

We decline to adopt Cal Advocates' use of the 2022 average cost per remediation. As argued by SCE, there were relatively favorable conditions for the Routine Line Clearing program in 2022 (in terms of vendor stability, weather, and access), making 2022 an unrealistic forecast basis. Further, Cal Advocates' forecast does not account for known cost increases resulting from SCE's extension of contracts into 2023. Cal Advocates does not dispute any of these arguments.

15.1.3. Weed Abatement and Fuel Management

SCE's Weed Abatement activities consist of vegetation management on SCE transmission rights-of-way and specific easement properties in accordance with Public Resources (Pub. Res.) Code Sections 4291-4292. Methods used to abate weeds and dead/dying vegetation include mowing, pruning, weed whacking, and chemical treatment. To maintain compliance, SCE states it will typically abate the entire area and/or create fire breaks between one to four times per year, depending upon re-growth.

In 2023, SCE plans to develop a dedicated fuel management program focused on the removal of live trees and trimmed/felled vegetation located under T&D corridors and rights-of-way. Fuel management activities also include innovative pilot programs to help promote desirable vegetation and resist certain tree species, including: (1) goat grazing, as an alternative to manual trimming and mowing; (2) tree growth regulators, which are growth-slowing chemicals that can increase the duration between pruning; and (3) rights-of-way low growth, which involve the application of herbicides along SCE's transmission rights-of-way.¹²⁴⁷ In addition, SCE states it is looking to partner

¹²⁴⁷ Ex. SCE-02, Vol. 10A at 49-51.

with the U.S. Forest Service (USFS) to develop an acreage plan for fuel management across four to five forests.¹²⁴⁸

For the 2025 TY, SCE forecasts a total of \$9.789 million in O&M expenses for Weed Abatement and Fuel Management.¹²⁴⁹ SCE's Weed Abatement and Fuel Management forecasts utilize an itemized forecast methodology.¹²⁵⁰

We find reasonable and approve SCE's uncontested forecasts for Weed Abatement and Fuel Management activities.

15.1.4. Seasonal Patrols, Areas of Concern, and Emergent Work

Seasonal Patrols, Areas of Concern (AOC), and Emergent Work activities include the performance of non-routine vegetation management work to mitigate vegetation threats to SCE facilities. Seasonal Patrols are inspections of areas where topography or vegetation conditions are known to pose a threat to SCE's facilities during extreme weather events, such as peak fire season and periods of high wind conditions. AOCs are specific geographic areas identified through a combination of environmental conditions, such as an abundance of dry fuel and exposure to high winds.¹²⁵¹ Emergent Work mitigates vegetation-related issues identified by customers, inspectors, trimming crews, or other SCE vegetation

¹²⁴⁸ The acreage plan is a proposal to the USFS for heavy fuel removal/debris management in HFRA locations. (Ex. SCE-02, Vol. 10A at 49-51).

¹²⁴⁹ SCE OB at 185.

¹²⁵⁰ Ex. SCE-02, Vol. 10A at 53-55.

¹²⁵¹ SCE identifies AOC through an analysis of fire history, current and future weather and fuel conditions, vegetation type and amount, community impact, and SCE infrastructure. (Ex. SCE-02, Vol. 10A at 56; Ex. SCE-04, Vol. 5, Pt. 3A at 32-34).

management teams (*e.g.*, Quality Control) or SCE operating groups (*e.g.*, T&D electrical asset inspections).¹²⁵²

For the 2025 TY, SCE forecasts \$38.420 million in normalized O&M expenses for Seasonal Patrols, AOC, and Emergent Work. SCE's normalized TY forecast excludes inspection costs for seasonal patrols in 2026–2028, based on an expectation that inspections for seasonal patrols will be replaced by remote sensing in these later years. In the event the Commission rejects SCE's request for full network remote sensing, SCE proposes an alternative TY forecast of \$42.465 million for Seasonal Patrols, AOC, and Emergent Work.¹²⁵³ SCE's forecasts utilize an itemized forecast methodology based on average unit costs, hourly rates, as well as work and hour volumes.¹²⁵⁴ SCE's forecasts also include Priority 2 vegetation-related distribution work previously recorded as distribution preventative maintenance,¹²⁵⁵ as well as anticipated operational savings from the Arbora work management tool.

Cal Advocates recommends a TY O&M forecast of \$27.191 million for these three programs based on a three-year average using recorded costs for 2020–2022. Cal Advocates states SCE's TY forecast is a significant increase over its 2020–2022 recorded expenses, and asserts SCE did not provide verifiable documentation that would demonstrate its contractor rates will experience additional rate escalations in 2025. Further, Cal Advocates asserts its

¹²⁵² Ex. SCE-02, Vol. 10A at 56-57.

¹²⁵³ Ex. SCE-13, Vol. 10 at 51.

¹²⁵⁴ Ex. SCE-02, Vol. 10A at 59-61.

¹²⁵⁵ Priority 2 work orders relate to any observed vegetation condition that is currently stable but where it appears that vegetation may cause a failure of electric facilities, as defined further in SCE's operational procedures UVM-08, Section 4.1. (Ex. SCE-02, Vol. 10A, footnote 90 at 57).

recommendation appropriately uses a three-year average of SCE's 2020–2022 recorded expenses, which includes increased costs of approximately \$15 million annually due to revised contractor rates impacted by SB 247.¹²⁵⁶

In response, SCE states its itemized forecast more accurately reflects the conditions expected in the 2025–2028 forecast period, as it considers detailed inputs for each of the programs, including the estimated number of inspection and mitigation hours, contractor hourly rates, approximate volume, and average costs per trims and removals. SCE also asserts Cal Advocates' forecast omits the new scope of work that will be coming into vegetation management operations from distribution Priority 2 work orders, and reiterates arguments that SCE's use of a 10 percent escalation factor has been borne out by recent experience.¹²⁵⁷ Lastly, as noted above, in the event the Commission does not approve SCE's full remote sensing forecast, SCE requests an alternative 2025 TY forecast of \$42.465 million for Seasonal Patrols, AOC, and Emergent Work.¹²⁵⁸

We find SCE's itemized forecast to be generally reflective of the expenses that SCE is likely to incur. In contrast, and as argued by SCE, Cal Advocates' alternative forecast does not account for the approximately \$11 million in new Priority 2 distribution work orders expected to begin in 2025, or the recent increases in SCE's observed trim rates. SCE's TY forecast for Seasonal Patrols Inspections includes \$4.045 million in normalized savings associated with the reduced workload from SCE's full network remote sensing request.¹²⁵⁹ Since this

¹²⁵⁶ Ex. CA-02 at 45-26; Cal Advocates OB at 232-233.

¹²⁵⁷ Ex. SCE-13, Vol. 10 at 36-37 and 49-52; SCE OB at 182-183.

¹²⁵⁸ Ex. SCE-13, Vol. 10 at 51.

¹²⁵⁹ Ex. SCE-13, Vol. 10 at 52.

decision approves significant funding to perform remote sensing inspections covering half of SCE's network, we find it reasonable to assume there will be a corresponding 50 percent reduction to the forecast Seasonal Patrols inspections costs from 2026–2028. Additionally, consistent with the approved escalation rate for trim and removal work under Routine Line Clearing, we approve a 2024 market escalation rate of 7.5 percent. Including these adjustments to SCE's forecast methodology results in a total authorized TY O&M forecast of \$39.671 million for Seasonal Patrols, AOC, and Emergent Work.

15.2. Hazard Tree Program

In this GRC, SCE consolidates the Hazard Tree Management Program (HTMP) and the Dead, Dying, and Diseased Tree Removal Program into a single new program, referred to as the Hazard Tree (HT) Program. SCE states the overall purpose of the HT Program is to reduce ignition and wildfire risk by removing or trimming trees with the potential to strike electrical lines and equipment. Trees proposed for inspection and potential mitigation may be located up to a significant distance on either side of SCE's electrical facilities.¹²⁶⁰ In its testimony, SCE presents separate forecasts for the HTMP and Dead, Dying, and Diseased Tree Removal activities, each of which is described below.

HTMP activities entail more detailed inspection and evaluation of live trees in the Utility Strike Zone and outside the routine line clearing inventory in HFRA's.¹²⁶¹ The program targets trees that may be hazardous to SCE assets but

¹²⁶⁰ Ex. SCE-02, Vol. 10A at 62.

¹²⁶¹ The Utility Strike Zone is the area on either side of SCE's electrical facilities from which a tree or a portion of a tree could strike or impact electrical facilities. SCE states the Utility Strike Zone can vary significantly based on the height of trees, slope conditions, and potential for wind driven vegetation, but typically includes any tree that is taller than its distance from SCE equipment. (Ex. SCE-02, Vol. 10A at 38 and 65).

that are not at risk of growing into the regulatory clearance distance as defined in GO 95, Rule 35 and Rule 37.¹²⁶² SCE utilizes the Tree Risk Index model to define the HTMP annual scope and reinspection frequency, and the Tree Risk Calculator to conduct hazard tree assessments.¹²⁶³ Although the HTMP includes tree trims, SCE states the majority of HTMP remediation involves the removal of trees on non-SCE property.¹²⁶⁴

SCE removes dead, dying, or diseased trees that are at risk of coming into contact with its electric facilities. Unlike trees located near power lines that may be trimmed to prevent encroachment, SCE states dead or dying trees can fall into power lines from well outside of the compliance zone in GO 95. A tree is classified as dead when the canopy has declined by 75 percent or greater and/or is significantly infected with bark beetles or other invasive insects.¹²⁶⁵ SCE prioritizes inspections for dead and dying trees located in HFRAs in accordance with California's Task Force Tree Mortality Map.¹²⁶⁶

For the 2025 TY, SCE requests \$44.202 million in O&M expenses for the HTMP, and \$30.204 million in O&M expenses for the Dead, Dying, and Diseased

¹²⁶² Ex. SCE-04, Vol. 10A at 36-38 and 62.

¹²⁶³ The Tree Risk Index model factors in the probability of ignition from an SCE asset and the number of acres that would be affected by a fire to rank and prioritize locations around SCE's overhead equipment with the highest vegetation contact risk, while the Tree Risk Calculator uses the standards set forth by the International Society of Arboriculture's Tree Risk Assessment Qualification to determine a risk score for each tree assessment and recommend an associated mitigation. (Ex. SCE-02, Vol. 10A at 63-66).

¹²⁶⁴ Ex. SCE-02, Vol. 10A at 62-68.

¹²⁶⁵ Ex. SCE-02, Vol. 10A at 74-76.

¹²⁶⁶ The California Task Force Tree Mortality Map is available at: <https://egis.fire.ca.gov/HighHazardZoneViewer/> (last accessed August 14, 2024).

Tree Removal Program.¹²⁶⁷ SCE utilized an itemized forecast methodology for the HTMP forecast, including volume of work, remediation type (*e.g.*, removal or trim mitigation), recent contract rates, percentage allocations by cost type (*e.g.*, unit rate and T&E), conifer/non-conifer work, and adders for removals that require traffic control, crane use, and support activities. In addition, SCE includes property owner incentives for the cost of tree replacement. For the Dead, Dying, and Diseased Tree Removal Program, SCE also utilized an itemized forecast methodology that includes expected removal volumes and blended unit costs calculated using 2022 recorded and outlook data at the time SCE developed its application. Lastly, for both the HTMP and the Dead, Dying, and Diseased Tree Removal Program, SCE applies a 10 percent market escalation rate in 2024 to reflect anticipated rate increases.¹²⁶⁸

15.2.1. Parties' Positions

Cal Advocates recommends an alternative TY O&M forecast of \$44.666 million for SCE's HT Program activities, which includes \$24.554 million for the HTMP and \$20.112 million for Dead, Dying, and Diseased Tree Removal. Cal Advocates' forecast utilizes SCE's 2022 average cost per remediation and SCE's forecast volume of mitigations, and is based on the following arguments: (1) SCE's TY forecast results in a higher average cost per remediation than its 2020–2022 average, and its 2022 recorded costs, for both the HTMP and the Dead, Dying, and Diseased Tree Removal Program; (2) SCE should be efficient and experienced enough with its HTMP to achieve the cost per remediation that it achieved in 2022; (3) SCE's WMP targets for its HTMP, which decrease from 467

¹²⁶⁷ Ex. SCE-13, Vol. 10, Table I-3 at 4; SCE OB at 178 and 180.

¹²⁶⁸ Ex. SCE-02, Vol. 10A at 70-79.

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; (4) SCE does not compare its forecasted work volume for Dead, Dying, and Diseased Tree Removal to its WMP targets; and (5) Cal Advocates' recommendation utilizes SCE's 2022 recorded costs, which account for SB 247's impact on vegetation management costs and is more representative of SCE's recent remediation costs.¹²⁶⁹

In contrast, TURN proposes to eliminate the HTMP altogether, and recommends \$25.108 million in TY O&M expenses for the Dead, Dying, and Diseased Tree Removal Program. In support of its recommendation, TURN provides the following arguments: (1) the HTMP is a discretionary program that removes healthy trees outside the Commission's minimum required compliance distances; (2) the HTMP does not provide benefits sufficient to justify its costs, as demonstrated by the program's low RSE score of eight and cost-benefit ratio of 0.1 (using TURN's discount rates) or 0.2 (using SCE's discount rates);¹²⁷⁰ (3) of the TCCIs caused by live trees beyond the compliance zone (*i.e.*, the trees that would be mitigated by HTMP), only a limited number of TCCIs result in ignitions;¹²⁷¹ (4) SCE did not provide any alternatives to the HTMP which might enable SCE to capture trees that threaten an ignition at a more reasonable budget; (5) approval of the HTMP in SCE's prior WMP does not satisfy SCE's burden of proof for demonstrating that the program is just and reasonable in this GRC; (6) approval

¹²⁶⁹ Ex. CA-02 at 46-51; Cal Advocates OB at 229-232.

¹²⁷⁰ A cost-benefit ratio of 0.1 or 0.2 means the program would produce \$10-\$20 of benefit for every \$100 spent.

¹²⁷¹ SCE reports that three TCCIs caused by living trees, inside or outside compliance zones, resulted in ignitions in 2022. (Ex. SCE-35; Ex. SCE-36).

of the HTMP in prior settlement agreements, including the Grid Safety and Resilience Program (GSRP) settlement agreement and 2021 GRC Track 4 settlement agreement, does not provide a basis for approving the HTMP today;¹²⁷² (7) SCE's 2021 GRC was decided at a different point in the evolution of SCE's wildfire mitigation, and included an authorized HTMP budget of almost half of what SCE is requesting for the 2025 TY; (8) there is no affirmative discussion of the HTMP in D.24-03-008; and (9) SCE does not present any evidence comparing PG&E's hazard tree program to the HTMP, nor does SCE demonstrate that the reasons for the adoption of the program in PG&E's territory are present for SCE.¹²⁷³

Concerning the Dead, Dying, and Diseased Tree Removal Program, TURN asserts SCE has not provided evidence to justify that the number of dead and dying trees is increasing and, consistent with TURN's position on Routine Line Clearing, TURN adjusts SCE's assumed 2024 market escalation factor to align with the Federal Reserve Inflation Target.¹²⁷⁴

In response to Cal Advocates, SCE asserts its itemized forecasts using granular, relevant data better reflect conditions in the forecast period, and that the use of a single year average for HTMP is not appropriate since it ignores the multi-year cycle with different volumes and risk rankings inherent in the program. SCE also states 2022 was a relatively favorable year in terms of vendor stability, weather, and access, meaning the lower 2022 cost-per-remediation may be overly optimistic. Lastly, SCE asserts it has and expects to continue to face

¹²⁷² The GSRP settlement agreement was adopted in D.20-04-013, while the 2021 GRC Track 4 settlement agreement was adopted in D.23-11-096.

¹²⁷³ Ex. TURN-09E at 9-10; TURN OB at 172-175; TURN RB at 43-48.

¹²⁷⁴ Ex. TURN-09E at 10-11; TURN OB at 171.

cost pressures for HTMP work, and failure to incorporate any market escalation factor risks underfunding the program.¹²⁷⁵

In response to TURN, SCE asserts many of the same arguments presented in support of expanded line clearing, including: (1) the HTMP is necessary to ensure compliance with GO 95, Pub. Res. Code Section 4293, and the requirements of SCE's WMP; (2) both the Commission and the California Office of Energy Infrastructure Safety (OEIS) have authorized and supported the HTMP;¹²⁷⁶ (3) in the recent 2023–2025 WMP cycle, OEIS advocated for continuing a hazard tree program similar to SCE's HTMP, and criticized PG&E's efforts to terminate such a program;¹²⁷⁷ (4) RSE is one factor among many when considering whether HTMP should continue; (5) HTMP targets risks that other vegetation management programs do not (namely, the risk of live, visibly healthy trees or tree parts falling into energized lines from outside of the Routine Line Clearing inventory); (6) covered conductor cannot protect SCE's circuits in the case of a tree fall-in or a branch blow-in in heavy wind conditions, as their impact threshold does not hold up to the force created by the weight of live trees and large tree parts; (7) SCE has seen a downward trend in TCCIs since

¹²⁷⁵ Under the new contracts effective January 2024, SCE experienced increases in average standard maintenance trim rates of approximately 7.1 percent as of May 2024, and increases of approximately 65 percent for the most common removal rates. (Ex. SCE-13, Vol. 10 at 39-40 and 45-46; Ex. TURN-602; SCE OB at 179-181).

¹²⁷⁶ SCE OB at 182, citing D.20-04-013 (adopting the GSRP settlement agreement), D.21-08-036 (SCE 2021 GRC, Track 1 decision), D.23-11-096 (SCE 2021 GRC, Track 4 decision); and D.24-03-008 (SCE's 2021 wildfire mitigation and vegetation management memorandum and balancing account balances).

¹²⁷⁷ Ex. SCE 13, Vol. 10 at 41; OEIS's "Revision Notice for PG&E's 2023–2025 WMP," dated June 22, 2023, Section 3.3.2 at 19-30.

establishing the HTMP;¹²⁷⁸ and (8) the limitations in how RSEs are calculated — namely, SCE’s calculation of RSE based on the “median riskiest” circuit segment, when the specific structure to be remediated is unknown prior to inspection — have the effect of artificially reducing the RSE for HTMP.¹²⁷⁹

Concerning TURN’s alternative forecast for the Dead, Dying, and Diseased Tree Removal Program, SCE asserts TURN’s use of the two percent Federal Reserve Inflation Target is inconsistent with the different inflation factors TURN uses for other vegetation management forecasts, while the Federal Reserve’s target rate does not reflect economic reality or align with SCE’s recent contractual rate increases. Lastly, SCE asserts that TURN does not explain or support its forecast methodology, including TURN’s use of an assumed unit cost for 2023, calculated at 90 percent of SCE’s blended unit cost, or the elimination of SCE’s annual addition of 300 trees to the forecast volume, which SCE states are needed to account for “anticipated drought conditions.”¹²⁸⁰

15.2.2. Discussion

Concerning the need for the HTMP, we do not agree with SCE that this activity is necessary to ensure compliance with the requirement in Pub. Util. Code Section 8386 to develop and adhere to WMPs. The Commission has made it abundantly clear that it does not consider cost recovery when ratifying OEIS’ approval of specific activities included within a WMP, and retains the jurisdiction to determine whether certain projects or programs included in an

¹²⁷⁸ SCE reports that from 2015–2019 compared to the period 2020–2022, the average annual volume of TCCIs decreased from 182.4 to 128.3 for living tree fall-in events and from 209.4 to 68.7 for living tree blow-in events. (Ex. SCE-02, Vol. 10A, Table II-24 at 63).

¹²⁷⁹ Ex. SCE-13, Vol. 10 at 40-44.

¹²⁸⁰ Ex. SCE-13, Vol. 10 at 46-47; SCE OB at 179-180.

approved WMP are consistent with just and reasonable rates.¹²⁸¹ Further, we agree with TURN that prior authorized funding for SCE's HTMP work does not satisfy SCE's burden of proof for demonstrating that the program is just and reasonable in this GRC.

Similar to expanded line clearing, SCE argues the HTMP mitigates a particular ignition risk (*i.e.*, live trees and/or their parts that could fall in or blow into SCE's lines) which is not addressed by covered conductor; that there have been a dramatic reduction in the number of TCCIs since the advent of the HTMP program in 2019; and that the RSE score for HTMP appears artificially low as a function of the more conservative modeling approach SCE used for the level of risk reduction.¹²⁸² As discussed above, there is some merit to these arguments. Further, the HTMP is strengthened through SCE's use of the Tree Risk Index model to prioritize HTMP inspections and the Tree Risk Calculator to conduct hazard tree assessments. However, unlike expanded line clearing, SCE has not already performed the initial deep clearing work and is now simply maintaining trees that have already been cleared, nor are the live trees addressed by the HTMP at risk of growing into the Commission's compliance clearance distances. Further, as discussed above and in SCE's testimony, REFCL pilots have demonstrated the ability to reduce the energy release from ground faults by more than 99.9 percent and to reduce the probability of ignition from single phase-to-ground faults by at least 90 percent. When combined with covered conductor and spacer cable, these technologies can approximate the effectiveness

¹²⁸¹ D.21-08-036 at 251-252.

¹²⁸² SCE OB at 61-64.

of undergrounding, and address the same ignition risks that SCE is seeking to mitigate through the HTMP.¹²⁸³

SCE plans to install REFCL protections covering 20 percent of SCE's HFRA locations (approximately 2,000 miles) by the end of 2028. Additionally, SCE is expected to replace approximately 8,000 circuit miles of bare overhead electric wire in HFRAs with covered conductor or undergrounding by the end of 2028 (*i.e.*, approximately 83 percent of the overhead distribution conductor circuit miles in SCE's HFRAs).¹²⁸⁴ In areas where this suite of grid hardening mitigations will be deployed, it would be duplicative and an inefficient use of ratepayer dollars to address the same risk drivers through the HTMP. Given the significant costs and low cost-effectiveness scores associated with the HTMP, the fact that the HTMP removes live trees that are outside the Commission's required and recommended clearance distances, the fact that SCE's recorded and forecast expenses for the HTMP do not show a declining trend over time,¹²⁸⁵ and the rapid deployment of grid hardening mitigations which can mitigate the same risk drivers as the HTMP, we find it reasonable and consistent with just and reasonable rates to reduce the forecast volume of HTMP removals and mitigations by the expected percentage of HFRA circuits covered by REFCL technologies through this GRC cycle (*i.e.*, a five percent reduction in 2025, a nine

¹²⁸³ Ex. SCE-04, Vol. 5, Pt. 2A at 16 and 75-78.

¹²⁸⁴ Ex. SCE-04, Vol. 5, Pt. 2A at 18 and 53; Section 16 (Wildfire Mitigation).

¹²⁸⁵ Ex. SCE-02, Vol. 10A at 70-72.

percent reduction in 2026, a 14 percent reduction in 2027, and an 18 percent reduction in 2028).¹²⁸⁶

Concerning the unit cost for HTMP removals and trims, we generally find SCE's itemized, weighted average cost methodology to be reasonable. Cal Advocates was the only other party to recommend a different HTMP unit cost. As discussed elsewhere, Cal Advocates' forecast is based on a relatively favorable year in terms of vendor stability, weather, and access, while Cal Advocates fails to consider recent, known contract increases. Further, as noted by SCE, use of a single-year average ignores the multi-year cycle and different volumes inherent in the HTMP. Accordingly, we find Cal Advocates' alternative forecast risks leaving the HTMP underfunded. SCE reports that DBH trees of 12-24 inches and 24-36 inches form a large majority of removal work for the HTMP and Dead, Dying, and Diseased Tree Removal Program.¹²⁸⁷ Since the majority of work under these programs is associated with tree removals, and given SCE's reported 65 percent increase in the average removal rates relative to the last contract cycle, we find SCE has sufficiently justified its proposed 10 percent escalation rate in 2024 for these programs. Lastly, consistent with the adjustments made elsewhere, we reduce the normalized savings attributed to SCE's proposed TUG capital program to 31 percent of SCE's forecast savings. With these volume and cost adjustments, this decision authorizes \$39.301 million in TY O&M expenses for the HTMP.

¹²⁸⁶ Based on the expected REFCL projects completed the prior year, and SCE's stated assumption that 100 miles of HFRA are protected per REFCL installation, on average. (Ex. SCE-02, Vol. 10A at 82 and 84).

¹²⁸⁷ Ex. SCE-13, Vol. 10 at 36-37.

Concerning the Dead, Dying, and Diseased Tree Removal Program, as noted by TURN, SCE does not present any evidence to support its position that an increasing number of trees will need to be removed each year due to anticipated drought conditions, nor does SCE demonstrate how the anticipated drought conditions will impact tree mortality to justify SCE's proposed increase.¹²⁸⁸ However, like the HTMP, we find SCE has sufficiently justified its proposed 10 percent escalation rate in 2024 for these programs. Accordingly, we adopt TURN's recommended adjustment to reflect the maintenance level of removals observed in 2023. With this adjustment, we authorize \$26.831 million in TY O&M expenses for the Dead, Dying, and Diseased Tree Removal Program.

15.3. Structure Brushing

Structure brushing involves the inspection and removal of vegetation at the base of select distribution poles and sub-transmission structures to reduce the chance of ignition and/or fire spread resulting from a spark or contact with failed equipment. SCE's Structure Brushing Program utilizes dedicated structure brushing crews and includes activities that are distinct from other routine vegetation management programs.¹²⁸⁹ The Structure Brushing Program encompasses both a compliance scope and an expanded scope. The compliance scope removes vegetation to create, when attainable, a 10-foot radial and eight-foot vertical clearance for poles and structures subject to Pub. Res. Code Section 4292. The expanded scope includes select structures that are considered

¹²⁸⁸ Ex. SCE-02, Vol. 10 at 79; TURN OB at 171.

¹²⁸⁹ SCE's Structure Brushing Program maintains clearance from the ground up to eight feet, whereas other routine vegetation management programs maintain clearances above eight feet. Additionally, SCE's Structure Brushing Program utilizes different crews and maintenance cycles. (Ex. SCE-02, Vol. 10A at 80-81).

high-risk but are incremental to the compliance scope, including structures in HFRAs but that are exempt from Pub. Res. Code Section 4292, structures in AOC, or structures with non-exempt equipment and high potential wildfire consequence.¹²⁹⁰ All structures are prioritized using SCE's Integrated Wildfire Mitigation Strategy.¹²⁹¹

SCE seeks authorization of \$25.766 million in TY O&M expenses for activities under the Structure Brushing Program. SCE's forecast uses an itemized methodology based on 2022 volume and unit rate inputs with additional costs for tree crews, bulk transmission, and airlift costs. SCE also applies a 10 percent market escalation rate to the overall brushing forecast, and includes accounting adjustments related to SCE's employee compensation program. Lastly, SCE's forecast includes normalized total operational savings of \$0.488 million in the 2025 TY resulting from reduced structure brushing work as a result of SCE's TUG Program.¹²⁹²

Cal Advocates proposes a TY forecast of \$13.081 million for Structure Brushing based on the use of a three-year average of recorded expenses from 2020–2022. Cal Advocates asserts that: (1) SCE's Structure Brushing expenses fluctuated in 2019–2022; (2) SCE's 2025 TY 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; and (3) SCE has not demonstrated

¹²⁹⁰ Ex. SCE-02, Vol. 10A at 81-82; Ex. SCE-13, Vol. 10 at 53.

¹²⁹¹ SCE's Integrated Wildfire Mitigation Strategy, and approach for targeting structures in AOC, Severe Risk Areas, and high consequence segments, is described in Section 16 (Wildfire Mitigation).

¹²⁹² Ex. SCE-02, Vol. 10A at 86-88; Ex. SCE-13, Vol. 10 at 53.

its contractor rates will experience an additional 10 percent market escalation in 2025.¹²⁹³

In response, SCE states Cal Advocates' use of a three-year historical average is less precise than SCE's forecast, which incorporates detailed pole and structure volumes, the expected vendor rate by geographic zone, recent airlift costs and the most recent percentage allocation for these costs, and the utilization rate of tree crews and their most recent rates. SCE also asserts Cal Advocates' approach does not fully account for substantial, cumulative work added in 2021–2023, which is now permanently part of the Structure Brushing program. Lastly, SCE asserts Cal Advocates' approach does not reflect the cost realities of higher rates in SCE's recently executed Structure Brushing contracts, including the approximately 33 percent cost increase in the new Structure Brushing contracts effective Q2 2024, compared to the previous contracts, or the impact of future contract negotiations.¹²⁹⁴

We believe SCE's more granular, itemized forecast reasonably reflects the costs SCE is likely to incur under the Structure Brushing Program. Further, SCE reports the new Structure Brushing contracts effective Q2 2024 show an approximately 33 percent increase compared to the previous contract, when substituting new vendor rates by zone, which we believe sufficiently justifies SCE's projected market escalation rates. In contrast, Cal Advocates' forecast fails to account for the work added in 2021–2023, and does not reflect the higher rates included in SCE's recently executed contracts, which would leave the Structure Brushing Program underfunded. Therefore, we find reasonable and authorize

¹²⁹³ Ex. CA-02 at 51-52; Cal Advocates OB at 233-235.

¹²⁹⁴ Ex. SCE-13, Vol. 10 at 54-55; SCE OB at 183-185; SCE RB at 65.

the TY O&M expenses SCE requests for Structure Brushing Program activities with one adjustment. Consistent with the adjustments made for Routine Line Clearing and HTMP, we reduce the normalized savings attributed to SCE's TUG program to 31 percent of SCE's forecasted savings. With this adjustment, this decision authorizes \$26.103 million in TY O&M expenses for the Structure Brushing Program.

15.4. Quality Control

SCE performs quality control for its largest vegetation management programs, including Routine Vegetation Management, the Hazard Tree Program, and Structure Brushing.

Quality control for SCE's routine vegetation management work is performed by independent, third-party inspectors who review recently trimmed trees to verify proper clearance distance. Associated work includes identifying trees which should have been trimmed or removed but where work was not prescribed; confirming prescribed work was performed to obtain the required clearance; verifying that American National Standards Institute quality pruning standards were achieved; and confirming surrounding areas were free of debris created by the trimming, pruning, and/or removal of work. SCE uses the Tree Risk Index model to inform the scope of quality control work, and performs vegetation management quality control sampling on a circuit mile basis.¹²⁹⁵

For HTMP, SCE performs two quality control activities. First, an independent tree risk assessment is performed using SCE's Tree Risk Calculator to verify the accuracy of tree risk scores assigned by the HTMP inspector, and to

¹²⁹⁵ Ex. SCE-02, Vol. 10A at 88-89. As discussed elsewhere, the Tree Risk Index model assigns risk categories to geographic locations based on the level of risk posed by vegetation contact to overhead equipment in that location. (Ex. SCE-02, Vol. 10A at 16 and 63-65).

verify HTMP removals and mitigation were completed. For the Dead and Dying Tree Removal Program, quality control inspectors verify that all trees identified for removal have been removed, and that no adjacent hazards have been created due to a tree's removal.

SCE anticipated starting quality control work for the Structure Brushing Program in 2023. For this program, quality control activities will focus on confirming structures subject to Pub. Res. Code Section 4292 have been properly brushed.¹²⁹⁶ SCE forecasts \$12.468 million in TY O&M expenses for quality control activities.¹²⁹⁷ SCE's forecast is based on the anticipated total headcount, annual work hours, and average hourly rates for quality control inspectors and area supervisors.¹²⁹⁸

SCE's uncontested forecast for quality control activities is reasonable and is approved.

15.5. Environmental Support for Vegetation Management Programs

SCE's Environmental Services Department (ESD) provides environmental support for SCE's vegetation management programs to ensure compliance with federal and state environmental laws and regulations.¹²⁹⁹ The activities performed by ESD encompass environmental desktop review (*e.g.*, intake

¹²⁹⁶ Ex. SCE-02, Vol. 10A at 90.

¹²⁹⁷ SCE OB at 185.

¹²⁹⁸ Ex. SCE-02, Vol. 10A at 92-93.

¹²⁹⁹ Applicable federal and state environmental laws include, but are not limited to, the Federal Endangered Species Act; California Endangered Species Act; Migratory Bird Treaty Act; California Fish and Game Code; California Environmental Quality Act; National Environmental Policy Act; California Fully Protected Species Regulations; Federal Clean Water Act; Rivers and Harbor Act; National Historic Preservation Act; Archeological Resources Protection Act; Forest Service Organic Act of 1897; and the California Coastal Act. (Ex. SCE-02, Vol. 10A at 94-95).

coordination, reporting, development and maintenance of geospatial data management and analysis tools, Special Use Permit tasks,¹³⁰⁰ and agency permitting) and field reporting (*e.g.*, coordinating and scheduling environmental surveys, field monitoring, and agency reporting). ESD also provides environmental support to remediate emergency conditions related to vegetation as well as instances when vegetation management crews identify additional work while in the field.¹³⁰¹ SCE states support for environmental reviews and associated costs has grown significantly since the adoption of D.17-12-024.¹³⁰²

For the 2025 TY, SCE forecasts \$48.978 million in O&M expenses for environmental support for vegetation management. SCE's TY forecast includes \$32.9 million for routine line clearing, \$1.2 million for weed abatement, \$4.3 million for HTMP, \$4.9 million for dead and dying tree removal, and \$5.7 million for structure brushing.¹³⁰³ To develop its forecast, SCE utilized recorded 2022 costs plus adjustments to include new agency compensatory mitigation fees,¹³⁰⁴ a higher number of parcels anticipated for weed abatement, enhancements to SCE's Environmentally Sensitive Area Geographic Information

¹³⁰⁰ Special Use Permits allow SCE to perform work on USFS and National Park Service lands. (Ex. SCE-02, Vol. 10A at 95).

¹³⁰¹ Ex. SCE-02, Vol. 10A at 93-95.

¹³⁰² D.17-12-024 adopted regulations to enhance fire safety in the high-fire threat district areas, including, among other things, updated compliance requirements pertaining to safety hazard plans and reporting, the frequency of vegetation inspections, and vegetation clearance requirements. (D.17-12-024, Appendix A; Ex. SCE-02, Vol. 10A, footnote 156 at 93).

¹³⁰³ Ex. SCE-02, Vol. 10A at 102; SCE OB at 185-186.

¹³⁰⁴ Compensatory mitigation involves "mitigation actions taken to offset unavoidable adverse impacts to species, wetlands, streams, and other aquatic resources authorized by permits issued by environmental agencies." (Ex. SCE-02, Vol. 10A at 102).

System layering tool,¹³⁰⁵ and increased cultural resource surveys required under SCE's Master Special Use Permit.¹³⁰⁶

SBUA does not recommend an alternative forecast or provide specific adjustments to SCE's forecast for Environmental Support for Vegetation Management Programs activities. However, SBUA raises concerns that SCE's environmental review support costs dramatically exceeded projections in recent years.¹³⁰⁷ Considering SCE's contemplation of potential environmental support cost drivers in this proceeding,¹³⁰⁸ SBUA asks the Commission to confirm that "cost escalations that were foreseeable at the time of the GRC filing may not be recoverable as reasonable or incremental in subsequent years."¹³⁰⁹

In response, SCE testified there is not a one-to-one relationship between total environmental support costs and the volume of underlying vegetation management work. While SCE has identified and considered various cost drivers that could impact ESD's environmental review process during this GRC period, SCE states that many of these factors may be considered "foreseeable" but are not necessarily quantifiable. Further, SCE argues that SBUA misconstrues the standard for recovery of incremental vegetation management costs, since SCE is entitled to seek recovery of the difference between authorized

¹³⁰⁵ The ESA screening tool is a Geographic Information System layer used to identify locations where vegetation management activities may require site-specific environmental requirements or permitting. (Ex. SCE-02, Vol. 10A at 95-96).

¹³⁰⁶ Ex. SCE-02, Vol. 10A at 102-103.

¹³⁰⁷ Ex. SBUA-01 at 16.

¹³⁰⁸ RT, Vol. 14 at 1408-1415.

¹³⁰⁹ SBUA OB at 2 and 11-13.

and recorded vegetation management accounts through the Commission-approved VMBA tariff.¹³¹⁰

We find reasonable and approve SCE's uncontested TY O&M forecast of \$48.978 million for Environmental Support for Vegetation Management Programs. SBUA misconstrues the standard for recovery of incremental vegetation management costs. As the Commission has stated elsewhere, ratemaking is not an exact science that guarantees perfect results from all perspectives; rather, it is the art of estimating future events based on judgment that is as fully informed as possible at the time the request is made.¹³¹¹ While SCE has the burden to prove its vegetation management requests are reasonable at the time of its request, the mere occurrence of future ESD cost increases — particularly cost increases that are outside the utility's control — does not, in and of itself, support a finding of unreasonableness. Further, as discussed below, SCE is entitled to seek recovery of the difference between authorized and recorded vegetation management accounts through the Commission-approved VMBA tariff. This practice is consistent with Commission precedent where forecast costs are uncertain or beyond a utility's control.¹³¹²

15.6. EPUC

EPUC proposes an overall vegetation management TY O&M forecast of \$610.653 million, representing a \$30.861 million reduction to SCE's rebuttal forecast of \$641.514 million. EPUC's recommendation is based on taking the average vegetation management spend from 2020–2022, and then applying an

¹³¹⁰ SCE OB at 185-186; SCE RB at 65-66.

¹³¹¹ D.85-03-042, 17 CPUC 2d 246, at 254; D.21-08-036 at 96.

¹³¹² D.21-08-036 at 249 and 404.

annual escalation of three percent to that average for each of the years from 2020–2025.¹³¹³

In response, SCE provides the following arguments: (1) given the complexity of some of SCE’s vegetation management programs, SCE’s itemized forecast methodology results in a more accurate forecast than EPUC’s simplistic approach; (2) EPUC’s use of a three-year average of total spend discounts future contractual rate increases and the cost of new activities that have been added to SCE’s vegetation management work in recent years; and (3) EPUC’s proposal ignores SCE’s strategic objective to deploy remote sensing across its full network.¹³¹⁴

We agree with all the arguments presented by SCE. EPUC’s alternative forecast fails to consider any of the specific proposals and new activities that are embedded in SCE’s vegetation management request in this GRC. Further, EPUC’s assumed annual escalation of three percent does not account for more recent, executed contract increases. Therefore, we decline to adopt EPUC’s alternative forecast.

15.7. Vegetation Management Technology Solutions

Arbora is a vegetation management software tool used to integrate, manage, and streamline SCE’s vegetation-related work. SCE launched the first iteration of Arbora in 2020 and has since expanded its use to the HT Program, Routine Vegetation Management and Emergent Work, and other vegetation management activities such as Structure Brushing. Prior to Arbora, SCE relied

¹³¹³ Ex. EPUC-01, Schedule MGP-5 at 2-4; Ex. SCE-13, Vol. 10, Table I-3 at 4.

¹³¹⁴ Ex. SCE-13, Vol. 10 at 56-57.

on multiple, disparate systems to manage its vegetation program work activities, schedules, and reports.¹³¹⁵

For the 2025 TY, SCE forecasts \$3.731 million in O&M expenses for Vegetation Management Technology Solutions. SCE also forecasts \$13.477 million in capital expenditures for projects within this activity during 2023–2025.¹³¹⁶ SCE’s TY O&M forecast includes application and platform licenses associated with the Arbora project, as well as labor costs related to ongoing maintenance, break/fix support, maintaining integration with systems and applications, and field support services. SCE’s capital forecast is based on a budget-based IT cost estimation model, and includes labor and non-labor costs for the development and management of additional Vegetation Management Technology Solutions capabilities.¹³¹⁷ In addition to the O&M and capital forecasts for Arbora, SCE includes significant cost savings associated with the anticipated operational benefits from Arbora in several of its vegetation management forecasts in this GRC.¹³¹⁸

We find reasonable and approve SCE’s uncontested O&M and capital expenditure forecasts for Vegetation Management Technology Solutions.

15.8. Vegetation Management Balancing Account

In Track 1 of SCE’s 2021 GRC, the Commission authorized a two-way VMBA to track the difference between the authorized O&M expenses for

¹³¹⁵ Ex SCE-02, Vol. 10A at 105; D.22-06-032 at 67-68.

¹³¹⁶ Ex. SCE-13, Vol. 10E at 5.

¹³¹⁷ Ex. SCE-02, Vol. 10A at 107–111.

¹³¹⁸ Citing the implementation of Arbora, SCE’s vegetation management forecasts include approximately \$12.5 million in annual savings for Routine Line Clearing, and approximately \$4.2 million in annual savings for Seasonal Patrols, AOCs, and Emergent Work.

vegetation management activities and SCE's recorded expenses for these activities. Recovery of recorded costs in excess of 115 percent of the authorized amount for vegetation management activities must be made by application, while costs between 100–115 percent of the authorized amount may be made via a Tier 2 advice letter.¹³¹⁹ In Track 4 of SCE's 2021 GRC proceeding, the Commission authorized the continued use of the two-way VMBA for 2024.¹³²⁰

In this GRC, SCE proposes to continue the VMBA and requests: (1) an expanded scope for vegetation management activities to include ESD costs, consistent with the Commission's approval in Track 4 of the 2021 GRC; and (2) the elimination of the existing 115 percent reasonableness review threshold or, in the alternative, an increase of the reasonableness threshold to 125 percent.¹³²¹

Cal Advocates does not oppose continuation of the VMBA, but opposes increasing the reasonableness threshold. Cal Advocates asserts it is reasonable to retain the current 115 percent threshold 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.¹³²²

TURN opposes SCE's proposal to eliminate or increase the reasonableness threshold and recommends the Commission modify the VMBA to a one-way balancing account. TURN asserts complete elimination of the 115 percent threshold would provide no opportunity for reasonableness review, even if

¹³¹⁹ D.21-08-036 at 186.

¹³²⁰ D.23-11-096 at 11-13.

¹³²¹ Ex. SCE-02, Vol. 10A at 6–8 and 97; SCE OB at 438.

