 2025 GRC-related rate increases. Cal Advocates' proposed recommendations to not increase the negative net salvage rates any further in this GRC rely on prior Commission precedent in D.21-08-036 where the Commission

¹⁹⁴³ D.14-08-032 at 527.

¹⁹⁴⁴ Ex. CA-24-E at 7, FN 8.

expressed concern over future ratepayers being disproportionately burdened by removal costs.

The Commission's 2014 PG&E GRC decision further supports gradualism by recognizing that the 2009 recession created a need for rate increase mitigation. In D.14-08-032, the Commission states:

We are imposing new costs at a time when many customers have still not recovered from the severe economic recession that began in 2009. In past GRCs, we have exercised some degree of discretion when adopting increased removal cost estimates based on such concerns...

In the interests of balancing potential cost impacts on both current and future customers, we conclude that a cap on removal cost increases is reasonable and would not unduly shift deferred cost burden risk to customers in future GRC cycles.¹⁹⁴⁵

Here, the Commission should continue to be concerned with imposing new costs on customers who are still recovering from the economic turmoil of a multiyear pandemic.

Yet another example demonstrating why gradualism is appropriate is from SDG&E's TY 2024 GRC application where it is holding electric and common depreciation rates constant now and instead recovering depreciating assets when they are providing even more benefits than they do today.

Cal Advocates' recommendation to apply gradualism seeks to mitigate SCE's increase in negative net salvage rates and the associated annual accrual which is a significant portion of SCE's overall TY 2025 GRC revenue request. Cal Advocates' recommendation considers the impact on future ratepayers and the unfair cost they will have to pay if gradualism is not applied.

1. FERC Account 362 (Distribution Station Equipment)

The currently authorized negative net salvage rate for Distribution Station Equipment is -29%, while SCE proposes an increase to a -40% net salvage rate. SCE's

¹⁹⁴⁵ D.14-08-032 at 528-529.

negative net salvage proposal increases its depreciation expense by \$7.3 million.¹⁹⁴⁶ Cal Advocates recommends no increase to the current negative net salvage rate of -29% for the reasons previously discussed related to gradualism and Commission precedent related to not overburdening future ratepayers with removal costs.

2. FERC Account 365 (Distribution Overhead Conductor and Devices)

The currently authorized negative net salvage rate for Distribution Overhead Conductor and Devices is -134%, while SCE proposes a -190% negative net salvage rate. SCE's negative net salvage proposal increases its depreciation expense by \$39.4 million per year.¹⁹⁴⁷ Cal Advocates recommends no increase to the current negative net salvage rate of -134% for the reasons previously discussed related to gradualism and Commission precedent related to not overburdening future ratepayers with removal costs.

3. FERC Account 366 (Distribution Underground Conduit)

The currently authorized negative net salvage rate for Distribution Underground Conduit is -43%, while SCE proposes a -80% negative net salvage rate. SCE's negative net salvage proposal increases depreciation expenses by \$25.1 million per year.¹⁹⁴⁸ Cal Advocates recommends no increase to the current negative net salvage rate of -43% based on the reasons previously discussed related to gradualism and Commission precedent related to not overburdening future ratepayers with removal costs.

4. FERC Account 367 (Distribution Underground Conductors and Devices)

The currently authorized negative net salvage rate for Distribution Underground Conductor and Devices is -70%, while SCE proposes a -100% negative net salvage rate. SCE's negative net salvage proposal increases depreciation expenses by \$62.3 million per

¹⁹⁴⁶ Ex. SCE-07, Vol. 03 at 45.

¹⁹⁴⁷ Ex. SCE-07, Vol. 03 at 48.

¹⁹⁴⁸ Ex. SCE-07, Vol. 03 at 51.

year.¹⁹⁴⁹ Cal Advocates recommends no increase to the current negative net salvage rate of -70% for the reasons previously discussed related to gradualism and Commission precedent related to not overburdening future ratepayers with removal costs.

5. FERC Account 368 (Distribution Line Transformers)

The currently authorized negative net salvage rate for Distribution Line Transformers is -28%, while SCE proposes a -50% negative net salvage rate. SCE's negative net salvage proposal is an increase in depreciation expense of \$51.5 million per year.¹⁹⁵⁰ Cal Advocates recommends no increase to the current negative net salvage rate of -28% for the reasons previously discussed related to gradualism and Commission precedent related to not overburdening future ratepayers with removal costs.

B. T&D Average Service Life

Cal Advocates does not address this topic.

C. Small Hydro Decommissioning

SCE requests \$52.8 million in probability-adjusted annual accruals to prepare for the possibility of decommissioning every plant in its small hydro portfolio.¹⁹⁵¹ Cal Advocates recommends the Commission adopt an annual small hydro decommissioning accrual of \$26.95 million¹⁹⁵² to prepare for the possibility of decommissioning the following plants: San Geronio, Borel, Rush Creek (Agnew, Rush Meadow). The table below compares proposed small hydro decommissioning annual accruals (from SCE and Cal Advocates, respectively) for each plant in SCE's small hydro portfolio.

¹⁹⁴⁹ Ex. SCE-07, Vol. 03 at 54.

¹⁹⁵⁰ Ex. SCE-07, Vol. 03 at 59.

¹⁹⁵¹ Ex. SCE-07, Vol. 03 at 82.

¹⁹⁵² Ex. CA-24-E at 13.

Small Hydro Decommissioning Annual Accruals
Comparison of SCE's Request and Cal Advocates' Recommendations
(in millions)

Plant Category	SCE's Proposed Annual Accrual	Cal Advocates' Recommendation Annual Accrual	Decom. Probability (1%, 10%, 50%, 90%, or 99%)
Borel	\$16.80	\$16.80	100%
Rush Creek (Agnew, Rush Meadows)	\$5.40	\$5.40	90%
Rush Creek (Gem Lake)	\$8.40	\$8.40	50%
Lower Tule River	\$1.00	\$1.00	50%
Kaweah 1-2	\$1.20	\$0	10%
Kaweah 3	\$3.10	\$3.10	50%
Lundy (Mill Creek)	\$0.20	\$0	10%
Bishop Creek 2-6	\$3.40	\$0	10%
Poole (Lee Vining Creek)	\$1.00	\$0	10%
Fontana	\$0.10	\$0	10%
Lytle Creek	\$0.10	\$0	10%
Mill Creek No. 1	\$0.10	\$0	10%
Mill Creek No. 3	\$0.20	\$0	10%
Ontario No. 1	\$0.10	\$0	10%
Ontario No. 2	\$0.10	\$0	10%
Santa Ana 1 & 3	\$0.20	\$0	10%
Sierra	\$0.00	\$0	10%
San Geronio	\$20.50	\$20.50	100%
Total	\$62.10	\$55.20	
Probability-Adjusted Total	\$52.80	\$45.90	

While SCE's negative net salvage rate requests for transmission and distribution are based on an analysis of recent retirement data, SCE's requests for decommissioning

its small hydro portfolio are almost entirely and exclusively based on hypotheticals. SCE uses the U.S. Bureau of Reclamation’s Risk Management Best Practices and Risk Methodology (see Table below) to assign every plant in its small hydro portfolio a decommissioning probability.¹⁹⁵³ SCE then weighs the decommissioning cost estimates by their respective probabilities, converts those estimates to future dollars, and divides that amount by the number of years required for decommissioning to arrive at its request for annual accruals.¹⁹⁵⁴

**U.S. Bureau of Reclamation
Risk Management Best Practices and Risk Methodology**

Description	Probability
Virtually Impossible , due to known physical conditions or processes that can be described and specified with almost complete confidence.	1%
Very Unlikely , although the possibility cannot be ruled out.	10%
Equally Likely , with no reason to believe that one outcome is more or less likely than the other (when given two outcomes).	50%
Very Likely , but not completely certain.	90%
Virtually Certain , due to known physical processes and conditions that can be described and specified with almost complete confidence.	99%

The accruals rely on escalated costs of labor that are not consistent with Standard Practice U-4’s guidelines on basing future cost of removal “on a reasonable projection of recent experience reflecting anticipated changes in labor cost for the *immediate future*” (emphasis added).¹⁹⁵⁵ Additionally, SCE omits the possibility of selling its small hydro assets in its request for annual accruals and assumes that the only conceivable options are continued operation or decommissioning. The fact that the U.S. Bureau of Reclamation’s

¹⁹⁵³ Ex. SCE-05, Vol. 01 at 116.

¹⁹⁵⁴ Ex. SCE-05, Vol. 01 at 117.

¹⁹⁵⁵ Standard Practice U-4 at 32-33.