¹³²² Ex. CA-02 at 35; D.23-11-069 at 487 and Finding of Fact 233.

above-authorized spending had been caused by clear instances of imprudent or unreasonable action or inaction on the part of the utility, and argues SCE has failed to justify why the reasonableness threshold should be increased. TURN also points to the Commission's recent decision authorizing a one-way VMBA for PG&E, and asserts SCE's VMBA should be modified to a one-way account for consistency.¹³²³ Lastly, TURN does not oppose SCE's proposal to expand the scope of the VMBA to include certain ESD costs, acknowledging, "TURN understands the Track 4 settlement agreement adopted in D.23-11-096 as having adopted the approach proposed by SCE."¹³²⁴

SBUA does not contest continuation of the VMBA but opposes SCE's proposal to increase the reasonableness threshold.¹³²⁵

In response, SCE asserts the inherent variability associated with vegetation management work, which is in part due to exogenous factors, makes balancing account treatment appropriate and mitigates risks for SCE's customers and investors. Further, SCE states its proposal to increase the reasonableness review threshold is designed to save customers money: In 2021, when the 115 percent VMBA cap was originally established, interest rates were near zero percent; by 2023, SCE states Commercial Paper rates (which set the interest rate component for all CPUC-authorized MAs and BAs, including the VMBA) are likely to be at or above five percent, on average, over the duration of the year, meaning that for every \$20 million in under-collected balances customers will pay an additional

¹³²³ Ex. TURN-15-E2 at 7-11; TURN OB at 403-405.

¹³²⁴ Ex. TURN-15-E2, footnote 17 at 10.

¹³²⁵ Ex. SBUA-01 at 9.

\$1 million in interest on an annual basis.¹³²⁶ As an example, SCE references its year-end 2022 VMBA under-collection balance of approximately \$492 million, which translates into approximately \$25 million in additional interest that customers will need to pay per year until the balance is eliminated.¹³²⁷ Lastly, SCE asserts the Commission's recent modification of PG&E's VMBA is inapposite: While the Commission modified PG&E's VMBA to a one-way balancing account, SCE asserts the Commission also authorized PG&E's full 2023 TY authorized revenue forecast of over \$1 billion. In contrast, SCE states it is seeking a much smaller 2025 TY revenue requirement for its VMBA of approximately \$640 million.¹³²⁸

We authorize SCE to continue to use the existing two-way VMBA, but remove the current 115 percent reasonableness review threshold and instead require a demonstration of reasonableness via application for any above-authorized spending. In D.23-11-069, the Commission found that, while continuation of the VMBA is appropriate to account for remaining external uncertainties, a one-way balancing account is sufficient given PG&E's higher level of experience and available data in the performance of vegetation management within the context of climate change.¹³²⁹ Similar to PG&E, SCE has implemented expanded vegetation management activities as a wildfire mitigation since at least 2018. SCE has also reached a higher level of experience and sophistication regarding vegetation management as a wildfire mitigation, as

¹³²⁶ SCE's reported five percent Commercial Paper rate is based on S&P Global Market Intelligence's forecast for 2023 as of March 6, 2023. (Ex. SCE-07, Vol. 01, footnote 44 at 33).

¹³²⁷ Ex. SCE-07, Vol. 01, footnote 44 at 33.

¹³²⁸ Ex. SCE-18, Vol. 01 at 20; SCE OB at 439.

¹³²⁹ D.23-11-069 at 487-488.

evidenced by SCE's development and use of risk-based models to prioritize vegetation management inspection and quality control work.¹³³⁰ However, there are also elements of SCE's current GRC request which support continuation of the existing two-way VMBA. First, SCE requests funding to enhance its inspection programs with the use of more advanced technology, including LiDAR and satellite, and this decision approves funding for remote sensing inspections to cover half of SCE's entire network. Since this project represents a significant expansion of SCE's existing LiDAR and satellite work, and includes the development of a new digital inventory baseline, we agree some additional flexibility is warranted. Second, while no party presented evidence in this proceeding demonstrating the magnitude of vegetation management cost increases following possible unionization of the contract workforce, it is possible that such unionization could lead to future cost increases. With this in mind, we find it reasonable to continue to authorize the two-way VMBA. No party contests SCE's proposal to expand the scope of the VMBA to include vegetation management-related ESD costs, consistent with the Commission's approval in Track 4 of the 2021 GRC. We find reasonable and approve SCE's uncontested request to record these vegetation management-related ESD costs in the VMBA.

However, SCE is directed to modify the VMBA to remove the current 115 percent reasonableness threshold, such that review of any above-authorized spending will occur via application where SCE will have the burden of demonstrating reasonableness. As discussed above, SCE has reached a higher level of experience and sophistication regarding vegetation management as a wildfire mitigation and has already largely achieved expanded line clearances,

¹³³⁰ Ex. SCE-02, Vol. 10A at 6 and 14-16.

such that the 115 percent threshold is no longer necessary or a prudent use of ratepayer funds. Additionally, SCE's 2022 under-collection balance was heavily influenced by the passage of SB 247, in addition to re-negotiated labor contracts, which set a substantially higher pay rate for tree trimmers in California.¹³³¹ No party presented evidence in this proceeding demonstrating that such a significant increase is expected to occur over this GRC period.

16. Wildfire Management

16.1. Overview

Increases in the number of fire incidents and acres burned in California have made wildfire risk mitigation a key focus of recent utility GRC requests.¹³³² Citing to accelerated climate change, associated extreme weather events, and the continued expansion and migration of Californians into the wildland-urban interface, SCE continues to identify utility-caused wildfires as a top safety risk in this GRC and proposes a portfolio of activities it deems critical to combat this risk.¹³³³ Among the 1.4 million structures and 51,000 circuit miles of overhead conductor maintained by SCE, approximately 310,000 structures and 14,000 circuit miles (*i.e.*, 27 percent) of overhead conductor are located in HFRA's.¹³³⁴

¹³³¹ Ex. SCE-02, Vol. 10A at 5-6 and 10-11; D.24-03-008 at 48-49.

¹³³² See D.21-08-036 at 13-14 and 186-247; D.23-11-069 at 238-309; D.24-12-074 at 463-498.

¹³³³ Ex. SCE-04, Vol. 5, Pt. 1A at 7-10.

¹³³⁴ SCE's HFRA's are based on a combination of historical fire map boundaries, California Department of Forestry and Fire Protection's Fire Hazard Severity Zone maps, and the Commission's approved statewide High Fire Threat District (HFTD) maps. SCE considers Zone 1, Tier 2, and Tier 3 areas (collectively, the HFTD) and non-CPUC historical high fire risk areas collectively to be the HFRA. (Ex. SCE-04, Vol. 5, Pt. 1A, footnote 7 at 7; *see also* D.17-12-024, as modified by D.20-12-030).

SCE's proposed wildfire risk mitigation activities in this GRC are informed by two distinct frameworks. First, the Multi-Attribute Risk Score (MARS)¹³³⁵ framework is used to calculate overall utility risk from both wildfire and Public Safety Power Shutoffs (PSPS).¹³³⁶ Using the latest asset-specific probability of ignition, weather, fuel, and wildfire consequence information, the MARS model allows SCE to define and evaluate overall utility risk, and to compare mitigations and alternatives to each ignition driver and sub-driver on the basis of risk reduction and cost-effectiveness. SCE's risk analysis includes granular and detailed data for over 38,000 circuit segments which SCE analyzes to produce cost-effectiveness results.¹³³⁷ SCE then leverages the Integrated Wildfire Mitigation Strategy (IWMS) framework to inform the location, scale, scope, and frequency for each mitigation. IWMS is the primary basis for SCE's grid hardening forecasts and plans.¹³³⁸ SCE's IWMS framework is anchored on wildfire consequence should an ignition occur, and categorizes all of SCE's HFRA circuit segments into the following risk tranches:

- **Severe Risk Areas (SRAs)** are locations that present the most risk based on potential consequences, including:
(1) locations with egress constraints (*e.g.*, locations with limited road availability to facilitate evacuation during fires); (2) high consequence ignition risks (*i.e.*, locations where an ignition can spread to more than 10,000 acres in

¹³³⁵ The MARS framework is SCE's version of a Multi-Attribute Value Function (MAVF). The MAVF is part of the settlement agreement adopted in D.18-12-014, and is a tool for combining all potential consequences of the occurrence of a risk event to create a single unitless risk score. (Ex. SCE-04, Vol. 5, Pt. 1A at 15; D.18-12-014 at 17; D.22-12-027 at 13-14).

¹³³⁶ PSPS refers to the proactive de-energization of electric power lines when severe fire weather conditions pose a risk to infrastructure. (Ex. SCE-04, Vol. 5, Pt. 4A at 2).

¹³³⁷ TURN OB at 7; Ex. TURN-12-Atch2.

¹³³⁸ Ex. SCE-04, Vol. 05, Pt. 2 at 5.

eight hours); (3) extremely high windspeeds (*i.e.*, locations which, if fully covered with covered conductor, would still be subject to high PSPS likelihood); and/or (4) communities of elevated fire concerns (*i.e.*, locations where fast-moving fires threaten populated communities under benign weather conditions);¹³³⁹

- **High Consequence Areas** are segments where simulated fires exceed 300 acres in eight hours and do not have the same level of population risk as SRAs; and
- **Other HFRAs** encompasses remaining locations within HFRAs that do not meet any of the criteria above.¹³⁴⁰

16.2. Grid Hardening

Grid hardening activities are designed to reduce the number and likelihood of ignitions associated with SCE equipment and increase the resiliency of SCE infrastructure to wildfires. SCE's principal wildfire grid hardening program to date has been the Wildfire Covered Conductor Program (WCCP), which SCE projected to replace approximately 6,200 circuit miles of bare overhead electric wire in SCE's HFRAs with covered conductor by the end of 2024, or 65 percent of the overhead distribution conductor circuit miles in SCE's HFRAs.¹³⁴¹ During the 2025-2028 GRC period, SCE proposes to ramp down its deployment of covered conductor and increase the use of targeted

¹³³⁹ Ex. SCE-15, Vol. 5, Pt. 2 at 5.

¹³⁴⁰ Ex. SCE-04, Vol. 5, Pt. 1A at 23-30.

¹³⁴¹ Ex. SCE-04, Vol. 5, Pt. 2A at 53; SCE OB at 30. Covered conductor is aluminum or copper wire covered by three layers of insulation designed to withstand incidental contact from foreign objects, such as vegetation, other debris, and even the ground in wire-down events. (Ex. SCE-04, Vol. 5, Pt. 2A at 32-24; D.21-08-036 at 187-188).

undergrounding in SRAs, while continuing to deploy a suite of other complementary wildfire mitigation measures.¹³⁴²

As discussed above, the scope and scale of SCE's proposed wildfire grid hardening activities are directly informed by the IWMS framework. The table below depicts SCE's planned grid hardening work between 2025-2028, segmented by IWMS risk tranche:¹³⁴³

Table 16-1: SCE's Planned Wildfire Grid Hardening Scope (2025-2028)

IWMS Risk Tranche	Approximate Circuit Miles	Expected to Be Hardened by the End of 2024	Planned to Be Hardened from 2025-2028¹³⁴⁴	To Be Addressed as Applicable
Severe Risk Areas (SRAs)	3,226	2,608	590	28
High Consequence Areas	4,434	3,838	596	-
Other HFRA's	1,880	401	644	835
Total	9,540¹³⁴⁵	6,847	1,830	924

The following sections address SCE's forecasts for wildfire management grid hardening activities: (1) Targeted Undergrounding; (2) WCCP; (3) Rapid Earth Fault Current Limiters (REFCL); (4) HFRA Sectionalizing Devices; (5) Generation System Hardening Legacy Facilities; and (6) Long Span Initiative. In addition, SCE requests recovery for recorded fusing mitigation work incurred during 2018-2020 and recorded in SCE's Wildfire Mitigation Plan Memorandum

¹³⁴² Ex. SCE-04, Vol. 5, Pt. 2A at 5 and 28-30. These include vegetation management, situational awareness, inspections and other requirements contained in SCE's Wildfire Mitigation Plans.

¹³⁴³ Ex. SCE-04, Vol. 5, Pt. 1A, Table II-7 at 44.

¹³⁴⁴ Includes a combination of covered conductor and targeted undergrounding.

¹³⁴⁵ There are approximately 9,600 overhead distribution circuit miles in SCE's HFRA's. (Ex. SCE-04, Vol. 5, Pt. 1A, footnote 17 at 10).

Account (WMPMA). Overall, SCE requests \$6.179 million in 2025 TY O&M expenses and approximately \$6.083 billion in capital expenditures during 2023-2028 for wildfire grid hardening activities.

16.2.1. Targeted Undergrounding

Undergrounding refers to the conversion of an existing overhead electric system (*i.e.*, the poles, wires, and related equipment) to underground facilities (*i.e.*, trenches with conduit banks that house the wires, vaults, and/or pad mounts for transformers and other equipment). Undergrounding both primary and secondary conductor virtually eliminates the risk of ignitions and PSPS events, but is also more costly to implement on a per-mile basis relative to other grid hardening mitigations.¹³⁴⁶

For the Wildfire Targeted Undergrounding (TUG) program, SCE requests \$3.267 billion in capital expenditures during 2025-2028 to convert 580 overhead miles to 685 underground miles in SRAs, representing six percent of SCE's distribution primary overhead circuit miles in HFRA's.¹³⁴⁷ SCE states the TUG program is intended to eliminate most, if not all, of the ignition risks in SRAs; out of SCE's total 580-mile TUG proposal, approximately 570 of those miles are designated as SRAs.¹³⁴⁸ Starting in 2025, SCE estimates a 10 percent re-route factor for medium difficulty miles and a 20 percent re-route factor for high

¹³⁴⁶ Ex. SCE-04, Vol. 5, Pt. 1A at 12 and 25; SCE RB at 68.

¹³⁴⁷ Ex. SCE-15, Vol. 5, Pt. 2 at 6; SCE OB at 188. Since converting existing overhead power lines to underground facilities may require re-routing to avoid obstructions or other operational challenges, SCE applied an estimated 20 percent re-route factor to convert overhead miles to underground miles. (Ex. SCE-04, Vol. 5, Pt. 2A at 16 and 20).

¹³⁴⁸ Specifically, the TUG program will address 571 circuit miles of conductor in Severe Risk Areas, two circuit miles in High Consequence Areas, and seven circuit miles in Other HFRA's. (Ex. SCE-04, Vol. 5, Pt. 2A footnote 29 at 19).

difficulty miles, which results in 685 underground miles from 2025-2028.¹³⁴⁹ As explained elsewhere, these re-route factors account for the difference in length of the line routes when converting existing overhead lines to underground lines. SCE's capital forecast for the TUG program is based on a weighted average unit cost of \$4.02 million per underground mile multiplied by the annual TUG scope plus escalation. The weighted average unit cost takes into consideration the level of difficulty of the proposed underground projects and associated costs. SCE's forecast also factors in an adder of three percent of the annual cost to account for anticipated environmental expenditures such as public lands approvals, necessary water resource surveys, and an environmental project manager at certain TUG locations.¹³⁵⁰

In its rebuttal testimony, SCE presents a new project-specific cost-benefit analysis of the TUG program. SCE's cost-benefit analysis indicates that for 447 overhead miles of its latest TUG scope (out of 580 overhead miles), the benefit-cost ratio (BCR) of TUG exceeds one, meaning the benefits outweigh the cost of implementing TUG at that location. Further, in comparing TUG to covered conductor, REFCLs,¹³⁵¹ and a combination of other mitigations

¹³⁴⁹ As explained by SCE, due to environmental and topographical considerations, overhead lines may need to be brought out to the public right-of-way for undergrounding, increasing the length of the undergrounding needed. SCE states 2023 and 2024 scope TUG miles are relatively easy-to-construct, and don't require a re-route factor. (Ex. SCE-04, Vol. 5, Pt. 2A at 15-16 and 20; Ex. SCE-04, Vol. 5, Pt. 2 WP at 28).

¹³⁵⁰ Ex. SCE-04, Vol. 5, Pt. 2A at 22-25; SCE OB at 188.

¹³⁵¹ REFCLs are a group of technologies that can detect ground faults and rapidly reduce the fault current should a ground fault occur, thereby reducing the possibility of ignitions from faults. (Ex. SCE-04, Vol. 5, Pt. 2A at 88). SCE's GRC request for the REFCL activity is addressed below.

(REFCL/CC++),¹³⁵² SCE's cost-benefit analysis shows that TUG has a higher BCR over 50 percent of the time.¹³⁵³

16.2.1.1. Parties' Positions

A common point of contention among intervenors in this proceeding concerns SCE's use of SRAs to define the scope of its proposed TUG program. As argued by TURN, Cal Advocates, MGRA, and SBUA, SCE's IWMS framework uses qualitative criteria to categorize the consequences of different risks, and consequently fails to consider the likelihood of ignition when assessing whether to use undergrounding in its wildfire-mitigation efforts.¹³⁵⁴ Further, these parties and EPUC observe that SCE's decision tree concerning when to deploy undergrounding hinges on whether a circuit is in a SRA, giving no consideration to the cost-effectiveness or risk spend efficiency (RSE)¹³⁵⁵ of undergrounding as compared to alternative wildfire mitigations.¹³⁵⁶ TURN also asserts many of SCE's SRA criteria are already included in the Commission's Risk-based Decision-making Framework (RDF), developed in R.20-07-013, and that SCE's criteria are a poor fit for explaining when undergrounding may be

¹³⁵² REFL/CC++ refers to a portfolio of "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." SCE states the REFCL/CC++ portfolio is intended to mitigate all risk drivers to the extent reasonably possible. (Ex. SCE-04, Vol. 5, Pt. 1A at 46).

¹³⁵³ Ex. SCE-15, Vol. 5, Pt. 2 at 18-20, 30-31, and Appendix B.

¹³⁵⁴ TURN OB at 184-194; Cal Advocates OB at 8-18; MGRA OB at 9-14; SBUA OB at 18.

¹³⁵⁵ As noted in Section 6 (Risk-Informed Strategy and Business Plan), RSE is calculated by dividing the present value of the risk reduction of a mitigation by the present value of the cost to implement the mitigation. RSE expresses the cost-effectiveness of an activity that reduces risk. (Ex. TURN-04 at 2).

¹³⁵⁶ TURN OB at 186-187; Cal Advocates OB at 8-9; MGRA OB at 13-14; Ex. SBUA-01 at 18; EPUC OB at 10-14.

superior to overhead grid hardening.¹³⁵⁷ The result, according to these parties, is that: (1) SCE's decision-making methodology treats all circuit miles that meet any of the proposed criteria as effectively the same, in conflict with the risk ranking by location required by the RDF; (2) many of the circuit segments categorized as SRAs actually have very low relative and absolute risk, as measured by risk scores defined by the RDF;¹³⁵⁸ and (3) in failing to consider, analyze, and select the most cost-effective wildfire grid hardening mitigation available, SCE's current mitigation-selection process effectively sets a zero risk-tolerance policy without any thresholds for affordability.¹³⁵⁹

Intervenors provide different recommendations based on these and other arguments. SBUA asserts that: (1) SCE's TUG unit cost projections are understated, inconsistent with SCE's own internal assumptions and external benchmarks, as well as PG&E's TUG cost projections; (2) SCE's proposed undergrounding timeline is unrealistic; and (3) SCE failed to learn from PG&E's undergrounding experience. Based on these assertions, SBUA recommends SCE focus undergrounding on frequently de-energized circuits.¹³⁶⁰ MGRA asserts significant savings could be obtained by deploying covered conductor and

¹³⁵⁷ Ex. TURN-12-E at 12-13; TURN OB at 190-192. The RDF was defined in Appendix A as part of the D.18-12-014 Settlement Agreement. In testimony and briefs, TURN refers to the RDF as the "S-MAP Framework."

¹³⁵⁸ An analysis conducted by TURN indicates that "554 out of the total of 588 miles that SCE classifies as Severe Risk Areas are in the bottom 50 percent of risk calculated under the S-MAP framework; 404 miles are in the bottom 10%." TURN also highlights that SCE's approach also misses some high-risk miles that might warrant at least being considered for undergrounding. (TURN OB at 189).

¹³⁵⁹ Ex. TURN-12 at 5-11; Ex. CA-30 at 1-20; Ex. MGRA-01 at 15-22; Ex. SBUA-01 at 22-25; Ex. EPUC-01 at 24-33.

¹³⁶⁰ Ex. SBUA-01 at 17-28; Ex. SBUA-02R at 3-5; SBUA OB at 19-28.

advanced technologies in place of undergrounding, but similarly does not recommend an alternative capital forecast for the TUG program.¹³⁶¹ Citing to past grid hardening investments, EPUC recommends a reduction in the annual capital investments in distribution plant in-service by approximately \$1 billion a year starting in 2024, and up to \$4.0 billion cumulatively by 2028. EPUC indicates the proposed reduction is based on moderating or rejecting SCE's proposals for accelerated investment in the Overhead Conductor Program;¹³⁶² wildfire mitigation grid hardening investments; and the buildout of TUG in favor of covered conductor.¹³⁶³

TURN offers the most extensive alternative forecast for the TUG program based on reductions to the scope of proposed undergrounding work. Specifically, TURN recommends a 2025-2028 capital forecast of \$0.981 billion for the TUG program, or a \$2.286 billion reduction to SCE's capital request.¹³⁶⁴ TURN's recommendation is based on a maximum of 177 overhead miles of circuit undergrounding between 2025-2028 (compared to the 685 overhead miles included in SCE's 2025-2028 forecast, including re-routed miles).¹³⁶⁵ TURN also

¹³⁶¹ MGRA's projected, potential savings are based on different scenario analyses, including Severe Risk Areas mitigated by covered conductor; a scenario with covered conductor and REFCL; and a scenario where all of SCE's HFRAs are hardened. MGRA states these scenarios are designed to demonstrate the impact of changing system assumptions, and are not intended to be actual, implementable proposals. (Ex. MGRA-01 at 81-98).

¹³⁶² SCE's Overhead Conductor Program is addressed in Section 7 (Distribution Grid).

¹³⁶³ Ex. EPUC-01 at 16-17.

¹³⁶⁴ TURN OB at 205; SCE OB at 188.

¹³⁶⁵ TURN OB at 198 and 204-205.

supports covered conductor deployment for the remaining 1,651 miles of HFRA circuits considered for hardening during this GRC period.¹³⁶⁶

In support of its grid hardening proposal, and in addition to the criticisms of SCE's IWMS framework above, TURN provides the following arguments:

- (1) covered conductor reduces significant wildfire risk, is much more cost-effective than undergrounding, and can be deployed more quickly; and
- (2) SCE's proposed investment in undergrounding would be a poor use of ratepayer funds in light of the significant ratepayer-funded risk reduction that has already been accomplished through covered conductor.

In citing to the benefits of covered conductor, TURN points to SCE's own assessment of the performance of its installed covered conductor as a "prudent and cost-effective" mitigation that "can buy down risk in a relatively short amount of time" while mitigating "the risk drivers that tend to cause the largest fires." TURN also highlights the overall reported 73 percent mitigation effectiveness of covered conductor (compared to the 98 percent effectiveness SCE reports for undergrounding) which, according to SCE, can approximate the effectiveness of undergrounding when installed with complementary emerging technologies such as REFCL and spacer cable; that SCE was able to raise wind-speed de-energization thresholds where covered conductor has been installed;¹³⁶⁷ and that covered conductor can be deployed much more quickly

¹³⁶⁶ TURN OB at 198 and 204-205. SCE's 2025-2028 grid hardening forecast includes 580 miles of undergrounding and 1,250 circuit miles of covered conductor (Ex. SCE-04, Vol. 5, Pt. 2A, Table I-3 at 10 and Table I-10 at 31). TURN proposes approximately the same amount of grid hardening miles, with more covered conductor deployed in place of undergrounding.

¹³⁶⁷ SCE reports it was able to raise speed de-energization thresholds from the National Weather Service Wind Advisory levels (at 31 miles per hour (mph) sustained wind speed and 46 mph

than undergrounding. Lastly, using SCE's reported cost data, TURN conducted an analysis indicating that covered conductor is between 260-288 percent more cost-effective, on average, than targeted undergrounding when the mitigations are applied to the same circuit segments, and that covered conductor is more cost-effective than undergrounding on 99.6 percent of the circuit segment miles to be hardened in SCE's HFRA's from 2025-2028.¹³⁶⁸

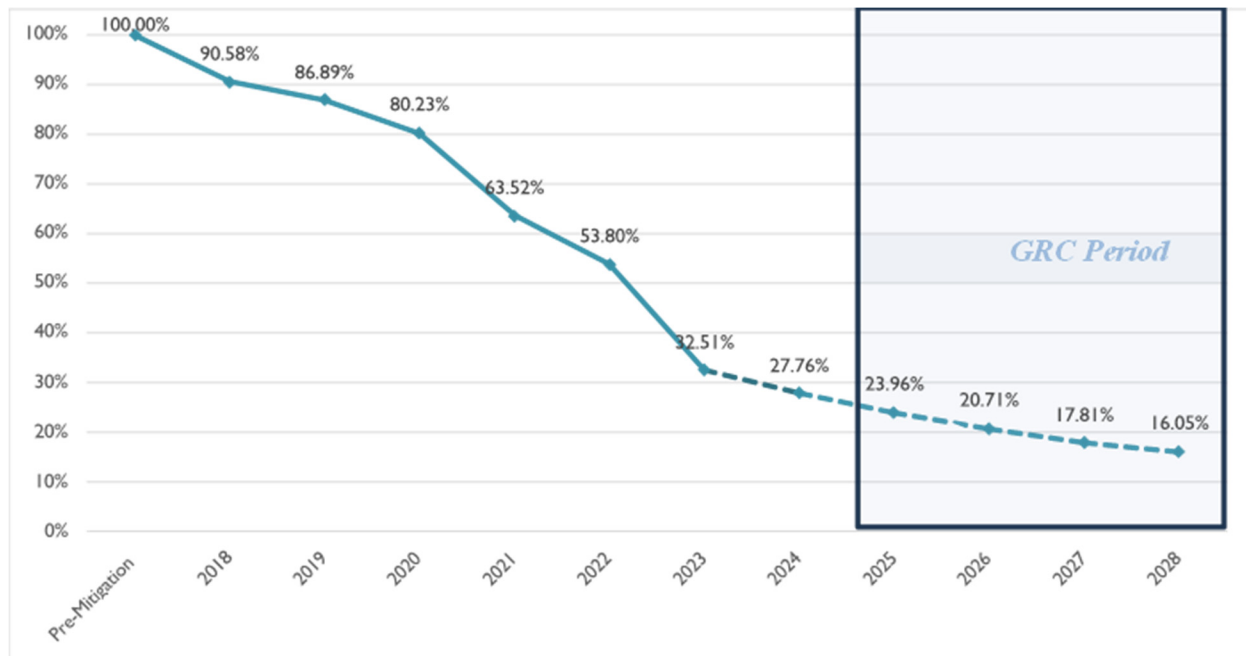
Additionally, TURN argues SCE's proposed increase in undergrounding would be a poor use of ratepayer funds given the significant risk reduction that has already been achieved through covered conductor. The figure below shows SCE's estimated risk reduction due to grid hardening (*i.e.*, covered conductor and undergrounding) and the implementation of fast curve settings.¹³⁶⁹ As shown, by the end of 2024 SCE estimates a 72 percent reduction in wildfire risk, the majority of which is due to grid hardening through covered conductor.

gust wind speed) to the National Weather Service High Wind Warning levels (at 40 mph sustained and 58 mph gusts) on portions of overhead circuitry that had covered conductor installed. (Ex. SCE-04, Vol. 5, Pt. 2A at 46).

¹³⁶⁸ Ex. TURN-12-E at 23-26; TURN OB at 178-181.

¹³⁶⁹ Ex. TURN-12-E, Figure 9 at 21; also, Ex. MGRA-01E at 57. Estimated risk reduction during 2025-2028 based on SCE's GRC request. Fast curve settings increase the speed with which a relay reacts to most fault currents. (Ex. SCE-04, Vol. 5, Pt. 2A at 86).

Figure 16-1: Wildfire Risk Remaining After Grid Hardening and Fast Curve Settings (2018-2028)



Due to the level of risk reduction that has already been achieved, TURN states there will be diminished risk reduction returns on investment going forward, and questions whether SCE's current \$4.2 billion undergrounding request to mitigate less than 12 percent of risk is appropriate given the significant risk reduction SCE has already achieved using \$3.5 billion in capital expenditures.¹³⁷⁰

Lastly, in response to SCE's cost-benefit analysis of the TUG program, TURN highlights that SCE's rebuttal analysis estimates the unit costs of REFCL to be between \$0 to \$1.3 billion (a weighted average of \$5 million per mile), which is significantly higher than the REFCL unit cost of approximately \$100,000 per overhead mile SCE uses for its REFCL forecast in this GRC. In addition to ascribing unrealistic REFCL costs, TURN faults SCE's rebuttal analysis for

¹³⁷⁰ Ex. TURN-12-E at 19-23; TURN OB at 182-183.

including REFCL costs in locations where SCE's analysis shows it would not be economic to deploy these technologies. By instituting a unit cost limit for REFCL of \$200,000 per mile in SCE's analysis (above which covered conductor was assumed to be deployed without REFCL), TURN states that covered conductor, or covered conductor with REFCL, is more cost-effective than TUG for 565 out of the 580 total SRA miles.¹³⁷¹

Based on the above arguments, TURN recommends the following:

- For the 2025-2028 period, SCE should be authorized to spend \$980.784 million in capital for the conversion of 177 overhead miles to undergrounding, and approximately \$1.303 billion in capital to insulate 1,651 circuit miles with covered conductor;
- For all 2025-2028 undergrounding projects, SCE should be required to conduct a location-specific analysis to determine whether undergrounding is the best alternative for that location, and SCE should only implement projects where the analysis shows that undergrounding is the best alternative for that location;¹³⁷²
- Ratepayers should not be required to fund more than 177 overhead miles in 2025-2028, and any cost savings should be refunded to ratepayers via a one-way balancing account; and
- SCE should be required to submit an annual accountability report, similar to the report required by D.23-11-069 in PG&E's GRC, to provide the results of its location-specific analysis for each undergrounding project.¹³⁷³

¹³⁷¹ Ex. TURN-20 at 1-8.

¹³⁷² TURN does not oppose undergrounding if SCE can demonstrate that a project not ranking in the top 50 percent of risk warrants this mitigation based on the location-specific analysis. (TURN OB at 203).

¹³⁷³ TURN OB at 200-206.

Cal Advocates recommends a \$701.1 million reduction to SCE's capital forecast for the TUG program based on adjustments to the unit cost per TUG mile. Cal Advocates does not oppose SCE's TUG forecast for 2023 and 2024, but criticizes SCE's use of a weighted average unit cost of \$4.02 million per TUG mile from 2025-2028.¹³⁷⁴ In response to a data request from Cal Advocates, SCE provided an updated table reflecting the level of construction difficulty based on percentage for the undergrounding SCE plans to perform in 2023-2028. This table is provided below. Rather than using a weighted average unit cost, Cal Advocates recommends multiplying the respective unit costs by the number of TUG miles SCE estimates to fall within each associated category of difficulty for each year from 2025-2028. Cal Advocates asserts this detailed unit cost methodology provides a more realistic basis to forecast SCE's undergrounding costs.¹³⁷⁵

Table 16-2: Percentage of Difficulty for TUG in 2023-2028¹³⁷⁶

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%

In addition, and based on the criticisms of SCE's IWMS framework noted above, Cal Advocates recommends:

¹³⁷⁴ For its TUG forecast, SCE forecasts \$1.2 million for "low," \$2.9 million for "medium," and \$4.5 million for "high" difficulty levels, where the level of difficulty relates to the terrain and topographical locations of the underground project. SCE then applies a weighted average unit cost for all proposed TUG miles from 2025-2028. (Ex. SCE-04, Vol. 5, Pt. 2A at 21-25).

¹³⁷⁵ Ex. CA-11 at 12-19.

¹³⁷⁶ Ex. CA-11, Table 11-14 at 15.

- SCE be directed to modify its IWMS framework to prioritize and locate its undergrounding projects in areas with the greatest wildfire and PSPS risks;
- SCE be directed to modify its mitigation selection process in SRAs to analyze alternatives to undergrounding; and
- The Commission establish a reporting requirement to allow it to evaluate SCE's wildfire mitigation program risk reduction effectiveness and ensure accountability.¹³⁷⁷

In response to various criticisms of the IWMS framework, SCE provides the following arguments: (1) the Commission has defined all HFTD areas (which are included in SCE's HFRAs) as inherently being at elevated or extreme risk of wildfire; (2) the IWMS framework is SCE's holistic approach to developing portfolios of effective and complementary mitigations and deploying them in a subset of HFTD areas with attributes that further elevate the risk of catastrophic wildfires;¹³⁷⁸ (3) the IWMS framework has been approved as part of SCE's Wildfire Mitigation Plans (WMPs), and has been vetted extensively;¹³⁷⁹ and (4) quantitative risk data and modeling are not absolutely predictive and cannot capture certain risk factors, making SCE's approach for proposed TUG projects both prudent and consistent with the Commission's adopted risk framework. In addition, SCE states the scoping methodology for the TUG program is the most rigorous of all the wildfire mitigations in SCE's portfolio, which begins with quantitative risk analysis and is further refined by a team of multi-disciplinary subject matter experts on a location-specific, project-by-project basis.

¹³⁷⁷ Cal Advocates OB at xxix-xxx.

¹³⁷⁸ SCE's HFRAs are based on a combination of HFTD and other historical high fire risk areas. (Ex. SCE-04, Vol. 5, Pt. 1A, footnote 7 at 7).

¹³⁷⁹ Ex. SCE-15, Vol. 5, Pt. 2, footnote 34 at 16; *see*, Commission Resolution SPD-17.

In response to TURN, SCE asserts the costs of wildfire mitigations are considered during the review and revise stage of the IWMS framework; if the average costs to underground overhead power lines are extremely high compared to the average unit cost of TUG miles, SCE considers alternative mitigations such as covered conductor. Additionally, in modifying the parameters of SCE's BCR analysis of the TUG program, SCE asserts TURN contorts the data to produce a completely different comparison. Whereas SCE's analysis compares the BCRs of TUG with covered conductor, REFCL, and other mitigations combined — so that the risk reduction benefits are comparable — TURN relies on an arbitrary \$200,000 per mile threshold and compares the BCRs of TUG with covered conductor alone. With respect to the assumed REFCL costs, due to differences in how TUG/covered conductor and REFCL technologies are deployed,¹³⁸⁰ SCE states it is necessary to convert REFCL costs per substation to costs per SRA mile to perform an “apples-to-apples” comparison.¹³⁸¹

SCE points to the limited proposed deployment of targeted undergrounding compared to covered conductor deployment, representing six percent and 80 percent of its distribution circuits in HFRAAs, respectively, as evidence that SCE considered relative risk in its proposed grid hardening activities. However, SCE also asserts it would be inappropriate to rely only on relative risk, as demonstrated by the fact that mitigating a single circuit segment that is less than a foot in length would remove more risk, according to the

¹³⁸⁰ TUG and conductor are performed at the circuit mile level, while REFCL technology is performed at the substation level. (SCE OB at 196).

¹³⁸¹ SCE OB at 195-197.

analysis required by the RDF, than undergrounding 164 miles of lines that are in the “bottom” 10 percent of risk.¹³⁸² SCE provides specific examples of circuits that have relatively low RSEs but, due to other characteristics of the area — such as topographical and vegetation conditions paired with limited roads for egress. SCE believes they would be appropriate for undergrounding.¹³⁸³

In response to Cal Advocates, SCE states its TUG cost-per-mile estimates are appropriate because they account for a weighted average unit cost for all proposed TUG miles from 2025-2028, based on the best available forecast data at the time of filing. SCE highlights that Cal Advocates’ analysis is based on a dataset produced for the first time in discovery over six months after filing, and asserts the standard practice in forecast-based ratemaking proceedings is to forecast revenue requirements based on projected scope at a specific point in time. SCE also believes Cal Advocates’ methodology is flawed because it does not take escalation into account. If escalation were included, SCE states that Cal Advocates’ initial total 2025-2028 TUG capital expenditure recommendation would yield \$3,010.4 million in nominal dollars.¹³⁸⁴

Lastly, SCE opposes TURN’s and Cal Advocates’ proposal for an accountability report akin to what was required of PG&E in D.23-11-069 since D.23-11-069 approved nearly twice as many undergrounding miles for PG&E than SCE is requesting in this GRC.¹³⁸⁵ SCE also states the IWMS framework takes PSPS risk into account.¹³⁸⁶

¹³⁸² SCE OB at 194.

¹³⁸³ SCE OB at 197-200.

¹³⁸⁴ Ex. SCE-15, Vol. 5, Pt. 2 at 25-27.

¹³⁸⁵ SCE OB at 200.

¹³⁸⁶ Ex. SCE-15, Vol. 5, Pt. 2 at 29.

16.2.1.2. Discussion

This decision approves \$940.967 million in capital expenditures over the 2025-2028 period for undergrounding 212 miles in SCE's HFRAs. In place of SCE's full TUG proposal, this decision also approves the deployment of 403 miles of covered conductor above SCE's WCCP request, and grants SCE authorization to record up to \$20 million in additional capital expenditures for the deployment of REFCL covering approximately 200 miles of circuits in HFRAs. The optimization of these different grid hardening activities, and additional approved grid hardening scope in place of undergrounding, are broadly addressed in this section; however, the specific unit costs and approved capital forecast amounts for the WCCP, REFCL, and spacer cable activities are addressed in subsequent sections of this decision. Taken together, the approved grid hardening mitigations in this decision are expected to achieve a commensurate level of risk reduction at a cost that is \$2.065 billion less than SCE's proposal. The estimated risk reduction is expected to be higher if SCE deploys additional REFCL projects with covered conductor, subject to the cost cap above.

During the 2025-2028 period, SCE proposes to change its wildfire mitigation strategy by increasing its reliance on targeted undergrounding to address risk in SRAs. Based on the evidence presented in this proceeding, we find SCE's TUG request overemphasizes qualitative considerations at the expense of the Commission's RDF and fails to consider more cost-effective alternatives to undergrounding. While a utility is not bound to select its mitigations based solely on RSE rankings,¹³⁸⁷ the limited documentation SCE

¹³⁸⁷ D.18-12-014, Attachment A, Row 26 at A-14; also, D.22-12-027, Conclusion of Law 7.

presents in support of its 685-mile undergrounding proposal is not sufficient to explain why undergrounding is the superior mitigation for the locations identified. Given the relative cost and risk reduction benefits associated with the deployment of covered conductor (by itself, and when paired with other technologies), in addition to the significant risk reduction that has already been achieved through the installation of covered conductor in SCE's HFRA's, this decision approves TURN's proposal with some adjustments to account for re-routing as well as the incorporation of additional opportunities to install REFCL.

In D.18-12-014, the Commission approved, with modifications, an uncontested settlement agreement between the IOUs and intervenors and provided the minimum required elements and specific steps the IOUs must follow to analyze risk and mitigation choices in their Risk Assessment and Mitigation Phase (RAMP) and GRC filings (otherwise known as the RDF). The RDF defines risk as the likelihood of a risk event times the consequence of a risk event, and provides a common framework for translating different safety, reliability, and financial consequences into a unitless risk score that can be used to compare different risks and their mitigations.¹³⁸⁸ The final step of the RDF is the calculation of RSE values to estimate the risk reduction per dollar spent on the mitigation.¹³⁸⁹ As discussed in Section 6 (Risk-Informed Strategy and

¹³⁸⁸ See D.18-12-014 at 43-49 and Appendix A and D.22-12-027 at 13-17.

¹³⁸⁹ In D.22-12-027, the Commission modified the risk decision-making approach adopted in D.18-12-014 to a Cost-Benefit Approach, whereby combined risk attributes are represented as dollars rather than as unitless risk scores. SCE is not required to transition to the Cost-Benefit Approach until its next RAMP submission, and SCE presented RSE calculations with its direct testimony as part of this GRC showing. (D.22-12-027 at 17-30; Ex. SCE-04, Vol. 5, Pt. 1A WP at 25-52).

Business Plan), this decision considers RSEs and associated proposed mitigations on a case-by case basis.

Consistent with the RDF, SCE's proposed wildfire risk mitigation activities in this GRC include quantitative and cost-effectiveness analyses at the circuit level. However, SCE also incorporates qualitative factors through the IWMS framework and subject matter experts to guide its wildfire mitigation strategy and define the scope of the TUG program. As highlighted by intervenors in this proceeding, by ignoring the likelihood of risk events, SCE's IWMS methodology relies on an entirely different definition of risk (*i.e.*, one that does not consider both the likelihood and consequence of a risk event), creating a disconnect between SCE's SRA criteria and the RDF. The magnitude of this difference is most clearly seen in the analysis presented by TURN, which shows that 554 miles of the 588 miles SCE classifies as SRAs are in the bottom 50 percent of calculated risk, according to the requirements of the RDF, while 404 miles are in the bottom 10 percent. Further, SCE's SRA approach excludes 26 miles contained in the top 50 percent of cumulative risk.¹³⁹⁰

SCE largely fails to demonstrate why its IWMS framework is necessary or an efficient use of party and Commission resources, especially given the extensive, ongoing refinements made to the RDF.¹³⁹¹ Further, SCE already incorporates both egress risk and PSPS risk into its wildfire risk modeling and risk scores, two of the key criteria SCE uses to define SRAs.¹³⁹² As argued by TURN, SCE can and should make every effort to include all the SRA criteria as

¹³⁹⁰ Ex. TURN-12E at 9-10; TURN OB at 189.

¹³⁹¹ See R.20-07-013, R.13-11-006, and A.15-05-002 *et. al.*

¹³⁹² Ex. SCE-04, Vol. 5, Pt. 1A at 15-18.

part of the risk analysis required by the RDF so that it may yield the utility's best estimate of risk.