Risk Management Best Practices and Risk Methodology explicitly specifies “when given two outcomes” (emphasis added) for their equally likely probability is evidence that this was likely a deliberate omission. Given the omission of considering future sales, the general lack of urgency¹⁹⁵⁶ associated with decommissioning SCE’s small hydro portfolio, the previously-discussed principle of gradualism, and the use of broad group depreciation for sharing accruals between plants, Cal Advocates recommends the Commission exercise its discretion and limit the authorized annual accruals to what the Commission deems absolutely necessary. It is appropriate to begin accruing a modest amount for this potential decommission with an understanding that the amount can be reconsidered in future GRCs when there will be better information and certainty. SCE states it will refine decommissioning cost estimates as scope and requirements become clearer through the FERC relicensing process

Cal Advocates’ recommendation is based on the cost impact to ratepayers for SCE to cover the cost of decommissioning small hydro plants. Any plant that is less than 50% likely to be decommissioned, based on the U.S. Bureau of Reclamation’s *Risk Management Best Practices and Risk Methodology*, should not have any annual accrual cost. Therefore, Cal Advocates recommends \$0 for the following plants: Kaweah 3, Lundy (Mill Creek), Bishop Creek 2-6, Poole (Lee Vining Creek), Fontana, Lyle Creek, Mill Creek No.1, Mill Creek No.3, Ontario No.1, Ontario No. 2, Santa Ana 1&3 and Sierra.

Cal Advocates’ recommendations are based on SCE’s lack of specific timelines or clear plans to substantiate its assertion that it will decommission its small hydro plants claimed.¹⁹⁵⁷ Cal Advocates opposes SCE’s full requested amount because this would have ratepayers funding costs to decommission plants whose decommissioning date is uncertain. For this reason, Cal Advocates also recommends a reduction of 50% for the following plants: Borel and the Rush Creek complex (Agnew Lake and Rush Meadow).

¹⁹⁵⁶ Ex. SCE-07, Vol. 03 at 88.

¹⁹⁵⁷ Ex. SCE-07, Vol. 03, Table V-30.

Cal Advocates recommends the Commission direct SCE to submit specific details on a definite decommissioning process for all small hydro plants in its next GRC.

1. Borel

In SCE's 2021 GRC, SCE requested \$11 million in annual accrual over 14 years for a total of \$154 million to prepare for the decommissioning of Borel.¹⁹⁵⁸ With inflation, the annual accrual that SCE requests in this TY 2025 GRC is now \$16.8 million.¹⁹⁵⁹ SCE states that Borel has a 99% probability to begin decommissioning within five years.¹⁹⁶⁰ This is exactly the same claim that SCE made in its 2021 GRC four years ago: "SCE estimates a 99 percent probability that it will initiate decommissioning of Borel within the next 5 years."¹⁹⁶¹ SCE provided no new information in this GRC application to support its claim that decommissioning will now actually begin within the next five years. There is no specific timeline set for the process to begin, no clear plans provided, and no milestones identified that have already been met. SCE did not achieve the timeline for the Borel forecast in the last GRC and has not provided sufficient evidence to demonstrate that it has a set schedule to begin decommissioning. Consequently, Cal Advocates recommends the Commission authorize 50% of SCE's request to protect ratepayers from overfunding a project without a foreseeable start date. This would result in an annual accrual of \$8.4 million.

2. Rush Creek (Agnew, Rush Meadows)

SCE requests \$3.6 million in annual accrual over 16 years for a total of \$58 million to prepare for the decommissioning of the Agnew Lake and Rush Meadows dams. Cal Advocates agrees with SCE's probability- adjusted decommissioning estimate for these dams. Cal Advocates disagrees with the use of future dollars to set the annual accrual because

¹⁹⁵⁸ Ex. SCE-07, Vol. 03 at 87.

¹⁹⁵⁹ Ex. SCE-07, Vol. 03 at 87.

¹⁹⁶⁰ Ex. SCE-07, Vol. 03 at 87.

¹⁹⁶¹ D.21-08-036 at 524.

Cal Advocates opposes SCE's full requested amount because this would have ratepayers covering more costs to decommission plants that have not started yet and have remaining uncertainty. Thus, Cal Advocates also recommends a reduction of 50% for the following plants: Borel and the Rush Creek complex (Agnew Lake and Rush Meadow). Cal Advocates recommends that SCE be directed to submit specific details on a definite decommissioning process for all small hydro plants in its next GRC. Instead, Cal Advocates recommends authorizing SCE's probability-adjusted estimate, resulting in an annual accrual of \$2.7 million.

SCE also states that Borel and the Rush Creek Complex (Rush Meadows and Agnew Lake) are prepared to begin decommissioning in 2026 and 2027.¹⁹⁶² SCE states that the Rush Creek Complex has a 99% probability to begin decommissioning within five years.¹⁹⁶³ This the same claim SCE made in its 2021 GRC: "SCE estimates a 90 percent probability that it will initiate decommissioning of Rush Creek (Agnew, Rush Meadows) within the next 5 years."¹⁹⁶⁴ SCE provided no new information in this GRC application to support its claim that decommissioning will now actually begin within the next five years. There is not a specific timeline set for the process to begin, no clear plans provided, and no milestones identified that have already been met. Therefore, Cal Advocates opposes SCE's full requested amount because ratepayers should not be covering decommissioning costs for plants that have yet to begin or still include uncertainty.

D. Generation Decommissioning Escalation

Cal Advocates does not address this topic.

E. Solar PV

Cal Advocates does not address this topic.

¹⁹⁶² Ex. SCE-07, Vol. 03 at 87.

¹⁹⁶³ Ex. SCE-07, Vol. 03 at 87.

¹⁹⁶⁴ D21-08-036 at 524.

F. Fuel Cell Generation

Cal Advocates does not address this topic.

G. Miscellaneous/Other

Cal Advocates does not address this topic.

XLI. POST TEST YEAR RATEMAKING

A. Overview of SCE's Post Test Year Ratemaking Proposals

SCE proposes a four-year GRC term comprising a test year (2025) and three post-test years (2026, 2027 and 2028).¹⁹⁶⁵ SCE seeks Commission authorization for an attrition mechanism that would yield estimated revenue increases totaling \$608 million¹⁹⁶⁶ (5.93%) for 2026, an additional \$654 million (6.02%) for 2027 and \$645 million (5.61%) for 2028.¹⁹⁶⁷ SCE's attrition year increases¹⁹⁶⁸ follow the company's Test Year 2025 requested increase of \$1.875 billion (22.40%).¹⁹⁶⁹

¹⁹⁶⁵ Test Year 2025 General Rate Case Application Of Southern California Edison Company, at 1, 6; Southern California Edison, 2025 General Rate Case, Affordability and Post Test-Year Ratemaking, Ex. SCE-07, Vol. 04 at 22.

¹⁹⁶⁶ Any differences in the numbers are due to rounding.

¹⁹⁶⁷ Public Advocates Office, California Public Utilities Commission, Report on the Results of Operations for Southern California Edison Company, Test Year 2025 General Rate Case, Post-Test Year Ratemaking and Productivity Adjustment, Ex. CA-28 at 1; SCE included attrition revenue increases of \$619 million for 2026, \$664 million for 2027 and \$705 million for 2028 in its May 12, 2023 filing (SCE-07, Vol. 01 at 9).

¹⁹⁶⁸ SCE requests attrition revenue increases of \$608 million for 2026, \$654 million for 2027 and an additional \$645 million for 2028. The \$608 million revenue increase for 2026 represents a 5.93% increase relative to SCE's forecasted 2025 revenue requirement, the \$654 million revenue increase for 2027 represents a 6.02% increase relative to SCE's forecasted 2026 revenue requirement, and the \$645 million increase for 2028 represents a 5.61% increase. Ex. CA-28, at 7.

¹⁹⁶⁹ See CA-28, at 1; \$1.875 billion 2025 increase divided by 2024 Adopted base revenues of \$8.371 billion equals 22.40%. Note that SCE's tables included in its Results of Operation errata (SCE-07, Volume 01) for December 15, 2023, show ABRR for 2024 as \$8.371 million. In order to retain consistency, Cal Advocates has not modified the 2024 figure. Cal Advocates expects that the \$8.371 billion will be updated in the Comparison Exhibit and SCE's Update testimony.

**SCE Requests Post-Test Year Revenue Increases of
\$608 Million for 2026, \$654 Million for 2027 and \$645 Million for 2028
(in Millions of Dollars)**

Description (a)	SCE 2025 Proposed Revenues (b)	SCE 2026 Proposed Revenue Increase (c)	SCE 2026 Proposed Revenues (d=b+c)	% Increase over 2025 Proposed Revenues (e=c/b)	SCE 2027 Proposed Revenue Increase (f)	SCE 2027 Proposed Revenues (g=f+d)	% Increase over 2026 Proposed Revenues (h=f/d)	SCE 2028 Proposed Revenue Increase (i)	SCE 2028 Proposed Revenues (j=g+i)	% Increase over 2027 Proposed Revenues (k=i/g)
Proposed ABRR	\$10,246	\$608	\$10,853	5.93%	\$654	\$11,507	6.02%	\$645	\$12,153	5.61%

SCE proposes to expand the currently authorized Z-factor mechanism (which allows revenue adjustments for exogenous events) adopted in its 2021 GRC, by authorizing SCE to “apply the mechanism in the Test-Year rather than only attrition years.”¹⁹⁷⁰ SCE also proposes the expansion of its authority to use of the Z-Factor Memorandum Account (ZFMA) to include the GRC test year, as opposed to only GRC attrition years.¹⁹⁷¹ SCE also proposes four discrete capital adjustments associated with four long-lead time projects with uneven forecast capital additions that SCE claims “would not be accurately captured with an escalation-based capital attrition mechanism.”¹⁹⁷² SCE’s attrition year increases follow the company’s unprecedented Test Year 2025 requested increase of \$1.875 billion (22.40%).¹⁹⁷³

Cal Advocates does not oppose SCE’s proposal for a four-year rate case term, nor does it oppose a Post-Test Year Ratemaking mechanism that provides SCE with a reasonable level of revenue increases in 2026, 2027 and 2028.¹⁹⁷⁴ SCE proposes attrition increases of 5.93% for 2026, 6.02% for 2027 and 5.61% for 2028.¹⁹⁷⁵ In contrast to SCE’s excessive requests for attrition revenue, Cal Advocates recommends lower post-test year base revenue increases which include an O&M expense productivity adjustment

¹⁹⁷⁰ Ex. SCE-07, Vol. 04 at 38.

¹⁹⁷¹ Ex. SCE-07, Vol. 01 at 34-35.

¹⁹⁷² Ex. SCE-07, Vol. 04 at 26.

¹⁹⁷³ Ex. CA-28 at 2.

¹⁹⁷⁴ Ex. CA-28 at 2.

¹⁹⁷⁵ Ex. CA-28 at 2.

of 1%¹⁹⁷⁶ for TY 2025 and post-test years 2026, 2027, and 2028.¹⁹⁷⁷ Given the increased pressure on rates, SCE's management should be expected to operate more efficiently.¹⁹⁷⁸

B. Post-Test Year Revenue Increases

Prior to 1982, a utility's base revenue requirement was generally adjusted only during GRC proceedings.¹⁹⁷⁹ Between GRC proceedings, base rates did not change, but utilities received additional income based on customer growth.¹⁹⁸⁰ Post-Test Year, or attrition, rate adjustments were implemented in the early 1980s in response to unprecedented high inflation and lower rates of customer growth and sales in the late 1970s and early 1980s.¹⁹⁸¹ Since the mid-1980s, inflation has generally declined to more modest levels.¹⁹⁸² Various forms of revenue balancing accounts protect utilities from sales fluctuation.¹⁹⁸³ Additionally, highly volatile utility fuel-related costs, over which utilities have limited control, were removed from base rates and are now recovered through separate mechanisms with balancing accounts.¹⁹⁸⁴

The GRC proceeding is used to periodically review and set reasonable rates for utilities for a specific test year.¹⁹⁸⁵ For the period between GRC proceedings, the Commission has, in some cases, granted attrition-type increases and, in other cases, has not provided such increases.¹⁹⁸⁶ In the past, the Commission has stated:

¹⁹⁷⁶ The 1% O&M expense productivity factor is shown as an adjustment of \$25 million in the Results of Operations model for Other Operating Revenue. The adjustment would be made each year (2025, 2026, 2027 and 2028) to reduce SCE's revenue requirement.

¹⁹⁷⁷ Ex. CA-28 at 2.

¹⁹⁷⁸ Ex. CA-28 at 2.

¹⁹⁷⁹ Ex. CA-28 at 5.

¹⁹⁸⁰ Ex. CA-28 at 5.

¹⁹⁸¹ Ex. CA-28 at 5.

¹⁹⁸² Ex. CA-28 at 5.

¹⁹⁸³ Ex. CA-28 at 5.

¹⁹⁸⁴ Ex. CA-28 at 5.

¹⁹⁸⁵ Ex. CA-28 at 5.

¹⁹⁸⁶ Ex. CA-28 at 5.

The attrition mechanism is not an entitlement. Nor is it a method of insulating the company from the economic pressures which all business experience...Neither the Constitution nor case law has ever required automatic rate increases between general rate case applications.¹⁹⁸⁷

In PG&E's 2023 GRC the Commission stated:

The Commission has the discretion to grant or deny such requests. The utilities are not automatically provided or entitled to post-test year ratemaking adjustments to revenue requirement between rate case proceedings.¹⁹⁸⁸

In PG&E's 1999 GRC decision, the Commission denied attrition increases for year 2000.¹⁹⁸⁹ Subsequently, in D.02-02-043, the Commission granted PG&E a 2001 attrition increase of approximately \$151 million.¹⁹⁹⁰ In D.03-03-034, however, the Commission denied PG&E's attrition increase request for 2002.¹⁹⁹¹ As Commission precedent demonstrates, utilities are not automatically entitled to attrition rate increases between rate cases.¹⁹⁹²

C. SCE's Post-Test Year Ratemaking Proposals

1. GRC Term

SCE proposes a four-year GRC term (2025-2028) for this rate case cycle, with a 2025 Test Year and three post-test years, 2026, 2027 and 2028, presumably followed by a Test Year 2029 GRC.¹⁹⁹³ Cal Advocates does not oppose SCE's proposal.

¹⁹⁸⁷ 1993 Cal. PUC LEXIS 728 (Cal. P.U.C. December 17, 1993) at *39-41.

¹⁹⁸⁸ D.23-11-069 at 706.

¹⁹⁸⁹ Ex. CA-28 at 6.

¹⁹⁹⁰ Ex. CA-28 at 6.

¹⁹⁹¹ Ex. CA-28 at 6.

¹⁹⁹² Ex. CA-28 at 6.

¹⁹⁹³ Ex. CA-28 at 13.

2. SCE's Proposed PTYR Mechanism

SCE characterizes its proposed Post-Test Year Ratemaking (PTYR) mechanism as one that provides “SCE with sufficient funds during the attrition year period to provide service to customers in a safe, reliable, and affordable manner, while providing shareholders with a reasonable opportunity to earn the authorized rate of return.”¹⁹⁹⁴ SCE states further that its PTYR mechanism “reflects SCE’s intent to only ask for what is needed and to maintain our commitment to customer affordability.”¹⁹⁹⁵

SCE proposes a post-test year ratemaking (PTYR) mechanism to account for (1) rate base growth; (2) operations and maintenance (O&M) expense escalation; (3) capital addition escalation; (4) wildfire mitigation capital expenditures associated with Covered Conductor, Undergrounding and other wildfire mitigation activities; and (5) discrete capital adjustments associated with four projects: T&D Training Center, Del Valle Substation, Gorman-Kern River, and Kraemer- Edwards.¹⁹⁹⁶

3. Revenue Requirement Impact

SCE requests attrition revenue increases of \$608 million for 2026, \$654 million for 2027 and an additional \$645 million for 2028.¹⁹⁹⁷ The \$608 million revenue increase for 2026 represents a 5.93% increase relative to SCE’s forecasted 2025 revenue requirement, the \$654 million revenue increase for 2027 represents a 6.02% increase relative to SCE’s forecasted 2026 revenue requirement, and the \$645 million increase for 2028 represents a 5.61% increase.¹⁹⁹⁸

The combination of SCE’s 2025 revenue requirement request of \$10.246 billion and its post-test year increases yield revenue requirement levels of \$10.853 billion for

¹⁹⁹⁴ Ex. SCE-07, Vol. 04 at 22.

¹⁹⁹⁵ Ex. SCE-07, Vol. 04 at 38

¹⁹⁹⁶ Ex. SCE-07, Vol. 04 at 22, 36 and 37.

¹⁹⁹⁷ Ex. CA-28 at 7.

¹⁹⁹⁸ Ex. CA-28 at 7.