SCE asserts prudent wildfire decisions must consider gaps in risk data and practical knowledge from subject matter experts, in addition to quantitative modeling. Prior decisions are clear that a utility "is not bound to select its mitigation strategy based solely on RSE ranking."¹³⁹³ However, SCE does not attempt to identify and explain any of the potential data gaps in this proceeding, while evidence of SCE's subject matter input is limited to one-page, high-level descriptions of local conditions at select SRA locations along with pictures of the corresponding proposed TUG projects. We do not find this limited evidence sufficient to warrant significant departure from the quantitative risk analysis SCE presents in this proceeding, or reflective of the "detailed and comprehensive risk assessment" SCE claims was conducted by its engineering teams and multidisciplinary subject matter experts.¹³⁹⁴

Lastly, SCE asserts the IWMS framework has been vetted and approved as part of SCE's WMPs. However, the WMP statute and Commission decisions make clear that Commission ratification of an approved WMP does not consider or authorize rate recovery.¹³⁹⁵

Concerning the use of undergrounding to address risk in SRAs, as demonstrated by TURN, the specific criteria SCE uses to define SRAs (*e.g.*, population egress constraints, significant fire consequence, high winds, and communities of elevated fire concern) could all be mitigated through a variety of

¹³⁹³ D.18-12-014, Appendix A, Row 26 at A-14; also, D.22-12-027, Conclusion of Law 7.

¹³⁹⁴ SCE OB at 203.

¹³⁹⁵ *See, e.g.*, Pub. Util. Code Section 8386.4(b) and D.19-05-036 at 22; D.21-08-036 at 251; D.23-11-069 Finding of Fact 86; Resolution WSD-002, Ordering Paragraph 2.

alternative wildfire mitigations, while SCE does not present any meaningful comparison of mitigation alternatives in SRA locations. Since undergrounding is one of the most expensive wildfire mitigations available, and since covered conductor can address many of the SRA risk criteria with an overall mitigation effectiveness that is comparable to undergrounding (especially when paired with REFCL and spacer cable),¹³⁹⁶ SCE's default undergrounding approach is not consistent with the requirement in Pub. Util. Code Section 451 to ensure just and reasonable rates.

SCE asserts it is only scoping TUG for a limited portion (six percent) of its overhead distribution primary conductor in HFRA's, compared to 80 percent for WCCP. The fact that covered conductor has been SCE's primary grid hardening mitigation activity to date does not absolve SCE of the burden of affirmatively establishing the reasonableness of all aspects of its application in this proceeding. SCE also asserts its TUG proposal is cost-effective. SCE's cost-effectiveness arguments rely on the cost-benefit analysis SCE presented for the first time in its rebuttal testimony, well after SCE scoped its proposed TUG program. Although parties had limited opportunity to review SCE's analysis, we find merit in TURN's criticisms, including that SCE's rebuttal analysis uses more granular cost estimates for covered conductor and REFCL but an across-the-board average for undergrounding, while SCE's analysis accounts for the REFCL costs but not the full benefits. The overall result of these differences is that SCE's analysis does not provide a true apples-to-apples comparison of project costs and benefits. In contrast, the RSE analyses presented by both SCE and TURN in this proceeding

¹³⁹⁶ Ex. SCE-04, Vol. 5, Pt. 2A at 16-17; TURN OB at 178.

show that covered conductor is more cost-effective, on average, than targeted undergrounding.¹³⁹⁷

In addition to the findings above, TURN's proposal is based on a number of other uncontested facts in this proceeding, including that: (1) covered conductor has been a highly effective wildfire mitigation that SCE has heretofore deployed in the areas it perceived as having the highest risk; (2) by 2024, SCE will have reduced approximately 72 percent of its calculated wildfire risk in HFRAs, mostly as a result of its covered conductor deployment; (3) covered conductor can be deployed more quickly than undergrounding; (4) in areas where covered conductor has been deployed, SCE has been able to reduce the need for PSPS events, and has dramatically reduced SCE's PSPS activations, minutes, and affected customers; (5) when paired with supplemental measures such as REFCL and spacer cable, the mitigation effectiveness of covered conductor is comparable to that of undergrounding; and (6) TURN's grid hardening recommendations would produce the same risk reduction as SCE's proposal, according to the RDF requirements, at approximately \$2 billion lower cost.¹³⁹⁸

While parties dispute the amount and estimated cost of undergrounding, no party disputes that TUG is an effective wildfire mitigation or an appropriate area of focus for SCE during this GRC cycle. We agree, and adopt TURN's more conservative proposed TUG scope plus additional miles for rerouting. HFTD areas are defined as inherently being at elevated or extreme risk of wildfire, while SCE will still have around 24 percent of residual risk remaining on its

¹³⁹⁷ Ex. SCE-04, Vol. 5, Pt. 1A WB at 51-52; Ex. TURN-12-E at 25-17.

¹³⁹⁸ TURN RB at 50-51.

HFRA circuits by the beginning of 2025. In addition to its high risk-reduction effectiveness, undergrounding provides other benefits in the form of reduced vegetation management expenses and potential savings associated with SCE's wildfire self-insurance and, while SCE did not sufficiently justify its full TUG proposal in this proceeding, undergrounding may be appropriate in high wind locations where covered conductor circuits would still be subject to high PSPS likelihood. Given the aforementioned problems with SCE's SRA criteria, and in consideration of the need to balance ratepayer affordability with the pace of wildfire risk reduction, we agree with TURN and other intervenors that the scope of SCE's TUG program should be scoped to address the highest risk miles, with remaining risk reductions achieved through more cost-effective grid hardening measures, mainly the deployment of covered conductor.

TURN's 177-mile undergrounding proposal corresponds with the number of miles in the top 50 percent of risk. As explained by SCE, converting existing overhead power lines to underground facilities may require re-routing to avoid obstructions or other operational challenges, including terrain, buildings/structures, natural barriers, civil and/or utility obstructions, *etc.*¹³⁹⁹ No party contests SCE's 20 percent re-route factor for high difficulty projects and 10 percent re-route factor for medium difficulty projects in this proceeding, and we find it likely that location-specific obstructions and other operational challenges will require some amount of re-routing to convert overhead miles to underground miles. Applying the larger 20 percent re-routing factor on top of TURN's recommendation results in a total approved 212 undergrounding miles between 2025-2028. The average annual amount of undergrounding approved in

¹³⁹⁹ Ex. SCE-04, Vol. 5, Pt. 2A at 16.

this decision is almost five times the amount of undergrounding approved in SCE's 2021 GRC decision.¹⁴⁰⁰

In addition, we authorize SCE to deploy an additional 403 miles of covered conductor in place of SCE's full TUG proposal, resulting in the total approved deployment of 1,653 circuit miles of covered conductor over the 2025-2028 period.¹⁴⁰¹ Lastly, in recognition of the significant additional risk reduction benefits that may be realized when covered conductor is paired with REFCL technology, we authorize SCE to install REFCL technologies to cover an additional 200 miles above SCE's forecast in this proceeding. The total costs for these additional REFCL technologies shall not exceed \$20 million in capital expenditures and,¹⁴⁰² as discussed below, must be recorded in the Grid Hardening Balancing Account.

Concerning the TUG unit cost, we note that SBUA's comparisons to PG&E's unit cost forecast for undergrounding do not account for location specific differences in topography, region, population density, and other factors, or speak to PG&E's actual unit costs for undergrounding. Further, SBUA does not provide an alternative TUG unit cost. Cal Advocates' unit cost estimate, as SCE highlights, fails to take escalation into account. However, we agree with aspects of Cal Advocates' estimate, particularly that incorporating an updated difficulty level of construction and breaking down undergrounding costs by year

¹⁴⁰⁰ In the 2021 GRC, SCE requested and was approved funding to underground six circuit miles in 2021, and 11 circuit miles per-year in 2022-2023. (D.21-08-036 at 214).

¹⁴⁰¹ As discussed in the preceding section, this includes SCE's uncontested request to deploy 1,250 circuit miles of covered conductor under the WCCP during 2025-2028.

¹⁴⁰² The \$20 million cap is based on SCE's average unit cost estimate of \$10 million per REFCL Ground Fault Neutralizer project, and the average of approximately 100 miles of HFRA circuits protected per station. (Ex. SCE-04, Vol. 5, Pt. 2A at 82 and 84).

provides a more accurate methodology for forecasting undergrounding costs. Therefore, we make two adjustments to SCE's proposed TUG unit cost, as discussed below.

First, we agree with Cal Advocates that SCE's weighted average approach skews the forecast unit cost per mile towards the highest bracket of construction costs, meaning the costs for low- and medium-difficulty projects are not properly reflected through SCE's forecasting technique. However, Cal Advocates' approach, which is based on the number of TUG miles SCE estimates to fall within each category of difficulty multiplied by the respective unit costs, does not account for escalation or SCE's environmental cost multiplier. Therefore, instead of Cal Advocates' proposal, we disaggregate SCE's weighted average unit cost into individual unit costs for each year of the GRC cycle. These individual unit costs are developed using SCE's methodology that considers the forecasted difficulty level of construction, level of work, and services of its original 685-mile request. Rather than dividing the total undergrounding costs by total undergrounding miles for the entire GRC period to get a weighted unit cost, however, we divide annual undergrounding costs by the annual undergrounding miles for each year to get annual unit costs. Since this decision adopts less than half of the miles requested by SCE and forecasts that these miles will be completed uniformly throughout the GRC period, we believe these individual unit costs better represent the work being authorized than SCE's weighted unit cost which assumes more medium-to-high level difficulty projects.

Second, we agree with Cal Advocates' recommendation to use SCE's most up to date information on the level of construction difficulty based on percentage for the undergrounding SCE plans to perform in 2023-2028. Given the substantial costs associated with the level of undergrounding approved in this

decision, it is reasonable and in ratepayers' best interest to use the most updated forecast information available.

After making these two adjustments to the methodology described in SCE's TUG workpaper, we adopt unit costs of \$3.260 million for 2025, \$3.459 million for 2026, \$3.979 million for 2027, and \$4.293 million for 2028, plus adjustments for escalation and the environmental adder.

This decision approves \$940.967 million in capital expenditures over the 2025-2028 period for undergrounding 212 miles in SCE's HFRAs, along with the deployment of an additional 403 miles of covered conductor above SCE's WCCP request.¹⁴⁰³ This decision also provides authorization to record additional REFCL capital expenditures. The approved grid hardening mitigations in this decision are expected to achieve a similar level of risk reduction at a cost that is \$2.065 billion less than SCE's request.¹⁴⁰⁴ In the event SCE installs additional REFCL technologies to address 200 miles of covered conductor, the grid hardening mitigations would achieve even greater risk reduction. We believe this optimized mix of grid hardening mitigations will better enable SCE to continue to aggressively address increased risk in HFRAs while balancing rate affordability concerns. This more optimized mix of mitigations is also consistent

¹⁴⁰³ The approved TUG capital expenditure amount is based on 53 miles of undergrounding per year between 2025-2028, as assuming the adjusted unit costs, escalation, and environmental adder in Ex. SCE-04, Vol. 5, Pt. 2A, Table 1-6 at 22. This results in capital expenditures amounts of \$201.633 million in 2025, \$215.829 million in 2026, \$250.013 million in 2027, and \$273.492 million in 2028. While we find it reasonable to use a 53 mile per year average in the calculation, SCE is not precluded from conducting more or less undergrounding per year up to the total 212 miles approved in this decision.

¹⁴⁰⁴ Based on the risk analysis presented in Ex. TURN-12-Attch2, Excel attachment "WP SCE-04 Vol. 05 Pt. 1 – WCCP-UG-RSE_Amended," including approximately \$350 million for the deployment of an additional 466 miles of covered conductor. See WCCP section below for further detail.

with the cost-effectiveness concerns raised by TURN, Cal Advocates, SBUA, MGRA, and EPUC in this proceeding.

Notwithstanding the approved level of undergrounding above, SCE has existing authority under Pub. Util. Code Section 8386.4 to track, via the WMPMA, incremental costs incurred to implement its approved WMP for fire risk mitigation activities that are not otherwise covered in SCE's revenue requirements. In the event SCE records additional undergrounding costs in the WMPMA, SCE will have the burden of demonstrating that the associated recorded costs are just, reasonable, and incremental. Additionally, SCE shall provide: (1) the location-specific RSE or BCR for each project, based on location-specific costs, risk drivers, and risk reduction; (2) the location-specific RSE/BCR of covered conductor at the project location, based on location-specific costs, risk drivers, and risk reduction; (3) where REFCL or spacer cable is feasible, the location-specific RSE/BCR of covered conductor with REFCL or spacer cable, based on the same location-specific factors; and (4) consideration of any other location-specific factors that SCE used to determine which mitigation is the best alternative.

Given the significant costs associated with undergrounding, as well as the limited project-specific analysis presented for SCE's TUG program, we find it prudent to require some additional tracking and reporting of work completed, cost information, and risk reduction. This report will also include information on SCE's covered conductor and REFCL work, as discussed in the Wildfire Grid Hardening Progress Reporting subsection below.

16.2.2. Wildfire Grid Hardening Progress Report

In this section we adopt reporting requirements for SCE that will allow the Commission and stakeholders to verify SCE's progress with the requirements

and limitations in this decision. Both TURN and Cal Advocates ask the Commission to require SCE to submit an annual accountability report, similar to the report required for PG&E in D.23-11-069.¹⁴⁰⁵

We find it reasonable to require SCE to provide regular updates on its wildfire grid hardening mitigation activities for several reasons. First, even with the reductions in the scope of SCE's proposed TUG program, the level of grid hardening capital expenditures approved in this decision is substantial, totaling over \$2 billion for TUG and WCCP activities between 2025-2028. This amount is in addition to the over \$3 billion approved for TUG and WCCP capital expenditures in SCE's 2021 GRC.¹⁴⁰⁶ Second, SCE has made clear that its forecast grid hardening scope is preliminary and subject to change through SCE's ongoing review and revision process.¹⁴⁰⁷ Finally, it is uncontested that utility-caused ignitions have and can lead to catastrophic wildfires resulting in significant property damage, economic losses, and fatalities.¹⁴⁰⁸ Given the important safety impact of grid hardening programs to reduce wildfire risks, and the considerable ratepayer costs involved, it is reasonable to require heightened transparency and tracking and reporting of work, costs, and risk reduction achieved.

Therefore, we direct SCE to file an annual Wildfire Grid Hardening Progress Report advice letter with the Commission's SPD every March 1st through the GRC period, with the final report due March 1, 2029. The Wildfire

¹⁴⁰⁵ TURN OB at 200-206; Cal Advocates OB at xxix-xxx.

¹⁴⁰⁶ See D.21-08-036 and D.23-11-096.

¹⁴⁰⁷ Ex. SCE-04, Vol. 5, Pt. 2A, at 2.

¹⁴⁰⁸ Ex. SCE-04, Vol. 5, Pt. 1A at 19.

Grid Hardening Progress Report advice letter filing is intended to provide status updates and learnings, with additional information required if SCE falls short on its estimated risk reduction target. While the concept of advice letter “tiers” in GO 96-B does not include rules for SPD, the advice letter shall be treated in the same manner as a Tier 2 advice letter as set forth in the GO. SCE shall serve the report on the service list for this GRC. The report shall include, at minimum, the following information on the previous year’s activity with information for each completed covered conductor and undergrounding project:¹⁴⁰⁹ (1) project name, location, circuit segment identification(s) and associated risk model tranche; (2) circuit miles hardened; (3) unit cost in dollars per mile; and (4) pre-mitigated risk and post-mitigated risk reduction achieved. For undergrounding projects, the report shall also include: (1) the projected difficulty level (*i.e.*, high, medium, or low) to convert overhead to underground; (2) the overhead miles replaced for each undergrounding project; and (3) the additional associated rerouting miles needed to convert overhead circuits to undergrounding for each project. For the total undergrounded projects completed in the reporting year, the report shall also include the annual overhead-to-underground rerouting factor.¹⁴¹⁰

The report shall also include, at minimum, the following information on the previous year’s activity with information for each REFCL project: (1) project name, location, circuit name(s) and circuit segment identification(s) and associated risk model tranche; (2) circuit miles REFCL enabled; (3) total costs per

¹⁴⁰⁹ Additional specificity regarding the reporting requirements, such as how to define a project, shall be worked out through the advice letter process.

¹⁴¹⁰ The annual overhead-to-underground rerouting factor shall be calculated by dividing the annual underground miles by the overhead miles replaced by undergrounding.

project and calculated unit cost in dollars per mile; and (4) pre-mitigated risk and post-mitigated risk reduction achieved per project.

Attached to the report SCE shall also include two specific spreadsheets for comparison in Excel and PDF format: (1) a “Baseline” sheet for all the covered conductor, undergrounding, and REFCL for which the Commission approved authorized revenue recovery in this GRC with projected annual risk reduction amounts; and (2) a “Completed” sheet for the completed projects (*i.e.*, update “Program Exposure” and “Program Cost” tabs in the completed project spreadsheet). Risk reduction will be measured by comparing the “Completed” to “Baseline” sheet.

Lastly, in each annual Wildfire Grid Hardening Progress Report, SCE shall demonstrate how much risk reduction it has achieved. SCE shall explain its annual progress and the degree to which it meets or exceeds reducing risk by at least a total of 10.5 percent of SCE’s 2018 baseline risk amount by December 31, 2028. This 10.5 percent minimum risk reduction amount corresponds to 90 percent of SCE’s proposed wildfire risk reduction goals for its proposed TUG & WCCP.¹⁴¹¹ If SCE projects that its risk reduction is not expected to meet its overall 10.5 percent risk reduction amount, SCE shall include in its annual report a plan on how SCE will specifically adjust its grid hardening approach to eliminate the discrepancy in risk reduction. SCE shall describe how it intends to get back on track towards its total expected risk reduction of at least 10.5 percent compared to its baseline 2018 wildfire distribution risks.

¹⁴¹¹ TURN provided testimony showing SCE’s proposed wildfire risk reduction amount for 2025-2028 was 11.71 percent. (*See* Figure 16-1 above). 90 percent of 11.71 percent is 10.54 percent.

Within 60 days of the date the final decision is issued, SCE shall file an initial advice letter (that conforms to Tier 2 in GO 96-B) with the SPD establishing the methodology for the 'Baseline' spreadsheet for the Wildfire Grid Hardening Reports. The baseline methodology must explain which models SCE utilizes to calculate baseline risk (*i.e.*, total wildfire risk in SCE's HFRAs) and forecasted risk reduction for each year. It shall explain how SCE's wildfire distribution risk model is used to calculate baseline risk and forecasted risk reduction for projects to be completed in 2025-2028. As applicable, the advice letter shall also explain any changes to the calculated baseline risk and accumulated risk reduction over the four-year GRC period based on the current version of SCE's risk model, and shall include with each report a forecast of the risk reduction and associated baseline risk calculation using the same version of the risk model that was used to calculate risk in SCE's GRC workpapers in this proceeding. The 'Baseline' spreadsheet shall include the forecasted risk reduction for each year for targeted undergrounding, covered conductor, and REFCL projects. The risk model tranche associated with each project shall also be included on the 'Baseline' spreadsheet.

The above reporting requirements are subject to change based on the outcomes and specific reporting requirements adopted in the Commission's Rulemaking to Further Develop a Risk-Based Decision-Making Framework for Electric and Gas Utilities (R.20-07-013). Additionally, SPD Staff are delegated authority to make adjustments to the content, format, and timing of the report to ensure consistency with the implementation of SB 884, should SCE choose to participate in the SB 884 program, and to promote accurate and transparent reporting.

16.2.3. Wildfire Covered Conductor Program

Covered conductor refers to overhead aluminum or copper wire being “covered” by three layers of insulation designed to withstand incidental contact from foreign objects, such as vegetation, other debris, and even the ground in wire-down events. In addition to reconductoring work, SCE’s WCCP includes the installation of fire-resistant/composite poles or retrofit of existing poles with fire-resistant wraps,¹⁴¹² the removal of tree attachments,¹⁴¹³ and the retrofit of covered conductor lines with vibration dampers.¹⁴¹⁴

The WCCP has been SCE’s principal wildfire grid hardening program to date. Between 2018-2023, SCE installed more than 5,113 circuit miles of covered conductor in HFRAs, and plans to deploy another 1,050 circuit miles in 2024.¹⁴¹⁵ SCE reports numerous benefits associated with its installed covered conductor, including a 73 percent overall reported mitigation effectiveness (and higher when paired with complementary emerging technologies such as REFCL); increases in wind-speed de-energization thresholds; decreases in the frequency, scale, scope, and duration of PSPS events; as well as the relative cost-effectiveness of covered conductor and the ability for it to be quickly

¹⁴¹² Covered conductor is heavier than bare conductor. Prior to the installation of covered conductor, SCE performs pole loading calculations (PLC) to determine if the pole can withstand the additional load. If the pole fails the PLC, then SCE replaces the pole. Otherwise, the pole remains and will be updated over time to a fire-resistant structure as needed. (Ex. SCE-04, Vol. 5, Pt. 2 at 32-33).

¹⁴¹³ Tree attachment remediation refers to the installation of new poles in order to eliminate instances where existing electrical equipment, including overhead conductor, are attached to trees. (Ex. SCE-04, Vol. 5, Pt. 2 at 58).

¹⁴¹⁴ Ex. SCE-04, Vol. 5, Pt. 2A at 6 and 33-34; D.21-08-036 at 187.

¹⁴¹⁵ Ex. SCE-04, Vol. 5, Pt. 2A at 53; SCE OB at 30.

deployed. To date, there have been no ignitions from risk drivers that covered conductor directly mitigates.¹⁴¹⁶

SCE forecasts \$2.470 billion in capital expenditures for WCCP over the 2023-2028 period, including an adjustment for 2023 recorded costs and an adjustment to SCE's 2024 forecast to reflect budget-based authorized capital amounts in D.23-11-096.¹⁴¹⁷ SCE's WCCP capital expenditure forecast is comprised of covered conductor deployment, tree attachment remediation, vibration damper retrofit, and fire resistant wrap retrofit, and includes deployment of approximately 1,250 miles of covered conductor from 2025-2028 based on the risk tranches identified in the IWMS framework. SCE's WCCP capital expenditure unit cost is based on recent completed work orders.¹⁴¹⁸ In addition, SCE requests \$0.901 million in TY O&M costs for WCCP Construction Standards Remediation.¹⁴¹⁹

No party recommends a reduction to SCE's WCCP miles forecast from 2023-2028, or opposes SCE's capital forecast as it relates to tree attachment remediations, vibration damper retrofits, and fire-resistant wrap retrofits. Further, no party contests SCE's TY O&M forecast for Construction Standards Remediation. However, Cal Advocates challenges SCE's unit cost for primary covered conductor miles.¹⁴²⁰ Instead of SCE's unit cost of \$663,000 per primary

¹⁴¹⁶ Ex. SCE-04, Vol. 5, Pt. 2A at 38-49.

¹⁴¹⁷ Ex. SCE-15, Vol. 5, Pt. 2 at 3-4.

¹⁴¹⁸ Ex. SCE-04, Vol. 5, Pt. 2A at 31 and 55-73; Ex. SCE-15, Vol. 5, Pt. 2 at 37-40.

¹⁴¹⁹ Ex. SCE-04, Vol. 5, Pt. 2A, footnote 85 at 58.

¹⁴²⁰ In its opening brief, SCE also takes issue with a purported recommendation by TURN to allocate covered conductor miles evenly from 2025-2028. However, as explained by TURN, the four-year allocations provided in TURN's testimony were for presentation purposes only, and

conductor mile, based on 2022 recorded costs, Cal Advocates recommends SCE use the average unit cost adopted in SCE's 2021 GRC Track 4 settlement (\$649,000) based on WCCP work orders from 2018 to Q1 2022.¹⁴²¹

In response, SCE states the WCCP program has advanced in several notable ways since 2018, making older annual cost per mile figures less representative of the costs that SCE expects to incur for future covered conductor miles. For example, SCE notes earlier annual unit costs do not account for contract rate increases that were negotiated between SCE and its contractors in 2019 and 2022, respectively. Moreover, SCE asserts the 2021 GRC Track 4 Settlement provides no basis to adopt the same unit costs in this proceeding, especially when it would not be representative of SCE's expected costs in 2025-2028.¹⁴²²

We find SCE's proposed WCCP unit cost based on recent completed 2022 work orders to be reasonable, and do not adopt Cal Advocates' recommended unit cost reduction. As noted by SCE, settlements reflect a compromise of various litigation positions, and no single element of the settlement is necessarily dispositive of issues in other proceedings. Further, Cal Advocates does not justify why the unit costs dating back to 2018 are representative of the unit costs expected to be incurred during the 2023-2028 timeframe, nor does Cal Advocates respond to SCE's point that more recent contract rate increases are not reflected in SCE's prior work orders.

do not represent (nor is TURN advocating for) annual maximums. (SCE OB at 207; TURN RB at 55).

¹⁴²¹ Ex. CA-11 at 22-27.

¹⁴²² SCE OB at 206-207.

For the reasons above, we approve SCE's proposed WCCP unit cost and its uncontested request to deploy 1,250 circuit miles of covered conductor in HFRAs over the 2025-2028 period. As discussed in the prior section, we also approve the deployment of an additional 403 circuit miles of covered conductor in place of undergrounding, for a total approved covered conductor figure of 1,653 circuit miles.

SCE's WCCP forecast in its direct testimony includes approximately \$42 million in covered conductor cost savings (2025-2028) associated with "various process improvements or implementation of time-saving measures to improve project time and costs."¹⁴²³ Applying SCE's WCCP forecast inputs results in a total approved capital expenditure amount of \$2,777 million for WCCP activities over the 2023-2028 period.¹⁴²⁴

We also find reasonable and approve SCE's uncontested TY O&M forecast for Construction Standards Remediation.

16.2.4. Rapid Earth Fault Current Limiters

As discussed above, REFCLs are a group of technologies that can detect ground faults and rapidly reduce the fault current should a ground fault occur,

¹⁴²³ \$10.146 million in 2025, \$10.359 million in 2026, \$10.536 million in 2027, and \$10.650 million in 2028 (Ex. SCE-04, Vol. 2A at 57; Ex. SCE-04, Vol. 2A, Table I-18 at 56; Ex. SCE-18, Vol. 01, Appendix B at B156). This Operational Excellence (OE) idea is associated with efficiencies that cut across various T&D areas and is represented in a separate "Accounting Adjustment GRC" activity. (Ex. SCE-18, Vol. 18 at 120).

¹⁴²⁴ The additional 403 circuit miles of covered conductor are assumed to be deployed uniformly throughout the GRC period (*i.e.*, for a revised forecast of 950.75 circuit miles in 2025, 400.75 circuit miles in 2026, 150.75 circuit miles in 2027, and 150.75 circuit miles in 2028). This results in an additional \$75.681 million in 2025, \$76.349 million in 2026, \$76.884 million in 2027, and \$77.952 million in 2028. The approved WCCP amount includes SCE's 2023 recorded cost for WCCP (*i.e.*, \$805,708) and adjustments to the 2024 WCCP forecast to include the budget-based authorized capital amounts from D.23-11-096 (totaling \$698,870 thousand for the WCCP in 2024).

thereby reducing the possibility of ignitions from faults.¹⁴²⁵ SCE utilizes two different forms of REFCL technology: Ground Fault Neutralizer, which is the preferred design for large substations and covers approximately 170 circuit miles, and Grounding Conversions, which are targeted for use on small distribution systems.¹⁴²⁶ Results from SCE's pilot work indicate REFCL technologies have the capability to increase the sensitivity to detect group faults by more than a factor of 100 and reduce the energy release from ground faults by more than 99.9 percent.¹⁴²⁷

SCE plans to install 21 Ground Fault Neutralizer projects and 31 Grounding Conversion projects between 2023-2028, for a total capital expenditure forecast of \$220.555 million.¹⁴²⁸ SCE's forecast is based on the number of projects and a bottoms-up estimate of average per-project costs. SCE also requests \$0.785 million (normalized) in 2025 TY O&M expenses associated with investigating, remediating, and/or resetting equipment settings when an installed REFCL drops voltage following a phase-to-ground fault event.¹⁴²⁹

While no party recommends reductions or specific adjustments to SCE's REFCL O&M or capital forecasts, MGRA broadly recommends SCE "accelerate its evaluation and deployment" of REFCL projects and be provided "adequate

¹⁴²⁵ A fault is an electrical disturbance in the power system accompanied by a sudden increase in current. (Ex. SCE-04, Vol. 5, Pt. 2A at 88).

¹⁴²⁶ (Ex. SCE-04, Vol. 5, Pt. 2A at 73 and 77-79). Ground Fault Neutralizer uses an arc suppression coil to cancel out most of the fault current in parallel with an additional inverter to cancel out the remaining fault current. In contrast, Grounding Conversions are done by ungrounding a transformer neutral or installing an arc suppression coil, and involve less equipment. (Ex. SCE-04, Vol. 5, Pt. 2A at 88).

¹⁴²⁷ Ex. SCE-04, Vol. 5, Pt. 2A at 76-77.

¹⁴²⁸ Ex. SCE-04, Vol. 5, Pt. 2A at 84-85.

¹⁴²⁹ Ex. SCE-04, Vol. 5, Pt. 2A at 83.

funding to expand these programs.”¹⁴³⁰ In response, SCE states it is already an industry leader in the deployment and testing of REFCLs and has forecast considerable deployment of REFCL installations through 2028, but that certain challenges with REFCL technology – including that the technology is still relatively new to SCE, certain HFRA locations are not suitable for REFCL deployment, as well as other reported difficulties from utilities using REFCL – all support SCE’s more measured deployment.¹⁴³¹

16.2.4.1. Discussion

Given the many challenges SCE identifies with this relatively new technology, and in the absence of any alternative forecast, we find reasonable and approve SCE’s TY O&M and 2023-2028 capital expenditure forecasts for the REFCL activity. MGRA does not provide an alternative forecast or proposed adjustment (in either timing or number of projects) for the REFCL activity, making it difficult to evaluate MGRA’s recommendation to accelerate the deployment of REFCL projects.

It is generally accepted among the parties that covered conductor paired with REFCL technologies can provide significant risk reduction benefits. In light of these risk reduction benefits, and considering the reductions made to SCE’s proposed TUG program, we authorize SCE to record in the Grid Hardening Balancing Account up to \$20 million in capital expenditures for the installation of additional REFCL technologies above the amounts approved in this decision. We discuss the Grid Hardening Balancing Account in greater detail below.

¹⁴³⁰ Ex. MGRA-1 at 110; MGRA OB at 5.

¹⁴³¹ Ex. SCE-15, Vol. 05, Pt. 3 at 11-12; SCE OB at 208.

16.2.5. HFRA Sectionalizing Devices

Sectionalizing devices allow SCE to isolate circuit segments thereby limiting the number of customers impacted by PSPS de-energization events and/or electric faults. Sectionalizing devices include Remote-Controlled Automatic Reclosers (RARs) and Remote-Controlled Switches (RCSs), which are similar in that they can remotely segment circuits, but a RAR device also includes the capability to automatically detect and respond to faults. The HFRA Sectionalizing Devices activity also includes performing upgrades to circuit breaker relay hardware to accommodate Fast Curve settings, which reduce fault energy by increasing the speed with which a circuit breaker is tripped when it detects a fault. Between 2019-2022, SCE installed 160 new RAR and RCS devices and 321 circuit breaker relay units, and upgraded hardware on 95 circuits to allow Fast Curve settings to be programmed.¹⁴³² Together, SCE asserts these sectionalizing devices: (1) allow SCE to further limit the number of customers impacted during PSPS events; (2) minimize the amount of circuitry, and thereby customers, de-energized; (3) enable SCE to isolate many faults faster, thereby limiting total energy delivered to these faults and reducing ignition risks; and (4) permit SCE to remotely block reclosing of RARs and circuit breakers during elevated fire conditions.¹⁴³³

SCE plans to review and implement new Fast Curve settings on 2,484 RAR and circuit breaker devices between 2023 through 2025, for a 2025 TY O&M

¹⁴³² Ex. SCE-04, Vol. 5, Pt. 2A at 86-93.

¹⁴³³ Ex. SCE-04, Vol. 5, Pt. 2A at 86-90.

forecast of \$0.431 million (normalized).¹⁴³⁴ Additionally, SCE forecasts a total of \$34.787 million in capital expenditures between 2023-2028 to install new RAR and RCS units at 282 locations and 32 new circuit breaker relays in HFRA.¹⁴³⁵

SCE's uncontested O&M and capital expenditure forecasts for HFRA Sectionalizing Devices are reasonable and are approved.

16.2.6. Generation System Hardening Legacy Facilities

In 2020, SCE began to evaluate risks and identify remediation work on certain legacy utility-owned hydroelectric generation assets located within HFRA. There are three sub-activities associated with this work: (1) low voltage site hardening, which assesses a variety of low voltage sites in HFRA for opportunities to reduce wildfire risk;¹⁴³⁶ (2) updating hydro control circuits, which includes an assessment of the distribution lines that feed hydroelectric generation facilities exclusively;¹⁴³⁷ and (3) assessing and updating grounding grids and lightning arrestors, which help ensure the safe release of voltage in the event of a lightning strike or electrical incident.¹⁴³⁸

Assessments in 2021 identified four legacy sites to be remediated, and remediation projects were completed in 2022. Assessments for the remaining 17 legacy facilities were completed in 2022. Based on the 2022 assessments, SCE

¹⁴³⁴ SCE is not forecasting any O&M expenses in 2026-2028 for RAR and circuit breaker relay setting enhancements; therefore, the 2025 TY O&M forecast has been normalized. (Ex. SCE-04, Vol. 5, Pt. 2A, Table I-41 at 96).

¹⁴³⁵ The total capital expenditures amount includes 2023 recorded costs. (Ex. SCE-04, Vol. 5, Pt. 2A at 96-97; Ex. SCE-15, Vol. 5, Pt. 2, Table I-4 at 4).

¹⁴³⁶ For example, replacing secondary lines with solar/battery installations, or re-routing or installing covered conductor.

¹⁴³⁷ Hardening projects include installing covered conductor and updating control circuits.

¹⁴³⁸ Ex. SCE-04, Vol. 5, Pt. 2A at 99.

plans to upgrade three hydro control circuits and perform 11 grounding grid upgrades at 14 facilities.¹⁴³⁹ SCE's 2023-2028 capital expense forecast for Generation System Hardening Legacy Facilities is \$3.416 million, including an adjustment for 2023 recorded costs.¹⁴⁴⁰

SCE's uncontested capital expenditure forecast is reasonable and is approved.

16.2.7. Long Span Initiative

Long span remediations involve spans of wire exceeding a certain length, spans with mixed conductor, spans that have a sharp angle, or spans that transition between vertical and horizontal configuration. SCE states these types of long spans can have a higher probability of conductor clash in adverse wind conditions.¹⁴⁴¹ There are three types of remediations that reduce clashing risks and potential ignitions from long spans: (1) installing line spacers (*i.e.*, insulated equipment that separates overhead lines);¹⁴⁴² (2) use of alternate construction configurations (*i.e.*, ridge pin, box construction, wider crossarms, and interspersed poles) to increase phase spacing or reduce sag; and (3) installing covered conductor.¹⁴⁴³

SCE has identified 9,944 long spans that may need to be remediated over the next several years. While some of these long spans may be remediated by other measures, such as WCCP or TUG projects, SCE has determined it can and

¹⁴³⁹ Ex. SCE-04, Vol. 5, Pt. 2A at 102-103.

¹⁴⁴⁰ Ex. SCE-15, Vol. 5, Pt. 2, Table I-2 at 3.

¹⁴⁴¹ Ex. SCE-04, Vol. 5, Pt. 2A at 104.

¹⁴⁴² This remediation is utilized during instances where there is bucket truck accessibility. (Ex. SCE-04, Vol. 5, Pt. 2A at 105).

¹⁴⁴³ Ex. SCE-04, Vol. 5, Pt. 2A at 105-107.

should inspect approximately 2,000 spans per year and complete 1,000 Long Span Initiative remediation projects per year based on resource availability. The Long Span Initiative remediations are all considered O&M except for covered conductor, which is capital. Based on analysis of previous Long Span Initiative remediations, covered conductor is the remediation selected for approximately 6.5 percent of projects.¹⁴⁴⁴ Overall, SCE requests \$23.359 million in capital expenditures to install covered conductor to remediate 351 spans between 2023 through 2028, including an adjustment for 2023 recorded costs.¹⁴⁴⁵ SCE also requests approximately \$4.062 million in normalized TY O&M expenses for long-span remediation activities.¹⁴⁴⁶

SCE's uncontested capital expenditure and O&M forecasts for the Long Span Initiative are reasonable and are approved. As noted elsewhere, by the end of this GRC period we expect over 90 percent of the distribution circuits in SCE's HFRAs to be hardened through a combination of covered conductor and targeted undergrounding. Given the extensive grid hardening work approved in this decision, for any subsequent Long Span Initiative funding requests SCE must identify each project location and confirm whether and/or when the project is planned to be remediated through other grid hardening measures.

16.2.8. Fusing Mitigation

Fuses are safety devices consisting of a filament that melts and breaks an electric current if the current exceeds the fuse's rating, thereby minimizing the impact of faults and potential damage to other equipment. SCE's fusing

¹⁴⁴⁴ Ex. SCE-04, Vol. 5, Pt. 2A at 105-107.

¹⁴⁴⁵ Ex. SCE-04, Vol. 5, Pt. 2A at 111; Ex. SCE-15, Vol. 5, Pt. 2, Table I-2 at 3.

¹⁴⁴⁶ These activities include the remediation of approximately 1,000 spans per year between 2024 and 2025. (Ex. SCE-04, Vol. 5, Pt. 2A at 112).

mitigation program installs and replaces existing fuses on smaller branch distribution lines within HFRAAs with new fusing better able to quickly reduce faults and perform isolation functionality. As part of the approved Grid Safety and Resiliency Program (GSRP) settlement agreement, the Commission authorized capital expenditures of \$71.47 million for the installation of new Current Limiting Fuses (CLFs) and O&M costs of \$13.07 million for upgrading existing CLFs. Recorded costs exceeding the approved budgets are subject to reasonableness review.¹⁴⁴⁷

During the 2018-2020 period, SCE installed 11,648 new CLFs and Solid Material Universal (SMU) fuses at new locations (capital) and replaced fusing at 1,807 existing Branch Limiting Fusing (BLF) locations (O&M).¹⁴⁴⁸ Following the failure of a few CLFs in December 2018, SCE learned that approximately 5,300 locations were constructed with potentially defective CLFs. SCE began replacing the defective CLFs in 2020, and the process is ongoing.¹⁴⁴⁹

In its 2021 GRC Track 3 request (A.19-08-013), SCE sought reasonableness review of \$24.62 million (nominal \$) incremental to capital amounts authorized in the GSRP settlement for the fusing mitigation program during 2018-2020. In D.22-06-032, the 2021 GRC Track 3 decision (Track 3 Decision), the Commission found that “SCE has failed to demonstrate it was prudent in selecting and installing the 5,300 potentially defective CLFs. SCE does not provide adequate

¹⁴⁴⁷ D.20-04-013, Appendix 1 at 8; D.22-06-032 at 28; Ex. SCE-04, Vol. 5, Pt. 2A at 113-114.

¹⁴⁴⁸ D.22-06-032 at 28.

¹⁴⁴⁹ Ex. SCE-04, Vol. 5, Pt. 2A at 114-115.

information regarding how it selected or installed the potentially defective fuses that would enable us to make a finding that SCE acted prudently.”¹⁴⁵⁰

SCE asserts the Track 3 Decision did not, in any way, disallow SCE’s fusing mitigation program cost recovery request. Rather, the Commission merely held it was unable to find SCE acted prudently based on the proceeding record. Further, because fusing mitigation program costs are tracked in a memorandum account, SCE states there is no retroactive ratemaking issue with authorizing recovery as part of this proceeding. Accordingly, SCE requests recovery of the incremental \$24.62 million in capital expenditures as part of this GRC filing.¹⁴⁵¹ In further support of its request, SCE provides a timeline detailing when SCE first encountered the CLF failures and the steps SCE took to address the design defects. SCE also provides a breakdown of costs related to the defective fuse installation relative to other fusing mitigation program components, and indicates it is pursuing reimbursement from the vendor.¹⁴⁵²

TURN recommends the Commission deny, at a minimum, \$18.4 million from SCE’s request corresponding to the fusing mitigation revenue requirement through the 2021 GRC period (*i.e.*, through December 31, 2024). In support of its recommendation, TURN asserts the Track 3 Decision gives no indication that SCE would be allowed a second opportunity to establish the reasonableness of the costs for which rate recovery was denied and, by retaining denied costs in its

¹⁴⁵⁰ D.22-06-032 at 30-31.

¹⁴⁵¹ In the event the Commission concludes that SCE was imprudent in selecting/installing the CLFs, then SCE requests at least \$22.60 million (constant 2020 \$) should be authorized for recovery, which omits the costs of the potentially defective CLFs. (Ex. SCE-04, Vol. 5, Pt. 2A at 116).

¹⁴⁵² Ex. SCE-04, Vol. 5, Pt. 2A at 117-121.

regulatory accounts, SCE's request relies upon a misuse of the memorandum account process.