2026, \$11.507 billion for 2027 and \$12.153 billion for 2028.¹⁹⁹⁹

4. Adjustments for Expenses, Capital, and Rate Base

According to SCE, its attrition proposal is intended to “provide additional funds to cover the costs of doing business in calendar years 2026, 2027, and 2028, including capital investment to meet growing electricity demand, replace aging utility infrastructure, and perform wildfire risk mitigation activities.”²⁰⁰⁰ SCE’s proposed attrition mechanism includes the following components:²⁰⁰¹ (a) continued use of S&P Global Market Intelligence utility cost escalation factors to determine operations and maintenance (O&M) escalation, adopted in the last four GRCs;²⁰⁰² (b) use of S&P Global Market Intelligence utility capital escalation factors “to all capital additions associated with capital expenditures authorized in the Test-Year” with exception of four capital projects with long-lead time; ²⁰⁰³ (c) continued use of a budget-based forecast for wildfire mitigation capital, consistent with the PTYR mechanism adopted in the 2021 GRC; ²⁰⁰⁴ (d) use of a budget-based forecast for the four long-lead time projects with uneven forecast capital additions (T&D Training Center, Del Valle Substation, Gorman-Kern River, and Kraemer- Edwards);²⁰⁰⁵ (e) continued use of the Z-factor mechanism authorized in the 2021 GRC, with a modification to include the Test Year;²⁰⁰⁶ (f) continued use of an annual PTYR advice letter to set authorized revenue requirement for each attrition year.²⁰⁰⁷

¹⁹⁹⁹ SCE’s initial filing on May 12, 2023 requested \$10.267 billion for 2025, \$10.885 billion for 2026, \$11.549 billion for 2027, and \$12.253 million for 2028 (SCE-07, Vol. 01 at 9).

²⁰⁰⁰ Ex. SCE-07, Vol. 04 at 22.

²⁰⁰¹ Ex. SCE-07, Vol. 04 at 22 and 26.

²⁰⁰² SCE’s O&M escalation rates for 2023, 2024 and 2025 include its negotiated agreements for wage increases (Ex. SCE-07, Vol. 04 at 27).

²⁰⁰³ Ex. CA-28 at 8.

²⁰⁰⁴ Ex. CA-28 at 8.

²⁰⁰⁵ Ex. SCE-07, Vol. 04 at 22, 26, 36 and 37.

²⁰⁰⁶ Ex. CA-28 at 8.

²⁰⁰⁷ Ex. CA-28 at 8.

a) Labor and Non-Labor Adjustments

For Operations & Maintenance (O&M), SCE proposes to “continue using the escalation methodology that the Commission adopted in SCE’s last four GRCs.”²⁰⁰⁸

SCE proposes increases to labor costs (e.g., O&M and Administrative & General (A&G) wages) to reflect forecast wage escalation rates. SCE also proposes increases to non-labor (materials and services) O&M and A&G expenses and relies on S&P Global Market Intelligence to develop escalation factors.²⁰⁰⁹

For 2023, 2024 and 2025, SCE forecasts the following annual labor escalation rates:²⁰¹⁰ (1) 5.50% in 2023 for the International Brotherhood of Electrical Workers (IBEW) and an additional 4% wage increase effective January 1, 2023; (2) 3.25% and 3.0% in 2024 and 2025 for represented employees based on agreements with IBEW; and (3) S&P Global Market Intelligence forecasts as basis for 2026-2028 SCE’s labor escalation rate (SCE does not have an agreement in place for those years).²⁰¹¹

b) Proposed Capital Adjustment to Mitigate Lag

SCE proposes an adjustment to escalate attrition year capital additions directly related to the capital expenditures that will be authorized by the Commission for TY 2025.²⁰¹² SCE asserts that this adjustment is needed due to the time lag between when capital is expended and when capital projects closes to plant.²⁰¹³ SCE states the “purpose of this adjustment is to ensure the capital-related costs for projects not fully reflected in the Test-Year 2025 revenue requirement are accurately reflected in the revenue requirements for the attrition years.”²⁰¹⁴ Regarding the method utilized in SCE’s 2021 GRC to “derive authorized capital additions for each attrition year” SCE states the

²⁰⁰⁸ Ex.SCE-07, Vol. 04 at 22.

²⁰⁰⁹ Ex. SCE-07, Vol. 01 at 112.

²⁰¹⁰ Ex. SCE-07, Vol. 01 at 108-112.

²⁰¹¹ Ex. CA-28 at 9.

²⁰¹² Ex. CA-28, at 9.

²⁰¹³ Ex. CA-28 at 9.

²⁰¹⁴ Ex. SCE-07, Vol. 04 at 30.

following:

The Commission typically escalates SCE's Test-Year capital additions using forecast capital escalation rates to derive authorized capital additions for each attrition year. This can result in insufficient revenue in the attrition years due to the different methodologies the Commission uses to approve Test-Year vs. attrition year revenues.²⁰¹⁵

SCE asserts that "[w]ithout this capital adjustment, attrition year revenue requirements would not necessarily reflect SCE's authorized costs due to the time lag between when capital is expended and when the capital project closes to plant."²⁰¹⁶

c) Proposed Capital Adjustments for Uneven Spend

SCE proposes a budget-based capital PTYR mechanism for capital projects and programs that have "uneven spend through the GRC cycle" because the "escalation-based mechanism proposed by SCE would fail to capture the unevenness."²⁰¹⁷

(1) Wildfire Mitigation Capital Costs

SCE proposes a continuation of the budget-based capital PTYR mechanism for wildfire mitigation costs adopted in its 2021 GRC.²⁰¹⁸ SCE's Exhibit SCE-06, Volume 06 provides the detailed discussion and TY forecasts for Wildfire Mitigation capital expenditures.²⁰¹⁹

(2) Discrete Capital Projects

SCE proposes a budget-based forecast for four discrete capital projects that SCE asserts are "long-lead time projects that have uneven capital additions through the GRC period."²⁰²⁰ The projects are SCE's T&D Training Center, Del Valle Substation, Gorman-Kern River, and Kraemer- Edwards.²⁰²¹ Regarding budget-based forecasting, SCE states:

²⁰¹⁵ Ex. SCE-07, Vol. 04 at 30; Ex. CA-28 at 10.

²⁰¹⁶ Ex. SCE-07, Vol. 04 at 30; Ex. CA-28 at 10.

²⁰¹⁷ Ex. SCE-07, Vol. 04 at 36; Ex. CA-28 at 10.

²⁰¹⁸ D.21-08-036 at 547; Ex. CA-28 at 10.

²⁰¹⁹ Ex. CA-28 at 10.

²⁰²⁰ Ex. SCE-07, Vol. 04 at 30; Ex. CA-28 at 11.

²⁰²¹ Ex. SCE-07, Vol. 04 at 22, 26, 36 and 37; Ex. CA-28 at 11.

SCE acknowledges that, with certain exceptions, such as wildfire mitigation capital additions and new service connections in the 2021 GRC, the Commission has been disinclined to authorize a budget-based methodology for attrition year capital additions in prior GRCs and favors a formulaic approach.²⁰²²

5. Z-Factor Mechanism

SCE proposes to continue the Z-factor mechanism that was authorized in its 2021 GRC D.21-08-036²⁰²³ to record costs associated with exogenous and unforeseen events in PTYs that are beyond SCE's control and have material impacts or cause unanticipated major variations in SCE's costs.²⁰²⁴ The costs recoverable from a Z-factor event would only include costs in excess of a one-time \$10 million deductible per event.²⁰²⁵ In the 2021 GRC decision, the Commission limited use of the Z-factor mechanism to the PTYs only.²⁰²⁶ In this 2025 GRC, SCE proposes to expand the Z-factor mechanism to include "the Test-Year rather than only attrition years."²⁰²⁷ SCE also proposes to expand the applicability of the Z-Factor Memorandum Account (ZFMA) to include the GRC test year, as opposed to only GRC attrition years.²⁰²⁸

D. Cal Advocates' Post-Test Year Recommendations

Cal Advocates does not oppose a mechanism that provides SCE with a reasonable level of post-test year revenue increases but recommends one that would result in more reasonable attrition year revenue increases than those that SCE requests.

1. GRC Term

SCE proposes a four-year rate case cycle, with a 2025 Test Year and three post-test years, 2026, 2027 and 2028. Cal Advocates does not oppose SCE's proposal.

²⁰²² Ex. SCE-07, Vol. 04 at 29-30; Ex. CA-28 at 12.

²⁰²³ D.21-08-036, Decision on Test Year 2021 General Rate Case for Southern California Edison Company, at 550; Ex. CA-28 at 12.

²⁰²⁴ Ex. SCE-07, Vol. 04 at 37-38.

²⁰²⁵ Ex. SCE-07, Vol. 04 at 38.

²⁰²⁶ Ex. CA-28 at 12.

²⁰²⁷ Ex. SCE-07, Vol. 04 at 38.

²⁰²⁸ Ex. SCE-07, Vol. 01 at 34 and 35.

2. Cal Advocates' Proposed Mechanism Provides SCE with 7 Reasonable Post-Test Year Revenue Increases

SCE seeks post-test year revenue increases of \$608 million (5.93%) for 2026, \$654 million (6.02%) for 2027 and an additional \$645 million (5.61%) for 2028.

Based on its forecast of SCE's 2025 revenue requirement, Cal Advocates' recommended PTYR methodology yields an estimated revenue increase of \$479 million for 2026, \$502 million for 2027 and \$507 million for 2028.²⁰²⁹ These increases result in estimated revenue requirement levels of \$9.767 billion for 2026, \$10.269 billion for 2027 and \$10.776 billion for 2028.²⁰³⁰

3. Cal Advocates' Proposed Productivity Factor

Cal Advocates proposes the implementation of productivity factor of 1% I each year, beginning in the test year and in the post-test years. SCE's management should be expected to operate more efficiently, given the increased upward pressure on rates.²⁰³¹ A modest productivity adjustment will incentivize SCE to achieve greater productivity during the attrition years.²⁰³²

SCE spent below 2021 GRC's authorized levels in many accounts. Therefore, ratepayers should expect some level of higher productivity than achieved in the past.²⁰³³ This underspending demonstrates that SCE reassessed proposed projects, controlled its expenses, and determined that it could spend less than authorized and nevertheless met its operational and compliance requirements.²⁰³⁴

SCE's represented employees will receive a significant increase in lieu of continuing in the incentive program.²⁰³⁵ Given that ratepayers directly fund increased

²⁰²⁹ Ex. CA-28 at 13.

²⁰³⁰ Ex. CA-28 at 13.

²⁰³¹ Ex. CA-28 at 14.

²⁰³² Ex. CA-28 at 14.

²⁰³³ Ex. CA-28 at 14.

²⁰³⁴ Ex. CA-28 at 14.

²⁰³⁵ Ex. SCE-06, Vol. 04 at 47. The discussion and recommendations on SCE's Employee Benefits, Training and Support are addressed in Exhibits CA-19 and CA-20.

labor costs, SCE should, in return, be expected to generate increased workforce productivity.²⁰³⁶ SCE negotiated agreements for a 15.75% General Wage Increase (GWI) for its employees effective January 1, 2023 through January 1, 2025.²⁰³⁷ Given this substantial 15.75% increase in wages, SCE's employees should be expected to contribute to operational efficiency, increased productivity, reduced costs²⁰³⁸ and to achieve increased ratepayer savings during the test year and 2026, 2027 and 2028.²⁰³⁹

SCE and its shareholders will receive additional monetary benefits in 2024 from the operations of the Cost of Capital Mechanism (CCM), which adjusted upward, produces an increase in the cost of common equity to 10.75% from 10.05% while increasing SCE's rate of return to 7.78% from 7.44%.²⁰⁴⁰ The implementation of the CCM adjustment results in an ABBR increase of approximately \$200.702 million or 2.4% increase in 2024.²⁰⁴¹ This increase is currently expected to continue through the 2025 test year.²⁰⁴² The ongoing financial benefit flowing to SCE and its shareholders from the CCM adjustment further bolsters and supports the implementation of an O&M productivity adjustment of 1% which is equivalent to a mere 12.5% of the annual increase generated by the CCM adjustment.²⁰⁴³ Cal Advocates' proposed productivity adjustment of 1% for the test year and each attrition year is reasonable and provides an incentive for SCE to achieve greater productivity during the test year and attrition years.²⁰⁴⁴

²⁰³⁶ Ex. CA-28 at 14.

²⁰³⁷ Ex. SCE-07, Vol. 01 at 108-09.

²⁰³⁸ Ex. SCE-07, Vol. 04 at 38 (SCE states that its proposed PTYR mechanism "reflects SCE's intent to ask only for what is needed and to maintain our commitment to customer affordability.").

²⁰³⁹ Per SCE's negotiated agreements established in May 2023, SCE's employee will receive a 5.5% GWI effective January 1, 2023, 3.25% effective January 1, 2024 and 3.0% on January 1, 2025 and an additional 4% wage increase effective January 1, 2023.

²⁰⁴⁰ SCE Advice 5120-E filed October 13, 2023 at 4.

²⁰⁴¹ SCE Advice 5120-E filed October 13, 2023 at 5.

²⁰⁴² Ex. CA-28 at 15.

²⁰⁴³ Ex. CA-28 at 15.

²⁰⁴⁴ Ex. CA-28, at 15.

Cal Advocates’ recommended lower post test year revenue requirement and proposed 1% productivity adjustments would produce more reasonable rates and are consistent with the Commission’s rationale in D.23-11-069, the decision resolving PG&E’s 2023 GRC. D.23-11-069 authorized only 50% of &E’s requested increase in IHS inflation-driven escalation rates that PG&E requested in an update filing. The Commission observed that it did not “find that granting the full increase would lead to reasonable rates under the circumstances presented in this proceeding.”²⁰⁴⁵

D.23-11-069 acknowledged the high rate of inflation that existed in 2021-2022, but noted that it had “abated considerably” in 2023,²⁰⁴⁶ a downward trend that continues in 2024. The Commission further observed that PG&E’s GRC already requested “extremely high expense and rate increases in this proceeding before considering the update filing. The Commission noted that PG&E’s update filing requested a “level of increase is unprecedented in modern rate case decision-making” and expressed “grave concerns’ about approving such a substantial increase without the same level of review that occur.

Based on the facts presented, the Commission determined that it would be excessive and unreasonable to grant PG&E’s full request, so it reduced PG&E’s requested increase in its initial escalation rates by 50%. The Commission concluded that the reduction in the escalation rate requested by PG&E:

“ still protects PG&E from the impact of high inflation while keeping rates at a reasonable level during a very uncertain economic time, due to numerous factors unique to the 2021-2022 time period. In conjunction with all other increases approved in this decision, the Commission believes this result allows PG&E a fair opportunity to earn its authorized rate of return.”²⁰⁴⁷

²⁰⁴⁵ D.23-11-069, Decision on Test Year 2023 General Rate Case for Pacific Gas and Electric Company, at 739.

²⁰⁴⁶ Decision on Test Year 2023 General Rate Case for Pacific Gas and Electric Company, D.23-11-069, at 739 (“The high level of inflation in 2021-2022 has abated considerably in 2023, falling to historically normal ranges of 3% or under”).

²⁰⁴⁷ D.23-11-069 at 739 and 740.

4. Cal Advocates' PTYR Proposals are Consistent With Those Adopted in SCE's 2021 GRC

Cal Advocates recommends that the PTYR mechanism used to establish a revenue requirement for O&M expenses, wildfire, and non-wildfire capital expenditures be established consistent with the approach adopted in SCE's 2021 GRC, with exceptions. In SCE's 2021 GRC, the Commission stated:

Since O&M expenses and capital costs affect revenue requirement differently, we adopt a two-part mechanism that separately escalates O&M expenses and Capital-related costs. In addition, given the large amount of wildfire capital additions that will be excluded in the test year due to AB 1054, we further bifurcate treatment of wildfire capital additions and non-wildfire capital addition. With respect to O&M expenses, consistent with our determination in nearly every SCE GRC since 2003, we approve use of the utility-specific indices proposed by SCE because they more accurately reflect how utilities incur costs.²⁰⁴⁸

For O&M, SCE proposes to continue with the escalation methodology adopted in the last four SCE GRCs. Cal Advocates agrees with SCE's proposal. For wildfire mitigation costs, SCE proposes to continue with the budget-based PTYR mechanism adopted in its 2021 GRC. Cal Advocates agrees with SCE's proposal. In SCE's 2021 GRC the Commission stated, "We find it reasonable to adopt a budget-based forecast for wildfire mitigation capital additions."²⁰⁴⁹

Cal Advocates recommends, with some limited exceptions, that the test year 2025 adopted capital expenditures serve as a basis for the 2026, 2027 and 2028 capital expenditure forecasts consistent with the 2021 GRC decision.²⁰⁵⁰ The Commission should adopt Cal Advocates' recommended post-test year capital expenditure forecasts for the following capital functions:

- Load Growth, Transmission, and Engineering,

²⁰⁴⁸ D.21-08-036 at 546 and 547.

²⁰⁴⁹ D.21-08-036 at 547.

²⁰⁵⁰ Ex. CA-28 at 17.