In response, SCE asserts: (1) at a minimum, SCE has the right to seek to recover the net book value in the 2025 GRC; (2) given the existence of the WMPMA, where the fusing mitigation program costs are recorded, SCE should not be precluded from recovering the fusing mitigation capital expenditures tracked in the memorandum account up to and through 2024; (3) the Track 3 Decision did not use the term "disallowed" with respect to SCE's fusing mitigation costs, although the term is used in other areas of the decision; (4) the fusing costs at issue are clearly encompassed within Commission-approved tariff language establishing the WMPMA; and (5) there are other examples where preliminary denials of cost recovery did not preclude SCE from continuing to track the costs in memorandum accounts for future recovery.¹⁴⁵³

TURN does not dispute the reasonableness of the fusing costs incurred or the justification SCE provides to support the incremental fusing mitigation costs; rather, the substance of TURN's objection is procedural; mainly, SCE's purported misuse of the memorandum account process to request a second opportunity to establish the reasonableness of the costs for which rate recovery was denied. SCE is correct that the Track 3 Decision does not use the term "disallowed" nor explicitly prohibit SCE from requesting future reasonableness review, while the fusing costs at issue are encompassed within Commission-approved tariff language establishing the WMPMA. As a practical matter, it is not an effective use of party, Commission, and ultimately ratepayer resources to allow a utility to continuously seek rate recovery for recorded costs that have been denied,

¹⁴⁵³ SCE RB at 85-87.

especially when the applicant bears the burden of affirmatively establishing the reasonableness of its application in the first instance.¹⁴⁵⁴ While this proceeding is not scoped to consider potential penalties associated with the additional time and resources incurred to evaluate SCE's second rate recovery request, this issue may be appropriate for consideration in other proceedings where an applicant repeatedly seeks rate recovery for costs that have been previously denied. With that said, SCE is correct that the Track 3 Decision does not refer to a "permanent" disallowance, or explicitly prohibit SCE from attempting to establish the prudence of these recorded fusing mitigation costs in a future GRC proceeding. Further, examples exist where prior denial of cost recovery did not preclude a utility from continuing to track costs in one or more memorandum accounts for future cost recovery.¹⁴⁵⁵ For these reasons, SCE's request is not denied on procedural grounds.

However, based on our review of information provided in SCE's testimony, we find that SCE did not act in a prudent manner after discovering the CLF design defects. SCE first encountered the CLF failures in December of 2018, but continued to install CLFs at around 4,800 locations in the subsequent months before initiating a material quarantine of the fuse products in August of 2019.¹⁴⁵⁶ While SCE states the manufacturer could not identify the cause(s) for the failures at the time SCE initiated a failure analysis, we question SCE's

¹⁴⁵⁴ D.09-03-025 at 8; D.06-05-016 at 7.

¹⁴⁵⁵ See Commission Resolution E-5287.

¹⁴⁵⁶ Ex. SCE-04, Vol. 5, Pt. 2A at 114-115 and 117-118.

decision to continue to install thousands of CLFs without first understanding and confirming the root cause of the initial failures.¹⁴⁵⁷

Based on the above, we disallow \$2.03 million associated with the material costs of the fusing replacements, plus the \$9.09 million SCE estimates in incremental installation-related O&M for those replacements.¹⁴⁵⁸ With these adjustments, SCE is authorized to recover \$13.500 million in capital expenditures for the incremental 2018-2020 fusing mitigation program costs SCE recorded in the WMPMA.

16.3. Emerging Technologies and Inspections and Remediations

The following sections address SCE's forecasts for Emergent Technologies and Inspections and Remediations: (1) Emerging Technologies; (2) Organizational Support; and (3) Inspections and Remediations. Overall, SCE requests \$137.958 million in 2025 TY O&M expenses and \$812.919 million in capital expenditures (2023-2028) for these activities.¹⁴⁵⁹

16.3.1. Emerging Technologies

Emerging Technologies are technologies that, "if successful, may be adopted to mitigate wildfire risk, improve the resilience of the SCE system, and advance SCE towards achieving its long-term objectives."¹⁴⁶⁰ SCE tests these technologies as part of the Emerging Technologies program to determine whether they work as intended and could be effectively deployed to lower or prevent ignitions. The Emerging Technologies activities are composed of:

¹⁴⁵⁷ Ex. SCE-04, Vol. 5, Pt. 2A at 117.

¹⁴⁵⁸ Ex. SCE-04, Vol. 5, Pt. 2A at 121.

¹⁴⁵⁹ Ex. SCE-15, Vol. 5, Pt. 3 at 2-4.

¹⁴⁶⁰ Ex. SCE-04, Vol. 5, Pt. 3A at 2.

(1) Grid Design and System Hardening Emerging Technologies; and (2) Grid Operations Monitoring Emerging Technologies.

**16.3.1.1. Grid Design and System
Hardening Emerging Technologies**

SCE plans to conduct two studies as part of Grid Design and System Hardening Emerging Technologies. The first study concerns the feasibility of deploying remote grids for wildfire risk reduction. A remote grid is a configuration in which a small number of customers are served entirely by local distributed energy resources that are disconnected from the larger SCE grid.¹⁴⁶¹ The purpose of SCE's remote grid feasibility study is to determine whether a remote grid is feasible and cost-effective in lieu of undergrounding. SCE identified 13 locations in SRAs in which to perform the remote grid feasibility study based on a combination of factors, including locations where undergrounding is infeasible and where the ratio of line length to load is relatively high. If the feasibility study concludes that a remote grid is feasible and represents the least initial capital cost option, SCE indicates it will be deployed in place of undergrounding; otherwise, SCE may consider deploying spacer cable, covered conductor, or other mitigations.¹⁴⁶² SCE forecasts \$427,000 in O&M between 2023-2025 (\$166,000 for the 2025 TY) to conduct the remote grid feasibility study. SCE's O&M forecast is based on vendor estimates.¹⁴⁶³

The Transmission IWMS Engineering Analysis and Testing is a study of additional potential mitigations for the transmission system. Since transmission

¹⁴⁶¹ Remote grids function similarly to microgrids, but do not have the option to be connected to the larger electric grid.

¹⁴⁶² Ex. SCE-04, Vol. 5, Pt. 3A at 5-9.

¹⁴⁶³ SCE's forecast does not include the costs for construction and installation of the remote grids. (Ex. SCE-04, Vol. 5, Pt. 3A at 8).

lines have a lower probability of failure compared to distribution lines, SCE has focused most of its wildfire grid hardening efforts to date on the riskiest areas of its distribution system, and now plans to address remaining risk on the transmission system.¹⁴⁶⁴ If the study finds that the mitigations are feasible and cost-effective, SCE indicates it may deploy them in the future.¹⁴⁶⁵ SCE estimates the Transmission IWMS Engineering Analysis and Testing study to cost \$1.285 million (constant 2022\$) in 2023.¹⁴⁶⁶

SCE's request to conduct the Transmission IWMS Engineering Analysis and Testing study is uncontested, and SBUA is the only party to challenge SCE's O&M forecast for the remote grid feasibility study. SBUA asserts, among other things, that: (1) SCE fails to provide cost data for this study, which appears to be based on an RFP request for a proposal to build a microgrid;¹⁴⁶⁷ (2) the circuits SCE identified as candidates for this study all serve a small number of customers where the cost is unlikely to be justified; (3) SCE should evaluate candidate sites that have had a historically high number of de-energization events; (4) SCE should be required as part of this proceeding to re-evaluate previous microgrid assessments performed to compare the cost of the microgrids with the extreme cost of undergrounding; and (5) given the extreme cost of undergrounding it is worthwhile considering even seemingly radical options (for example, SBUA points to a program approved by the Vermont Public Utilities Commission

¹⁴⁶⁴ Ex. SCE-04, Vol. 5, Pt. 3 WP at 66-74.

¹⁴⁶⁵ Ex. SCE-04, Vol. 5, Pt. 3A at 9.

¹⁴⁶⁶ Ex. SCE-04, Vol. 5, Pt. 3A at 10.

¹⁴⁶⁷ Remote grids and microgrids provide a similar functionality, except remote grids do not have the option to be connected to the larger electric grid. (Ex. SCE-04, Vol. 5, Pt. 3A at 6).

where customers with behind-the-meter battery energy storage systems are paid to achieve overall cost savings by lowering peak demand).¹⁴⁶⁸

In response, SCE states: (1) SCE's workpapers provide detailed information on the locations it plans to study and the price quotes from its vendors; (2) it is not practical to select sites for remote grids based solely on de-energizations; instead, SCE considers key constraints such as the optimal combination of technologies, available space at the site, the amount of load, and load profile; (3) SBUA's suggestion that remote grids and battery systems can replace SCE's targeted undergrounding program entirely at a lower cost is based on incorrect and untested assumptions; (4) SBUA's comparison to the program approved by the Vermont Public Utilities Commission is inapposite since remote grids are disconnected from the grid and must be completely self-sufficient; and (5) SCE is developing remote grids at a reasonable pace.¹⁴⁶⁹

Concerning the remote grid study, we find many of SBUA's arguments to be erroneous or without merit. SCE's workpapers contain adequate cost information (including the location and per study costs),¹⁴⁷⁰ and are appropriately based on SCE's statement of work for the remote grid study.¹⁴⁷¹ Further, unlike microgrids, remote grids are completely disconnected from the electric grid, which is the reason why SCE is proposing to evaluate remote grids as a potential wildfire mitigation solution in the first place. It is also reasonable for SCE to consider a variety of constraints (including available space and

¹⁴⁶⁸ Ex. SBUA-01 at 25-28.

¹⁴⁶⁹ Ex. SCE-15, Vol. 5, Pt. 3 at 7-9.

¹⁴⁷⁰ Ex. SCE-05, Vol. 5, Pt. 3 WP at 64-65.

¹⁴⁷¹ Ex. SBUA-03, Data Request Set SBUA-SCE-001 Q.14.

customer load) when choosing the remote grid study locations, which will help inform whether a remote grid would even be possible at the various candidate locations.

However, SBUA raises a valid potential concern regarding the general timing of the study. Given that over 90 percent of SCE's HFRAs are expected to be hardened by the end of 2028, one additional key consideration SCE should take into account when selecting the site locations is whether covered conductor is expected to be deployed at any of the remote grid study locations prior to the release of the study results, so that the study may be used to inform any further grid hardening activities at these locations. In addition, SCE states the remote grid study will indicate "whether remote grid is feasible and cost effective and determine the remote grid's effectiveness as a mitigation strategy in lieu of undergrounding," and that the study locations are based, in part, on the locations where SCE found undergrounding to be infeasible. SCE does not explain how it intends to evaluate the cost-effectiveness of remote grids, but any cost-effectiveness evaluation should be based on actual, feasible alternatives (*i.e.*, covered conductor and spacer cable). With these conditions, SCE's 2025 TY O&M forecast of \$166,000 to conduct the remote grid feasibility study is reasonable and is approved.

SCE's uncontested O&M request to conduct the Transmission IWMS Engineering Analysis and Testing study, which does not include any TY O&M expenses, also appears to be reasonable.

16.3.1.2. Grid Operations Monitoring Emerging Technologies

Grid Operations Monitoring Emergent Technologies are technologies that SCE is evaluating for potential adoption to help mitigate wildfire risk and

improve the resiliency of the electric grid. SCE's testimony and workpapers contain forecasts for four separate activities:

- **Transmission Open Phase Detection (TOPD)** helps reduce ignition risks associated with the high voltage transmission system by detecting and isolating a single open phase event¹⁴⁷² that is the result of an energized line separating before it contacts the ground. TOPD is in the pilot stage, and most installations will remain in "alarm mode" to ensure they operate as intended. SCE forecasts \$1.112 million (2023-2024) in O&M expenses to deploy TOPD at five locations and retrofit five existing TOPD installations with trip functionality. SCE does not forecast any TOPD O&M expenses for 2025.¹⁴⁷³
- **Distribution Open Phase Detection (DOPD)** aims to reduce ignition risk associated with wire-down incidents by detecting and isolating open phase conditions¹⁴⁷⁴ that are the result of an energized line disconnecting on the distribution system. DOPD has only been used in "alarm mode" rather than in "tripping mode," meaning that DOPD has not yet been tested to de-energize power lines. SCE's capital forecast of \$6 million is based on deployment of DOPD at twelve locations per year from 2025-2028 using the field area network (FAN) for high-speed communication. SCE also forecasts \$118,000 in TY O&M expenses to retrieve information from existing DOPD installations.¹⁴⁷⁵

¹⁴⁷² An open phase event refers to a scenario where phases are being physically disconnected on the ground, potentially due to a broken conductor or hardware failure. (Ex. SCE-04, Vol. 5, Pt. 3A at 12).

¹⁴⁷³ Ex. SCE-04, Vol. 5, Pt. 3A at 14.

¹⁴⁷⁴ Similar to an open phase event, an open phase condition refers to a scenario when an electrical phase is physically disconnected on the distribution system, potentially due to a broken conductor or hardware failure. (Ex. SCE-04, Vol. 5, Pt. 3A at 16).

¹⁴⁷⁵ Ex. SCE-04, Vol. 5, Pt. 3A at 18-20; SCE OB at 214.

- **Early Fault Detection (EFD)** technology detects high frequency radio emissions that can occur from arcing (*i.e.*, high energy discharge) or partial discharge (*i.e.*, low energy discharge) conditions on the electric system. These conditions can be indicative of a potentially degraded asset or other undesirable circumstances, such as severed strands on a conductor. The EFD project primarily includes installations on distribution lines, with some EFD installations on transmission lines. SCE's EFD capital forecast of \$45.253 million is based on installations of EFD at 300 locations per year from 2025-2028.¹⁴⁷⁶ SCE also forecasts \$511,000 in TY O&M expenses associated with continuous monitoring, field crew event investigations, and an operating service fee on the per installed unit per year.¹⁴⁷⁷
- **High Impedance (Hi-Z)** relays utilize multiple protective algorithms to detect Hi-Z fault conditions¹⁴⁷⁸ that are often associated with downed wire or arcing events but may not trigger traditional protection schemes. Like DOPD, Hi-Z has only been used in "alarm mode" rather than in "tripping mode." SCE's Hi-Z relay capital forecast of \$4.761 million from 2025-2028 is based on plans to deploy Hi-Z relays at 20 locations per year from 2025-2028. SCE also requests \$146,000 in TY O&M to retrieve information from existing Hi-Z relay installations.¹⁴⁷⁹

No party recommends reductions or specific adjustments to SCE's O&M or capital forecasts for Grid Operations Monitoring Emergent Technologies.

¹⁴⁷⁶ SCE's planned installation of 300 EFD units per year from 2025-2028 is expected to cover approximately half of SCE's distribution HFRA. (SCE OB at 216).

¹⁴⁷⁷ Ex. SCE-04, Vol. 5, Pt. 3A at 20-25; SCE OB at 214.

¹⁴⁷⁸ In Hi-Z fault conditions, the steady state fault current magnitude can be below the traditional protection detection level. Protection schemes that can detect and isolate Hi-Z fault conditions can reduce the persistence of faults with low current magnitudes and help reduce ignition risk. (Ex. SCE-04, Vol. 5, Pt. 3A at 25).

¹⁴⁷⁹ Ex. SCE-04, Vol. 5, Pt. 3A at 25-29; SCE OB at 214-217.

However, MGRA broadly questions whether SCE is incorporating the contribution of advanced technologies such as Hi-Z, DOPD, and EFD into its mitigation decisions and, based on various scenario analyses,¹⁴⁸⁰ recommends SCE be required to accelerate its evaluation and deployment of these emerging technologies, and be provided adequate funding to that end.¹⁴⁸¹

In response, SCE states that MGRA's recommendations lack specificity, that increased funding for each technology would not allow for accelerated, wide-scale deployment given the analyses and time necessary for careful evaluation of each technology, and that SCE's capital forecasts for DOPD, EFD, and Hi-Z thoughtfully balance deployment of emerging technologies at a measured pace in combination with established wildfire mitigation activities in SCE's portfolio.¹⁴⁸²

Absent any specific detail concerning an alternative capital forecast, the number of units of each technology that should be installed, or alternative timelines for deployment, MGRA's broad recommendation to increase the deployment of advance technologies is not helpful or instructive. Further, as noted by SCE, this GRC request includes funding to install a significant number of EFD units covering approximately half of SCE's distribution HFRAs, while it is not clear, based on the record of this proceeding, how much time could be saved in evaluating the effectiveness of Hi-Z or DOPD technologies if either of

¹⁴⁸⁰ Including a scenario with covered conductor and advance technologies; a scenario where two-thirds of SCE's Severe Risk Areas are mitigated by covered conductor; a scenario with covered conductor and REFCL; and a scenario where all of SCE's HFRAs are hardened. MGRA's scenarios are designed to demonstrate the impact of changing system assumptions, and are not intended to be actual implementable proposals. (Ex. MGRA-01 at 81-98).

¹⁴⁸¹ Ex. MGRA-01 at 110.

¹⁴⁸² SCE OB at 214-217; Ex. SCE-15, Vol. 5, Pt. 3 at 10-13; RT, Vol. 4 at 431-439.

the pilots were expanded, or the associated cost and pilot size corresponding with the reduction in time. Final evaluation of the DOPD pilot is also largely dependent upon the availability of the FAN used for high-speed communication, which is unrelated to the pilot size.¹⁴⁸³

For all these reasons, we find reasonable and approve SCE's request for Grid Operations Monitoring Emerging Technologies activities, without adjustment, totaling \$775,000 in 2025 TY O&M expenses and \$64.072 million in capital expenditures (2023-2028), including an adjustment for 2023 recorded costs.¹⁴⁸⁴

16.3.2. Organizational Support

The Wildfire Safety organization oversees the centralized management and oversight of SCE's wildfire mitigation activities associated with coordinating, planning, project management, and reporting across the enterprise and to external entities. It also oversees Organizational Change Management (OCM) activities to ready operations to adopt changes to the type and scope of work, business processes, and technological tools and systems to perform SCE's wildfire mitigation activities. SCE's 2025 TY forecast for Organizational Support is \$3.173 million, and is based on the last year recorded 2022 O&M expenses adjusted down to reflect anticipated reductions in ongoing costs for consulting support.¹⁴⁸⁵

Since 2018, SCE has achieved significant cost savings from increasing internal staffing and reducing consulting costs for this activity. SCE's

¹⁴⁸³ RT, Vol. 4 at 436:3-442:11.

¹⁴⁸⁴ Ex. SCE-15, Vol. 5, Pt. 3 at 2 and 10.

¹⁴⁸⁵ Ex. SCE-04, Vol. 5, Pt. 3A at 30-32; SCE OB at 212.

uncontested O&M request for Organizational Support is reasonable and is adopted.

16.3.3. Inspections and Remediations

SCE regularly inspects the electrical equipment within its service areas to ensure the provision of safe and reliable power to its customers. Under Inspections and Remediations, SCE performs both risk-informed and compliance-based inspections of its electrical equipment to identify asset conditions that can pose public safety or wildfire risk. SCE then completes associated remediations as necessary to repair conditions on SCE's infrastructure.

In 2019, SCE combined the inspection criteria for its wildfire risk-focused inspections into a new program referred to as the Inspection Program.¹⁴⁸⁶ Under the Inspection Program, SCE has continued to employ and refine its strategy and methodology for conducting inspections in HFRAs based on the risk profiles of each asset, which SCE refers to as high fire risk-informed inspections. In addition to high fire risk-informed inspections, SCE conducts inspections to address Areas of Concern (AOC), or specific geographic areas identified through a combination of environmental conditions such as an abundance of dry fuel and exposure to high winds, as well as compliance-based inspections.¹⁴⁸⁷

¹⁴⁸⁶ Previously, SCE's risk-focused inspection programs included Enhanced Overhead Inspections (EOI), Overhead Detail Inspections, transmission and generation. (Ex. SCE-04, Vol. 5, Pt. 3A at 32-33; D.21-08-036 at 217-227).

¹⁴⁸⁷ Ex. SCE-04, Vol. 5, Pt. 3A at 32-34.

16.3.3.1. Inspection Programs

SCE's portfolio of inspection programs and the associated cycle times for both distribution and transmission lines in HFRA are briefly summarized below:

- **HFRA 360 Inspections:** Comprised of risk-based and compliance-based inspections from both the ground and aerial vantage points in a single visit. For non-HFRAs, SCE conducts compliance-based inspections from the ground.¹⁴⁸⁸
 - Between 2025-2028, SCE plans to inspect approximately 186,000 distribution risk-informed structures each year using both ground and aerial inspections,¹⁴⁸⁹ which covers approximately 99 percent of the modeled relative ignition risk associated with SCE overhead distribution assets. SCE also plans to inspect an additional 30,000 structures in HFRA identified through AOC and through compliance-based inspections.
 - Between 2025-2028, SCE plans to perform approximately 28,500 transmission inspections annually through aerial and ground inspections, plus an additional 1,000 structures in HFRA identified through AOC, which covers approximately 99 percent of the modelled relative ignition risk associated with SCE transmission assets.¹⁴⁹⁰

¹⁴⁸⁸ Pursuant to GO 165, each distribution structure is required to be inspected at least once every five years.

¹⁴⁸⁹ Aerial inspections are conducted by drones and/or helicopter capturing high-definition digital photographs of each scoped HFRA overhead structure. (Ex. SCE-04, Vol. 5, Pt. 3A at 32-34).

¹⁴⁹⁰ Ex. SCE-04, Vol. 5, Pt. 3A at 41-49.

- **Areas of Concern (AOC):** AOC are geographic areas that pose increased fuel-driven and wind-driven fire risk.¹⁴⁹¹ To mitigate the potential risk in AOC, SCE implements an AOC action plan that includes inspections of the assets (e.g., distribution, transmission, and generation) and acceleration of remediations for assets with the highest risk.
 - SCE's forecast for AOC inspections is integrated into the HFRA 360 program, as described above.¹⁴⁹²
- **Light Detecting and Ranging (LiDAR):** LiDAR is a surveying inspection method that measures the distance to a target by illuminating the target with pulsed laser light and measuring the reflected pulses. Along with aerial images, LiDAR is used for engineering analysis and vegetation management.
 - SCE vendors collected LiDAR data in 2021. Over the GRC period, SCE plans to continue to utilize collected LiDAR data sets to investigate and identify structural risk use cases, but does not expect to collect additional LiDAR data solely to perform asset inspections.¹⁴⁹³
- **Transmission Conductor and Splice Assessment:** Conductors and splices can fail due to age, weather, and contact from objects. To reduce transmission conductor wire-down events, SCE plans to complement existing inspection processes with the use of LineVue¹⁴⁹⁴ and

¹⁴⁹¹ SCE identifies AOC based on several factors, including fire history, current and near-term weather conditions, fuel type, exposure to wind, and egress, among others. (Ex. SCE-04, Vol. 5, Pt. 3A at 62).

¹⁴⁹² Ex. SCE-04, Vol. 5, Pt. 3A at 62-64.

¹⁴⁹³ Ex. SCE-04, Vol. 5, Pt. 3A at 53-54.

¹⁴⁹⁴ LineVue determines the deterioration of the steel core cross-sectional area of the conductor steel core, and detects any localized breaks or corrosion pits on the steel wires and loss of zinc galvanized layer. (Ex. SCE-04, Vol. 5, Pt. 3A at 55).

X-ray.¹⁴⁹⁵ Both LineVue and X-ray help identify anomalies which are not visibly apparent, and both can be performed on energized or de-energized lines.¹⁴⁹⁶

- Between 2025-2028, SCE plans to inspect approximately 75 spans with LineVue and approximately 75 splices with X-ray each year.¹⁴⁹⁷
- **Infrared Inspections and Corona Scans:** Infrared inspections (IR) detect temperature differences and heat signatures of overhead circuits, which may be indicative of degradation and potential component/conductor failure, while corona scans are used to capture ultraviolet energy generated by “leaking” high voltage current and which helps identify conductor that has broken strands. Following an IR pilot in 2017, SCE deemed it prudent to inspect all distribution facilities in HFRAs over a two-year cycle using IR technology. In 2019, SCE began infrared and corona inspections of its overhead transmission system located in HFRAs.
 - Between 2025-2028, SCE plans to perform IR scans on approximately 5,100 distribution circuit miles annually within HFRAs, prioritized by their relative risk score. During the same time period, SCE plans to inspect approximately 1,000 HFRA circuit miles annually through transmission IR and corona scans, also prioritized by their relative risk score.¹⁴⁹⁸

¹⁴⁹⁵ X-Ray inspections identify internal features within a target object, and are used on conductor splices to verify proper installation and identify broken strands or deformities. (Ex. SCE-04, Vol. 5, Pt. 3A at 56).

¹⁴⁹⁶ Ex. SCE-04, Vol. 5, Pt. 3A at 57-58.

¹⁴⁹⁷ Ex. SCE-04, Vol. 5, Pt. 3A at 57-58.

¹⁴⁹⁸ Ex. SCE-04, Vol. 5, Pt. 3A at 58-62.

16.3.4. Inspections and Remediations O&M and Capital

SCE's total 2025 TY O&M forecast for High Fire Risk Inspections and Remediations is \$126.529 million, which includes \$51.273 million for inspections¹⁴⁹⁹ and \$75.255 million for remediations.¹⁵⁰⁰ SCE also forecasts TY O&M expenses of \$0.574 million for IR inspections and corona scans. SCE developed its O&M forecast using a combination of historical data/average unit costs and forecast estimates based on the volume of projected inspections and remediations, as described above.¹⁵⁰¹

SCE's capital expenditure forecast for High Fire Risk Inspections and Remediations is \$700.902 million (2023-2028), including an adjustment for 2023 recorded costs. SCE's capital forecast uses an input-based methodology based on the anticipated number of repairs/replacements for each year and historical average unit costs plus escalation. SCE also incorporates accounting adjustments to reflect certain changes made to SCE's employee compensation program.¹⁵⁰²

No party contests SCE's capital expenditure forecast for High Fire Risk Inspections and Remediations, or its O&M forecast for High Fire Risk Inspections. Cal Advocates recommends a 2025 TY O&M forecast of \$57.973 million for High Fire Risk Remediations (Remediations), or a

¹⁴⁹⁹ Includes HFRA 360, AOC, Transmission splice, HFRI generation, aerial transmission, and annual grid patrol inspections.

¹⁵⁰⁰ Includes AOC Repairs/Replacements (\$0.423 million); Distribution O&M Breakdown Maintenance (\$2.735 million); Distribution O&M Preventative Maintenance (\$53.742 million); and HFRI Repairs and Replacements (\$18.352 million). (Ex. SCE-04, Vol. 5, Pt. 3AE3 at 82).

¹⁵⁰¹ Ex. SCE-04, Vol. 5, Pt. 3A at 64-89; Ex. SCE-04, Vol. 5, Pt. 3AE3 at 82.

¹⁵⁰² Ex. SCE-04, Vol. 5, Pt. 3A at 89-94; Ex. SCE-15, Vol. 05, Pt. 03 at 3. Forecast adjusted from \$701.060 million to \$700.902 million to align with recorded costs in Ex. SCE-11E4 not reflected in rebuttal testimony.

\$21.771 million reduction to SCE's initial request.¹⁵⁰³ Cal Advocates' proposed adjustment is based on reductions to SCE's forecast number of units and the unit cost contained in the Distribution O&M Preventive Maintenance sub-component of SCE's Remediations forecast. Cal Advocates' proposed adjustment is predicated upon the following assertions: (1) Because SCE's forecast level of inspections in 2022 and 2025 is comparable, and since the number of remediations corresponds to the number of inspections, the number of remediations in 2022 and 2025 should be comparable as well; (2) SCE has not demonstrated its proposed 12.99 percent find rate is reasonable;¹⁵⁰⁴ (3) SCE's 2025 forecast remediations should be reduced by 2,938, on the basis that remediations identified in 2023 should be resolved before the 2025 TY in accordance with SCE's internal procedures; and (4) SCE used incomplete data sets to determine its forecast units. Based on these arguments, Cal Advocates recommends the number of Priority 2 remediations in the Distribution O&M Preventative Maintenance forecast be based on the 2022 recorded remediations plus an additional 735 notifications to account for other currently known issues requiring remediation. Cal Advocates also uses a unit cost of \$2,496 for its TY Distribution

¹⁵⁰³ Ex. CA-10 at 6; Cal Advocates OB at 258-265. Cal Advocates bases its reduction on SCE's initial TY 2025 O&M forecast for High Fire Risk Remediations of \$79.774 million. In errata and rebuttal, SCE adjusted its TY O&M Remediation forecast to \$75.255 million. (Ex. SCE-04, Vol. 5, Pt. 3AE3 at 82; also, Ex. SCE-15, Vol. 5, Pt. 3 at 15).

¹⁵⁰⁴ The find rate is "[t]he percentage of Distribution inspections that resulted in a P2 [Priority 2] notification and require a subsequent remediation." Priority 2 issues are lower risk and therefore may be resolved within six months for Tier 3 or 12 months for Tier 2 within HFRAs. In contrast, Priority 1 issues require immediate action. (Ex. SCE-04, Vol. 5, Pt. 3A, Table I-44 at 76; Ex. CA-10 at 10).

O&M Preventive Maintenance forecast, based on SCE's 2023 year to date (YTD) unit cost, since it "represents the most recent cost for remediation."¹⁵⁰⁵

In response, SCE states: (1) Cal Advocates' position relies on a false premise, since SCE expects to conduct approximately 216,000 inspections in 2025 compared to 160,000 inspections in 2022; (2) the find rate SCE used to develop its Remediations forecast (12.9 percent) is reasonable given the increased number of inspections planned for 2025 and SCE's actual find rates at the end of 2022 and 2023, at 14.6 percent and 17.3 percent, respectively; (3) Cal Advocates' claim that SCE is inappropriately delaying remediations of certain Priority 2 notifications identified in 2023 is contrary to GO 95; (4) Cal Advocates' forecast recommendation to allocate certain Priority 2 remediations evenly from 2023-2026 is contrary to SCE's established risk-informed remediation process; (5) in developing the number of remediation units for its 2025 forecast, SCE utilized the most up-to-date remediation data available at the time of filing, consistent with well-established forecast-based ratemaking principles; (6) Cal Advocates' use of 2022 recorded data incorrectly assumes that the number of remediations estimated in 2025 will be at the same level as remediations performed in 2022; and (7) SCE's forecast remediation unit cost of \$2,966 was developed using the best data available at the time the forecast was developed and is reasonable, while more recent recorded data shows a higher unit cost.¹⁵⁰⁶

16.3.4.1. Discussion

Cal Advocates does not respond to any of the arguments made in SCE's rebuttal testimony or opening brief, and in general we find the higher number of

¹⁵⁰⁵ Cal Advocates OB at 264; Ex. CA-10 at 8-13.

¹⁵⁰⁶ Ex. SCE-15, Vol. 5, Pt. 3 at 17-22; SCE OB at 217-220.

inspections anticipated during 2025, in combination with recent increases in actual find rates, sufficient to justify a higher forecast number of remediations in 2025 as compared to recorded 2022 levels. However, we also find good reason to adjust the number of repairs/remediations carried over from prior years. SCE's identified remediations for a given year do not equal completed remediations for that year; instead, the number of repairs/remediations in SCE's forecast for Distribution O&M Preventative Maintenance is based on a combination of inspection driven notifications, additional units found by crews, and currently known notifications (*i.e.*, notifications from prior years).¹⁵⁰⁷ While SCE is correct that GO 95, Rule 18, requires utilities to take corrective action for Priority 2 notifications within 36 months, the repair intervals in GO 95 represent maximum time periods not to be exceeded, and are distinct from SCE's actual, planned work activities associated with Priority 2 notifications, which should be the basis of any GRC forecast. Since SCE's internal procedures indicate HFRA Priority 2 Notifications are typically resolved within 6-12 months,¹⁵⁰⁸ we agree with Cal Advocates that any Priority 2 notifications identified in 2023 should be resolved prior to 2025. Thus, we adopt Cal Advocates' proposal to evenly allocate currently known issues over the 2023-2026 timeframe, resulting in an annual estimate of 735 Priority 2 Notifications per year. This allocation is intended to estimate the general amount of work carried over from year-to-year, and does not, as argued by SCE, elevate certain issues for remediation or otherwise contravene SCE's risk-informed approach to prioritizing remediations.

¹⁵⁰⁷ Ex. SCE-15, Vol. 5, Pt. 3, Appendix A at A13-A20; Ex. SCE-04, Vol. 5, Pt. 3A at 87.

¹⁵⁰⁸ Ex. CA-10 at 10; Ex. SCE-04, Vol. 5, Pt. 3A at 78.

We adopt an average unit cost of \$2,661 for the Distribution O&M Preventative Maintenance forecast. Cal Advocates' only justification for using \$2,496 as the unit cost amount in 2025 is that it "represents the most recent cost recorded for remediation."¹⁵⁰⁹ Cal Advocates' recommendation is undermined by the lack of justification provided as well as the higher unit costs SCE recorded at year-end 2022 (\$2,609) and in YTD February 2024 (\$2,645). However, given the variability in the unit cost over time, we also question whether SCE's use of a limited four-month average of 2022 costs is appropriate. In the absence of information to the contrary, we find the full-year average unit cost for distribution remediations in 2022,¹⁵¹⁰ plus the two percent increase SCE applies to account for projected contractor rate increases, will yield a more reliable forecast, and adopt it here.

Lastly, certain sub-components of SCE's TY O&M forecast for High Fire Risk Inspections and Remediations include cost savings associated with a reduction in anticipated inspection/remediation work due to SCE's TUG program.¹⁵¹¹ Since this decision approves an equivalent amount of covered conductor circuit miles in lieu of undergrounding, we assume the same level of work reduction and cost savings in SCE's inspection and remediation forecasts.

Based on the above, we approve \$50.490 million for Distribution O&M Preventive Maintenance, for a total TY O&M forecast of \$72.004 million for High

¹⁵⁰⁹ Ex. CA-10 at 10; Cal Advocates OB at 264.

¹⁵¹⁰ Calculated by the year-end 2022 recorded cost of \$44,937,743 divided by the 17,223 distribution remediations in 2022. (Ex. SCE-15, Vol. 5, Pt. 3, footnote 74 at 22).

¹⁵¹¹ Specifically, SCE includes reductions to the HFRA 360 and IR Inspection forecasts, as well as the Distribution O&M Preventative Maintenance forecast. (Ex. SCE-04, Vol. 5, Pt. 3A, at 71, 73, 87, and footnote 94 at 82).

Fire Risk Remediations.¹⁵¹² SCE's uncontested TY O&M forecast of \$51.273 million for High Fire Risk Inspections, as well as its High Fire Risk Inspections and Remediations capital expenditure forecast of \$700.902 million (2023-2028), are reasonable and are approved.

16.3.5. Wildfire Mitigation and Vegetation Management Technology Solutions

The Wildfire Mitigation and Vegetation Management Technology Solutions (Technology Solutions) enables SCE to enhance its wildfire data storage and analytics capabilities. SCE's TY O&M forecast of \$6.741 million to implement Technology Solutions utilizes a budget-based IT cost estimation model, which incorporates IT subject matter expertise to estimate project cost components.¹⁵¹³ SCE's O&M request consists of \$3.925 million for Data Platform Governance and \$2.816 million for Technology Support Tools.¹⁵¹⁴ SCE also forecasts \$47.945 million in capital expenditures for Technology Solutions between 2023-2028, including an adjustment for 2023 recorded costs.¹⁵¹⁵ SCE's capital forecast is based on a combination of anticipated internal SCE labor, vender, software licensing/subscription, and other costs, and is categorized into

¹⁵¹² The forecast reflects a total of 18,489 HFRA preventative maintenance units, assuming 735 currently known notifications, and an average unit cost of \$2,661. All of SCE's other forecast assumptions are unchanged. (See Ex. SCE-15, Vol. 5, Pt. 3, Appendix A at A14; Ex. SCE-04, Vol. 5, Pt. 3AE3, Table I-56 at 87).

¹⁵¹³ These components include technology support tools to support risk-informed inspections and remediations in HFRAs, maintenance of a centralized data repository to store data collected as part of SCE's wildfire mitigation initiatives, data plan charges, and software licensing and subscription fees. (Ex. SCE-04, Vol. 5, Pt. 3A at 94-107; SCE OB at 221).

¹⁵¹⁴ Ex. SCE-04, Vol. 5, Pt. 3A at 101.

¹⁵¹⁵ Ex. SCE-15, Vol. 5, Pt. 3A, Table I-2 at 3.

three wildfire mitigation workstreams: inspections, data governance, and remediations.¹⁵¹⁶

Cal Advocates recommends a TY O&M forecast of \$4.240 million for Technology Solutions, or a \$2.501 million reduction to SCE's request. Cal Advocates' recommendation focuses on the level of software costs included in the Data Platform Governance component of SCE's forecast. Specifically, Cal Advocates asserts that SCE did not substantiate its request for software licenses, which represents the majority of SCE's Data Platform Governance request, and that SCE's requested increase of approximately 200 percent above base year recorded costs is excessive. Cal Advocates' forecast is based on the 2022 recorded amount for software licenses, plus SCE's requested amounts for "vender contract" and "other."¹⁵¹⁷

SCE claims its 2025 forecast of \$3.712 million for Technology Solutions software licenses is reasonable and adequately supported, and responds with the following arguments: (1) SCE's forecast was developed using subject matter expertise based on similar technology projects utilizing cloud computing and data processing vendors; (2) SCE provided Cal Advocates with a breakdown of the line items for each component of SCE's forecast, which includes estimated costs for subscription fees, computing, infrastructure cloud, application support, and application and integration support; (3) Cal Advocates overlooks that data platform governance will shift from the development phase to operation in 2025 when, per standard accounting practices, certain costs (such as software licenses,

¹⁵¹⁶ Ex. SCE-04, Vol. 5, Pt. 3A at 102-107. Forecast adjusted from \$47.716 million to \$47.945 million to align with recorded costs in Ex. SCE-11E4 not reflected in rebuttal testimony.

¹⁵¹⁷ Cal Advocates OB at 265-268.

vendor contract fees, subscriptions, and application support) will be reclassified from capital to O&M expenses; and (4) Cal Advocates' recommendation to revert to 2022 recorded costs for software licenses does not consider advancements and cost increases in cloud computing technology, artificial intelligence, and other expanded capabilities that are imperative to support SCE's multiple wildfire mitigation activities.¹⁵¹⁸

SCE's data request response to Cal Advocates provides detailed historic spend information on similar software subscription fees, cloud computing and infrastructure, application support, and application and integration support, which SCE used as the basis for its 2025 software forecast.¹⁵¹⁹ Further, SCE's point that many Data Platform and Governance capital costs will be reclassified as O&M costs in 2025 once they have been operationalized is well taken. We find SCE has provided sufficient information to support its TY O&M and capital expenditure forecasts for Technology Solutions. SCE's forecasts for these activities are reasonable and are approved without modification.

16.4. Public Safety Power Shutoff and Other Wildfire Activities

The following sections address SCE's wildfire mitigation-related forecasts for Public Safety Power Shutoff (PSPS) and Other Wildfire Activities: (1) PSPS; (2) Aerial Suppression; (3) Enhanced Situational Awareness; (4) Fire Science and Advanced Modeling; and (5) Environmental Programs. Overall, SCE requests \$114.583 million in 2025 TY O&M expenses and \$49.141 million in capital expenditures (2023-2028) for these activities.

¹⁵¹⁸ Ex. SCE-15, Vol. 5, Pt. 3 at 23-25; SCE OB at 221-222.

¹⁵¹⁹ Ex. SCE-15, Vol. 5, Pt. 3C, Appendix A at A24.

16.4.1. Public Safety Power Shutoff

PSPS refers to the proactive de-energization of electrical power lines when fire weather conditions pose a risk to SCE infrastructure. According to SCE, PSPS events are called as a last resort to protect customers and equipment.¹⁵²⁰ Over the last several years the Commission has adopted a series of PSPS reporting requirements and guidelines to ensure advance notification and mitigate the impact on customers when a utility considers implementing a PSPS event.¹⁵²¹

As discussed elsewhere in this decision, through the significant deployment of covered conductor as well as other complementary wildfire mitigation measures, SCE has realized significant PSPS benefits reducing the frequency, scale, scope, and duration of PSPS events.¹⁵²²

SCE's PSPS activities are divided into the following three programs: PSPS Execution, PSPS Customer Support, and PSPS Technology Solutions. Each program is described below.

16.4.1.1. Public Safety Power Shutoff Execution

PSPS Execution is comprised of multiple sub-activities that drive the design, development, implementation, and management of PSPS events. These sub-activities include staffing of SCE's PSPS Execution Incident Management Team, PSPS Operations, Line Patrols, Emergency Generators for PSPS

¹⁵²⁰ Ex. SCE-15, Vol. 5, Pt. 4A at 2.

¹⁵²¹ See D.12-04-024, D.19-05-042, D.20-05-051, and D.21-06-034.

¹⁵²² SCE's reported reductions are based on a comparison of 2022 actual PSPS events and a hypothetical scenario where SCE did not proactively implement the wildfire mitigations. (Ex. SCE-04 Vol. 5, Pt. 2A, footnote 72 at 45).

Mitigation, Community Resource Centers and Community Crew Vehicles, PSPS Response and Compliance, and the In-Event Battery Loan Program.

SCE's PSPS protocol is overseen by a specialized Task Force in the Incident Command Structure, which in turn is overseen by the PSPS Incident Management Team (IMT). SCE states the PSPS IMT is responsible for monitoring relevant information before recommending the de-energization of any of SCE's electric circuit(s); executing the PSPS protocol; and, once elevated fire conditions subside and line patrols confirm it is safe to re-energize, restoring power and notifying customers.

In addition to PSPS IMT, there are several groups within SCE that support PSPS Execution, including: Line patrols provide critical sources of situational awareness information concerning the safe operation of SCE's T&D circuits that allow for the safe execution of SCE's de-energization protocols before, during, and after a PSPS event. The PSPS Operations group houses functional area managers, power system operations specialists, and advisors/other specialists who develop the processes, procedures, and protocols to support PSPS event execution, as well as guidance and oversight during a PSPS event. Lastly, a dedicated Wildfire/PSPS Resource group within the Business Resiliency Department supports PSPS Response and Compliance activities, including activities for improving and executing PSPS protocols, implementing enhanced situational awareness tools (*e.g.*, supercomputers, high-resolution forecasting, high-definition cameras, and weather stations), and developing processes and procedures to ensure compliance with regulatory mandates.

SCE has also implemented several programs and resources to help mitigate the impact of de-energization events when called, including modifying the grid to interconnect mobile generators to serve areas of low fire risk; use of

Community Resource Centers¹⁵²³ and Community Crew Vehicles¹⁵²⁴ to provide customers with access to services and resources such as food, water, restrooms, device charging, PSPS information, and resiliency kits; and the in-event battery loan pilot, which provides eligible customers with temporary power via batteries for a medical device or assistive technology during a PSPS activation.¹⁵²⁵

SCE's requested TY O&M expenses for PSPS Execution are depicted in the table below (constant 2022\$).¹⁵²⁶ The forecast for PSPS Execution IMT is based on historical 2021 costs, which SCE indicates represents a middle-ground between the 2020-2022 period, plus an increase in labor cost. The forecast for PSPS Operations is based on 2022 recorded expenses, with modifications to the labor and non-labor components due to the hiring of additional SCE employees (which will, in part, assume work previously performed by consultants/contractors) as well as vendor work associated with refinements to SCE's windspeed threshold methodology. The forecast for Line Patrols is based on a three-year average of labor costs from 2019-2021 plus adjustments to the labor rates due to SCE's interim agreement with line patrol crews. The forecast for PSPS Response and Compliance is based on 2022 recorded amounts, with an adjustment to account

¹⁵²³ Community Resource Centers are existing and accessible community facilities and retailers that have partnered with SCE to host customers indoors during a PSPS event. As of December 31, 2022, SCE had contracts with 63 Community Resource Centers in 15 different locations on stand-by. (D.21-08-036 at 230; Ex. SCE-04, Vol. 5, Pt. 4A at 10).

¹⁵²⁴ Community Crew Vehicles, also referred to as Community Outreach Vehicles, are cargo transit vans with the required equipment and technology to enable SCE staff to transport water, snacks, portable charging devices, lights, and other amenities to community locations where trained SCE staff will be able to provide real-time information on PSPS events. SCE had eight Community Crew Vehicles by the end of 2022, and plans to purchase two additional vehicles in 2023. (D.21-08-036 at 229; Ex. SCE-04, Vol. 5, Pt. 4A at 10).

¹⁵²⁵ Ex. SCE-04, Vol. 5, Pt. 4A at 6-11.

¹⁵²⁶ Ex. SCE-04, Vol. 5, Pt. 4A, Table I-4 at 18, Table I-5 at 19, and Table I-6 at 21.

for full staffing levels; the forecast for Emergency Generators is based on the use and maintenance of three 500 kW mobile generators, which is a decrease relative to 2022 recorded due to SCE's grid hardening progress. The forecast for Community Resource Centers and Community Crew Vehicles is based on an itemized approach using vendor quotes and actual lease payments, plus 2021 labor costs. Lastly, the forecast for the In-Event Battery Loan Pilot is based on 550 battery deployments over the 2025-2028 GRC period.¹⁵²⁷

Activity	Recorded 2021 (\$000)	Recorded 2022 (\$000)	TY Forecast (\$000)
PSPS Execution IMT	\$3,868	\$2,586	\$4,086
PSPS Operations	\$6,301	\$4,995	\$5,586
Line Patrols	\$3,726	\$1,379	\$7,336
PSPS Response and Compliance	\$1,162	\$1,409	\$1,542
Emergency Generators for PSPS Mitigation	\$4,664	\$925	\$476
Community Resource Centers / Community Crew Vehicles	\$597	\$365	\$1,241
In-Event Battery Loan Pilot	\$0	\$159	\$674
Totals¹⁵²⁸	\$20,318	\$11,818	\$20,941

Cal Advocates recommends \$16.108 million in TY O&M expenses for PSPS Execution, which is \$4.834 million less than SCE's request. Cal Advocates' recommendation uses a four-year (2019-2022) average of recorded expenses as the 2025 TY amount, based on the following arguments: (1) PSPS Execution costs

¹⁵²⁷ Ex. SCE-04, Vol. 5, Pt. 4A at 16-27. SCE's labor forecasts also include Employee Compensation Program Changes.

¹⁵²⁸ SCE's 2025 TY forecast for PSPS Execution also includes savings of \$0.680 million associated with Operational Excellence initiatives. (Ex. SCE-15, Vol. 5, Pt. 4, footnote 14 at 6).

correspond to the number of PSPS events triggered/activated; (2) there were an average of 11 PSPS events each year during 2019-2022, while SCE forecast seven PSPS events for 2025 in its Second Quarter 2023 Wildfire Management Quarterly Report; (3) because PSPS work activities rely on weather forecasting, the use of four-year most recent recorded expenses is appropriate; and (4) SCE's 2025 expense request for PSPS Execution is substantially higher than the 2021 recorded amount, which is the highest amount recorded in recent years.¹⁵²⁹

In response, SCE contends that using a four-year average of recorded expenses as the 2025 forecast methodology is inappropriate for the following reasons: (1) Cal Advocates' proposed methodology does not consider the nuances, or existence, of the sub-activities within PSPS Execution; (2) the four-year average does not take into account that 2022 was an anomalous weather year and is not indicative of future PSPS events; (3) Cal Advocates misreads SCE's Second Quarter 2023 Wildfire Management Quarterly Report, which estimates seven de-energization events in 2025, as opposed to PSPS activation;¹⁵³⁰ and (4) since PSPS costs include a material fixed component, SCE will incur labor and other expenses regardless of whether SCE de-energizes customers.¹⁵³¹

We find SCE's 2025 forecast methodology for PSPS Execution to be reasonable and well-supported. As noted by SCE, 2022 was an abnormally mild

¹⁵²⁹ Ex. CA-10-E at 17; Cal Advocates OB at 276-281.

¹⁵³⁰ As explained by SCE, a *de-energization* event occurs when PSPS operating protocol requires de-energization of a circuit or portion thereof to reduce ignition probability, while PSPS *activation* occurs when SCE activates its Emergency Operations Center in anticipation of a PSPS event. In any given year, the number of PSPS activations may be higher than the number of de-energizations. (SCE OB at 225).

¹⁵³¹ Ex. SCE-15, Vol. 5, Pt. 4A at 8-11; SCE OB at 223-225.

weather year, involving appreciable amounts of precipitation which helped to mitigate fire activity.¹⁵³² Further, certain PSPS Execution sub-activities did not exist in 2019 (*i.e.*, the In-Event Battery Loan Pilot, PSPS Operations, and PSPS Response and Compliance), while SCE experienced the highest number of PSPS activations and associated costs in 2020.¹⁵³³ Given these anomalies, we find 2021 to be a reasonable middle-ground estimate of costs expected to be incurred in the 2025 TY. Additionally, SCE's workpapers contain sufficient detail to support the labor and non-labor components of the different sub-activities included in SCE's request. In contrast, and as explained by SCE, Cal Advocates' alternative forecast relies on a flawed comparison of PSPS de-energization versus PSPS activation events, and fails to consider the nuances underlying SCE's proposed PSPS Execution sub-activities.

For all these reasons, we approve SCE's full TY O&M request of \$20.335 million in expenses for PSPS Execution.

16.4.1.2. Public Safety Power Shutoff Customer Support

PSPS Customer Support consists of a broad mix of activities to support and provide information and awareness to customers before, during, and after a PSPS event.

SCE's PSPS Customer Support activities include: (1) SCE's Customer Contact Center, which provides live agent support during PSPS events; (2) personalized PSPS outreach and customer research, which includes customer research, surveys, and customer data platform enhancements to enable timelier and more relevant educational materials for PSPS customers; (3) SCE's annual

¹⁵³² Ex. SCE-04, Vol. 5, Pt. 4A at 24.

¹⁵³³ Ex. SCE-15, Vol. 5, Pt. 4A at 7-11.

PSPS newsletter and outreach; (4) multilingual outreach campaigns to provide in-language wildfire and PSPS-related information; (5) wildfire safety/PSPS preparedness customer education and outreach through community-based organizations (CBOs); (6) Commission-mandated customer surveys; (7) town hall community meetings for SCE to share information about its Wildfire Mitigation Plan, PSPS, customer programs, and emergency preparedness resources; (8) Access and Functional Needs (AFN)¹⁵³⁴ customer services, including 24/7 live support to AFN customers during PSPS events, the AFN Self-Identification Campaign, and other AFN enhancements; (9) SCE's Disability Disaster and Access Resources services, which provide support to customers with disability and access issues during PSPS events (*e.g.*, battery backup, food, accessible transportation, and accessible hotel accommodations) and outside of PSPS events (*e.g.*, education, outreach, and program enrollments);¹⁵³⁵ and (10) various portable generator, portable power station, and mobile electric vehicle charger pilot and rebate programs, including the Critical Care Backup Battery

¹⁵³⁴ SCE defines AFN customers as individuals who are "Electricity Dependent," or individuals who are at an increased risk of harm to their health, safety, and independence during a PSPS event, including, but not limited to, customers with needs in the following categories: medical and non-medical; behavioral, mental, and emotional health; mobility and movement; communication; and individuals who require devices for health, safety, and independence. (Ex. SCE-15, Vol. 5, Pt. 4 at 17).

¹⁵³⁵ Ex. SCE-04, Vol. 5, Pt. 4A at 28-37.

Program,¹⁵³⁶ eMobility Phase 2,¹⁵³⁷ the Resiliency Zones Pilot,¹⁵³⁸ the Portable Power Station Rebate Program,¹⁵³⁹ and the Portable Generator Rebate Program.¹⁵⁴⁰

SCE's TY O&M forecast for PSPS Customer Support is \$36.095 million. SCE's forecast is based on 2022 recorded costs, with certain forecast increases for the following sub-activities: AFN Customer Enhancements (\$4.392 million); Enabling Personalized PSPS Outreach and Customer Research (\$2.404 million); Disability Disaster and Access Resources (\$1.962 million); Customer Contact Center Support (\$1.617 million); and Portable Generator and Portable Power Station Rebate Programs (\$0.365 million).¹⁵⁴¹

Cal Advocates recommends SCE's forecast be reduced by \$6.354 million to \$29.741 million based on reductions to forecasts for two sub-activities: (1) AFN

¹⁵³⁶ The Critical Care Backup Battery Program addresses the needs of SCE's Medical Baseline Allowance customers residing in the HFRA by fully funding the cost of portable backup battery to operate medical equipment during PSPS events.

¹⁵³⁷ Pursuant to D.20-05-051, the eMobility Phase 2 pilot was initiated to investigate and test safe and reliable mobile electric vehicle charging in areas impacted by PSPS events. (Ex. SCE-04, Vol. 5, Pt. 4A at 34; D.20-05-051 at 54-55).

¹⁵³⁸ In 2020, SCE developed the Resiliency Zones Pilot to ensure that customers providing essential services identified in remote communities would remain energized during a PSPS event. The pilot provides funding for generator deployment and electric infrastructure enhancements to up to three customers in seven remote communities. (Ex. SCE-04, Vol. 5, Pt. 4A at 35-36).

¹⁵³⁹ The Portable Power Station Rebate Program provides a rebate for the purchase of a qualified power station, and is available to all SCE customers residing in a HFRA or served by circuits passing through a HFRA that are impacted by PSPS. (Ex. SCE-04, Vol. 5, Pt. 4A).

¹⁵⁴⁰ The Portable Generator Rebate Program offers rebates to offset the cost of purchasing a portable generator, and is available to Medical Baseline customers living in HFRA communities whose electrical needs extend beyond limited power supply offered by a portable power station. (Ex. SCE-04, Vol. 5, Pt. 4A).

¹⁵⁴¹ Ex. SCE-04, Vol. 5, Pt. 4E, Table I-8 at 45; Ex. SCE-15, Vol. 5, Pt. 4, Table I-3 at 4; SCE OB at 226.

Customer Enhancements; and (2) Disability Disaster and Access Resources. Cal Advocates' recommendation is based on the following arguments: first, similar to Cal Advocates' position on PSPS Execution, Cal Advocates observes that SCE's 2025 forecast is higher than 2021 recorded costs even though SCE estimates fewer "PSPS events" in 2025 compared to 2021. Second, Cal Advocates claims that SCE's definition of AFN is overly broad. Lastly, Cal Advocates asserts that the types of services provided under AFN Customer Enhancements and Disability Disaster and Access Resources are beyond the scope and responsibility of SCE's customer base.¹⁵⁴²

In response, SCE reiterates that de-energizations are not the same as PSPS activations. SCE also asserts that many of the PSPS Customer Support activities are mandated by the Commission and are not directly tied to the number of PSPS activations; that SCE's definition of AFN customers is based on statute, and was further refined through ongoing collaboration between the IOUs, state agencies, and CBOs, consistent with Commission precedent and guidance; and that SCE presented its refined definition of 'Electricity Dependent' in its 2023 and 2024 AFN Plans in R.18-12-005.¹⁵⁴³

16.4.1.3. Discussion

As discussed above, Cal Advocates' position partially relies on a flawed comparison of de-energizations to PSPS activations. Further, several of SCE's proposed PSPS Customer Support Activities are intended to support personalized education/communication, resiliency planning, and emergency

¹⁵⁴² Ex. CA-10 at 26; Cal Advocates OB at 284-285.

¹⁵⁴³ Ex. SCE-15, Vol. 05, Pt. 4 at 17-18; SCE OB at 229-231.

preparedness, all of which are not directly tied to the number of PSPS activations or de-energizations.

In D.21-06-034, the Commission directed the utilities to provide regular reports on any outreach, education, and resiliency support efforts for AFN customers, including programs and/or assistance supporting PSPS notifications and outreach for AFN customers, free and/or subsidized backup batteries, hotel vouchers, and transportation to community resource centers, among other applicable programs or pilots.¹⁵⁴⁴ The majority (over 80 percent) of SCE's proposed PSPS Customer Support expenses in this GRC are to support AFN activities associated with customer identification, outreach, marketing, and communication,¹⁵⁴⁵ while the overall scope of SCE's proposed AFN activities appears consistent with the types of services contemplated by the Commission in D.21-06-034.

Concerning the definition of AFN customers, D.19-05-042 adopts a definition of the AFN population based on California Government Code Section 8593.3(f)(1).¹⁵⁴⁶ However, in the same decision, the Commission also states that "this definition will need to be further refined as the utilities, the Commission and other public safety partners gain experience with proactive de-energization."¹⁵⁴⁷ For the sole purpose of this decision, we will accept SCE's

¹⁵⁴⁴ D.21-06-034 at 133, 148, and 150-151.

¹⁵⁴⁵ Ex. SCE-04, Vol. 5, Pt. 4 WP at 22-24.

¹⁵⁴⁶ See D.19-05-042 at 78. Government Code Section 8593.3(f)(1) defines the "access and functional needs population" as "individuals who have developmental or intellectual disabilities, physical disabilities, chronic conditions, injuries, limited English proficiency or who are non-English speaking, older adults, children, people living in institutionalized settings, or those who are low income, homeless, or transportation disadvantaged, including, but not limited to, those who are dependent on public transit or those who are pregnant."

¹⁵⁴⁷ D.19-05-042 at 77-78.

proposed AFN definition. We reach this conclusion for two reasons: first, as stated in D.19-05-042, while the Commission anticipated the definition of AFN would need to be further refined, a primary goal in the adoption of an AFN definition was to standardize the definition across utilities and to integrate it within emergency management frameworks and structures.¹⁵⁴⁸ The proceeding record demonstrates that SCE's refined AFN definition of 'Electricity Dependent' individuals was developed in collaboration with a diverse set of AFN stakeholders, including representatives from all of the IOUs, various state agencies, and interested CBOs, which supports the Commission's goal of wide-spread standardization.¹⁵⁴⁹ Second, no party has argued in this proceeding that SCE's AFN definition is inconsistent with the statute, and we are not aware of any inconsistencies between this refined definition and the definition of the AFN population in Government Code Section 8593.3(f)(1).

While this decision finds SCE's proposed AFN Customer Enhancements forecast to be reasonable, we are concerned by the potential overlaps between this program and SCE's proposed Disability Disaster and Access Resources program. SCE's Disability Disaster and Access Resources program is intended to support individuals with cognitive and/or physical disabilities and access issues through the provision of backup batteries and services, including food support, accessible transportation, and accessible lodging. The Disability Disaster and Access Resources program is also intended to provide education and emergency preparedness training to ensure these customers are safe and prepared for

¹⁵⁴⁸ D.19-05-042 at 77-78.

¹⁵⁴⁹ See Ex. SCE-15, Vol. 5, Pt. 4 at 16-22 and Appendix C.

PSPS.¹⁵⁵⁰ However, SCE's definition of AFN also supports customers with mental, mobility, and movement needs, and includes funding for communication, education, food, portable power stations for assistive technology, and transportation.¹⁵⁵¹ Additionally, SCE's In-Event Battery Loan Pilot and Critical Care Backup Battery programs are intended to support customers with AFN who live in a HFRA and utilize a medical device or assistive technology for independence, health, or safety.¹⁵⁵² Given the comprehensive support SCE already proposes to provide to AFN customers, we find SCE's funding request for the Disability Disaster and Access Resources program to be duplicative and unnecessary.

SCE's requests for the remaining uncontested PSPS Customer Support sub-activities are reasonable and are approved. As discussed above, we disallow the \$1.962 million SCE requests for the Disability Disaster and Access Resources program, resulting in an approved 2025 TY O&M amount of \$34.133 million for PSPS Support.

16.4.1.4. Public Safety Power Shutoff Technology Solutions

PSPS Technology Solutions activities are comprised of four software projects intended to improve PSPS programs and protocols, including:

- (1) Emergency Outage Notification System; (2) IMT Customer Notifications;
- (3) PSPS Website Improvements; and (4) Line Patrols.

¹⁵⁵⁰ Ex. SCE-15, Vol. 5, Pt. 4 at 22.

¹⁵⁵¹ Ex. SCE-04, Vol. 5, Pt. 4 WP at 22-24.

¹⁵⁵² Ex. SCE-04, Vol. 5, Pt. 4A at 11 and 29. SCE's In-Event Battery Loan Pilot loans batteries to eligible customers that use a medical device during a PSPS event, while the Critical Care Backup Battery program fully funds the cost of portable backup batteries for eligible customers to operate critical medical equipment.

The Emergency Outage Notification System is the primary tool SCE uses to keep customers informed before, during, and after emergency outages, including PSPS events. SCE anticipates O&M expenses in 2022-2023 to expand the number of languages available for PSPS notification translations from six to 23, but does not forecast any O&M for this activity in 2025.¹⁵⁵³ The Central Data Platform in the IMT Customer Notification activity acts as a foundation for PSPS data collection. Since 2021, SCE has been working to enhance the Central Data Platform by improving data reporting and accuracy; establishing PSPS operational workflow, analytics, and reporting; tracking customer complaint data; and improving the notification process. SCE.COM provides a dedicated, up-to-date, webpage to help customers increase their awareness about PSPS and de-energization, including PSPS events in their areas, who the public should expect to hear from, and when. Based on feedback from customer surveys, SCE has been deploying a series of features designed to make it easier for customers to access information and to increase the accuracy of the estimated restoration time following a PSPS event. In June 2021, SCE also launched the PSPS Public Safety Partner Portal.¹⁵⁵⁴ In 2022, SCE launched a new Line Patrols grid management and monitoring tool, referred to as the Hazard Event Restriction and Management Emergency System (HERMES), to aid in and automate, where possible, operating restrictions and switching during times of increased risk

¹⁵⁵³ Ex. SCE-04, Vol. 5, Pt. 4A at 57-58.

¹⁵⁵⁴ The PSPS Public Safety Partner Portal offers Public Safety Officials the ability to register, view pertinent information related to PSPS events, as well as plan for PSPS events by leveraging SCE data. The term Public Safety Partner refers to emergency first responders such as tribal, federal, state, and local governmental and nongovernmental public safety, fire, law enforcement, emergency response, emergency medical services providers (including hospital emergency facilities), and related personnel, agencies and authorities. (Ex. SCE-04, Vol. 5, Pt. 4A at 64; Ex. SCE-15, Vol. 5, Pt. 4, Appendix C at C70; D.19-05-042 at Appendix A).

hazards, including wildfire risk. A common use of HERMES will be to implement operating restrictions for parts of the distribution system with a high risk of wildfires, thereby lowering the potential ignition risk.¹⁵⁵⁵

Overall, SCE forecasts \$5.364 million in TY O&M expenses and \$37.715 million in capital expenditures (2023-2028) for PSPS Technology Solutions, including an adjustment for 2023 recorded costs.¹⁵⁵⁶ SCE's TY O&M forecast is based on a combination of vendor contracts and SCE labor for itemized activities. SCE's capital expenditure forecasts are associated with various projects to enhance or complete projects associated with IMT Customer Notifications, HERMES, and PSPS Website Improvement, and were developed using SCE's combination of budget-based IT cost estimation models.¹⁵⁵⁷

SCE's uncontested TY O&M and capital expenditure forecasts for PSPS Technology Solutions are reasonable and are adopted.

16.4.2. Aerial Suppression

To address the limited availability of aerial firefighting assets in SCE's service territory along with the risk of multiple, concurrent wildfires, SCE has partnered with local county firefighting agencies by providing funding to create a quick reaction force (QRF) of aerial firefighting resources. The QRF is composed of four aerial firefighting helicopters,¹⁵⁵⁸ support personnel, and

¹⁵⁵⁵ Ex. SCE-04, Vol. 5, Pt. 4A at 55-65.

¹⁵⁵⁶ Ex. SCE-15, Vol. 5, Pt. 4, Table I-1 and Table I-2 at 2-3.

¹⁵⁵⁷ Ex. SCE-04, Vol. 5, Pt. 4A at 56-67.

¹⁵⁵⁸ The helicopters include three helitankers and one intelligence and reconnaissance aircraft. (Ex. SCE-04, Vol. 5, Pt. 4A at 67).

equipment which are capable of being rapidly deployed in SCE's service area to conduct fire suppression operations.¹⁵⁵⁹

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. Beginning in December 2022, SCE entered into new funding agreements with these agencies to provide year-round coverage.¹⁵⁶⁰ All three funding agreements specify SCE would fund the costs of the stand-by portion of the lease agreements, while 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, and the local fire agencies are solely responsible for the safe and lawful use of the fire suppression assets, including issues related to deployment, maintenance, pilot readiness, *etc.*¹⁵⁶¹ SCE's 2025 TY forecast of \$35.000 million in O&M expenses for Aerial Suppression is based on the contractual terms of the most recent executed funding agreements available.¹⁵⁶²

Cal Advocates recommends SCE's forecast be reduced to \$26.516 million based on the following arguments: first, SCE's TY forecast relies on funding agreements that were executed in the 2022-2023 timeframe, and Cal Advocates claims the terms for the 2025 funding agreements could be different and result in lower costs if the QRF coverage is reduced. Second, Cal Advocates asserts each county should be responsible for funding days in which helicopters are

¹⁵⁵⁹ SCE OB at 231-232.

¹⁵⁶⁰ Ex. SCE-04, Vol. 5, Pt. 4A at 67-74.

¹⁵⁶¹ Ex. CA-10 at 29; Ex. SCE-15, Vol. 5, Pt. 4 at 27-28.

¹⁵⁶² SCE OB at 231-233.

deployed, and SCE should only be required to fund helicopter stand-by time. Based on information provided in the 2022-2023 MOUs, Cal Advocates recommends decreasing SCE's forecast to account for the number of days the helicopters are used by the counties.

SBUA argues that SCE has not justified "the need for the specific assets requested and the assets' connection with the risk posed to SCE's own electric equipment or from its own conduct," and states SCE's forecast for Aerial Suppression resources is very similar to its request in A.22-06-003, where the Commission found that "[g]oing forward, SCE should thoroughly explain and justify its proposed use of ratepayer funds to fund standby leasing of helicopters."¹⁵⁶³

In response, SCE states Cal Advocates does not provide any facts to support its assertion that the terms of the 2025 funding agreements will result in lower QRF costs, and notes the most recent executed QRF funding agreements for 2024 totaling \$36.059 million, which is higher than SCE's 2025 TY forecast. SCE also asserts Cal Advocates misconstrues the Aerial Suppression contractual arrangement, since SCE's contractual "stand-by" financial obligations for the QRF are fixed and do not vary based on whether the helicopters are dispatched for firefighting duty. Lastly, SCE argues the Commission has already considered and rejected the arguments presented by SBUA.

The Commission has already considered the merits of SCE's Aerial Suppression QRF arrangement, concluding "[i]t is reasonable for ratepayers to fund standby costs for helicopters used to fight fires that would threaten SCE

¹⁵⁶³ D.24-03-008 at 42.

infrastructure if not suppressed.”¹⁵⁶⁴ Given the recent occurrence of catastrophic wildfires which significantly damaged and/or destroyed in-service SCE distribution generation assets, resulting in hundreds of millions of dollars in repair and replacement costs,¹⁵⁶⁵ we continue to find SCE’s Aerial Suppression program to be prudent and beneficial to ratepayers. Concerning SCE’s forecast methodology for the Aerial Suppression activity, we find SCE’s use of the most recent 2023 executed QRF funding agreements for the 2025 forecast to be reasonable. GRC forecasts often rely on the best information at the time of filing. Since SCE negotiates with the three fire agencies each year to determine the stand-by costs for that year, the 2025 QRF funding agreement was not available at the time of SCE’s GRC filing, and SCE has provided sufficient evidence demonstrating that subsequent, executed QRF funding agreements are in line with SCE’s forecast. In contrast, Cal Advocates does not provide any evidence to support its claim that the terms for the 2025 funding agreements could be different, or result in lower costs, while Cal Advocates misconstrues the terms of the stand-by costs included in the aerial suppression contract arrangement.

For all these reasons, SCE’s 2025 TY forecast of \$35.000 million in O&M expenses for Aerial Suppression is reasonable and is approved.

16.4.3. Enhanced Situational Awareness

Enhanced Situational Awareness activities provide real-time information to support SCE’s operational decision-making, weather monitoring, and ability to prepare for and respond to emergencies. SCE’s 2025 TY O&M forecast of \$10.056 million is based on funding for three primary situational awareness tools:

¹⁵⁶⁴ D.24-03-008, Conclusion of Law 18.

¹⁵⁶⁵ Ex. SCE-15, Vol. 5, Pt. 4 at 30-31; D.24-03-008 at 40-41 and 80-81.

(1) Weather Stations; (2) High Definition (HD) Cameras; and (3) Wildfire Response, Modeling, Analysis and Weather Forecasting.

16.4.3.1. Weather Stations

SCE's weather stations provide data such as sustained wind speed, wind gust speed, direction of wind, humidity, and temperature to enhance SCE's situational awareness for severe weather and improve SCE's ability to monitor the effects of adverse weather conditions on SCE's electrical assets. SCE states that observations from weather stations are key inputs into machine learning models and produce actionable information to help meteorologists and grid operations specialists make informed decisions regarding PSPS execution.¹⁵⁶⁶

In 2025, SCE forecasts \$5.069 million in normalized O&M expenses to maintain 1,808 weather stations in SCE's HFRA.¹⁵⁶⁷ SCE's O&M forecast was developed using a normalized non-labor itemized approach taking into consideration vendor contracts. SCE also forecasts \$4.737 million in capital expenditures (including an adjustment for 2023 recorded costs) during 2023-2028 to install an additional 170 weather stations.¹⁵⁶⁸

Cal Advocates does not oppose SCE's request to maintain a network of 1,808 weather stations in 2025, but disputes the unit cost SCE used to develop its O&M forecast. Cal Advocates recommends using the 2022 recorded unit cost (\$1,863) for weather station maintenance and applying it to SCE's request for the number of weather stations in 2025, for a total TY expense amount of \$3.368 million.¹⁵⁶⁹

¹⁵⁶⁶ Ex. SCE-04, Vol. 5, Pt. 4A at 74-78.

¹⁵⁶⁷ SCE OB at 235-236.

¹⁵⁶⁸ Ex. SCE-04, Vol. 5, Pt. 4A, Table I-20 at 88; Ex. SCE-15, Vol. 5, Pt. 4, Table I-2 at 3.

¹⁵⁶⁹ Cal Advocates OB at 274-275.

In response, SCE states Cal Advocates' recommendation does not consider the costs associated with recent enhancements to collect weather data more frequently, which SCE performed in response to a directive from OEIS, as well as the installation of additional sub-transmission and transmission weather stations in more remote locations. SCE asserts these activities will require increased O&M expenses.¹⁵⁷⁰ Further, although historical costs for weather stations are not recorded in the same itemized format as SCE's GRC forecast, SCE states its data request responses to Cal Advocates demonstrate that recorded costs for the weather stations sub-activity increased in 2023 compared to 2022, and that the costs are expected to continue to increase.¹⁵⁷¹

We find SCE has provided sufficient justification to support its forecast Weather Stations O&M expenses for the 2025 TY. Given improvements in the frequency of weather observation intervals, and associated cellular data fees and labor calibrations, as well as the installation of additional sub-transmission and transmission weather stations in relatively remote locations, we agree with SCE that historical 2022 weather station unit cost data is not representative of the costs SCE is likely to incur in 2025. As such, it is reasonable for SCE to use a non-labor itemized approach to forecast this activity. SCE's 2025 TY forecast of \$5.069 million in O&M expenses to maintain 1,808 weather stations is approved. Additionally, we find reasonable and approve SCE's uncontested forecast of

¹⁵⁷⁰ Ex. SCE-15, Vol. 4, Pt. 4 at 35-36. According to SCE, increasing the frequency of data collection from its weather station network results in increased cellular data fees as well as time and labor to perform equipment calibrations, while it is more difficult to perform calibration in more remote weather station locations.

¹⁵⁷¹ Ex. SCE-15, Vol. 4, Pt. 4 at 35-37 and Appendix A at 407-416; SCE OB at 235-237.

\$4.737 million in capital expenditures to install an additional 170 weather stations during the 2023-2028 period.

16.4.3.2. High Definition Cameras

SCE collaborates with the University of California, San Diego (UCSD) and other public safety partners to procure, install, and maintain pan-tilt-zoom HD cameras, which are used to gather early information regarding fire progression. In addition to providing SCE's Fire Management team with information to help SCE protect assets that may be threatened by fires, HD cameras also provide timely information to fire agencies to allow them to deploy air and ground resources to contain fires in SCE's service territory.

SCE forecasts \$4.315 million in TY O&M expenses to maintain 226 HD cameras.¹⁵⁷² The O&M forecast uses a unit cost of approximately \$0.019 million based on itemized subscription fees, network communication fees, and tower lease fees.¹⁵⁷³ SCE also forecasts \$0.388 million in capital expenditures, including an adjustment for 2023 recorded costs, during 2023-2024 to install up to 20 new HD cameras as well as satellite and other remote sensing capabilities.¹⁵⁷⁴

Cal Advocates recommends TY O&M expenses of \$2.428 million for 222 HD cameras, or a \$1.887 million reduction to SCE's request. Cal Advocates' recommendation is premised on the following points: first, Cal Advocates asserts SCE will only be required to maintain 222 HD cameras in 2025 (*i.e.*, four cameras fewer than SCE's forecast).¹⁵⁷⁵ Second, Cal Advocates asserts that SCE's unit cost

¹⁵⁷² Ex. SCE-04, Vol. 5, Pt. 4A at 76 and 86; SCE OB at 234.

¹⁵⁷³ Ex. SCE-04, Vol. 5, Pt. 4 WP at 86.

¹⁵⁷⁴ Ex. SCE-04, Vol. 5, Pt. 4A at 88; Ex. SCE-15, Vol. 5, Pt. 4, Table I-2 at 3.

¹⁵⁷⁵ Cal Advocates' assertion is based on the installation of 16 HD cameras in 2022. (Cal Advocates OB at 273).

is excessive and unsupported, and recommends using a unit cost based on 2022 recorded expenses.¹⁵⁷⁶

In response, SCE asserts its forecast to maintain 226 HD cameras beginning in 2025 is based on the estimated installation of 20 HD cameras each year from 2022-2024. Although SCE installed 16 HD cameras in 2022, SCE states it is not foreclosed from installing additional cameras if gaps in situational awareness are identified and the need to provide additional coverage arises. Further, SCE asserts the O&M unit cost is based on a Statement of Work provided by UCSD; that the 2022 recorded unit cost does not account for the expiration of a vendor discount as well as increased artificial intelligence research and development costs; and that SCE's 2023 recorded costs show an increase over 2022 to maintain the HD cameras.¹⁵⁷⁷

We approve approximately \$4.239 million in TY O&M expenses for the HD Cameras activity, based on SCE's forecast unit cost and assuming the installation of 222 HD cameras. Since the HD cameras are procured, installed, and maintained in partnership with UCSD, it is reasonable for SCE to base the HD camera unit cost on the most recent Statement of Work provided by UCSD. However, we are not convinced SCE will install the full projected 226 cameras by 2025. As noted by Cal Advocates, in 2022 SCE installed 16 HD cameras, and not the 20 as planned. For 2023, SCE had only installed 10 cameras as of September 1, 2023.¹⁵⁷⁸ While SCE is correct that these prior installation rates do not preclude SCE from installing additional cameras, SCE has not provided

¹⁵⁷⁶ Cal Advocates OB at 273-274.

¹⁵⁷⁷ Ex. SCE-15, Vol. 4, Pt. 4 at 35; SCE OB at 234-235.

¹⁵⁷⁸ Cal Advocates OB at 273.

sufficient evidence in this proceeding demonstrating that it is likely to install the full 226 cameras by 2025. Further, SCE's ability to install additional cameras is dependent upon the availability of third-party towers;¹⁵⁷⁹ SCE has not presented any information in this proceeding concerning the availability of these third-party towers, and it is unclear whether this leasing arrangement will further constrain SCE's ability to install the full 226 cameras by 2025.

We find reasonable and approve SCE's uncontested \$0.388 million capital expenditure request for the HD Camera activity (2023-2024), which includes adjustments to SCE's initial forecast based on the 2023 recorded costs.

16.4.3.3. Wildfire Response, Modeling, Analysis, and Weather Forecasting

The Wildfire Response, Modeling, Analysis, and Weather Forecasting program is staffed by meteorologists, fire scientists, and other fire management personnel who advance SCE's weather modeling and situational awareness capabilities to better understand the factors leading to increased fire risk. SCE's forecast of \$0.673 million in 2025 TY O&M expenses for Wildfire Response, Modeling, Analysis, and Weather Forecasting is based on the labor costs for three meteorologists, one fire scientist, and a fire management officer, as well as O&M expenses for Google cloud services and infrastructure support.¹⁵⁸⁰

SCE's uncontested 2025 TY O&M forecast of \$0.673 million for Wildfire Response, Modeling, Analysis, and Weather Forecasting is reasonable and is approved.

¹⁵⁷⁹ SCE only installs HD cameras on third-party towers, which are existing non-SCE towers where UCSD was able to obtain a lease. (Ex. SCE-15, Vol. 5, Pt. 4 at 34).

¹⁵⁸⁰ Ex. SCE-04, Vol. 5, Pt. 4A at 86-87.

16.4.4. Fire Science and Advanced Modeling

The Fire Science and Advanced Modeling activity includes the following projects and sub-activities that support situational awareness, PSPS, and various grid hardening efforts:

- Advanced Modeling Computer Hardware: SCE utilizes high-performance computing to run its in-house weather models, which are used to generate daily one-kilometer hourly outputs of weather, fuel moisture, and fire potential data. Between 2025-2028, SCE is planning to replace its four existing High-Performance Computing Clusters as they reach the end of their expected life cycle.
- Fire Science Enhancements: SCE uses a Santa Ana Wind Outlook subscription to receive one-month and three-month ahead forecasts of Santa Ana winds over its service territory, as well as Self-Organized Maps, a form of pattern recognition used to identify meteorological scenarios that lead to extreme weather events.
- Fire Potential Index: The Fire Potential index provides an estimate of fire potential risk at the circuit level, and is a direct input into PSPS decision-making. In 2022, SCE formulated a new Fire Potential Index (FPI 2.0) by placing more emphasis on wind speeds and adding a new fuels component. SCE plans to continue to evaluate the performance of FPI 2.0 with the long-term goal of integrating it into the PSPS decision-making process.
- Fire Spread Modeling: SCE uses Fire Spread Modeling technology to help assess fire potential. For example, in 2021 SCE completed a Surface and Canopy Fuels Mapping layer that accounts for vegetation types and amounts, and is used as an input into all fire spread modeling calculations. SCE has identified additional functionality for Fire Spread Modeling to be used in PSPS decision-making, and is working with vendors to ensure the added functionality will meet SCE's needs.

- Fuel Sampling Program: SCE takes bi-weekly measurements of vegetation moisture at fifteen sites across its service area. This sampling provides ground-truth observations that help assess how receptive fuels are to fire, help align Fire Potential Index values, and help train machine learning models that provide estimates of live fuel moisture.
- Remote Sensing: Remote sensing is a rapidly expanding, diverse industry that can provide a broad array of information on the characteristics and health of vegetation. SCE anticipates a more concentrated effort in 2025 and beyond to leverage this technology.
- Climate Change Modeling: In 2025, SCE will begin the process of creating high-resolution data for multiple Global Climate Models with hourly temporal resolution of various weather and fuel parameters. SCE states that these datasets will allow for detailed analysis of trends in weather, fuels, and fire potential, and may help determine trends in the number of PSPS events.
- Academic Research Partnerships: SCE has partnered with the academic community to devise a new tool to derive more complete wind risk profiles along infrastructure during PSPS events and to develop local nowcasting techniques. In addition to maintaining and adjusting this tool based on current research and data, SCE plans to expand these partnerships with the goal of improving weather forecasting capabilities.
- Weather and Fuels Modeling: SCE's in-house weather and fuels modeling capabilities help SCE determine when and where severe weather conditions will impact grid infrastructure. SCE states it is vital that current operational weather and fuels modeling capabilities are maintained and planned improvements continue. Among other activities, SCE plans to continue to make improvements to wind speed and humidity forecasts, develop new weather visualization and data manager tools to allow users to quickly view and analyze large sets of weather and fuel

data, and to continue annual updates of historical datasets.¹⁵⁸¹

In 2025, SCE forecasts \$7.093 million in O&M expenses for Fire Science and Advanced Modeling activities.¹⁵⁸² SCE's TY O&M forecast is based on vendor quotes, subscription fees, project based historical costs, and itemized forecasting for each of the sub-work activities. In addition, SCE forecasts \$6.301 million in capital expenditures for these activities from 2023 to 2028, including an adjustment for 2023 recorded data.¹⁵⁸³ The majority of SCE's capital expenditure forecast is associated with the replacement of SCE's four High-Performance Computing Clusters.¹⁵⁸⁴

SCE's uncontested O&M and capital expenditure forecasts for Fire Science and Advanced Modeling activities are reasonable and are approved.

16.4.5. Environmental Programs

SB 901 (Stats. 2018, ch. 626) mandates certain activities for the State Water Resources Control Board (SWRCB), such as overseeing regulatory compliance with certain dredge and fill activities conducted by electrical utilities pursuant to a WMP on lands adjacent to waters of the state. Pursuant to that authority, the SWRCB adopted an annual fee that funds SWRCB staff to develop a statewide, expedited permit for utility work under SB 901. SCE forecasts \$0.639 million in TY O&M expenses to cover the anticipated SWRCB agency fee payment. SCE's

¹⁵⁸¹ Ex. SCE-04, Vol. 5, Pt. 4A at 89-94.

¹⁵⁸² Ex. SCE-15, Vol. 5, Pt. 4, Table I-1 at 2.

¹⁵⁸³ Ex. SCE-15, Vol. 5, Pt. 4, Table I-2 at 3.

¹⁵⁸⁴ Ex. SCE-04, Vol. 5, Pt. 4A at 104-105.

O&M forecast is calculated based on a flat fee applied to the total relevant overhead conductor miles included in SCE's WMP.¹⁵⁸⁵

SCE's uncontested TY O&M forecast for Environmental Programs activities is reasonable and is approved.

**16.5. Grid Hardening Wildfire Risk
Mitigation Balancing Account/
Grid Hardening Balancing Account**

In SCE's 2021 GRC, the Commission authorized SCE to create a two-way Wildfire Risk Mitigation Balancing Account (WRMBA) to track the difference between the WCCP capital expenditures authorized by the Commission and SCE's recorded expenses for these activities. As specified in D.21-08-036, recovery of any undercollection less (or overcollection more) than 110 percent of the authorized amount is permitted via a Tier 2 advice letter, while recorded capital expenditures in excess of this amount shall be filed as an application.¹⁵⁸⁶

SCE proposes to continue the WRMBA with the following modifications: (1) expand the scope of the WRMBA to include additional grid hardening capital expenditures from 2025 to 2028, in addition to capital expenditures associated with WCCP; (2) change the name of the account from the WRMBA to the Grid Hardening Balancing Account (GHBA) to reflect this expanded scope; and (3) eliminate the threshold for additional reasonableness review or increase the threshold from 110 percent to 125 percent.¹⁵⁸⁷

TURN does not oppose SCE's proposal to include additional grid hardening activities in the WRMBA/GHBA, but recommends the

¹⁵⁸⁵ Ex. SCE-04, Vol. 5, Pt. 4A at 105-108.

¹⁵⁸⁶ D.21-08-036, Ordering Paragraph 15.

¹⁵⁸⁷ SCE OB at 434.

WRMBA/GHBA be converted to a one-way balancing account, consistent with the Commission's decision in PG&E's 2023 TY GRC, and include a separate subaccount for TUG expenditures.¹⁵⁸⁸ TURN seeks caps on the exact number of TUG miles that SCE can perform during the 2025 GRC cycle. TURN also opposes SCE's proposal to either eliminate or increase the threshold for an additional reasonableness review. TURN argues that SCE's proposed wildfire grid hardening activities include a degree of utility influence and control, and as such there needs to be a rigorous reasonableness review showing required.¹⁵⁸⁹

SBUA opposes SCE's proposal to eliminate or increase the threshold for reasonableness review. SBUA also proposes that SCE's TUG program be accounted for in a separate two-way balancing account.¹⁵⁹⁰

In response, SCE asserts: (1) the history of SCE's WRMBA is quite different from the recent changes approved to the Wildfire Mitigation Balancing Account in PG&E's 2023 GRC; (2) the GHBA will only be used to track limited programs — WCCP, TUG, REFCL, and the Long Span Initiative — that are prudent investments in grid hardening and that will improve the grid's ability to withstand faults and reduce the likelihood of wildfires; (3) in SCE's 2021 GRC, the Commission found that, when a forecast is uncertain, use of a balancing or memorandum account can reduce risk for both customers and investors; (4) TURN's proposed one-way balancing account is contrary to Pub. Util. Code Section 8386.4; (5) TURN's proposal is inconsistent with the Commission's traditional purpose for adopting one-way balancing accounts in GRCs; and

¹⁵⁸⁸ D.23-11-069 at 485-486.