- Energy Storage,
- Transmission Grid, Substations,
- Wildfire Management and
- Electric Generation.²⁰⁵¹

Regarding budget-based forecasts for non-wildfire related capital additions, in SCE's 2021 GRC, the Commission stated:

We reject SCE's proposal to adopt a budget-based forecast for non-wildfire related capital additions that are not impacted by AB 1054 exclusion with the exception of the Residential and Commercial New Service Connections forecasts. As recognized by SCE, in recent GRCs, the Commission has rejected SCE's requests to use budget-based capital addition forecasts in its PTYR mechanism. The Commission has previously explained that an attrition rate adjustment "is not intended to replicate a test year analysis, or to cover all potential cost changes so as to guarantee [a] rate of return." The Commission has also explained:

As we have repeatedly observed in prior decisions, there is a fundamental problem with budget-based ratemaking that boils down to the fact that budgets are not always implemented as planned. In addition, no party other than SCE provided or analyzed detailed post-TY plant addition forecasts in determining increases. We cannot fault other parties for not recommending detailed PTYR budgets...[it] imposes a significant burden on resources.

We decline to adopt a budget-based forecast for most of SCE's non-wildfire capital additions in this GRC for the same reasons.²⁰⁵²

SCE has not adequately explained why the Commission should deviate from the PTYR mechanism adopted in SCE's 2021 GRC on budget-based forecast for non-wildfire related capital additions.²⁰⁵³ Consistent with prior precedent, the Commission should retain the PTYR mechanism adopted in SCE's 2021 GRC for non-wildfire related capital

²⁰⁵¹ Ex. CA-28 at 17 and 18.

²⁰⁵² D.21-08-036 at 548 and 549.

²⁰⁵³ Ex. CA-28 at 18.

additions for SCE's 2025 GRC, except for the areas where Cal Advocates developed post-test year capital expenditure forecasts.²⁰⁵⁴

5. Z-factor Mechanism

SCE proposes to continue the existing, currently authorized, Z-factor mechanism the Commission adopted in SCE's 2021 GRC. Contrary to the Z-factor terms adopted in that GRC, however, SCE requests authorization to expand the mechanism so that it's also applies to the Test Year.²⁰⁵⁵

Cal Advocates agrees with the continuation of the Z-factor mechanism, but opposes SCE's request that Z-factor adjustments apply to all years of the rate case cycle.²⁰⁵⁶ Cal Advocates recommends that the mechanism be effective only during the post-test years, and not for the Test Year; consistent the Commission's decision in the SCE's 2021 GRC.²⁰⁵⁷

In no litigated GRC has a Commission decision granted Test Year Z-factor adjustments to a major California energy utility.²⁰⁵⁸ The Commission has granted Z-factor adjustments exclusively for attrition years.²⁰⁵⁹

For example, D.05-03-023 authorized a Z-factor mechanism specifically for SDG&E's and SoCalGas' post-test years 2005, 2006, and 2007. Findings of Fact 52 through 55 of that decision state that the Z-factor mechanism only applied to the post-test years.²⁰⁶⁰ In SCE's 2012 GRC, the Commission approved for SCE the "...[c]ontinuation of the Z factor...in attrition years."²⁰⁶¹ In SCE's 2018 GRC, the Commission decided

²⁰⁵⁴ Ex. CA-28 at 18.

²⁰⁵⁵ Ex. CA-28 at 19.

²⁰⁵⁶ Ex. CA-28 at 19.

²⁰⁵⁷ D.21-08-036 at 467.

²⁰⁵⁸ Ex. CA-28 at 19.

²⁰⁵⁹ Ex. CA-28 at 19.

²⁰⁶⁰ D.05-03-023, *mimeo.*, at 68.

²⁰⁶¹ D.12-11-051, *mimeo.*, at 876, Conclusions of Law #524 (4th bullet).

that “SCE’s Z-factor recovery mechanism shall continue for 2019 and 2020,”²⁰⁶² the two post-test years for that three-year GRC term. In SCE’s 2021 GRC, the Commission decided that “SCE’s unopposed request to continue the Z-Factor mechanism is reasonable.”²⁰⁶³ Most recently, in PG&E’s 2023 GRC, the Commission stated “The Commission finds reasonable PG&E’s uncontested proposal to adopt the Z-Factor mechanism for the attrition years, 2024, 2025, and 2026. Because the purpose of a general rate case is to provide a fairly precise forecast of the test year, the Commission does not adopt PG&E’s proposal to apply the Z-Factor mechanism to the test year, 2023.”²⁰⁶⁴

SCE has not established why the Commission should deviate from this practice. Consistent with prior precedent, the Commission should adopt the Z-factor mechanism only for SCE’s post-test years.

6. PTYR Mechanism Implementation

SCE will submit an annual PTYR mechanism advice letter by December 1 of 2025, 2026 and 2027 for the following year to reflect the latest S&P Global Market Intelligence escalation rates available in November of that year associated with the revenue change²⁰⁶⁵ consistent with current procedure. Cal Advocates agrees with SCE’s proposal to submit an annual PTYR mechanism advice letter to specify the revenue requirement adjustment for O&M escalation and changes in capital related costs.²⁰⁶⁶

²⁰⁶² D.19-05-020, *mimeo.*, at 285.

²⁰⁶³ D.21-08-036 at 646.

²⁰⁶⁴ D.23-11-069 at 717.

²⁰⁶⁵ Ex. SCE-07, Vol. 04 at 27.

²⁰⁶⁶ Ex. CA-28 at 20.

XLII. RESIDENTIAL DISCONNECTIONS AND ARREARAGES

Cal Advocates does not address this topic.

XLIII. COMPLIANCE REQUIREMENTS

Cal Advocates does not address this topic.

XLIV. ACCESSIBILITY ISSUES

Cal Advocates does not address this topic.

XLV. RESULTS OF FINANCIAL EXAMINATION BY CAL ADVOCATES

Cal Advocates conducted a review of the financial and accounting records for Southern California Edison Company (SCE)^{[2067](#)} in response to SCE's application for authority to increase its Test Year (TY) 2025 General Rate Case (GRC) revenue requirements.^{[2068](#)} SCE's financial and accounting records were last examined by Cal Advocates during SCE's Test Year 2021 GRC, A.19-08-013.^{[2069](#)}

Cal Advocates' authority to examine SCE's financial and accounting records is set forth in the California Public Utilities Code sections 314, 314.5, and 309.5.^{[2070](#)} Typically, the requested revenue requirements in GRCs are based on test-year forecasts, which stem from recorded financial-statement data (here, for the 2022 base year).^{[2071](#)} Cal Advocates must ensure that the interests of ratepayers are reasonably protected and that SCE's financial records are reasonable and proper for ratemaking purposes under the Commission's established rules and regulations.^{[2072](#)}

Cal Advocates also reviewed SCE's compliance requirements and certain memorandum and balancing accounts^{[2073](#)} The results of that review are discussed in

^{[2067](#)} Ex. CA-29 at 1.

^{[2068](#)} Ex. CA-29 at 1.

^{[2069](#)} Ex. CA-29 at 1.

^{[2070](#)} Ex. CA-29 at 1.

^{[2071](#)} Ex. CA-29 at 1.

^{[2072](#)} Ex. CA-29 at 1.

^{[2073](#)} Ex. CA-29 at 1-2.

subsection “C. GRC ratemaking proposals, including memorandum and balancing accounts.,” under section “XXXVIII. Results of Operations.”²⁰⁷⁴

A. Overview of financial examination.

Cal Advocates recommends the following adjustments to SCE’s financial and accounting records for Administrative and General (A&G) expenses:²⁰⁷⁵

- Cal Advocates recommends removing the audit costs for performing the internal audits that SCE asserted are protected by attorney-client privilege.²⁰⁷⁶ Cal Advocates recommends the removal of \$731,000 in 2018, \$2.257 million in 2019, \$587,000 in 2020, \$219,000 in 2021, and \$601,000 in 2022, from SCE’s recorded audit costs, for GRC-forecasting purposes.²⁰⁷⁷
- Cal Advocates recommends an adjustment of \$3.088 million to 2021’s recorded A&G non-labor expenses under SCE’s Employee and Contractor Safety; this adjustment represents transactions that are one-time expenses, for GRC-forecasting purposes.²⁰⁷⁸

B. Purpose of financial examination.

Cal Advocates’ examination of Administrative & General expenses includes review and verification of data segregated from the utility’s financial records²⁰⁷⁹ Additionally, Cal Advocates reviewed other financial and non-financial documents or workpapers, which address pre-identified issues, address analyst-specific requests, evaluate adherence to recognized policies, assess compliance with established Commission rules and regulations, and notes whether historical data is recorded in accordance with Generally Accepted Accounting Principles (GAAP) and any applicable regulatory accounting standards.²⁰⁸⁰

²⁰⁷⁴ Ex. CA-29 at 1-2.