¹⁵⁸⁹ Ex. TURN-15-E2 at 7-9; TURN OB at 198-206 and 400-403; TURN RB at 133-136.

¹⁵⁹⁰ Ex. SBUA-01 at 29.

(6) because SCE tracks costs at the GRC Activity level, intervenors will be able to identify and segregate TUG funds, regardless of the cost recovery mechanism.¹⁵⁹¹

This decision modifies the existing WRMBA to be a one-way, rather than a two-way, balancing account, and eliminates the current 110 percent reasonableness threshold. The capital expenditures being tracked in the WRMBA shall continue to be limited to the WCCP. In addition, this decision authorizes SCE to establish a new two-way balancing account to track the difference between the TUG and REFCL capital expenditures authorized in this decision and SCE's recorded expenditures for these activities. For TUG, SCE is authorized to record in the GHBA the costs to underground up to 212 miles, corresponding to the level of undergrounding approved in this decision. For REFCL, as discussed elsewhere, SCE is authorized to spend an additional \$20 million above the approved REFCL capital forecast in this proceeding. This new two-way balancing account shall be subject to the 110 percent cost review threshold and associated review processes described in D.21-08-026.¹⁵⁹² SCE is authorized to modify the names of the WRMBA and GHBA, as necessary, to better reflect the types of costs being tracked within.

In approving the two-way WRMBA in 2021, the Commission cited the significant scope of covered conductor deployment being approved, the potential for SCE's covered conductor unit costs to be higher or lower than forecast, and the general uncertainty regarding the proposed split between fire-resistant wraps and composite poles.¹⁵⁹³ The Commission also limited the wildfire mitigation

¹⁵⁹¹ Ex. SCE-18, Vol. 1 at 17-18; SCE OB at 435-438; SCE RB at 217-218.

¹⁵⁹² See D.21-08-036 at 249-250.

¹⁵⁹³ D.21-08-036 at 249.

capital expenditures being tracked in the WRMBA to SCE's WCCP, finding that SCE's other requested wildfire mitigation activities were significantly smaller in scope and were based on more established historical or unit costs.¹⁵⁹⁴

With over 6,200 circuit miles of covered conductor expected to be deployed through the WCCP by the end of 2024, SCE now has extensive experience deploying covered conductor.¹⁵⁹⁵ In consideration of these factors, and consistent with our decision in PG&E's GRC, we find there is insufficient evidence of "uncertainty" to warrant continuation of the WRMBA in its current format. Accordingly, the Commission finds it reasonable to modify the WRMBA for this rate case period (2025–2028) to be a one-way balancing account, rather than a two-way balancing account, with the 110 percent threshold eliminated. Capital expenditures being tracked in the WRMBA shall continue to be limited to the WCCP.

In addition, this decision authorizes SCE to establish a new two-way balancing account, the GHBA, to track TUG and REFCL-related capital expenditures. Unlike the WCCP, the amount of undergrounding approved in this decision reflects a significant increase to SCE's historic level of TUG work. Further, the weighted unit TUG cost adopted in this decision is based on a mix of anticipated low-to-high level difficulty projects, while SCE's actual TUG costs are expected to vary from project to project. Given these uncertainties, SCE is authorized to track, in the GHBA, TUG-related capital expenditures up to the 212 miles of undergrounding (2025–2028) approved in this decision. Since SCE did not sufficiently justify its full TUG proposal in this proceeding, SCE is not

¹⁵⁹⁴ D.21-08-036 at 250.

¹⁵⁹⁵ Ex. SCE-04, Vol. 5, Pt. 2A at 6, 33-34, and 53; SCE OB at 30.

authorized to record TUG-related capital costs above the 212 miles approved in this decision in the GHBA. Instead, should SCE determine that additional undergrounding is necessary, SCE already has existing authority under Pub. Util. Code Section 8386.4(b)(1) to track, via the WMPMA, the incremental costs incurred to implement its approved WMP for fire risk mitigation activities that are not otherwise covered in SCE's revenue requirements. Additionally, Pub. Util. Code Section 454.9 authorizes SCE to track costs associated with repairing, restoring, or replacing utility facilities in connection with declared disaster events through the Catastrophic Event Memorandum Account (CEMA). Additional guidance is provided elsewhere in this decision in the event SCE records incremental undergrounding costs in either of these memorandum accounts. As discussed elsewhere, this decision also approves an additional \$20 million above SCE's request to install incremental REFCL technologies to address 200 miles of covered conductor.

For recorded capital expenditures in the GHBA, recovery of any above-authorized spending shall occur via application where SCE will have the burden of demonstrating reasonableness. Undergrounding is the most expensive grid hardening mitigation available.¹⁵⁹⁶ Given the considerable costs associated with undergrounding, we find it prudent and consistent with the "just and reasonable" standard of Pub. Util. Code Section 451 to require a thorough assessment of any above-authorized spending.

Lastly, for the purpose of this decision, we utilize SCE's proposed GHBA as the name of the account to track TUG and REFCL-related capital expenditures, described above. SCE is authorized to change the account names of the GHBA

¹⁵⁹⁶ SCE OB at 194.

and/or the WRMBAs to better reflect the specific types of costs being tracked in these accounts, so long as any account name changes are clearly described by SCE in subsequent applications or advice letter filings seeking associated cost review and recovery.

17. T&D Other Costs and Other Operating Revenue

17.1. T&D Other Costs

T&D Other Costs consists of O&M expenses for miscellaneous T&D contract, operations, and maintenance costs, including:¹⁵⁹⁷

- Work Order Write-Offs: Expenses associated with cancelled projects and uncollected costs for billable work orders;
- T&D Line Rents: Expenses SCE incurs to rent property it does not own, but which is required for SCE's T&D system, as well as the rental of sites where SCE has placed telecommunications equipment;
- Underground Utility Locating Service: Costs for SCE to be a member of, and participate in, a regional notification center for calls related to locating underground facilities, and for underground facilities to be located and marked prior to excavation;
- Capital-Related Expenses: Expenses incurred for work that must be done when capital additions or replacements are performed, but which do not qualify for capitalization in accordance with standard accounting guidelines;
- Interconnection, Added Facilities, and Special Contracts: Encompasses the activities of three organizations within SCE, tasked with: (1) managing interconnection requests related to the connection of renewable energy to SCE's electrical system; (2) managing the contracts under which generators and other parties connect to SCE's electrical grid; and (3) managing the payment of funds under SCE

¹⁵⁹⁷ Ex. SCE-02, Vol. 11 at 6-32.

Tariff Rules associated with line and service extension projects, as well as other requests, such as temporary electric services and relocation of electric facilities; and

- Utility Joint Ownership Obligations: Expenses associated with contracts with other utilities, where SCE is a transmission participant and must pay a share of the costs.

SCE's TY O&M forecast for these activities totals \$128.029 million.¹⁵⁹⁸

SCE's forecast is based on a combination of historic average or last year recorded expenses; the application of observed year-over-year line rent changes; the Federal Bureau of Land Management's most recent rent schedules; and a five-year ratio of capital-related expense to capital expenditures for the last year recorded multiplied by forecast capital expenditures.¹⁵⁹⁹ SCE's T&D Other Costs request is uncontested.

We find reasonable and approve SCE's TY O&M forecast for T&D Other Costs.

17.2. T&D Other Operating Revenue

SCE receives Other Operating Revenue (OOR) from transactions not associated with the sale of electric energy. Tariffed OOR is based on CPUC- or FERC-approved rates. Tariffed OOR offsets the revenue requirement SCE would otherwise collect from customers. SCE's T&D OOR activities include: ownership charges, pole rentals, T&D services, generation radial tie-lines, tie-line facilities rental agreements, miscellaneous revenue, SCE-financed added/interconnection facilities, customer-financed added/interconnection facilities, and interconnection request fees.¹⁶⁰⁰

¹⁵⁹⁸ Ex. SCE-02, Vol. 11E4 at 1.

¹⁵⁹⁹ Ex. SCE-02, Vol. 11 at 10, 14-15, 18, 21-22, 31, and 33.

¹⁶⁰⁰ Ex. SCE-02, Vol. 11 at 34.

SCE's TY O&M forecast for T&D OOR totals \$150.564 million.¹⁶⁰¹ SCE's forecast is based on a combination of historic average or last year recorded expenses; an estimate of the total number of pole attachments/conduit/inspections multiplied by the applicable rate; existing contracts/agreements; customer requests for new pole attachments, added facilities, or interconnection facilities; and FERC-approved rates.¹⁶⁰² SCE's T&D OOR forecast is uncontested.

We find reasonable and approve SCE's 2025 TY O&M forecast for T&D OOR.

18. Customer Service Operations

The Customer Service Operations testimony volume includes the following elements: (1) Billing and Payments; (2) Customer Contacts; (3) Customer Service Re-Platform Memorandum Account; and (4) Customer Service-Related OOR. In addition, this section of the decision addresses four recommendations provided by CalCCA concerning SCE's billing practices and policies.

SCE forecasts combined 2025 TY O&M expenses of \$127.356 million and combined capital expenditures of \$7.295 million (2023–2025) for Billing and Payments and Customer Contacts.¹⁶⁰³ Cal Advocates and TURN recommended combined TY O&M reductions of \$12.389 million and \$13.212 million, respectively, to SCE's initial forecast. Cal Advocates also recommended a

¹⁶⁰¹ Ex. SCE-02, Vol. 11E4 at 1.

¹⁶⁰² Ex. SCE-02, Vol. 11 at 35, 37-38, 40-43, 47, 49, 50, and 52.

¹⁶⁰³ Capital and O&M forecasts based on SCE's rebuttal position and updated Postage Expense included in SCE's update testimony. SCE's initial forecast for Billing and Payments and Customer Contacts, as reflected in SCE's direct testimony, included \$135.378 million in TY O&M expenses and \$7.037 million in 2023–2025 capital expenditures. (Ex. SCE-14, Vol. 1E at 2; Ex. SCE-40 at 20-21).

combined reduction of \$1.845 million to SCE's initial capital expenditure forecast.¹⁶⁰⁴ Subsequently, SCE, TURN, and Cal Advocates submitted a stipulation addressing all contested elements of SCE's Billing and Payments request. These parties also submitted a stipulation addressing all elements of SCE's Customer Contacts request. Portions of SCE's request to recover certain costs recorded in the Customer Service Re-Platform Memorandum Account and SCE's TY forecast for Customer Service-Related OOR are contested by Cal Advocates and CalCCA.

18.1. Billing and Payments

The Billing and Payments BPE encompasses the activities associated with establishing new service accounts, administering credit policies, delivering bills and associated notices, and processing customer payments. In 2022, SCE delivered approximately 65.9 million billing statements (printed and electronic), notices, reminders, and other correspondence to its 4.5 million customers.¹⁶⁰⁵ Billing and Payment work activities include: (1) Billing Services; (2) Postage; (3) Credit and Payment Services; (4) Uncollectible Expenses; and (5) Billing and Payments Capital. Each activity is briefly summarized below. Discussion of the stipulation between SCE, TURN, and Cal Advocates, which addresses most of the O&M and capital revenue requirement requests for the Billing and Payments BPE, is provided in Section 18.3 (Stipulations Between SCE, TURN, and Cal Advocates).

¹⁶⁰⁴ Ex. SCE-14, Vol. 1E at 2.

¹⁶⁰⁵ Ex. SCE-03, Vol. 1 at 9.

18.1.1. Billing Services

The purpose of the Billing Services activity is to provide timely and accurate billing services for SCE's approximately 4.5 million customers and 5.2 million service accounts. Billing Services encompasses the development, management, maintenance, and support for SCE's customer usage and billing processes. The primary activities for Billing Services include: (1) billing exception processing; (2) process oversight and support; (3) mailing operations; (4) digital labor; (5) project management; (6) rate implementation; and (7) move-in/move-outs.¹⁶⁰⁶

SCE's 2025 TY O&M forecast for Billing Services is \$47.394 million. SCE's forecast is based on 2022 recorded costs plus adjustments. The adjustments include increases from the 2022 Base Year of \$1.071 million for net energy metering (NEM) application processing; \$0.374 million for a productivity tracking initiative; \$0.187 million for customer solutions integration; \$0.341 million for move-ins and move-outs; and \$1.672 million for changes to SCE's Employee Compensation Program. It also includes reductions of \$0.930 million for SCE's Operational Efficiency measures; \$0.248 million related to digital labor; \$0.395 million related to mailing operations; and \$0.755 million associated with SCE's Operational Excellence initiatives.¹⁶⁰⁷

Cal Advocates recommended a reduction of \$2.017 million to SCE's initial forecast, for a forecast of \$46.133 million. TURN recommended a reduction of \$2.225 million to SCE's initial forecast, for a forecast of \$45.925 million. No other party contested SCE's forecast.

¹⁶⁰⁶ Ex. SCE-03, Vol. 1 at 13-19.

¹⁶⁰⁷ Ex. SCE-03, Vol. 1 at 23-29; SCE OB at 238.

Cal Advocates, TURN, and SCE subsequently stipulated to a 2025 TY forecast of \$46.712 million, consisting of \$31.050 million labor expenses and \$15.662 million non-labor expenses.¹⁶⁰⁸ As discussed in Section 18.3, we find reasonable and approve the stipulated TY O&M forecast of \$46.712 million for Billing Services.

18.1.2. Postage

Postage expense consists of the costs to send billing statements, notices, and correspondence to SCE customers. In recent years, mailing costs have been lowered significantly by encouraging customers to convert to electronic billing. SCE reports a reduction of 23.2 percent in physical mailings between 2018 to 2022, from 40.6 million mailings to 31.2 million mailings.¹⁶⁰⁹

SCE's 2025 TY O&M forecast for Postage is \$13.346 million, which consists entirely of non-labor expenses. SCE's forecast is based on forecast bill, notice, and letter volumes and includes adjustments to bill volumes for anticipated customer growth and electronic bill adoption. It also includes a reduction of \$2.372 million associated with Operational Excellence initiatives and an increase of \$0.730 million to reflect a postage rate increase.¹⁶¹⁰ SCE's Postage forecast is uncontested.

We find reasonable and approve SCE's TY O&M Postage forecast of \$13.346 million.

¹⁶⁰⁸ Ex. SCE-25 at 1-2; SCE OB at 238.

¹⁶⁰⁹ Ex. SCE-03, Vol. 1 at 30-31.

¹⁶¹⁰ Ex. SCE-03, Vol. 1 at 35-37; SCE OB at 238-239.

18.1.3. Credit and Payment Services

Credit and Payment Services work is divided into three main activities: (1) credit services, which functions to mitigate loss of revenue by acquiring adequate security for newly-established customers and higher-risk existing customers; (2) collection activities, which includes tracking, monitoring, and performing follow-up actions on delinquent active and closed accounts; and (3) payment services, which provides SCE customers with a variety of payment options (including electronic payment options).¹⁶¹¹

SCE's 2025 TY O&M forecast for Credit and Payment Services is \$12.897 million. SCE's forecast is based on 2022 recorded costs plus adjustments. These adjustments include increases of \$0.701 million for return to pre-pandemic disconnections and reconnection levels; \$0.665 million for vendor-related adjustments; and \$0.344 million for SCE's Employee Compensation Program.¹⁶¹² SCE's forecast is uncontested.

SCE, TURN, and Cal Advocates stipulated to a TY O&M forecast of \$12.897 million, consisting of \$7.848 million in labor expenses and \$5.049 million in non-labor expenses.¹⁶¹³ As discussed in Section 18.3, we find reasonable and approve the stipulated TY O&M forecast of \$12.897 million for Credit and Payment Services.

18.1.4. Uncollectible Expenses

Uncollectible expenses reflect the amount of revenue SCE is unable to collect despite collection efforts. SCE's 2025 forecast for Uncollectible Expenses is

¹⁶¹¹ Ex. SCE-03, Vol. 1 at 38-42.

¹⁶¹² Ex. SCE-03, Vol. 1 at 45-50; SCE OB at 239.

¹⁶¹³ Ex. SCE-25 at 2; SCE OB at 239.

a factor of 0.209 percent, which is based on the historical 10-year average from 2014–2023.¹⁶¹⁴ SCE states its forecast follows the methodology ordered in D.22-10-004. For subsequent years in this GRC period, SCE states it will update the uncollectible expenses factor 10-year average in an annual advice letter.¹⁶¹⁵ SCE’s forecast is uncontested.

In D.22-10-004, approving SCE’s 2020 Energy Resource Recovery Account entries and related matters, the Commission ordered SCE to “fully align its authorized uncollectibles methodology with San Diego Gas & Electric Company’s and Pacific Gas and Electric Company’s methodologies in SCE’s next general rate case by adjusting its uncollectibles factor calculation methodology to update annually and by revising its authorized uncollectibles to incorporate billed revenues rather than historical write-offs.”¹⁶¹⁶ PG&E and SDG&E calculate their uncollectibles factor annually using a rolling 10-year average of recorded write-offs, with a two-year lag.¹⁶¹⁷ SCE states it did not have recorded write-offs for 2023 at the time of its GRC filing, but adjusted the historical 10-year average to reflect the 2014–2023 time period in update testimony.¹⁶¹⁸ We find SCE’s forecast methodology and proposed 2025 uncollectible expenses factor of 0.209 percent to be consistent with direction provided in D.22-10-004. Accordingly, we authorize SCE’s 2025 forecast as proposed.

¹⁶¹⁴ Ex. SCE-40 at 23-24.

¹⁶¹⁵ Ex. SCE-03, Vol. 1 at 50-52; SCE OB at 239.

¹⁶¹⁶ D.22-10-004, Ordering Paragraph 6.

¹⁶¹⁷ Ex. SCE-03, Vol. 1 at 51.

¹⁶¹⁸ Ex. SCE-14, Vol. 1 at 51; Ex. SCE-40 at 23-24.

18.1.5. Billing and Payments Capital

SCE proposes two Billing and Payments capital projects during this GRC. The first project is the Mailing Operations Capital Project, which includes the replacement of SCE's commercial-grade printers at its headquarters in Rosemead, which SCE uses to print bills and customer correspondence. The current system, which includes printers and inserters (which fold and insert bills into individual envelopes), was placed in service in 2011 and 2012, and its printers will reach the end of support in March 2024. SCE also plans to retire its mailing operations location in Irvine, which currently serves as a disaster recovery facility should the Rosemead location be disabled, and will contract with a third party to print bills and correspondence in the event that the Rosemead location is unable to do so due to a disaster.¹⁶¹⁹ The second capital project is for the development and implementation of new software automations, which automate Billing and Payment processes that would otherwise require manual labor processing.¹⁶²⁰

SCE's combined 2023–2025 capital expenditures forecast for Mailing Operations and Software Automation is \$7.295 million. This consists of recorded capital expenditures of \$5.420 million in 2023, forecast capital expenditures of \$0.125 million in 2024, and forecast capital expenditures of \$1.750 million in 2025.¹⁶²¹ Cal Advocates recommended \$5.192 million for 2023–2025 capital expenditures, based on opposition to SCE's initial 2023 forecast.¹⁶²² As noted above, in its rebuttal testimony, SCE adjusted its 2023–2025 capital expenditures

¹⁶¹⁹ Ex. SCE-03, Vol. 1 at 57-59.

¹⁶²⁰ Ex. SCE-03, Vol. 1 at 60-61.

¹⁶²¹ Ex. SCE-14, Vol. 1, Table II-12 at 17.

¹⁶²² Ex. CA-12 at 12-15.

forecast for Mailing Operations and Software Automation to include 2023 recorded expenditures. No other party contested SCE's forecast.

As part of a broader Billing and Payments and Customer Contacts stipulation, SCE, TURN, and Cal Advocates subsequently stipulated to a 2023–2025 capital expenditures forecast of \$7.295 million for Billing and Payments Capital, consisting of \$5.420 million recorded for 2023, \$0.125 million forecast for 2024, and \$1.750 million forecast for 2025. As discussed in Section 18.3, we find reasonable and approve the stipulated capital expenditure forecast for Billing and Payments Capital.

18.2. Customer Contacts

Customer Contacts activities include the various channels for customers to interact with SCE. The Customer Contacts BPE encompasses the Customer Contact Center (CCC) and Escalated Complaints and Outreach activities. The revenue requirement for all of SCE's Customer Contact activities is addressed as part of the broader stipulation between SCE, TURN, and Cal Advocates.

18.2.1. Customer Contact Center

The CCC is responsible for fulfilling customer requests for service, addressing credit and billing inquiries, identifying and describing usage patterns to customers, providing technical support for SCE.com, working with field organizations to resolve customer issues, and discussing energy solutions and products with customers. The CCC also responds to emergency calls regarding outages, damaged equipment, and service disconnections 24 hours a day, seven days a week. From 2018 to 2022, SCE's CCC handled an average of 13.7 million inbound calls annually.¹⁶²³

¹⁶²³ Ex. SCE-03, Vol. 1 at 62.

SCE's 2025 TY O&M forecast for the CCC is \$52.177 million. SCE's forecast is based on 2022 recorded costs plus adjustments. The adjustments include increases of \$7.833 million for frontline CCC activities; \$1.281 million for CCC support activities; and \$1.556 million for SCE's Employee Compensation Program. It also includes reductions of \$2.165 million for operational efficiencies; \$3.491 million associated with SCE's Operational Excellence initiatives; and \$2.133 million attributed to outbound credit call activity.¹⁶²⁴

Cal Advocates recommended a reduction of \$8.000 million to SCE's initial forecast, for a forecast of \$49.801 million. TURN recommended a reduction of \$8.615 million to SCE's initial forecast, for a forecast of \$49.186 million. No other party contested SCE's forecast.

Cal Advocates, TURN, and SCE subsequently stipulated to a 2025 TY forecast of \$50.835 million for the CCC, consisting of \$35.371 million in labor expenses and \$15.464 million in non-labor expenses.¹⁶²⁵ As discussed in Section 18.3, we find reasonable and approve the stipulated TY O&M forecast for the CCC.

18.2.2. Escalated Complaints and Outreach

The Escalated Complaints and Outreach work activity is performed by SCE's Consumer Affairs organization. In addition to handling escalated customer inquiries and complaints, Consumer Affairs monitors and responds to customer inquiries and complaints that come through SCE's social media channels. Consumer Affairs also provides various customer assistance, such as supporting vulnerable customers dependent on electric medical or mobility

¹⁶²⁴ Ex. SCE-03, Vol. 1 at 79-87; Ex. SCE-14, Vol. 1 at 20-21; SCE OB at 240.

¹⁶²⁵ Ex. SCE-29 at 1-2; SCE OB at 240-245.

equipment and helping Critical Care¹⁶²⁶ customers avoid disconnections for nonpayment.¹⁶²⁷

SCE's 2025 TY O&M forecast for Escalated Complaints and Outreach is \$1.542 million. SCE's forecast is based on 2022 recorded costs plus increases of \$0.272 million for increased Consumer Affairs support and \$0.071 million for the Employee Compensation Program applicable across the company.¹⁶²⁸ No party contested SCE's forecast.

SCE, TURN, and Cal Advocates stipulated to a 2025 TY forecast of \$1.542 million for Escalated Complaints and Outreach, consisting of \$1.490 million in labor expenses and \$0.052 million in non-labor expenses.¹⁶²⁹ As discussed in Section 18.3, we find reasonable and approve the stipulated TY O&M forecast for Escalated Complaints and Outreach.

18.3. Stipulations Between SCE, TURN, and Cal Advocates

As stated above, SCE, TURN, and Cal Advocates stipulated to O&M and capital revenue requirement amounts for several activities within the Billing and Payments BPE (including Billing Services, Credit and Payment Services, and Billing and Payments Capital). These parties also reached a stipulation addressing the revenue requirements for the Customer Contacts BPE. A summary of the stipulations and initial party positions is provided below.¹⁶³⁰

¹⁶²⁶ Critical Care customers are defined as Medical Baseline customers who cannot be without electrically operated medical equipment for more than two hours. (Ex. SCE-03, Vol. 1, footnote 123 at 63).

¹⁶²⁷ Ex. SCE-03, Vol. 1 at 62-63.

¹⁶²⁸ SCE OB at 241.

¹⁶²⁹ Ex. SCE-29 at 2; SCE OB at 241.

¹⁶³⁰ Ex. SCE-25 at 1-2; Ex. SCE-29 at 1-2.

- Billing Services (O&M):
 - SCE initially forecasted \$48.150 million for Billing Services; SCE's rebuttal position was \$47.394 million;
 - TURN recommended a reduction of \$2.225 million to SCE's initial forecast, for a forecast of \$45.925 million;
 - Cal Advocates recommended a reduction of \$2.017 million to SCE's initial forecast, for a forecast of \$46.133 million;
 - Stipulation: The parties agree upon a 2025 TY O&M expense forecast of \$46.712 million.
- Credit and Payment Services (O&M):
 - SCE forecasted \$12.897 million for Credit and Payment Services;
 - TURN did not recommend a change;
 - Cal Advocates did not recommend a change;
 - Stipulation: The parties agree upon a 2025 TY O&M expense forecast of \$12.897 million.
- Billing and Payments (Capital):
 - SCE forecasted \$7.295 million for 2023–2025 capital expenditures for Mailing Operations and Software Automation, including an adjustment to reflect 2023 recorded costs;¹⁶³¹
 - TURN did not make a recommendation for 2023–2025 capital expenditures;
 - Cal Advocates recommended \$5.192 million for 2023–2025 capital expenditures, based on a reduction to SCE's 2023 forecast, which was “trued-up” to 2023 recorded in SCE's rebuttal testimony;

¹⁶³¹ SCE initially forecasted \$7.037 million in capital expenditures (2023–2025) for Billing and Payments. In rebuttal testimony, SCE's forecast was adjusted to \$7.295 million (2023–2025) to reflect 2023 recorded costs. (Ex. SCE-14, Vol. 1 at 2; Ex. SCE-25 at 2).

- Stipulation: The parties agree upon a 2023–2025 capital expenditures forecast of \$7.295 million, consisting of \$5.420 million recorded for 2023, \$0.125 million forecast for 2024, and \$1.750 million forecast for 2025.
- Customer Contact Center (O&M):
 - SCE initially forecasted \$57.801 million for the CCC; SCE’s rebuttal position was \$52.177 million;
 - TURN recommended a reduction of \$8.615 million to SCE’s initial forecast, for a forecast of \$49.186 million;
 - Cal Advocates recommended a reduction of \$8.000 million to SCE’s initial forecast, for a forecast of \$49.801 million;
 - Stipulation: The parties agree upon a 2025 expense forecast of \$50.835 million.
- Escalated Complaints and Outreach (O&M):
 - SCE forecasted \$1.542 million for Escalated Complaints and Outreach;
 - TURN did not recommend a change;
 - Cal Advocates did not recommend a change;
 - Stipulation: The parties agree upon a 2025 expense forecast of \$1.542 million.

To determine the final values for each of the categories, the stipulations provide that the final escalation amounts adopted by the Commission should apply to any identified values in the stipulation.¹⁶³² No party contests the stipulations between SCE, TURN, and Cal Advocates.

While the stipulations were not tendered as part of a larger settlement agreement, they are similar in substance. Accordingly, we review these uncontested stipulations pursuant to Rule 12.1(d), which provides that the

¹⁶³² Ex. SCE-25 at 1; Ex. SCE-29 at 1.

Commission must find a settlement “reasonable in light of the whole record, consistent with law, and in the public interest.”

First, we find the stipulations to be reasonable in light of the record. The stipulating parties state the agreements reflect a compromise of disputed litigation positions on a range of issues addressed by the parties.¹⁶³³ As set forth above, we find the stipulations reflect a reasonable compromise of the parties’ respective litigation positions on material issues and fall within a reasonable range of outcomes that might have been reached had the issues been fully litigated.

Second, we find the stipulations to be consistent with law. We are unaware of any inconsistency with the Pub. Util. Code, Commission decisions, or the law in general. No party opposed the stipulations or notified the Commission of any statutory provisions or applicable law that would be contravened or compromised by the stipulations.

Finally, we find approval of the stipulations to be in the public interest. The stipulations are joined by all parties that submitted testimony on SCE’s Billing and Payments and Customer Contacts requests, and include the participation of intervenors representing general customer advocacy interests. Additionally, approval of the stipulations will conserve party and Commission resources by avoiding the need for further litigation and allow for timely resolution of the issues.

For the reasons stated above, the proposed stipulations meet the criteria for approval under Rule 12.1(d), and therefore, we approve the proposed stipulations without modification.

¹⁶³³ Ex. SCE-25 at 1; Ex. SCE-29 at 1.

18.4. Customer Service Re-Platform Memorandum Account

The Customer Service Re-Platform (CSRP) project replaced the majority of SCE's outdated Customer Service technology portfolio with a new enterprise customer relationship and billing system that performs core customer-service related functions. In SCE's 2018 GRC, the Commission found the CSRP project was "anticipated to be beneficial to customers,"¹⁶³⁴ and authorized SCE to establish the Customer Service Re-Platform Memorandum Account (CSRPMA) to record the capital-related revenue requirements associated with capital expenditures from project inception to project close, and O&M expenses and benefits from the beginning of the 2018 TY until these expenses begin to be recovered in rates.¹⁶³⁵ The Commission approved recovery for recorded CSRP costs in D.22-09-015 and D.23-03-019. Additionally, D.23-03-019 authorized SCE to seek review and cost recovery for incremental CSRP costs and benefits for 2022 through 2024 in SCE's 2025 GRC.¹⁶³⁶

In this proceeding, SCE seeks recovery of 2022–2024 recorded costs in the CSRPMA. SCE proposes to recover the December 31, 2024 revenue requirement in the CSRPMA associated with SCE's 2022–2024 costs, estimated to be \$26.231 million, by transferring the recorded balance as of December 31, 2024, including accrued interest, to the distribution subaccount of the BRRBA for recovery in customers' distribution rates upon the issuance of a final decision in this proceeding.¹⁶³⁷ SCE's recorded balance in the CSRPMA as of April 30, 2024

¹⁶³⁴ D.19-05-020 at 160.

¹⁶³⁵ D.19-15-020, Ordering Paragraph 10.

¹⁶³⁶ D.23-03-019, Ordering Paragraph 3.

¹⁶³⁷ Ex. SCE-40.

was \$20.899 million.¹⁶³⁸ SCE also proposes to submit an advice letter to close the CSRPMA once the final amounts recorded in the CSRPMA have been transferred to the distribution subaccount of the BRRBA.¹⁶³⁹

Cal Advocates was the only party to address the recovery of recorded costs in the CSRPMA. Cal Advocates does not oppose the recovery of recorded costs through December 31, 2022; however, Cal Advocates proposes that SCE wait until its next GRC proceeding or other appropriate application to recover 2023 and 2024 recorded costs. Cal Advocates asserts the recovery of memorandum accounts is retrospective, and SCE's proposal to recover forecast costs on a prospective basis is not the appropriate protocol for recovery of memorandum accounts.¹⁶⁴⁰

In response, SCE asserts its proposal adheres to the cost recovery approach authorized by the Commission in D.23-03-019 for the recovery of 2022–2024 CSRP costs, and SCE's CSRP recorded and forecast costs were not opposed by intervenors on their merits.¹⁶⁴¹

In D.23-03-019, the Commission approved SCE's request to consider the 2022–2024 CSRP cost review and recovery as part of SCE's TY 2025 GRC, but did not rule on SCE's advice letter proposal or SCE's proposed process for updating the GRC record to reflect the most recent CSRPMA recorded activity.¹⁶⁴² As a general matter, we agree with Cal Advocates that recovery of costs recorded in a memorandum account is intended to be retrospective. SP U-27-W's definition of

¹⁶³⁸ Ex. SCE-40, Table IV-8 at 15.

¹⁶³⁹ Ex. SCE-03, Vol. 1 at 96-97.

¹⁶⁴⁰ Ex. CA-29 at 14-16; Cal Advocates OB at 430.

¹⁶⁴¹ SCE OB at 242.

¹⁶⁴² D.23-03-019 at 10-11.

memorandum accounts specifies that “[t]he utility may later seek authorization from the Commission to recover the *recorded* amounts by passing them on to consumers in rates.”¹⁶⁴³ Moreover, since costs recorded in memorandum accounts are, by their very nature, subject to uncertainty, the Commission must first review those costs for reasonableness before they are approved for rate recovery. The Commission has also held that costs recorded in a memorandum or balancing account must first be reviewed for reasonableness before they are recovered in rates to ensure all charges demanded or received by a public utility are just and reasonable.¹⁶⁴⁴

However, we do not find it necessary for SCE to wait until its next GRC to review recorded 2022–2024 CSRP costs for reasonableness. Cal Advocates reviewed and does not oppose SCE’s recorded 2022 costs in the CSRPMA.¹⁶⁴⁵ SCE subsequently provided its 2023, and January 1, 2024 through April 30, 2024, recorded CSRP costs in rebuttal and update testimony. No party contested the reasonableness of SCE’s recorded CSRP costs through April 2024. We have reviewed SCE’s 2022–April 2024 recorded costs in the CSRPMA and find them to be reasonable. Therefore, we approve SCE’s proposal to transfer these costs, including accrued interest, to the distribution subaccount of the BRRBA for recovery in customers’ distribution rates.

Concerning the remainder of SCE’s May–December 2024 recorded costs in the CSRPMA, as discussed in Section 39 (GRC-Related Balancing and

¹⁶⁴³ SP U-27-W at 3 (emphasis added). All citations to SP U-27-W in this decision are to the version available at: <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M090/K002/90002198.pdf> (last accessed March 10, 2025).

¹⁶⁴⁴ See D.23-11-069 at 775; also, Section 40 (Rate Base).

¹⁶⁴⁵ Ex. CA-29 at 14.

Memorandum Accounts), SCE is authorized to seek reasonableness review of its May–December 2024 costs recorded in various other memorandum accounts via a separate application. As part of this application, SCE may request review and recovery of its May-December 2024 costs recorded in the CSRPMA. At that time, SCE may also request to close the CSRPMA.

18.5. Customer Service-Related Other Operating Revenues

Service fees are charges to individual customers and third parties who receive services that cause SCE to incur additional operational expenses. These services are above the standard operational services provided by SCE. As such, the revenue received for these services is collected through service fees and is accounted for as OOR. Customer Service-Related OOR is an offset to SCE’s total revenue requirement.

SCE’s 2025 TY forecast for Customer Service-Related OOR is \$29.355 million.¹⁶⁴⁶ Excluding Community Choice Aggregation (CCA) and Direct Access (DA) fees, in this GRC SCE proposes to increase eight currently authorized fees, decrease two currently authorized fees, consolidate nine fees, eliminate six fees, and leave unchanged six currently authorized fees.¹⁶⁴⁷ SCE also proposes new service fees for customers that receive paper bill formats (Paper Bill Fee).¹⁶⁴⁸

Concerning current CCA fees, SCE proposes to consolidate 23 fees, update 17 fees, eliminate eight fees, and leave unchanged four fees. SCE also proposes

¹⁶⁴⁶ Forecast is based on SCE’s rebuttal position of \$28.582 million adjusted by \$0.773 million to account for the updated Paper Bill Fee forecast included in SCE’s update testimony. (Ex. SCE-14, Vol. 1, Table V-17 at 35; Ex. SCE-40 at 21-22).

¹⁶⁴⁷ Ex. SCE-03, Vol. 1 at 122 and 166.

¹⁶⁴⁸ Ex. SCE-03, Vol. 1 at 123-125 and 130-131.

to implement four new proposed CCA fees.¹⁶⁴⁹ For current DA fees, SCE proposes to consolidate 15 fees, update seven fees, and eliminate four fees. SCE also proposes to implement three new proposed DA fees.¹⁶⁵⁰

Among SCE's proposed fees, two areas are contested: the Paper Bill Fee and two CCA service fees, the Monthly Account Maintenance Fee (MAMF) and the Electronic Data Interchange (EDI) Value-Added Network (VAN) Charge. The remaining areas of SCE's proposed service fees are uncontested.

For the uncontested service fees, we find reasonable and approve SCE's fees as proposed. The majority of SCE's service fees have previously been authorized by the Commission and, for all uncontested areas, we find SCE's proposed adjustments to these fees to be reasonable and adequately supported. SCE's uncontested proposed new CCA service fees (including a monthly bank fee, meter related services fee, system set up and EDI testing fee, and an enrollment and reversion project fee), and SCE's uncontested proposed new DA service fees (including a system setup and EDI testing fee, monthly account maintenance fee, and meter related service fee) are also adequately supported. Most of the new CCA/DA fees are proposed at time and material.¹⁶⁵¹

Contested areas of SCE's proposed service fees are discussed below.

18.5.1. Paper Bill Fee

SCE proposes a new Paper Bill Fee for both residential and non-residential customers of \$0.66 per billing statement. The fee would apply to all customers who elect to receive paper bills (as opposed to electronic bills), except for

¹⁶⁴⁹ Ex. SCE-03, Vol. 1 at 146-157.

¹⁶⁵⁰ Ex. SCE-03, Vol. 1 at 158-165.

¹⁶⁵¹ Ex. SCE-03, Vol. 1 at 152-154 and 161-163.

customers enrolled in the California Alternate Rates for Energy (CARE) and Family Electric Rate Assistance (FERA) programs. SCE's 2025 TY OOR forecast is \$8.173 million for the residential Paper Bill Fee and \$2.017 million for the non-residential Paper Bill Fee.¹⁶⁵²

Cal Advocates opposes the new Paper Bill Fee. In support of its position, Cal Advocates provides the following arguments, among others: (1) customers 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; (2) 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 application; (3) SCE did not assess the impacts and burden relative to the benefits of a new paper-bill fee for residential and non-residential customers; and (4) residential and non-residential customers opt to use paper billing statements, as opposed to e-billing statements.¹⁶⁵³

As an alternative to SCE's proposed Paper Bill Fee, Cal Advocates recommends the Commission impute the forecast OOR from the proposed Paper Bill Fee as an offset to base rates (*i.e.*, lowering the revenue requirement), but prohibit SCE from charging the Paper Bill Fee to recover the OOR.

Cal Advocates proposes SCE be directed to devise methods to encourage its ratepayers to move toward paperless bills without imposing additional financial burden on them. Cal Advocates asserts SCE would bear the financial burden for

¹⁶⁵² Ex. SCE-03, Vol. 1 at 123-125 and 130-131; Ex. SCE-40 at 21-22; SCE OB at 242.

¹⁶⁵³ Ex. CA-12 at 19-24; Cal Advocates OB at 290-294.

developing this alternative process, but would also benefit from any cost savings received.¹⁶⁵⁴

In response to Cal Advocates, SCE also provides the following arguments, among others: (1) without the Paper Bill Fee, paper bill costs are spread to all customers through distribution rates, meaning customers who do not receive paper bills currently subsidize the costs for those who do; (2) SCE proposes to exclude CARE and FERA customers from the Paper Bill Fee, excluding any additional financial burdens on income-qualified customers; and (3) contrary to Cal Advocates' assertion, year-end 2023 data shows that 57 percent of customers were receiving electronic bills, compared to 43 percent receiving paper bills, which represents notable growth from the 51 percent of customers that received electronic bills in 2022.¹⁶⁵⁵

In response to Cal Advocates' alternative proposal, SCE asserts this alternative proposal is illogical and directly contradicts the fundamental tenets of cost-of-service ratemaking, since it would deny SCE a necessary cost of providing service with no ability to recover that cost.¹⁶⁵⁶

SCE's proposed Paper Bill Fee constitutes a significant shift from the utility's traditional, standard operational service. As stated by Cal Advocates, 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 pursuant to Pub. Util. Code Section 451.¹⁶⁵⁷ For its part, SCE acknowledges that service

¹⁶⁵⁴ Cal Advocates OB at 294.

¹⁶⁵⁵ Ex. SCE-14 at 37-42; SCE OB at 242-245.

¹⁶⁵⁶ SCE OB at 244-245.

¹⁶⁵⁷ Ex. CA-12 at 20 and 24.

fees are generally only imposed for services that are above the standard operational services provided by SCE, but proposes that paperless bills should be considered the new standard operational service beginning with the 2025 GRC period.¹⁶⁵⁸

We find SCE has failed to justify why paperless bills should be considered the new standard operational service. SCE asserts it considered the financial impacts of the proposed Paper Bill Fee on its customers, but SCE's consideration appears limited to customers who currently receive bills electronically and customers enrolled in CARE and FERA. There are a number of factors that can contribute to a customer's decision to receive paper bills, including equity and accessibility considerations. SCE fails to present any data or analysis on the potential, unavoidable burden of its proposed Paper Bill Fee on these customers, or any other customer that currently receives paper bills and is not otherwise enrolled in CARE or FERA. For such a significant proposed change to its standard operational service, SCE must do more to assess the impact of its proposed fee on customers that currently receive paper bills. At a minimum, this assessment should include information on why customers opt to receive paper bills, broken down by the number of customers, and an estimate of the number of customers who would not be able to avoid the proposed Paper Bill Fee. As highlighted by Cal Advocates, SCE also did not perform a cost-benefit analysis to assess the financial impacts and burden relative to the expected benefits of a new Paper Bill Fee for residential and nonresidential customers. Without this analysis, it is not clear whether the overall benefits of SCE's proposed Paper Bill Fee will exceed the costs. For all these reasons, we conclude SCE failed to

¹⁶⁵⁸ Ex. SCE-14 at 37.

adequately consider the impact of its proposed Paper Bill Fee on all its customers and reject SCE's Paper Bill Fee proposal.