²⁰⁷⁵ Ex. CA-29 at 1-2.

²⁰⁷⁶ Ex. CA-29 at 1-3.

²⁰⁷⁷ Ex. CA-29 at 1-2.

²⁰⁷⁸ Ex. CA-29 at 1-2.

²⁰⁷⁹ Ex. CA-29 at 3.

²⁰⁸⁰ Ex. CA-29 at 3.

The results of the examination allows Cal Advocates to determine the potential adjustments affecting forecasts, and to provide parties with some level of assurance that the data presented in SCE's GRC application can be relied upon for ratemaking purposes.²⁰⁸¹ An adjustment may not affect Cal Advocates' analyst forecast depending on the method or historical cost average Cal Advocates uses in making a recommendation. For example, if an adjustment is made to 2019 recorded costs, but Cal Advocates' analysts used a 3-year average of recorded costs, from 2020 to 2022, to make a forecast, then the forecast would be unaffected notwithstanding the adjustment to 2019's recorded costs.

C. Scope of financial examination.

Cal Advocates primarily determines whether costs should be removed for GRC-forecasting purposes, and whether SCE's controls provided a reasonable level of assurance that data has been adequately compiled for ratemaking purposes.²⁰⁸² As a result, Cal Advocates' financial examination does not mirror an audit conducted in accordance with generally accepted auditing standards and accounting principles, but the examination uses similar guidance as the basis for Cal Advocates' findings.²⁰⁸³

For the A&G expenses, Cal Advocates review covered the years 2018 through 2022.²⁰⁸⁴ Cal Advocates may have adjustments for years other than those identified, but those adjustments are the result of findings pertaining to the years 2018 through 2022.²⁰⁸⁵

D. Examination Procedures' Control Assessment.

In order to determine whether the proper recording of data to SCE's various account categories occurred, Cal Advocates assessed the adequacy of financial controls

²⁰⁸¹ Ex. CA-29 at 3. Depending on how Cal Advocates' analysts relied on and used certain accounts and costs, any noted adjustments identified during the financial examination may or may not affect the forecasted requests.

²⁰⁸² Ex. CA-29 at 3-4.

²⁰⁸³ Ex. CA-29 at 3-4.

²⁰⁸⁴ Ex. CA-29 at 3-4.

²⁰⁸⁵ Ex. CA-29 at 3-4.

that governed the recording of such data into SCE's records.²⁰⁸⁶ After assessing the adequacy of financial controls, Cal Advocates extracted the GRC application's data from the company-wide corporate data.²⁰⁸⁷ Thus, ensuring proper recording to SCE's general ledger is the first step in assessing whether an adequate control environment exists to facilitate reasonable accounting.²⁰⁸⁸ To assess controls, Cal Advocates noted the following means of oversight and compliance relative to controls:²⁰⁸⁹

- Independent Auditor's Review – SCE is subject to an annual audit conducted by an independent certified public accounting firm. The firm seeks to provide an opinion on the fairness, in all material aspects, of the financial condition of the company.²⁰⁹⁰
- Audit Committee Oversight and Internal Control Audits – SCE's Audit Committee oversees the financial reporting and disclosure process, monitoring choice of policies and principles, hiring, performance and independence of external auditors, regulatory compliance, ethics, and whistleblower hotlines; and SCE's Audit Committee monitors the internal control process; as well as risk-management policies and practices with management.²⁰⁹¹
- SCE's Audit Services Department does the following: provides reasonable assurance that business risks are appropriately identified, ensures that compliance with regulatory requirements occurs, ensures that management's response to such business risks and regulatory requirements is effective, and ensures that senior management and the board of directors receive consistent information and proactive advice regarding risk mitigation.²⁰⁹²

E. Examination procedures' compilation assessment.

Cal Advocates does not take issue with the recording of financial data to the various general-ledger accounts SCE uses to compile the data it puts in the Federal

²⁰⁸⁶ Ex. CA-29 at 4-5.

²⁰⁸⁷ Ex. CA-29 at 4-5.

²⁰⁸⁸ Ex. CA-29 at 4-5.

²⁰⁸⁹ Ex. CA-29 at 4-5.

²⁰⁹⁰ Ex. CA-29 at 4-5.

²⁰⁹¹ Ex. CA-29 at 4-5.

²⁰⁹² Ex. CA-29 at 4-5.

Energy Regulatory Commission (FERC) Form 1.²⁰⁹³ However, Cal Advocates requested that SCE document the controls and processes used to extract the data (compilation) from the FERC Form 1 data into the GRC application.²⁰⁹⁴

Upon assessing SCE's processes, Cal Advocates took no issue with the process.²⁰⁹⁵ But there are differences between SCE's and Cal Advocates' forecasting perspectives; and there are differences about what constitutes acceptable removal or inclusion of costs, for ratemaking purposes.²⁰⁹⁶ Thus, any control review performed determines whether significant flaws exist in the compilation of the data, and whether an examination could even be performed.²⁰⁹⁷ Cal Advocates considered SCE's compilation efforts sufficient to perform an examination.²⁰⁹⁸

F. SCE's Administrative & General expenses.

1. Transactional testing.

SCE provided its recorded A&G expenses by organizational unit, business-planning group, business-planning element, GRC activity and exhibit/volume number.²⁰⁹⁹ Cal Advocates reviewed the recorded A&G expenses and selected certain recorded A&G expenses for a breakdown to individual transaction entries.²¹⁰⁰ From the list of individual transaction entries for the recorded A&G expenses, Cal Advocates selected certain transactions for which it would review the associated supporting documents (e.g., vendor's invoices, timesheets, and other source data) to determine the accuracy of SCE's recorded transaction entries.²¹⁰¹ Cal Advocates reviewed documents for the vendor's

²⁰⁹³ Ex. CA-29 at 5.

²⁰⁹⁴ Ex. CA-29 at 5.

²⁰⁹⁵ Ex. CA-29 at 5.

²⁰⁹⁶ Ex. CA-29 at 5.

²⁰⁹⁷ Ex. CA-29 at 5.

²⁰⁹⁸ Ex. CA-29 at 5.

²⁰⁹⁹ Ex. CA-29 at 5, FN 4.

²¹⁰⁰ Ex. CA-29 at 5.

²¹⁰¹ Ex. CA-29 at 5.

name, descriptions of work or services performed, date of work or service performed, and amount of costs.²¹⁰² Cal Advocates also reviewed the transaction to determine if it is a recurring expense or a one-time expense, and to determine if the transaction should be recorded below-the-line or above-the-line.²¹⁰³

Table 29-01 provides the recorded data from 2018 to 2022 for SCE's A&G non-labor expenses.²¹⁰⁴

Table 29-01
2018-2021 Recorded Data for SCE's A&G Non-Labor Expenses
(in Thousands of Nominal Dollars)

Description	2018	2019	2020	2021	2022
Ex. SCE-02 Grid Activities	\$(3,566)	\$(8,873)	\$(8,009)	\$(12,111)	\$(9,107)
Ex. SCE-03 Customer Interactions	\$8,425	\$8,450	\$8,630	\$7,940	\$8,000
Ex. SCE-04 Resiliency	\$36,450	\$56,657	\$57,286	\$60,169	\$68,166
Ex. SCE-05 Generation & Energy Procurement	\$107	\$64	\$31	\$70	\$93
Ex. SCE-06 Enterprise Support (excludes Legal Non-Labor expenses)	\$362,086	\$354,940	\$350,285	\$383,999	\$412,972

Source: 2018-2022 data from SCE's response to data request PubAdv-SCE-SWC-002, Q.1.

Cal Advocates performed the following activities to determine the adequacy of SCE's efforts:²¹⁰⁵

- A&G Transactional Testing – Cal Advocates selected 544 transactions—representing \$165 Million—for supporting documents review.²¹⁰⁶
- Review Board of Directors' minutes – Cal Advocates reviewed SCE's Board minutes for 2018 through 2022.²¹⁰⁷

²¹⁰² Ex. CA-29 at 5-6.

²¹⁰³ Below-the-Line is the income and expense items on a utility company's income statement that do not relate directly to its utility operations and that appear below the operating income line. Above-the-Line is the revenue and expense items on a utility company's income statement that relate directly to its utility operations and that appear above the operating income line. Ex. CA-29 at 6, FN 5.

²¹⁰⁴ Ex. CA-29 at 6.

²¹⁰⁵ Ex. CA-29 at 6.

²¹⁰⁶ Ex. CA-29 at 6.

²¹⁰⁷ Ex. CA-29 at 6.