We also decline to adopt Cal Advocates' alternative proposal to impute the forecast OOR from the proposed Paper Bill Fee as an offset to base rates (*i.e.*, lowering the revenue requirement), while prohibiting SCE from charging the fee to paper customers to recover the OOR. We agree with SCE that Cal Advocates' proposal would deny SCE a necessary cost of providing service with no ability to recover that cost. Instead, we remove SCE's Paper Bill Fee forecast from its total OOR forecast so there is no deduction to SCE's base O&M expenses for providing this service.¹⁶⁵⁹

18.5.2. CCA MAMF

SCE proposes a MAMF per service account (SA) of \$0.21, reflecting a \$0.17 increase from the current MAMF of \$0.04. SCE's 2025 TY OOR forecast for the MAMF is \$4.000 million. The MAMF is charged to CCAs for services that SCE provides to CCAs that are routine operational work, such as account assistance, exception processing, and CCA system and technology support. SCE calculates the MAMF fee by identifying activities or groups of related activities necessary to complete the account maintenance services, estimating the time it takes for an employee to complete each activity, and then multiplying that time by a charge rate and the estimated number of times the activity occurs per month.¹⁶⁶⁰

CalCCA urges the Commission to reject any increase to the MAMF. CalCCA's recommendation would result in a reduction of \$3.231 million in SCE's forecast CCA OOR (with a corresponding reduced offset to the total revenue

¹⁶⁵⁹ SCE's 2025 TY OOR forecast is \$8.173 million for the Residential Paper Bill Fee, and \$2.017 million for the Non-Residential Paper Bill Fee. (SCE OB at 242).

¹⁶⁶⁰ Ex. CalCCA-02-E at 11-14.

requirement). In support of its position, CalCCA provides the following arguments: (1) SCE's proposal to increase the MAMF by a factor of five is a major driver of SCE's proposed 70 percent net increase in CCA fees in this case, as compared to current CCA fee levels; (2) SCE's "time studies" and its "time estimates," the two different approaches SCE uses to derive the time required to complete each underlying MAMF task, are based on insufficient data, opaque, and unsupported; (3) the per-service account increases are caused by SCE's own inefficiencies and errors, as evidenced by the fact that the labor cost underlying the MAMF has increased by 425 percent on a per service account basis between the last GRC and this case; (4) SCE's current and projected costs associated with exception processing work are excessive and out of step with the costs a "prudent manager" would incur to perform these billing and account management functions, including per-service account exception processing work that has more than quadrupled since the last GRC; and (5) it is not reasonable to authorize fees associated with a ballooning rate of exceptions years after SCE implemented its new \$435 million CSRP billing system, and years after a Commission-approved settlement directive to "reduc[e] the number of exceptions . . . in order to reduce . . . service fees."¹⁶⁶¹

In response, SCE provides the following arguments: (1) SCE has amply justified and supported its proposed MAMF increase, which is driven by increasing levels of work, both in volume and complexity, as a result of CCA growth; (2) a billing exception does not equal an error on behalf of SCE, as CalCCA asserts, but rather occurs any time an account cannot be processed through SCE's automated billing system due to various conditions; (3) billing

¹⁶⁶¹ Ex. CalCCA-02-E at 9-31; CalCCA OB at 6-19; CalCCA RB at 4-8.

CCA customers is a complex process; (4) although SCE's proposed MAMF reflects a 425 percent increase to the current MAMF set in the last GRC, the corresponding percent increase of CCA accounts in the relevant base years is 938 percent (an increase from 152,000 SAs in 2018 to 1.58 million SAs in 2022); (5) the improvements realized through SCE's new billing system (delivered via CSRP) include more effective and efficient tracking of CCA activities which, independent of CCA growth, is one driver of the increased MAMF; (6) SCE's time studies, which are based on routine and repeatable steps that SCE personnel have performed many times in the past, adequately and reasonably justify the projected labor underlying SCE's proposed MAMF; (7) there is no Commission requirement of statistical significance for time studies used to forecast service fees, or a requirement for a minimum number of observations; (8) concerning the estimate-based time studies, SCE has provided ample information regarding how it estimated; (9) excluding data from 2021, when SCE transitioned to its new billing system, SCE exception work has consistently decreased from 2019–2020 and 2022–2023; and (10) part of the MAMF increase is due to consolidation of another fee, the Monthly Account Maintenance Fee per CCA, into the MAMF.¹⁶⁶²

We find SCE has not sufficiently supported its proposed 425 percent increase to the current MAMF. SCE asserts the proposed increase is due to increasing CCA SAs and increased visibility to the work SCE performs on behalf of CCAs.¹⁶⁶³ However, SCE's MAMF exception data shows that the number of exceptions processed per month in 2023 is actually below the number of exceptions processed in 2019, despite SCE having significantly more CCA SAs

¹⁶⁶² Ex. SCE-14, Vol. 1 at 42-53; SCE OB at 245-249; SCE RB at 97-103.

¹⁶⁶³ Ex. SCE-14, Vol. 1 at 52.

and increased visibility to the CCA account exception work in 2023.¹⁶⁶⁴

Additionally, we agree with CalCCA that SCE's proposed increase to the MAMF is not adequately supported by SCE's time studies and its time estimates. While there is no requirement of statistical significance for time studies used to forecast service fees, given the magnitude of SCE's proposed increase, we are not persuaded that the small sample sizes SCE used in its time studies (some of which were limited to three observations) are sufficient to produce a representative estimate. Further, since SCE's new billing system (delivered via CSRP) includes "more effective and efficient tracking of CCA activities,"¹⁶⁶⁵ there does not appear to be any reason why larger sample sizes could not be used. Additionally, SCE's time estimates are largely based on subject matter expert input using historical experience, and are not readily verifiable or able to be replicated. For all these reasons, we find SCE has not sufficiently supported its proposed increase to the MAMF, and retain the current MAMF per SA of \$0.04. This results in a reduction of \$3.231 million in SCE's forecast CCA OOR.¹⁶⁶⁶

18.5.3. CCA EDI VAN Charge

SCE proposes an Electronic Data Interchange Value-Added Network (EDI VAN) Charge of \$0.02 per SA per month, a reduction from the current fee of \$0.05 per SA per month. SCE's 2025 TY OOR forecast for the EDI VAN Charge is \$0.440 million. The EDI VAN Charge relates to SCE's cost to transmit data in EDI formatting through the VAN.¹⁶⁶⁷ A VAN provider acts as an intermediary

¹⁶⁶⁴ Ex. SCE-14, Vol. 1, Appendix A at 10-16.

¹⁶⁶⁵ Ex. SCE-14, Vol. 1 at 46.

¹⁶⁶⁶ SCE OB at 245.

¹⁶⁶⁷ SCE OB at 249.

between the utility and the CCAs, through which data between the two entities is transferred.¹⁶⁶⁸

CalCCA agrees with SCE's EDI VAN Charge proposal of \$0.02 per SA per month for 2025, but requests this fee be eliminated in 2026. CalCCA highlights that it has been three years since the Commission approved a settlement where SCE agreed to reduce or eliminate this service charge, and asserts SCE's refusal to commit to a clear timeline for eliminating the EDI-VAN as a mandatory charge, while prioritizing other "higher priority items,"¹⁶⁶⁹ is inconsistent with its prior commitments to the CCAs. CalCCA also states that the use of the VAN has other drawbacks besides the resultant charges to CCA customers, and that neither PG&E nor SDG&E have an EDA VAN Charge.¹⁶⁷⁰

In response, SCE asserts it has fully complied with its obligations pursuant to the settlement agreement approved in D.21-08-036 (2021 GRC Settlement Agreement),¹⁶⁷¹ as evidenced by SCE's proposed 54 percent reduction of the fee in this GRC. Before SCE can stop charging the EDI VAN Charge altogether, SCE states there must be an alternative to the VAN for data transfer between SCE and CCAs.¹⁶⁷² SCE indicates it has been pursuing an IT project to implement such alternative, but the project has been deferred due to the emergence of other corporate initiatives and higher priority items.¹⁶⁷³

¹⁶⁶⁸ Ex. CalCCA-02-E at 31-32.

¹⁶⁶⁹ Ex. CalCCA-02-E at 24-25.

¹⁶⁷⁰ Ex. CalCCA-02-E at 31-36; CalCCA OB at 19-23.

¹⁶⁷¹ See D.21-08-036 at 557-560.

¹⁶⁷² Ex. SCE-14, Vol. 1 at 54.

¹⁶⁷³ SCE OB at 250.

We find SCE has complied with its obligations pursuant to the 2021 GRC Settlement Agreement. As stated by SCE, the 2021 GRC Settlement Agreement requires SCE to work with CCA parties “to investigate and potentially implement potential automation or other processes with the goal[] of: . . . reducing or eliminating the EDI-VAN charge.”¹⁶⁷⁴ SCE’s proposed 54 percent reduction of the EDI VAN Charge in this GRC represents a significant reduction to this charge, and therefore is consistent with the terms of the settlement agreement.

While SCE has complied with the 2021 GRC Settlement Agreement, SCE does not dispute that the EDI VAN Charge can be eliminated altogether once an alternative to the VAN is put into place.¹⁶⁷⁵ Over seven years will have passed between the adoption of the 2021 Settlement Agreement and SCE’s next TY GRC filing in 2029. Even with the emergence of competing corporate initiatives, we believe seven years is more than sufficient time for SCE to select and implement an alternative to the VAN for data transfer. Therefore, in its next GRC filing, we direct SCE to propose an alternative to the VAN with a corresponding proposal to eliminate the EDI VAN Charge by 2029. In the meantime, SCE’s proposed EDI VAN Charge of \$0.02 per SA per month is reasonable and is approved.

18.6. Billing Practices and Policies

CalCCA submitted testimony that, although not directly or specifically contesting any particular O&M, capital, or OOR service fee request in SCE’s

¹⁶⁷⁴ Ex. SCE-14, Vol. 1 at 53 (emphasis added) (quoting A.19-08-013, Joint Motion By Southern California Edison Company (U 338-E), California Choice Energy Authority, and the Clean Power Alliance of Southern California for Approval of 2021 General Rate Case Settlement Agreement (filed September 10, 2020), Attachment A at A6); also, D.21-08-036 at 558.

¹⁶⁷⁵ SCE OB at 249-250.

application, concerns interrelated recommendations regarding SCE's billing practices and policies. CalCCA's recommendations are detailed below.

18.6.1. Billing Performance

CalCCA requests that the Commission order SCE to prioritize work aimed at significantly reducing its billing error rates over the GRC period. In support of its recommendation, CalCCA points to SCE data showing that, on average, approximately 11,657 new SCE customer accounts were impacted by delayed billing each month. CalCCA argues that backbills for CCA residential customers occur at a rate that is 18 percent higher than the corresponding rate for bundled customers. CalCCA also provides specific examples of CCA billing errors and SCE's lack of a response.¹⁶⁷⁶

In response, SCE states that CalCCA incorrectly extrapolates from a monthly usage reconciliation report to allege a "commonplace" and persisting rate of "billing errors," but omits other data showing SCE's progress. SCE asserts that CalCCA's general characterization of all missing usage as an SCE failure is misplaced, since missing usage arises for various reasons, and resolving missing usage is a highly interdependent process between SCE and the CCAs' back-office vendor. SCE asserts CCA billing requires additional operational processes relative to bundled customers, but SCE has proactively and thoughtfully engaged CCA customers, and worked collaboratively with CCAs to directly address their feedback and make improvements. Lastly, SCE highlights the substantial improvement in SCE's overall billing performance for both

¹⁶⁷⁶ Ex. CalCCA-01 at 5-11; CalCCA OB at 26-32.

bundled and unbundled service customers since the implementation of the new billing system in 2021.¹⁶⁷⁷

18.6.2. Reversal and Remittance Policy

When an account requires billing corrections for a billing error, SCE reverses all payments previously made by the customer and remitted to the CCA. CalCCA uses the term “clawback” to refer to SCE’s debiting of the CCA account for reversed customer payments during the account correction process.¹⁶⁷⁸ CalCCA asserts the mechanics of how SCE approaches account corrections in the event of an SCE billing error cause unnecessary delays, confusion, and financial burdens for CCA customers as well as for CCAs. CalCCA states that for Clean Power Alliance, one of the CCAs, the current practice has resulted in fund reversals between approximately \$24 million and \$52 million annually in the past three years.¹⁶⁷⁹

Additionally, CalCCA states a key feature of SCE’s fund reversal practice that hinders the efficient resolution of the account correction process is SCE’s failure to provide CCAs with the relevant transaction code indicator associated with the reversal. CalCCA asserts SCE provided transaction code indicators in the past, but under the new billing system all reversals use a single indicator.¹⁶⁸⁰

Lastly, CalCCA asserts that, in certain transfer situations, SCE fails to provide key customer-specific details — specifically, the Contract Account and POD-ID number — which would allow the CCA to apply the funds to the appropriate customer account. CalCCA states this issue tends to occur for

¹⁶⁷⁷ Ex. SCE-14, Vol. 1 at 56-57; SCE OB at 251.

¹⁶⁷⁸ Ex. CalCCA-01 at 29.

¹⁶⁷⁹ CalCCA OB at 45-46.

¹⁶⁸⁰ CalCCA OB at 48-49.

payments associated with unresolved accounts in SCE's legacy billing system or for funds transferred between customer accounts.¹⁶⁸¹

Based on these observations and assertions, CalCCA recommends the Commission require SCE to take action to cease its practice of fund reversals as soon as practicable.¹⁶⁸²

In response, SCE states its current, standard SAP billing system functionality cannot currently accommodate CalCCA's recommendations to stop "clawbacks." SCE states its billing system is designed to serve all its customers, including, for example, billing functionality that enables the provision of detailed bill presentation. Regarding CalCCA's requests for more information during reversals and remittances and to provide Contract Account and POD-ID number information, SCE states it already communicates information through manual processes, and that various issues can arise with accounts in SCE's legacy billing system. Lastly, SCE highlights that account corrections can arise for various reasons, including customer-initiated requests or activities. SCE states it has, and is willing to continue, to work with CCAs to address their feedback and explore additional improvements, but that system overhauls should not be made without consideration of SCE's broader customer base.¹⁶⁸³

18.6.3. Rule 17

SCE's Electric Rule 17 (Rule 17), Adjustment of Bills and Meter Tests, governs how SCE addresses billing errors and adjustments. SCE's Rule 17 provides that where SCE undercharges a customer as the result of a Billing

¹⁶⁸¹ CalCCA OB at 49-50.

¹⁶⁸² CalCCA OB at 47-50.

¹⁶⁸³ Ex. SCE-14, Vol. 1 at 60-64; SCE OB at 252-253; SCE RB at 107-108.

Error,¹⁶⁸⁴ SCE may render an adjusted bill for the amount of the undercharge not exceeding three months for residential service or a small business customer, and not exceeding three years for all other service.¹⁶⁸⁵

CalCCA states that while the language of Rule 17 does not distinguish between bundled and unbundled customers, SCE's default practice is to "not apply the three-month and three-year recovery limitations of its Rule 17 to the CCA and DA portion of the bill."¹⁶⁸⁶ CalCCA asserts SCE's practice of not applying the same three-month limitation to the generation portion of a CCA/DA customer bill constitutes disparate treatment between bundled and unbundled customers, and is in violation of the plain language of SCE Rule 17. In addition, CalCCA provides the following arguments: (1) SCE's backbilling policies are inconsistent with those of PG&E; (2) a primary goal of the three-month backbilling limitation is to provide a strong incentive to the utilities to maintain accurate billing systems;¹⁶⁸⁷ (3) SCE's backbilling policy for CCA customers is inconsistent with a number of the Commission's Code of Conduct provisions governing the conduct of IOUs relative to CCAs, including the requirement prohibiting SCE from discriminating between its own customers and those of a CCA; and (4) SCE's practice offers little incentive to improve the rate or severity of its billing errors for CCA customers, while excessive backbills result in bill shock, customer confusion, and burdensome customer debt.¹⁶⁸⁸

¹⁶⁸⁴ A Billing Error is an error by SCE which results in incorrect billing charges to the customer. (SCE Electric Rule 17, Sheet 3).

¹⁶⁸⁵ SCE Electric Rule 17, Sheet 3.

¹⁶⁸⁶ Ex. CalCCA-02-E, Attachment MF-5 (SCE Response to CalCCA Data Request 3.16).

¹⁶⁸⁷ See D.07-09-041 at 8-9.

¹⁶⁸⁸ Ex. CalCCA-01 at 11-24; Ex. CalCCA-02-E at 37-46; CalCCA OB at 32-48.

Based on the above arguments, CalCCA proposes that SCE be required to apply Rule 17 backbilling limitations to all customers' bills, equally, but that SCE's shareholders or alternatively SCE's distribution customers fund resulting undercollections of each CCA or Electric Service Provider (ESP). CalCCA justifies this proposal as "consistent" with PG&E, which provides a shareholder-funded adjustment for CCA undercollections resulting from the application of backbilling limitations of its Rule 17 to CCA customer bills.¹⁶⁸⁹

In response, SCE states it applies the backbilling limitations when the load-serving entity (LSE) (*e.g.*, the responsible CCA) authorizes SCE to do so. SCE states this has been its longstanding practice under its Commission-approved Rule 17, and is necessitated by the fact that the generation portion of the bill recovers the revenue of the responsible LSE, not of SCE. Without the consent of the LSE, SCE asserts it lacks the authority to unilaterally adjust the LSE's recovery of its billed revenue, which is subject to the LSE's own ratemaking authority. Because CCAs already have the right to authorize SCE to apply Rule 17 backbilling limitations to their portion of the bill, SCE asserts they can solve the backbilling limitation by providing SCE that authorization, and that no Commission action is necessary.

SCE states CalCCA's proposals give undue preference to unbundled service customers and treat non-IOU LSE undercollections as an unrecoverable "loss" for the LSE that SCE's shareholders or customers must fund, rather than as a cost of the LSE's service. Further, SCE asserts PG&E's policy to provide a shareholder-funded adjustment, outside of Rule 17, is insufficient grounds to order SCE to do so, and that CalCCA's alternative proposal to have SCE or its

¹⁶⁸⁹ Ex. CalCCA-01 at 28; CalCCA OB at 36-37.

shareholders fund all undercollections is contrary to cost-of-service ratemaking. Finally, SCE asserts CalCCA's proposals are contrary to California law, since they would cause statutorily impermissible cost shifting, and are contrary to the purpose of Rule 17, the Commission's lack of authority to award damages, and other SCE tariff provisions. SCE asserts the only reasonable way to require SCE to apply the Rule 17 backbilling limitations to unbundled service customer bills is to consider the resulting under- and over-collections of the LSE as a cost of service recoverable from the LSE's customers, which is entirely within the control of the responsible CCA.

18.6.4. Discussion

SCE's current practice of distinguishing between bundled and unbundled customers in the application of its Rule 17 backbilling limitations is inconsistent with the plain language in SCE's tariffs. However, the specific terms and conditions set forth in Rule 17 and Rule 23 also provide no Commission-authorized means of addressing the revenue impacts of applying Rule 17's limitations to CCA and ESP charges, which impacts SCE's ability to implement these tariffs. Therefore, SCE is directed to take the following actions: (1) within 60 days from the issuance date of this decision, SCE shall, in coordination with the other IOUs, host one or more workshops with the intent to develop a consensus-based proposal on how to address uncollected revenue from the application of Rule 17 backbilling limitations (for both bundled and unbundled customers), and invite all CCAs/ESPs and parties to the A.23-05-010, A.22-05-016, and A.21-06-021 service lists to participate; and (2) within 180 days from the issuance date of this decision, SCE shall, in coordination with the other IOUs, file a joint application containing one or more proposals on how to address undercollections resulting from the application of the Rule 17 backbilling

limitations, which may include a consensus-based proposal among all LSEs. As part of the joint application, the IOUs shall identify any changes necessary to their respective billing systems to be able to track and apply Rule 17 limitations to the bill adjustments of ESP and CCA charges. The IOUs shall also include any relevant proposals for incremental cost recovery. Lastly, we direct SCE to work with CalCCA to track and attempt to resolve certain billing error issues and to report back in SCE's next GRC. We discuss each of these issues below.

As explained in D.07-09-041, the purpose of the Rule 17 backbilling limitations is two-fold: first, the Commission has held that receiving accurate bills issued at regular intervals is a basic consumer right, as “[c]ustomers, particularly those with low or fixed monthly incomes, must have accurate monthly bills in order to properly budget their expenses.”¹⁶⁹⁰ Second, the three-month backbilling limitation in Rule 17 provides a strong incentive for the utilities to establish and maintain accurate billing systems.¹⁶⁹¹ SCE's practice of applying the Rule 17 backbilling limitations to unbundled generation charges *only* when SCE is authorized to do so runs counter to the goals outlined in D.86-06-035 and D.07-09-041, since there is no longer a consistent, strong incentive to produce accurate bills at regular intervals. Moreover, as argued by CalCCA, SCE's current practice is inconsistent with the plain language of SCE's Rule 17, which does not distinguish between bundled and unbundled customers, as well as Rule 23, which states “SCE shall perform the adjustment of bills for billing error in accordance with Rule 17.”¹⁶⁹²

¹⁶⁹⁰ D.07-09-041 at 8.

¹⁶⁹¹ D.07-09-041 at 9.

¹⁶⁹² Ex. CalCCA-02-E at 38-39.

However, the three-month limitation period for backbilling residential customers was adopted in 1986, based on “the utilities’ assertion that they have procedures to detect billing and meter errors promptly,”¹⁶⁹³ at a time when there were no ESPs or CCAs in operation.¹⁶⁹⁴ There has since been an evolution of the electric market in California, driven by the proliferation of new CCAs.¹⁶⁹⁵ Moreover, the Commission has not considered the revenue impacts associated with the consistent application of the Rule 17 limitations to CCA and ESP charges, which impacts SCE’s ability to implement these tariffs. As highlighted by SCE, the generation portion of an unbundled customer’s bill recovers the revenue of the responsible LSE, not of SCE. Absent an alternative funding mechanism, any under- and over-collections of an LSE’s generation revenue requirements resulting from charges beyond the backbilling limitations would need to be recovered by non-IOU LSE rates.

CalCCA proposes that any resulting undercollections be funded by SCE shareholders or alternatively distribution rates. CalCCA’s alternate proposal to have non-IOU undercollections funded by SCE’s distribution rates would result in disparate treatment between the IOUs, while SCE argues this alternative proposal would cause statutorily impermissible cost shifting by requiring bundled service customers to pay for costs of CCA service.¹⁶⁹⁶ Moreover, there is insufficient record upon which to make a determination on whether SCE

¹⁶⁹³ D.86-06-035, 1996 Cal. PUC LEXIS 270 at 278.

¹⁶⁹⁴ D.24-04-009 at 2-9.

¹⁶⁹⁵ D.24-04-009 at 4.

¹⁶⁹⁶ See Pub. Util. Code Sections 366.2(a)(4), 366.3, and 365.2. In contrast, SCE indicates any under- or over-collection for SCE’s generation costs are recovered only from SCE’s bundled customers, since they are costs of SCE’s generation services. (Ex. SCE-14, Vol. 1 at 69-70).

shareholders should fund all or part of any resulting undercollections. CalCCA's shareholder-funded proposal is premised, in large part, on PG&E's current billing practices. However, PG&E's current practice of providing a shareholder-funded adjustment appears to be a voluntary act, and is not part of PG&E's Electric Tariff Rule 17 or other Commission directive.¹⁶⁹⁷ PG&E's current, voluntary practice is insufficient grounds to require SCE to institute a similar policy here. Further, for bundled customers, SCE and PG&E currently recover any resulting under- or over-collections from the Rule 17 backbilling limitations through a rate adjustment to all bundled customers.¹⁶⁹⁸ Having shareholders fund backbilling undercollections for certain customers but not others raises an inherent question of fairness. CalCCA also asserts that a shareholder-funded adjustment is warranted given SCE's extended billing errors.¹⁶⁹⁹ However, the record demonstrates that account corrections can arise due to routine customer-initiated requests or activities, rather than SCE clerical or meter errors,¹⁷⁰⁰ while SCE does not currently track what entity bears responsibility for these account corrections.¹⁷⁰¹ Lastly, in this proceeding SCE raises additional complexities and steps that are involved with CCA/DA billing, as compared to billing for bundled customers.¹⁷⁰²

¹⁶⁹⁷ Ex. SCE-14, Vol. 1 at 71-72. In D.07-09-041, the Commission concluded that PG&E shareholders were responsible for funding refunds of backbills from 2000 to 2005, but rejected without prejudice a prospective ratemaking proposal to place the financial risk of billing errors on the utility moving forward. (D.07-07-041, Conclusions of Law 25 and 28).

¹⁶⁹⁸ Ex. SCE-14, Vol. 1 at 70; Ex. CalCC-01, DR CalCCA_002-Q002, Q.2.

¹⁶⁹⁹ CalCCA OB at 35-36.

¹⁷⁰⁰ Ex. SCE-14, Vol. 1 at 57-58.

¹⁷⁰¹ Ex. SCE-14, Vol. 1 at 51-52.

¹⁷⁰² Ex. SCE-14, Vol. 1 at 47-49 and 64; SCE RB at 105-106.

Based on the foregoing, we find additional guidance and rules are needed regarding the backbilling of bundled and unbundled customers, including how to address the revenue impacts from the application of Rule 17's limitations to CCA and ESP charges. Accordingly, SCE is directed to take the following actions: (1) within 60 days from the issuance date of this decision, SCE shall, in coordination with the other IOUs, host one or more workshops with the intent to develop a consensus-based proposal on how to address uncollected revenue from the application of Rule 17 backbilling limitations (for both bundled and unbundled customers), and invite all CCAs/ESPs and parties to the A.23-05-010, A.22-05-016, and A.21-06-021 service lists to participate; and (2) within 180 days from the issuance date of this decision, SCE shall, in coordination with the other IOUs, file a joint application containing one or more proposals on how to address undercollections resulting from the application of the Rule 17 backbilling limitations, which may include a consensus-based proposal among all LSEs. As part of the joint application, the IOUs shall identify any changes necessary to their respective billing systems to be able to track and apply Rule 17 limitations to the bill adjustments of ESP and CCA charges. The IOUs shall also include any relevant proposals for incremental cost recovery.

Beyond the backbilling issues in Rule 17, CalCCA raises several CCA-specific issues with SCE's current billing practices, including: (1) a backlog of bill periods with missing usage (*i.e.*, bill periods for which SCE has not provided a CCA with customer consumption data); (2) the mechanics of how account corrections are made, which involves debiting of the CCA account for reversed customer payments during the account correction process; (3) the provision of the relevant transaction code indicator during the account correction process (SCE states reasons for account corrections are now provided manually);

and (4) the provision of the Contract Account and POD-ID number. While we appreciate that the resolution of many of these issues is tied to SCE's current billing functionality, as well as customer-initiated requests/existing aging meters that SCE plans to replace through AMI 2.0 (for billing issues driven by missing usage), we direct SCE to continue to work with CCA parties to explore additional improvements to the above issues and report on any progress made as part of SCE's next GRC filing.

19. Business Customer Services

The Business Customer Services BPE includes functions that serve SCE's non-residential customers and is designed to engage and educate these customers about their energy usage and consumption. SCE's Business Customer Services testimony volume is organized into the following categories:

(1) Business Customer Services O&M; (2) Business Customer Services capital; and (3) communications, education, and outreach.

TURN, Cal Advocates, Walmart, and SCE reached a stipulation resolving all contested Business Customer Services issues among these parties in this proceeding (Business Customer Services Stipulation).¹⁷⁰³ The only other party that submitted testimony regarding SCE's TY O&M forecast for Business Customer Services is SBUA. SBUA supports the cost reductions in the Business Customer Services Stipulation, but did not join the stipulation "because it does not address how the reductions will affect the quality and scale of services that SCE will provide."¹⁷⁰⁴ SBUA provides several proposed recommendations for

¹⁷⁰³ Ex. SCE-26.

¹⁷⁰⁴ SBUA OB at 30.

SCE regarding small business customers which are distinct from, or in addition to, the amounts stipulated to by TURN, Cal Advocates, Walmart, and SCE.

Below, we briefly discuss SCE's initial forecasts and party cost recommendations for each activity within the Business Customer Services BPE, before discussing the broader Business Customer Services Stipulation and SBUA's recommendations.

19.1. Business Customer Services O&M

SCE's O&M request for Business Customer Services covers the following non-residential activities: account management, technical services, outage management, customer choice services, and Energy Education Centers and business outreach events.¹⁷⁰⁵

SCE's 2025 TY O&M forecast for Business Customer Services is \$25.952 million. SCE's forecast is based on 2022 recorded costs plus adjustments. These adjustments include increases of \$0.278 million for customer growth; \$0.325 million for hybrid signature events;¹⁷⁰⁶ \$2.464 million for decarbonization; \$0.780 million for outage communications; \$0.196 million for a CCA Code of Conduct audit;¹⁷⁰⁷ \$0.963 million for return to pre-pandemic operations; and \$1.176 million for changes to SCE's Employee Compensation Program applicable across the company. SCE's forecast also includes reductions of \$0.149 million for

¹⁷⁰⁵ Ex. SCE-03, Vol. 2 at 14-27.

¹⁷⁰⁶ Hybrid signature events are culturally focused events that recognize and celebrate businesses, community partnerships, and leaders. (Ex. SCE-03, Vol. 2 at 31).

¹⁷⁰⁷ Pursuant to D.12-12-036, every two years the Commission's Executive Director shall have audits prepared by independent auditors verifying that SCE is compliant with the Code of Conduct established in D.12-12-036. The audits are ratepayer funded unless the audit finds a violation of the restrictions on operations. (See D.12-12-036 at 29, Appendix A at 1-10).

Customer Service Re-Platform benefits; \$0.074 million for operational efficiencies; and \$0.189 million associated with SCE's Operational Excellence initiatives.¹⁷⁰⁸

Cal Advocates recommended a reduction of \$4.030 million to SCE's initial forecast, for a TY O&M forecast of \$22.110 million for Business Customer Services.¹⁷⁰⁹ TURN recommended a reduction of \$2.464 million to SCE's initial forecast, for a forecast of \$23.676 million.¹⁷¹⁰ Walmart did not oppose SCE's initial forecast and testified that the services are critical for large customer success.¹⁷¹¹ TURN, Cal Advocates, Walmart, and SCE subsequently stipulated to a 2025 TY O&M forecast of \$24.031 million.¹⁷¹² This consists of \$20.991 million in labor expenses and \$3.040 million in non-labor expenses.¹⁷¹³

As discussed in Section 19.4 (Business Customer Services Stipulation and SBUA Recommendations), we find reasonable and approve the stipulated TY O&M forecast of \$24.031 million for Business Customer Services.

19.2. Business Customer Services Capital

SCE's Business Customer Services capital expenditures are for specialized equipment to perform pump tests and/or data logging at the request of customers and at SCE's Customer Service's Foodservice Technology Center located in Irwindale, CA.¹⁷¹⁴

¹⁷⁰⁸ Ex. SCE-03, Vol. 2 at 29-39; Ex. SCE-14, Vol. 2 at 5; SCE OB at 256.

¹⁷⁰⁹ Ex. CA-13E at 5-8.

¹⁷¹⁰ Ex. TURN-10 at 10-11.

¹⁷¹¹ Ex. WMT-01 at 19-20.

¹⁷¹² Ex. SCE-26 at 2.

¹⁷¹³ SCE OB at 256-257.

¹⁷¹⁴ Ex. SCE-03, Vol. 2 at 40-43; Ex. SCE-03, Vol. 2WP at 46.

SCE's 2023-2025 capital expenditures forecast for Business Customer Services is \$0.266 million. This consists of recorded capital expenditures of \$0.006 million in 2023, forecast capital expenditures of \$0.130 million in 2024, and forecast capital expenditures of \$0.130 million in 2025.¹⁷¹⁵

Cal Advocates recommended \$0 for 2023-2025 capital expenditures.¹⁷¹⁶ No other party contested SCE's forecast. As part of the broader Business Customer Services Stipulation, Cal Advocates, TURN, Walmart, and SCE subsequently stipulated to a 2023-2025 capital expenditures forecast of \$0.266 million, consisting of \$0.006 million recorded for 2023, \$0.130 million forecast for 2024, and \$0.130 million forecast for 2025.

As discussed in Section 19.4, we find reasonable and approve the stipulated capital expenditure forecast of \$0.266 million (2023-2025) for Business Customer Services.

19.3. Communications, Education, and Outreach

The Communications, Education, and Outreach BPE consists of educating external audiences (including both residential and non-residential customers) about a range of topics, including safety, outages and storms, wildfire mitigation, and clean energy. The primary work activities for this BPE include: (1) public education; (2) media relations; and (3) digital communications.¹⁷¹⁷

SCE's 2025 TY O&M forecast for the Communications, Education, and Outreach BPE is \$12.099 million, and is based on 2022 recorded costs plus adjustments. The adjustments include increases of \$0.212 million for the

¹⁷¹⁵ Ex. SCE-03, Vol. 2 at 39-42; Ex. SCE-14, Vol. 2 at 21-25; SCE OB at 258-259.

¹⁷¹⁶ Ex. CA-13 at 12-16.

¹⁷¹⁷ Ex. SCE-03, Vol. 2 at 43 and 45-49.

Employee Compensation Program applicable across SCE; \$0.582 million for the filling of vacancies for media and administrative support; and \$0.113 million for an additional media representative. It also includes reductions of \$0.028 million for operational efficiencies and \$0.221 million associated with SCE's Operational Excellence initiatives.¹⁷¹⁸

No party contested SCE's forecast. Cal Advocates, TURN, Walmart, and SCE stipulated to a 2025 TY forecast of \$12.099 million. This consists of \$4.099 million in labor expenses, and \$8.000 million in non-labor expenses.

As discussed in Section 19.4, we find reasonable and approve the stipulated TY O&M forecast of \$12.099 million for Communications, Education, and Outreach.

19.4. Business Customer Service Stipulation and SBUA Recommendations

As stated above, TURN, Cal Advocates, Walmart, and SCE reached a stipulation resolving all contested Business Customer Services issues among these parties (Business Customer Services Stipulation). A summary of the stipulation and initial party positions is provided below.¹⁷¹⁹

- Business Customer Services (O&M):
 - SCE initially forecasted \$26.140 million; SCE's rebuttal position was \$25.952 million;
 - TURN recommended a reduction of \$2.464 million to SCE's initial forecast, for a forecast of \$23.676 million;
 - Cal Advocates recommended a reduction of \$4.030 million to SCE's initial forecast, for a forecast of \$22.110 million;

¹⁷¹⁸ Ex. SCE OB at 259.

¹⁷¹⁹ Ex. SCE-26.

- Walmart did not oppose SCE's initial forecast and testified that the services are critical for large customer success;
- Stipulation: The parties agree upon a 2025 TY expense forecast of \$24.031 million.
- Business Customer Services (Capital):
 - SCE forecasted \$0.266 million for 2023-2025 capital expenditures, consisting of recorded capital expenditures of \$0.006 million in 2023, forecast capital expenditures of \$0.130 million in 2024, and forecast capital expenditures of \$0.130 million in 2025;
 - TURN did not make a recommendation for 2023-2025 capital expenditures;
 - Cal Advocates recommended \$0 for 2023-2025 capital expenditures, based on SCE's 2023 forecast, 2024 forecast, and 2025 forecast;
 - Walmart did not make a recommendation for 2023-2025 capital expenditures;
 - Stipulation: The parties agree upon a 2023-2025 capital expenditures forecast of \$0.266 million, consisting of \$0.006 million recorded for 2023, \$0.130 million forecast for 2024, and \$0.130 million forecast for 2025.
- Communications, Education, and Outreach (O&M):
 - SCE initially forecasted \$12.319 million; SCE's rebuttal position was \$12.099 million.
 - TURN did not recommend a change to SCE's initial forecast;
 - Cal Advocates did not recommend a change to SCE's initial forecast;
 - Walmart did not recommend a change to SCE's initial forecast;
 - Stipulation: The parties agree upon a 2025 expense forecast of \$12.099 million.

SBUA supports the cost reductions in the Business Customer Services Stipulation, but did not join the stipulation “because it does not address how the reductions will affect the quality and scale of services that SCE will provide.”¹⁷²⁰ SBUA criticizes SCE for providing insufficient information in its initial forecast and testimony to determine the adequacy of SCE’s Business Customer Services programs that are used by small business customers. Specifically, SBUA asserts that SCE did not provide information on staffing or workload for account managers who are available and responsible for consulting with small business customers, as well as workpapers or documentation showing how SCE has assessed small business customer needs or correctly sized its hiring or budget to address these needs. Additionally, as part of its broader allegation that SCE does not take small business needs seriously, SBUA portrays SCE’s sponsoring witness as lacking awareness or knowledge to adequately speak to small business customer issues within SCE’s Business Customer Services BPE.¹⁷²¹ SBUA also raised additional arguments in testimony which were not reflected in SBUA’s briefs.

In light of these allegations, SBUA recommends SCE be directed to take the following actions: (1) confirm the staffing level and degree of outreach and education currently provided to serving small businesses can be accommodated within the cost levels provided in the Business Customer Services Stipulation; (2) assure continuation of a unified point of contact for small business customers from the 2018 GRC settlement agreement; (3) confirm SCE will maintain its Small

¹⁷²⁰ SBUA OB at 30.

¹⁷²¹ Ex. SBUA-01 at 1-7; Ex. SBUA-02R at 2-3; RT, Vol. 7 at 680:2-683:24; SBUA OB at 28-31.

Business Advisory Panel;¹⁷²² (4) for the GRC period, undertake a not-less-than one annual survey of small business customers and generate a report on key findings, recommendations, and goals; (5) conduct a high-level study on small businesses in ESJ communities; (6) implement a tracking system to improve identification of small business customers; (7) review the Pilot Evaluation and Final Report, anticipated in late 2024, from Advice Letter 5888, submitted October 28, 2021, for lessons to integrate into existing Business Customer Services activities; and (8) in the next GRC application, include testimony describing SCE's small business customer population, estimated bill savings and other benefits provided to small business customers by Business Customer Services programs and activities.¹⁷²³

In response to SBUA's criticisms of Ms. Blackwell, SCE's expert witness on Business Customer Services, SCE asserts SBUA misstates Ms. Blackwell's testimony and incorrectly asserts a lack of SCE information. Regarding SBUA's criticisms on SCE's lack of additional workpapers, documentation, and surveys specific to small business customer needs, SCE states its forecast is based on 2022 recorded costs plus adjustments, and is not an itemized forecast. Accordingly, SCE asserts its forecast properly captures Business Customer Services expenses without identifying the specific labor hours or other expenses associated with individual customers or customer groups, including small business, medium business, industrial, or agricultural customers.¹⁷²⁴

¹⁷²² The Small Business Advisory Panel "is a forum for SCE to share, get input, and discuss with small businesses, CBOs, Chambers of Commerce and similar organizations, updates on SCE business strategy, rates, energy and electrification programs, supplier diversity opportunities and other relevant activities targeted to these groups." (SBUA OB, footnote 102 at 31).

¹⁷²³ SBUA OB at 31-33.

¹⁷²⁴ SCE RB at 116-120.

SCE asserts SBUA's recommendations 2-8 were raised for the first time in opening briefs, depriving SCE of the opportunity to provide evidence in response. With respect to SBUA's first recommendation, SCE asserts SBUA's testimony did not make any recommendation to require SCE to maintain current levels of small business customer activities. Further, SCE states it should not be subject to new operational requirements or conditions when the Business Customer Services Stipulation reflects SCE's point-in-time belief that it can adequately perform Business Customer Service activities with the lowered, stipulated forecast for all non-residential customers, including small business customers.¹⁷²⁵

We find SBUA's criticisms are without merit, and decline to adopt SBUA's recommendations 2-8. SBUA's primary criticism is that SCE's forecast lacks workpapers, documentation, and surveys specific to small business customer needs. However, SCE's initial O&M and capital forecasts are based on 2022 recorded costs plus adjustments which, as explained by SCE, are intended to be representative of SCE's aggregate Business Customer Service expenses without identifying the specific expenses associated with each individual customer group. The Commission has indicated it is reasonable to rely on historical data to forecast future costs,¹⁷²⁶ while GRC forecasts are commonly based on last year recorded data.¹⁷²⁷ Beyond its assertions that SCE's Business Customer Services forecasts and related documentation are not specific to small business customer

¹⁷²⁵ SCE RB at 120-122.

¹⁷²⁶ See D.04-07-022 at 14-16 and D.89-12-057.

¹⁷²⁷ See, for example, SCE's 2021 GRC decision, where the Commission evaluated and authorized funding for Distribution Inspections & Maintenance and Capital-Related Expense, Transmission Grid, Substation, and Load Growth, Transmission Projects, and Engineering based on historical data. (D.21-08-036 at 51-55, 78-79, 87-88, and 134-136).

needs, hiring, or budget, SBUA does not argue that SCE's recorded 2022 costs, which include Business Customer Services expenses for all of SCE's non-residential customers, are insufficient, or that SCE has historically underserved small business customer needs. SBUA also does not raise specific cost objections to the Business Customer Services Stipulation or otherwise present alternative forecasts for Commission consideration.

Similarly, most of SBUA's recommendations are premised on the idea that SCE needs to individually forecast all components for each non-residential segment which, as discussed above, is not always necessary. SBUA's recommendations focused on the continuation of services SCE has historically provided to small businesses should, from a cost standpoint, be reflected in SCE's 2022 recorded costs.

Concerning SBUA's first recommendation, while we understand forecast expenses may change due to evolving customer needs, operational efficiencies, or other reasons, we also agree with SBUA that the approximate \$2 million decrease stipulated to in Business Customer Services O&M, as compared to SCE's rebuttal position, should not be seen as a corresponding reduction in the performance or provision of any of SCE's Customer Service Activities. In its reply brief, SCE confirms that this is not the case, stating "SCE's stipulation reflects its point-in-time belief that it can adequately perform Business Customer Service activities with the lowered, stipulated forecast for all non-residential customers, including small business customers."¹⁷²⁸

Turning to the Business Customer Services Stipulation, the stipulation reflects a complete resolution of disputed Business Customer Services BPE and

¹⁷²⁸ SCE RB at 122.