- Review of Audit Committee’s minutes and Finance Committee minutes for 2018 through 2022.²¹⁰⁸
- Review of internal audit reports – Cal Advocates requested that SCE provide a listing of all internal audit reports conducted for the years 2018 through 2022.²¹⁰⁹ Cal Advocates reviewed a selection of non-privileged internal audit reports for the period of 2019 through 2022.²¹¹⁰ Cal Advocates noted no significant control weaknesses in its review of the non-privileged internal audit report. However, Cal Advocates was unable to review SCE’s internal audit reports that are supposedly protected by attorney-client privilege.²¹¹¹ Without access to the internal audit reports that SCE claims are protected by attorney-client privilege, Cal Advocates could not verify that any significant control weaknesses have been remedied.²¹¹²
- Review of SCE’s testimonies and workpapers.²¹¹³

2. Purported attorney-client and privileged internal audit reports.

SCE declined to grant Cal Advocates access to review the internal audit reports that it asserted are protected by attorney-client privilege.²¹¹⁴ SCE asserted the following number of internal audits as protected by attorney-client privilege: thirteen in 2018; twenty in 2019; eleven in 2020; seven in 2021; and ten in 2022.²¹¹⁵

The Commission should not allow SCE to use internal audit reports to support its GRC application when SCE has barred Cal Advocates from reviewing these reports by asserting attorney-client privilege. Without access to the internal audit reports, neither Cal Advocates nor any other party can verify that the costs to perform these audits were

²¹⁰⁸ Ex. CA-29 at 6.

²¹⁰⁹ Ex. CA-29 at 6-7.

²¹¹⁰ Ex. CA-29 at 6-7.

²¹¹¹ Ex. CA-29 at 6-7.

²¹¹² Ex. CA-29 at 6-7.

²¹¹³ Ex. CA-29 at 7.

²¹¹⁴ Ex. CA-29 at 7.

²¹¹⁵ Ex. CA-29 at 7.

justifiably assigned to ratepayers and that any significant control weaknesses have been remedied.²¹¹⁶

Therefore, for the purposes of test-year GRC forecasting, Cal Advocates recommends removing from SCE's Audit recorded historical costs the estimated recorded costs (2018 to 2022) for performing the internal audits that SCE asserted privilege over.²¹¹⁷ The Commission has warned SCE that using the assertion of attorney-client privilege to block Cal Advocates from conducting its statutorily mandated duty of reviewing the information SCE uses to support its request, would result in a disallowance of the entire cost.²¹¹⁸

In D.09-03-025 the Commission stated:

[The Public Advocates Office's predecessor] DRA reviewed internal audits conducted from 2003 through August 2007 by SCE's Audit Services Department (ASD). In the course of this review, SCE asserted attorney-client privilege and on that basis refused to allow DRA to review 36 audits. DRA does not challenge SCE's assertion of attorney-client privilege. However, DRA could not determine the reasonableness of these audits for ratemaking purposes. For this reason, DRA concludes that SCE's showing is deficient and recommends disallowance of \$1.996 million (25%) of 2006 recorded audit costs. In 2006, SCE completed 160 audits and DRA requested to review 12 reports designated as privileged. SCE later determined that only 11 privileged audit reports existed for 2006.

SCE asserts it has provided DRA with access to over 90% of the audit reports. SCE argues it has "satisfied its burden of proof by making all of its non-privileged audit reports, representing more than 90% of its audits, available for review by DRA." Since DRA does not challenge SCE's assertion of attorney-client privilege, the Commission need not address the reasonableness of the assertion. Thus, the issue is whether SCE has met its burden of proof. Since SCE chose to assert its claim of attorney-client privilege, it must meet its burden of proof in some other way. SCE argues that it met its burden of proof by giving DRA access to over 90% of the audits.

²¹¹⁶ Ex. CA-29 at 7.

²¹¹⁷ Ex. CA-29 at 7.

²¹¹⁸ D.09-03-025. Alternate Decision of President Peevey on Test Year 2009 General Rate Case for Southern California Edison Company, at 316-317.

If, out of all the audits, 90% were randomly picked and reviewed, and if the review found that the randomly picked audits were reasonable, one could reasonably infer that the remaining 10% of the audits were reasonable. However, since the audits SCE chose to withhold from review were not randomly picked, the results of the review of the non-privileged audits can not reasonably be applied to the withheld audits. Thus, SCE's provision of over 90% of the audits to DRA does not mean that the costs of the remaining privileged audits are reasonable. Therefore, SCE has not demonstrated that its privileged audits are reasonable for ratemaking purposes. For this reason, the costs of the privileged audits will be disallowed for 2006.²¹¹⁹

Consistent with this Commission precedent, Cal Advocates recommends removing from SCE's recorded Audit costs the following costs: \$731,000 for 2018; \$2.257 million for 2019; \$587,000 for 2020; \$219,000 for 2021; and \$601,000 for 2022.²¹²⁰ Table 29-02 provides the recorded costs from 2018 through 2022 for SCE's audit activities and Cal Advocates' recommended adjustments, for GRC forecasting purposes.²¹²¹

Table 29-02
Audits
Cal Advocates Recommended Adjustment for Internal Audits Asserted as Protected by
Attorney-Privilege⁷

	2018	2019	2020	2021	2022
Labor	\$4,745	\$4,238	\$4,961	\$4,699	\$4,512
Non-Labor	3,689	3,824	3,485	3,625	2,284
Total	\$8,434	\$8,063	\$8,446	\$8,324	\$6,796
Recommended Adjustment	731	2,257	587	219	601
Audit Costs after Cal Advocates' Adjustment	\$7,703	\$5,806	\$7,859	\$8,105	\$6,195

3. Employee and contractor safety costs.

Cal Advocates recommends an adjustment of \$3.088 million to 2021's recorded A&G non-labor expenses for SCE's Employee and Contractor Safety regarding

²¹¹⁹ D.09-03-025 at 316-317 (footnotes omitted).

²¹²⁰ Ex. CA-29 at 8.

²¹²¹ Ex. CA-29 at 8.

transactions that are one-time expenses, for GRC-forecasting purposes.²¹²² The following are fifteen transactions that are one-time expenses and are not recurring.²¹²³

- OSHA Covid Testing - \$27,365
- Talent Search - \$36,333
- Talent Search - \$36,333
- Employee Expenses - \$326
- Personal Protective Equipment - \$615
- Personal Protective Equipment - \$12,861
- Personal Protective Equipment - \$2,148
- Personal Protective Equipment - \$9,432
- Personal Protective Equipment - \$10,292
- Personal Protective Equipment - \$6,500
- Personal Protective Equipment - \$38,688
- Employee Expenses - \$100
- Employee Expenses - \$500
- Personal Protective Equipment - \$1,860,564
- Personal Protective Equipment - \$1,045,7658

The transactions total \$3,087,822. The Commission should direct SCE to remove this transactions from its recorded A&G expenses:²¹²⁴ Table 29-03 provides Cal Advocates' recommended adjustment for non-labor expenses under SCE's Employee and Contractor Safety Expenses.²¹²⁵

²¹²² Ex. CA-29 at 9.

²¹²³ Ex. CA-29 at 9-10.

²¹²⁴ Ex. CA-29 at 9-10.

²¹²⁵ Ex. CA-29 at 9-10.

Table 29-03
Cal Advocates Recommendation
Environmental Services, Audit, Ethics & Compliance, and Safety Programs
Employee and Contractor Safety Expenses⁹
2018 to 2022 Recorded (In Thousands of Dollars)

Row	Description	2018	2019	2020	2021	2022
a	SCE's Labor	\$4,528	\$5,555	\$4,570	\$5,114	\$3,711
b	SCE's Non-Labor	1,344	2,213	1,570	11,880	9,261
c	SCE's Total	\$5,872	\$7,767	\$6,140	\$16,994	\$12,972
d	Cal Advocates' Labor	\$4,528	\$5,555	\$4,570	\$5,114	\$3,711
e	Cal Advocates' Recommended Non-Labor Adjustment	0	0	0	3,088	0
f	Non-Labor after Cal Advocates' Recommended Adjustment Row f = b - e	1,344	2,213	1,570	8,792	9,261
g	Cal Advocates' Recommended Total Row g = d + f	\$5,872	\$7,767	\$6,140	\$13,906	\$12,972

XLVI. GRC UPDATE PHASE

Cal Advocates has no comments at this time but if necessary may provide comments in its Reply Brief.

Respectfully submitted,

SELINA SHEK
MARYBELLE ANG
JOSEPH LAM

/s/ SELINA SHEK
SELINA SHEK
Attorney for

Office of Ratepayer Advocates
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
Telephone: (415) 703-2423
E-mail: selina.shek@cpuc.ca.gov

July 15 ,2024