Communications, Education, and Outreach BPE issues between SCE, TURN, Cal Advocates, and Walmart. The Business Customer Services Stipulation also provides that, to determine the final values for each of the categories, the final escalation amounts adopted by the Commission should apply to any identified values in the stipulation.¹⁷²⁹

While the stipulation was not tendered as part of a larger settlement agreement, it is similar in substance. Accordingly, we review the Business Customer Services Stipulation pursuant to Rule 12.1(d), which provides that the Commission must find a settlement “reasonable in light of the whole record, consistent with law, and in the public interest.”

First, we find the Business Customer Services Stipulation to be reasonable in light of the record. The stipulating parties state the agreements reflect a compromise of disputed litigation positions on a range of issues addressed by the parties.¹⁷³⁰ As set forth above, we agree the stipulation reflects a reasonable compromise of the parties’ respective litigation positions on material issues and falls within a reasonable range of outcomes that might have been reached had the issues been fully litigated. SBUA was the only other party to submit testimony and briefs on SCE’s Business Customer Services requests and the Business Customer Services Stipulation. SBUA does not directly contest the O&M and capital amounts stipulated to, but rather requests that SCE be directed to perform certain, additional actions over this GRC period. We address SBUA’s additional recommendations above.

¹⁷²⁹ Ex. SCE-26 at 1.

¹⁷³⁰ Ex. SCE-26 at 1.

Second, we find the Business Customer Services Stipulation to be consistent with the law. We are unaware of any inconsistency with the Public Utilities Code, Commission decisions, or the law in general. No party opposed the stipulation or notified the Commission of any statutory provisions or applicable law that would be contravened or compromised by the stipulation.

Finally, we find approval of the Business Customer Services Stipulation to be in the public interest. The stipulation is joined by the majority of parties that submitted testimony on SCE's Business Customer Services requests, and includes the participation of intervenors representing general customer advocacy interests and business interests. Additionally, approval of the stipulation will conserve party and Commission resources by avoiding the need for further litigation and allow for timely resolution of the issues.

For the reasons stated above, the proposed Business Customer Services Stipulation meets the criteria for approval under Rule 12.1(d), and therefore, we approve the proposed stipulation without modification.

20. Customer Programs and Service

The Customer Programs and Services testimony volume consists of: (1) Customer Experience Management; and (2) Customer Programs Management GRC activities. These activities are described in greater detail below.

20.1. Customer Experience Management

Customer Experience Management (CEM) work activities include the coordination of strategies and efforts focusing on customer engagement, satisfaction, and experience. CEM also extends to other areas of SCE, such as the Customer Contact Center and account managers. CEM sub-activities include:¹⁷³¹

¹⁷³¹ Ex. SCE-03, Vol. 3 at 6-7.

- (1) Customer Experience Insights and Analytics: Includes gathering information on the needs and expectations of SCE customers, using the information and insights to establish an overall strategic vision; and integrating the vision and associated roadmaps across SCE's education and outreach plans;
- (2) Digital Operations and Management: Includes oversight of the growth and evolution of SCE's digital channels and end-to-end digital customer experience to meet SCE's customers' online needs and expectations; and
- (3) Customer Education and Outreach: Includes the planning, implementation, and management of rates and energy management tools and customer programs.

SCE's 2025 TY O&M forecast for CEM is \$22.452 million. SCE's forecast is based on 2022 recorded costs plus adjustments. The adjustments include increases of \$1.370 million for customer experience insights and analytics, \$4.075 million for digital operations and management, and \$0.448 million for the Employee Compensation Program applicable across SCE. It also includes reductions of \$1.109 million related to customer education and outreach, and \$0.280 million associated with SCE's Operational Excellence initiatives.¹⁷³²

Cal Advocates recommended a reduction of \$3.380 million to SCE's initial forecast, for a forecast of \$19.352 million. Cal Advocates' initial recommendation was based on assertions that SCE did not provide sufficient justification to support its forecast adjustments.¹⁷³³ No other party contested SCE's forecast. Cal Advocates and SCE subsequently stipulated to a 2025 TY O&M forecast of \$21.011 million, consisting of \$8.326 million in labor expenses and \$12.685 million

¹⁷³² Ex. SCE-03, Vol. 3 at 36-38; Ex. SCE-14, Vol. 3 at 4; SCE OB at 260.

¹⁷³³ Ex. CA-13 at 19-22.

in non-labor expenses (CEM Stipulation).¹⁷³⁴ For purposes of determining the final revenue requirement, the stipulation provides that the final escalation amounts adopted by the Commission should apply to any identified values in the CEM Stipulation.¹⁷³⁵

While the CEM Stipulation was not tendered as part of a larger settlement agreement, it is similar in substance. Accordingly, we review the stipulation between SCE and Cal Advocates pursuant to Rule 12.1(d), which provides that the Commission must find a settlement “reasonable in light of the whole record, consistent with law, and in the public interest.”

First, we find the CEM Stipulation to be reasonable in light of the record. The stipulating parties state the agreement reflects a compromise of disputed litigation positions on a range of issues addressed by the parties.¹⁷³⁶ As set forth above, we agree the stipulation reflects a reasonable compromise of the parties’ respective litigation positions on material issues and falls within a reasonable range of outcomes that might have been reached had the issues been fully litigated.

Second, we find the CEM Stipulation to be consistent with the law. We are unaware of any inconsistency with the Public Utilities Code, Commission decisions, or the law in general. No party opposed the stipulation or notified the Commission of any statutory provisions or applicable law that would be contravened or compromised by the stipulation.

¹⁷³⁴ Ex. SCE-27 at 1; SCE OB at 260.

¹⁷³⁵ Ex. SCE-27 at 1.

¹⁷³⁶ Ex. SCE-27 at 1.

Finally, we find approval of the CEM Stipulation to be in the public interest. The stipulation is joined by all parties that submitted testimony on SCE's CEM forecast, and includes the participation of an intervenor representing general customer advocacy interests. Additionally, approval of the stipulation will conserve party and Commission resources by avoiding the need for further litigation and allow for timely resolution of the issues.

For the reasons stated above, the CEM Stipulation meets the criteria for approval under Rule 12.1(d), and therefore, we approve a TY O&M forecast of \$21.011 million for CEM activities pursuant to the stipulation.

20.2. Customer Programs Management

Customer Programs Management (CPM) activities include the planning, implementation, and management of rates; energy management tools and customer programs; decarbonization programs; and programs to aid SCE's customers who rely on electric-powered medical devices.

SCE, Cal Advocates, and TURN reached a stipulation addressing all disputed CPM O&M and capital forecast issues in this proceeding (CPM Stipulation). We briefly present SCE's initial forecasts and party recommendations for the various CPM activities, before discussing the broader CPM Stipulation.

20.2.1. Customer Programs Management (O&M)

SCE's 2025 TY O&M forecast for CPM is \$11.846 million. SCE's forecast is based on 2022 recorded costs plus adjustments. The adjustments include increases for Charge Ready compliance activities,¹⁷³⁷ \$2.014 million for

¹⁷³⁷ Charge Ready programs are the Charge Ready Pilot, DC Fast Charging (DCFC), Home Install Rebate, Port of Long Beach Rubber Tire Gantry and Yard Tractor, Transit Bus, Transport, Schools, Parks, and Light Duty Programs. (Ex. SCE-03, Vol. 3, footnote 109 at 63).

decarbonization activities, \$0.227 million for the Technology Test Center,¹⁷³⁸ and \$0.498 million for SCE's Employee Compensation Program.¹⁷³⁹

Cal Advocates recommended a reduction of \$1.891 million to SCE's forecast, for a forecast of \$9.955 million.¹⁷⁴⁰ TURN recommended a reduction of \$2.014 million to SCE's forecast, for a forecast of \$9.832 million.¹⁷⁴¹

Cal Advocates, TURN, and SCE subsequently stipulated to a 2025 TY forecast of \$10.335 million, consisting of \$7.751 million in labor expenses and \$2.584 in non-labor expenses.¹⁷⁴²

SBUA was the only other party that submitted testimony regarding SCE's TY forecast for Customer Programs Management. SBUA does not make any monetary recommendation to change SCE's 2025 TY forecast, but asserts SCE lacks any meaningful electrification program for small commercial customers as well as critical information about small business electrification needs and barriers. Based on these allegations, SBUA recommends SCE be required to include in this GRC a small business building electrification pilot program designed to: (1) address knowledge gaps regarding efficient incentive levels and barriers faced by small commercial customers; (2) consider applications of alternative financing so that benefitting customers share a higher portion of costs; (3) consider a whole-building focus that takes advantage of the engagement with customers to leverage other programs and activate

¹⁷³⁸ SCE's Technology Test Center is used to test new customer end-use equipment and technologies. (Ex. SCE-03, Vol. 3 at 75-76).

¹⁷³⁹ Ex. SCE-03, Vol. 3 at 61-77; Ex. SCE-14, Vol. 3 at 4; SCE OB at 260.

¹⁷⁴⁰ Ex. CA-13 at 22-26; Ex. CA-13E at 23 and 26.

¹⁷⁴¹ Ex. TURN-10 at 11-12.

¹⁷⁴² Ex. SCE-28 at 1-2; SCE OB at 260.

participation in aligned opportunities; and (4) focus on hard-to-reach customers not served by existing funding sources and to avoid free ridership.¹⁷⁴³

In response, SCE asserts SBUA's recommendations for a new small business pilot program would be more appropriately raised and considered in a separate application or rulemaking, such as the Energy Efficiency proceeding (R.13-11-005). SCE also asserts its proposed TY adjustments consist of multiple electrification activities designed to benefit all customers, and that SCE makes other services available to small business customers to help support their electrification needs.¹⁷⁴⁴

We agree with SCE that SBUA's small business pilot proposal would be more appropriately considered in a separate application or rulemaking. As stated by SCE, "designing and developing a new pilot program, particularly with the parameters and evaluation metrics to meet SBUA's listed goals, would require thorough consideration of policy, operational, and technical issues, ideally through relevant stakeholder involvement."¹⁷⁴⁵ In order for SBUA's proposed pilot program to be successful, additional information is needed on the specific pilot parameters, goals, and evaluation metrics, with buy-in from relevant stakeholders. Therefore, we find SBUA's proposed pilot would benefit from further development and stakeholder input in a separate application or rulemaking, and is premature to consider in this GRC proceeding.

Beyond its recommendation to conduct a small business pilot, SBUA does not present any monetary recommendations to change SCE's 2025 TY forecast or

¹⁷⁴³ Ex. SBUA-01 at 10.

¹⁷⁴⁴ Ex. SCE-14, Vol. 3 at 29.

¹⁷⁴⁵ Ex. SCE-14, Vol. 3 at 29.

adjustments to the stipulated TY O&M forecast between Cal Advocates, TURN, and SCE. As discussed in Section 20.2.3 (Customer Programs Management Stipulation), we find reasonable and approve the stipulated TY forecast of \$10.335 million for CPM O&M expenses.

20.2.2. Customer Programs Management (Capital)

SCE's CPM capital request is for specialized tools and equipment used at SCE's Technology Test Center.¹⁷⁴⁶ SCE's Customer Experience Management capitalized software projects designed to support digital customer alerts, notifications, and self-service customer communications are discussed under Enterprise Technology - OU Capitalized Software.¹⁷⁴⁷

SCE's 2023-2025 capital forecast for CPM is \$1.523 million. This consists of recorded capital expenditures of \$0.098 million in 2023, forecast capital expenditures of \$0.260 million in 2024, and forecast capital expenditures of \$1.165 million in 2025.¹⁷⁴⁸ Cal Advocates recommended \$0 for 2023-2025 capital expenditures, based on SCE's 2021 recorded capital expenditures and SCE's TY forecasts.¹⁷⁴⁹ No other party contested SCE's forecast.

As part of a broader CPM Stipulation, Cal Advocates, TURN, and SCE subsequently stipulated to a 2023-2025 capital expenditures forecast of \$1.523 million, consisting of \$0.098 million recorded for 2023, \$0.260 million

¹⁷⁴⁶ As explained elsewhere, SCE's Technology Test Center is used to test new customer end-use equipment and technologies. Engineers within the Technology Test Center install equipment in specialized testing labs that are used to measure energy consumption, temperatures, and other data for verification of equipment performance. (Ex. SCE-03, Vol. 3 at 75-78).

¹⁷⁴⁷ Ex. SCE-03, Vol. 3 at 77-79.

¹⁷⁴⁸ Ex. SCE-03, Vol. 3 at 77-79; Ex. SCE-14, Vol. 3 at 2; SCE OB at 261.

¹⁷⁴⁹ Ex. CA-13E at 26.

forecast for 2024, and \$1.165 million forecast for 2025.¹⁷⁵⁰ As discussed in Section 20.2.3, we find reasonable and approve the stipulated CPM capital expenditures forecast of \$1.523 million (2023-2025).

20.2.3. Customer Programs Management Stipulation

As stated above, TURN, Cal Advocates, and SCE reached a stipulation resolving all contested CPM O&M and capital forecast issues among these parties (CPM Stipulation). A summary of the stipulation and initial party positions is provided below.¹⁷⁵¹

- CPM (O&M):
 - SCE forecasted \$11.846 million for CPM;
 - TURN recommended a reduction of \$2.014 million, for a forecast of \$9.832 million;
 - Cal Advocates recommended a reduction of \$1.891 million, for a forecast of \$9.955 million;
 - Stipulation: The parties agree upon a 2025 O&M expense forecast of \$10.335 million.
- CPM (Capital):
 - SCE forecasted \$1.523 million for 2023-2025 capital expenditures, consisting of recorded capital expenditures of \$0.098 million in 2023, forecast capital expenditures of \$0.260 million in 2024, and forecast capital expenditures of \$1.165 million in 2025;
 - TURN did not make a recommendation for 2023-2025 capital expenditures;
 - Cal Advocates recommended \$0 for 2023-2025 capital expenditures;

¹⁷⁵⁰ Ex. SCE-28 at 1-2.

¹⁷⁵¹ Ex. SCE-28 at 1-2.

- Stipulation: The parties agree upon a 2023-2025 capital expenditures forecast of \$1.523 million, consisting of \$0.098 million recorded for 2023, \$0.260 million forecast for 2024, and \$1.165 million forecast for 2025.

The CPM Stipulation provides that, to determine the final values for each of the categories, the final escalation amounts adopted by the Commission should apply to any identified values in the stipulation.¹⁷⁵²

While the stipulation was not tendered as part of a larger settlement agreement, it is similar in substance. Accordingly, we review the CPM Stipulation pursuant to Rule 12.1(d), which provides that the Commission must find a settlement “reasonable in light of the whole record, consistent with law, and in the public interest.”

First, we find the CPM Stipulation to be reasonable in light of the record. The stipulating parties state the agreements reflect a compromise of disputed litigation positions on a range of issues addressed by the parties.¹⁷⁵³ As set forth above, we agree the stipulation reflects a reasonable compromise of the parties’ respective litigation positions on material issues, and falls within a reasonable range of outcomes that might have been reached had the issues been fully litigated. SBUA was the only other party to submit testimony and briefs on SCE’s CPM O&M forecast. SBUA does not directly contest the O&M amounts forecast by SCE, or the O&M and capital amounts agreed upon in the CPM Stipulation. Rather, SBUA recommends that SCE perform a small business pilot. We address SBUA’s pilot recommendation above.

¹⁷⁵² Ex. SCE-28 at 1.

¹⁷⁵³ Ex. SCE-28 at 1.

Second, we find the CPM Stipulation to be consistent with the law. We are unaware of any inconsistency with the Public Utilities Code, Commission decisions, or the law in general. No party opposed the stipulation or notified the Commission of any statutory provisions or applicable law that would be contravened or compromised by the stipulation.

Finally, we find approval of the CPM Stipulation to be in the public interest. The stipulation is joined by the majority of parties that submitted testimony on SCE's CPM requests, and includes the participation of intervenors representing general customer advocacy interests. Additionally, approval of the stipulation will conserve party and Commission resources by avoiding the need for further litigation and allow for timely resolution of the issues.

For the reasons stated above, the proposed CPM Stipulation meets the criteria for approval under Rule 12.1(d), and therefore, we approve the proposed stipulation without modification.

21. Business Continuation

The Business Continuation program supports SCE's critical business processes, maintains compliance with all applicable regulations, and manages emergency planning and response operations that minimize service disruptions to mitigate safety, reliability, and financial consequences. The Business Continuation BPE is comprised of two work activities: (1) Planning, Continuity, and Governance; and (2) All Hazards Assessment, Mitigation and Analytics.

21.1. Planning, Continuity, and Governance

The primary objectives of SCE's Business Continuation Planning, Continuity, and Governance work activities are to standardize and strengthen the development of new and existing emergency and contingency plans, establish continuity of operations as soon as possible following an emergency,

and execute governance over required compliance programs related to emergency management and response and recovery. Activities include execution of Business Impact Analysis¹⁷⁵⁴ in each operating unit, and the creation and maintenance of emergency and continuity plans.¹⁷⁵⁵

For the 2025 TY, SCE forecasts \$1.013 million in O&M expenses for Planning, Continuity, and Governance.¹⁷⁵⁶ SCE's forecast is based on 2022 recorded costs plus an adjustment for current vacancies expected to be filled.¹⁷⁵⁷ No party contested SCE's O&M forecast.

We find reasonable and adopt SCE's uncontested TY O&M forecast of \$1.013 million for Planning, Continuity, and Governance.

21.2. All Hazards Assessment, Mitigation, and Analytics

The objectives of SCE's All Hazards Assessment, Mitigation, and Analytics activities are to identify and analyze SCE's exposure to natural and man-made hazards, develop and coordinate efforts to mitigate the impacts using industry standards or best practices, and improve analytics and technology to support business resiliency functions. The All Hazards Assessment, Mitigation, and

¹⁷⁵⁴ A Business Impact Analysis identifies and prioritizes the criticality of each process, application, and system supporting SCE's safe and reliable delivery of power to its customers, including assessments of impacts if those elements are disrupted. The Business Impact Analysis helps to inform investment strategies and establishes the priorities for contingency and emergency plans used by organization-specific teams that implement emergency planning functions within SCE. (Ex. SCE-04, Vol. 1 at 7 and 17).

¹⁷⁵⁵ Ex. SCE-04, Vol. 1 at 16-18.

¹⁷⁵⁶ Ex. SCE-15, Vol. 1, Table I-1 at 2.

¹⁷⁵⁷ Ex. SCE-04, Vol. 1 at 20.

Analytics activities are organized into the following programs and workstreams:¹⁷⁵⁸

- Seismic Resiliency Program: Executes seismic assessment and mitigation projects for SCE's electric infrastructure, non-electric facilities, generation, IT/telecommunications infrastructure, emergency communications, and seismic sensors and alerts.
- Severe Weather Program: Facilitates and develops a consistent, company-wide approach to analyze near term weather hazards (including climate change impacts) and identify and implement adaptive measures.
- Targeted Hazards Analysis: Focuses on mitigating emerging hazards that arise from year to year (such as extreme rain that can lead to flooding of our assets, or debris flows following wildfires), through an annual targeted hazards analysis and subsequent mitigations.
- Analytics & Technology Integration: Implements technological solutions to support SCE's business continuation and emergency management efforts.
- Emergency Communications: Assesses, identifies, and implements fixes to make the emergency communications systems that SCE relies on more robust during a major disaster.
- Seismic Sensors and Alerts: Following an earthquake, entails the use of seismic sensors and alerts to safely and efficiently assess and report damage within SCE's service territory.

SCE's O&M and capital forecasts for All Hazards Assessment, Mitigation, and Analytics are discussed below.

¹⁷⁵⁸ Ex. SCE-04, Vol. 1 at 21-28.

**21.2.1. All Hazards Assessment,
Mitigation, and Analytics O&M**

For the 2025 TY, SCE forecasts \$1.808 million in O&M expenses for All Hazards Assessment, Mitigation, and Analytics.¹⁷⁵⁹ SCE's labor forecast is based on 2022 recorded costs plus adjustments. The adjustments are attributable to current vacancies expected to be filled and cost decreases from SCE's Operational Excellence efforts. SCE utilized an itemized forecast for its non-labor forecast, including a combination of costs associated with planned non-electric facilities mitigation projects and temporary employee relocations, vendor quotes, historic costs, and subject matter expertise.¹⁷⁶⁰ No party contested SCE's TY O&M forecast for All Hazards Assessment, Mitigation, and Analytics.

We find reasonable and approve SCE's TY forecast of \$1.808 million in O&M expenses for All Hazards Assessment, Mitigation, and Analytics.

**21.2.2. All Hazards Assessment,
Mitigation, and Analytics Capital**

In this GRC, SCE includes capital requests for the Severe Weather Program and the Seismic Resiliency Program.

SCE's 2023-2025 capital forecast for the Severe Weather Program is \$11.971 million. This consists of recorded capital expenditures of \$1.246 million in 2023, forecast capital expenditures of \$6.250 million in 2024, and forecast capital expenditures of \$4.475 million in 2025.¹⁷⁶¹ SCE's capital request includes funding to support hydro analysis, substation flood mitigation projects, and

¹⁷⁵⁹ Ex. SCE-15, Vol. 1, Table I-1 at 2.

¹⁷⁶⁰ Ex. SCE-04, Vol. 1 at 30-31; Ex. SCE-04, Vol. 1WP at 17-26.

¹⁷⁶¹ Ex. SCE-15, Vol. 1, Table I-4 at 4.

substation mitigation work. SCE's capital forecasts are based on a combination of historic costs, estimates from third-party consultants and vendors, and itemized material, construction, and project management costs.¹⁷⁶² SCE's capital forecast for the Severe Weather Program is uncontested.

For the Seismic Resiliency Program, SCE forecasts \$150.958 million in 2023-2025 capital expenditures, including \$37.356 million in recorded capital expenditures for 2023, forecast capital expenditures of \$53.925 million for 2024, and forecast capital expenditures of \$59.677 million for 2025. Of that amount, roughly half (\$75.022 million) is for assessing and retrofitting SCE's non-electric facilities, primarily offices and operational buildings supporting power delivery.¹⁷⁶³

SCE's capital expenditure forecasts are derived from several sources. Forecasts for assessments are derived using an itemized forecast methodology based on the type of assessment, the number of assets or sites to be assessed, and the final reporting requirements. SCE's forecast utilizes historic costs from similar work and estimates from third-party engineering firms performing seismic assessments for the four types of infrastructure (*i.e.*, electric, non-electric, generation, and IT/telecommunication) between 2016-2021.¹⁷⁶⁴

Mitigation activities are forecast using a similar itemized approach. For electric infrastructure projects, estimates are based on the recommended work scope and schedule, historic costs of projects with similar scope, and certain

¹⁷⁶² Ex. SCE-04, Vol. 1 at 56-58.

¹⁷⁶³ SCE's 2023-2025 capital forecast for its non-electric facilities consists of recorded capital expenditures of \$15.222 million for 2023, forecast capital expenditures of \$28.400 million for 2024, and forecast capital expenditures of \$31.400 million for 2025. (Ex. SCE-04, Vol. 1, at 46; Ex. SCE-15, Vol. 1 at 9; Ex. TURN-102 at 1-2).

¹⁷⁶⁴ Ex. SCE-04, Vol. 1 at 40.

itemized construction costs. For non-electric facilities, project costs are based on a \$147 per square foot unit estimate derived from historic costs, rough order of magnitude estimates, and an updated National Institute of Standards & Technology (NIST) model.¹⁷⁶⁵ The forecast was then derived by applying that estimate to the planned mitigation projects at non-electric facilities from 2023-2028. For generation mitigation projects, the forecast was derived by taking the engineering assessment recommendations, itemizing the scope, and applying per unit cost estimates from SCE generation engineering and asset management groups.¹⁷⁶⁶

Finally, for IT/telecommunication mitigation projects, the cost estimates are based on third-party estimates, historic costs, and vendor quotes.¹⁷⁶⁷

Cal Advocates and TURN oppose SCE's forecast for capital projects related to seismic mitigation projects for SCE's non-electric facilities. The remainder of SCE's capital forecasts for the Seismic Resiliency Program are uncontested.

Cal Advocates recommends a \$1.801 million reduction to SCE's initial seismic forecast for its non-electric facilities.¹⁷⁶⁸ Cal Advocates' recommendation is based on assertions that SCE did not sufficiently justify its 2023 forecast for one non-electric project (*i.e.*, General Office Project 1). In addition, Cal Advocates highlights a discrepancy between the forecast in SCE's workpaper and a vendor

¹⁷⁶⁵ Ex. SCE-04, Vol. 1 at 49; SCE-04, Vol. 1 WP at 76-79; SCE OB at 264.

¹⁷⁶⁶ Ex. SCE-04, Vol. 1 at 40-41.

¹⁷⁶⁷ Ex. SCE-04, Vol. 1 at 41.

¹⁷⁶⁸ Ex. CA-14, Table 14-2 at 4. Cal Advocates' testimony also includes reference to a total Business Continuation capital expenditure forecast of \$177.114 million for 2023-2025 (Ex. CA-14E at 2); however, this amount includes \$52.951 million in forecast 2023 costs (an increase of \$0.631 million relative to SCE's initial forecast), and is higher than Cal Advocates' position in its opening brief (Cal Advocates OB at 295), so appear to be in error.

quote concerning SCE's 2024 and 2025 new starts and carryover categories contained within the seismic non-electric workstream.¹⁷⁶⁹

TURN recommends \$57.102 million in capital expenditures (2023-2025) for SCE's seismic non-electric facilities, or a \$17.920 million reduction to SCE's seismic non-electric workstream forecast.¹⁷⁷⁰ TURN's recommendation uses a \$57 per square foot estimate SCE's seismic non-electric facility mitigation work based on the recorded average cost of the 28 seismic retrofits of non-electric facilities SCE completed since its 2021 GRC,¹⁷⁷¹ compared to the \$84 per square foot implied by SCE's forecast.¹⁷⁷² In support of its recommendation, TURN asserts: (1) SCE has failed to present any material explaining the basis for its project-specific forecast; (2) the \$147 per square foot figure proposed by SCE is associated with retrofits of facilities being done to an "immediate occupancy" performance objective in the updated NIST model, while most of SCE's seismic retrofit projects performed in recent years and forecasted for the TY 2025 GRC period are being done to a "life safety" performance objective with a lower average cost of \$91 per square foot; and (3) the limitations of the updated NIST model are well documented by SCE's own consultant. In response to SCE's argument in rebuttal testimony that "TURN's funding levels would negatively affect the safety of our workforce and reliability of service to our customers,"¹⁷⁷³

¹⁷⁶⁹ Ex. CA-14 at 14-19.

¹⁷⁷⁰ Ex. TURN-15E2 at 33; Ex. SCE-15, Vol. 1, at 9 and Appendix A at 1-5.

¹⁷⁷¹ Ex. TURN-15E2 at 33; TURN OB at 216-217.

¹⁷⁷² TURN calculates the \$84 per square foot figure by removing the assessment costs from SCE's total forecast (\$4.44 million), then dividing the \$194.6 million that remained by 2,318 million square feet for the facilities included in the forecast. (Ex. TURN-15E2, footnote 95 at 33).

¹⁷⁷³ Ex. SCE-15, Vol. 1 at 10.

TURN highlights that TURN's 2023 forecast is slightly higher than the costs SCE actually recorded 2023 for its seismic non-electric facilities, while SCE's spending in the 2021-2024 period stayed within Commission-authorized amounts, despite those amounts being far less than SCE's 2021 GRC forecasts for that period.¹⁷⁷⁴ Lastly, TURN asserts its single average cost per square foot, which does not differentiate between "structural" and "non-structural" mitigations, is consistent with the material SCE included in its direct showing.¹⁷⁷⁵

In response to Cal Advocates, SCE makes the following arguments:

(1) SCE's rebuttal position is less than Cal Advocates' proposed forecast by a total of \$11.012 million; (2) in its proposed disallowance for SCE's General Office 1 Project, Cal Advocates misconstrues an SCE data request response; and (3) Cal Advocates' recommended reductions for 2024 and 2025 are due to SCE rounding estimated totals, and are *de minimis*.¹⁷⁷⁶

In response to TURN, SCE provides the following arguments: (1) SCE's use of historical costs and building specific rough order of magnitude estimates, in conjunction with the NIST model, is required to accurately calculate this forecast and protect critical facilities; (2) TURN's recommended forecast is shortsighted, lumps all seismic projects in the non-electric workstream into a "one-size-fits-all" cost, and is insufficient to complete the project SCE has identified to rectify seismic-related safety risks; (3) TURN's forecast, which is based on projects that were completed in 2020 or prior, does not take into account supply chain issues, inflation, and numerous other drivers have

¹⁷⁷⁴ TURN OB at 218.

¹⁷⁷⁵ TURN OB at 217-219.

¹⁷⁷⁶ Ex. SCE-15, Vol. 1 at 7-9; SCE OB at 263.

drastically increased costs; (4) TURN disregards the cost impacts from structure versus non-structural mitigations; (5) at least one-third of SCE's non-electric seismic retrofit projects proposed for the 2023-2028 forecast have a performance objective of "immediate occupancy," which is underrepresented in TURN's forecast; and (6) SCE's lower-than-expected 2023 recorded costs were due to unforeseen procurement and construction delays, and SCE still plans to complete the seismic retrofit projects included in its forecast during the GRC period.¹⁷⁷⁷

Parties do not dispute the underlying need for SCE's non-electric facilities seismic work; rather, the primary point of contention concerns SCE project-specific forecast costs. We find merit in TURN's proposal and supporting arguments, and authorize \$56.358 million in capital expenditures (2023-2025) for SCE's seismic non-electric facilities work. The authorized capital expenditure amount is based on TURN's forecast methodology with an adjustment to reflect SCE's 2023 recorded capital expenditures.¹⁷⁷⁸ As highlighted by TURN, there are significant issues with SCE's reliance on the updated NIST model, including the mismatch between SCE's proposed \$147 per square foot to retrofit buildings to the "immediate occupancy" standard — when most of SCE's seismic retrofit projects forecasted for the TY 2025 GRC period are being done to meet the lower cost "life safety" performance objective¹⁷⁷⁹ — and the candid assessment of the

¹⁷⁷⁷ Ex. SCE-15, Vol. 1 at 9-15; SCE OB at 264-267; SCE RB at 124-126.

¹⁷⁷⁸ Specifically, the authorized 2023-2025 capital expenditures amount for SCE's seismic non-electric facilities work is comprised of \$ 15.222 million for recorded 2023 expenditures and \$41.136 million for forecast 2024-2025 capital expenditures.

¹⁷⁷⁹ In its rebuttal testimony, SCE states that roughly one-third of the non-electric seismic retrofit projects proposed for the 2023-2028 forecast have a performance objective of "immediate occupancy." (Ex. SCE-15, Vol. 1 at 13). If evaluated based on the interior square footage, this number is even lower, with "immediate occupancy" representing approximately one-fifth of the

model's limitations in SCE's workpapers. SCE attempts to argue that its forecast relies on the use of building-specific historical costs and rough order of magnitude estimates, in addition to the NIST model;¹⁷⁸⁰ however, SCE's testimony and workpapers do not include any material or supporting evidence explaining the basis for each of the project-specific forecasts.

In contrast, we believe TURN's proposal, which is based on recently completed and active seismic retrofits, is more reflective of the costs that SCE is likely to incur for its seismic non-electric facilities work over this GRC period. SCE attempts to argue that TURN's proposal does not take into consideration escalation and disregards NIST average model costs, resulting in insufficient proposed funding levels. However, SCE's arguments are undercut by the fact that SCE's recorded 2023 costs for seismic non-electric facilities work are slightly below TURN's 2023 forecast, while SCE's expenses during the 2021-2024 period are expected to stay within the Commission-authorized amounts for seismic non-electric facilities work, despite those amounts being far less than SCE's prior GRC forecast for that period.¹⁷⁸¹ Meanwhile, the \$57 per square foot figure approved in this decision is almost double the amount approved in the 2021 GRC decision.¹⁷⁸² SCE's criticism of TURN for having derived a single average cost per square foot is also unpersuasive since SCE similarly uses a single cost per square foot in its direct showing.

total square footage SCE expects to retrofit between 2023-2028. (Ex. SCE-15, Vol. 1, Appendix A at 25).

¹⁷⁸⁰ Ex. SCE-15, Vol. 1 at 14.

¹⁷⁸¹ TURN OB at 218.

¹⁷⁸² In D.21-08-036, the Commission adopted a unit cost of \$28.66 per square foot for seismic retrofits at non-electric facilities. (D.21-08-036 at 332-333).

Notwithstanding the discussion above, we find some merit in SCE's argument that there is a lower level of projects with the "immediate occupancy" performance objective included in TURN's average cost per square foot calculation compared to SCE's project forecasts for the 2023-2028 period. Specifically, approximately one-third of SCE's non-electric seismic retrofit projects proposed for the 2023-2028 forecast have a performance objective of "immediate occupancy," whereas approximately one-seventh of projects included in TURN's calculation have a performance objective of "immediate occupancy." The difference is also apparent when comparing the total square footage by performance objective building types. Moreover, as discussed above, parties do not dispute the general need and justification for SCE's planned seismic mitigation projects. To ensure SCE has sufficient funding to address all seismic-related building safety risks over this GRC period, we authorize SCE to continue to track seismic retrofit costs for its non-electric facilities in the Seismic Retrofit for Non-Electric Facilities Memorandum Account (SRNEFMA) through 2028, with the opportunity to seek recovery for any costs above the amount authorized in this decision in SCE's next GRC.

Because the approved level of funding for SCE's seismic non-electric facilities work in this decision is based on the recorded average cost of recently completed projects, we decline to make any further adjustments based on Cal Advocates' recommendations, all of which are specific to SCE's proposed forecast methodology.

The remainder of SCE's capital expenditure forecasts for the Business Continuation BPE are uncontested. We find these capital expenditure forecasts to be reasonable and approve them. Accounting for the approved non-electric facilities seismic forecast, this decision authorizes \$132.293 million in capital

expenditures for the Seismic Resiliency Program (2023-2025), and \$11.971 million in capital expenditures for the Severe Weather Program (2023-2025).

22. Emergency Management

22.1. O&M and Capital Request

In total, SCE forecasts \$27.984 million in O&M expenses for the 2025 TY, and \$198.903 million in capital expenditures for 2023-2025 to support Emergency Management activities.¹⁷⁸³

22.1.1. Uncontested Programs

22.1.1.1. Training, Drills, and Exercise

For TY 2025, SCE forecasts \$1.057 million in labor costs and \$1.263 million in non-labor costs for Training, Drills, and Exercise Programs.¹⁷⁸⁴

SCE states its Training, Drills, and Exercise Programs enhance its emergency response integration with its customers and communities through collaboration with local, county, state, and federal government agencies, and other utilities. SCE also states that the ability to rapidly coordinate, share information and situational awareness, and cohesively work together both internally and externally expedites restoration work following an emergency. SCE testifies that its training incorporates lessons learned from exercises simulating real-world emergencies so that personnel learn and improve from those experiences.¹⁷⁸⁵ SCE states that the trainings, drills and exercises are essential to improve life safety outcomes and power restoration timelines during emergencies.¹⁷⁸⁶ The Training, Drills, and Exercise Programs are uncontested.

¹⁷⁸³ Ex. SCE-15, Vol. 2 at 2, Table I-1; *see also* Ex. SCE-15, Vol. 2 at 3, Table I-2.

¹⁷⁸⁴ Ex. SCE-04, Vol. 2 at 18.

¹⁷⁸⁵ Ex. SCE-04, Vol. 2 at 18.

¹⁷⁸⁶ Ex. SCE-04, Vol. 2 at 18.

22.1.1.2. Emergency Preparedness and Response

For TY 2025, SCE forecasts \$8.345 million for the Emergency Preparedness and Response work activity.¹⁷⁸⁷

SCE states that the Emergency Preparedness and Response Program provides the essential personnel, processes, technologies, and overall capabilities for SCE to effectively prepare for, mitigate risk, and respond to emergencies. SCE testifies that absent these efforts, SCE's response to emergencies would be severely hampered and place employees, customers, and communities at greater risk.¹⁷⁸⁸ SCE also testifies that the following programs are necessary to properly position SCE to address emergencies: (1) Incident Support Teams and Incident Management Teams; (2) Watch Office;¹⁷⁸⁹ (3) Emergency Operations Center; (4) All Hazard Customer Support Care;¹⁷⁹⁰ (5) Situational Awareness Center; (6) Mobile Command Center;¹⁷⁹¹ (7) Communications Devices;¹⁷⁹² (8) Meteorology; (9) Fire Management; (10) Technology Integration;¹⁷⁹³ and (11) Mutual Assistance.¹⁷⁹⁴ The Emergency Preparedness and Response Program is uncontested.

¹⁷⁸⁷ Ex. SCE-15, Vol. 2 at 2, Table I-1.

¹⁷⁸⁸ Ex. SCE-04, Vol. 2 at 26.

¹⁷⁸⁹ Ex. SCE-04, Vol. 2 at 19.

¹⁷⁹⁰ Ex. SCE-04, Vol. 2 at 20.

¹⁷⁹¹ Ex. SCE-04, Vol. 2 at 22.

¹⁷⁹² Ex. SCE-04, Vol. 2 at 23.

¹⁷⁹³ Ex. SCE-04, Vol. 2 at 24.

¹⁷⁹⁴ Ex. SCE-04, Vol. 2 at 25.

22.1.2. Uncontested Programs**22.1.2.1.1. Distribution, Transmission,
Substation, and
Telecommunication
Storm Response**

For the TY, SCE forecasts \$15.593 million in Distribution, Transmission, Substation, and Telecommunications Storm Response expenditures.

SCE states its electrical system can be affected by both weather conditions (including rain, wind, lightning, and heat) and natural disasters (such as earthquakes and fires).¹⁷⁹⁵ SCE has four levels of storm incident intensity to identify and recognize storm impact on its systems. The four levels are: (1) mild; (2) moderate; (3) severe; and (4) catastrophic.¹⁷⁹⁶ Storms are declared based on criteria that consider the magnitude of the storm and the response required to provide timely restoration of service to customers. Once a storm is declared, SCE's Grid Operations initiates notification and assembly of personnel for situation assessment, service restoration, and communication within SCE and with external agencies. SCE incurs both O&M expenses and capital expenditures for storm responses to its systems.¹⁷⁹⁷ This segment of SCE's Storm Response program is uncontested.

**22.1.2.1.2. Customer Service
Storm Response**

For the TY, SCE forecasts \$0.591 million in expenditures related to Customer Service Storm Response. The Customer Service Storm Response is targeted to serve customers through SCE's Customer Contact Center.

¹⁷⁹⁵ Ex. SCE-04, Vol. 2 at 33.

¹⁷⁹⁶ Ex. SCE-04, Vol. 2 at 33.

¹⁷⁹⁷ Ex. SCE-04, Vol. 2 at 33.

SCE testifies that its Customer Contact Center responds, 24 hours a day, seven days a week, to emergency calls regarding outages and damaged equipment. SCE also testifies that its customer service agents are trained and are available to answer incoming customer calls that include the following topics: (1) answering customer questions; (2) providing resource and outage status information; (3) resolving concerns; (4) addressing emergency issues by initiating outage orders; (6) escalating potential issues that arise as needed; and (7) delivering safety messaging to keep the public safe.¹⁷⁹⁸ SCE states that its agents are trained to take incoming 911 calls from local police and fire agencies to handle urgent information needs and access to SCE personnel and resources in emergency situations. Finally, SCE states that the Customer Contact Center also deploys agents to designated Community Resource Centers to provide in-person customer care support to impacted customers.¹⁷⁹⁹ This segment of SCE's Storm Response program is uncontested.

22.1.2.1.3. Storm Capital Forecast

As discussed above, SCE states that storm events are driven by weather and other environmental factors outside of its control and can vary significantly from year to year.¹⁸⁰⁰ The capital forecast for Storm Response is based on a five-year average of recorded expenditures from 2018 to 2022 to forecast expenditures in these accounts from 2023 to 2028. This methodology is uncontested.

¹⁷⁹⁸ Ex. SCE-04, Vol. 2 at 34.

¹⁷⁹⁹ Ex. SCE-04, Vol. 2 at 34.

¹⁸⁰⁰ Ex. SCE-04, Vol. 2 at 42.

22.1.3. Contested Program**22.1.3.1. Storm Response**

For the TY, SCE forecasts \$16.184 million for its Storm Response program. SCE states that the Storm Response O&M expenses include costs incurred to manage the storm command center, identify electrical facilities or structures that have been affected, assess required repairs or replacements, perform switching to isolate problem areas, and repair damaged equipment.¹⁸⁰¹ Storm Response capital expenditures include all costs associated with replacing electrical facilities, structures, or equipment damaged during storm events.¹⁸⁰²

22.1.3.1.1. Generation Storm Response Forecast

For the TY, SCE forecasts \$1.135 million for the O&M costs for Generation Storm Response. This includes \$0.153 million for labor and \$0.981 million for non-labor. SCE states that the labor and non-labor totals were adjusted to include additional storm costs of \$0.884 million per year to account for the increasing likelihood of destructive debris flows near SCE's generation facilities.¹⁸⁰³

Over the past few years, SCE states it has experienced an increase in wildfires near several of its hydro generating facilities, necessitating extensive vegetation management, and resulting in needed facility repairs. SCE testifies that wildfires such as the Creek Fire and the Apple Fire near SCE's hydro generation facilities have also resulted in severe erosion, having destroyed trees and ground cover, increasing the likelihood of future destructive debris flows in

¹⁸⁰¹ Ex. SCE-04, Vol. 2 at 33.

¹⁸⁰² Ex. SCE-04, Vol. 2 at 33.

¹⁸⁰³ Ex. SCE-15, Vol. 2 at 5.

those areas in future years. SCE states that despite its efforts to mitigate debris flows in impacted areas, significant damage still occurs due to the severe erosion created by destructive fires.¹⁸⁰⁴ SCE states its Generation Storm Response addresses this storm work, and the associated costs to address these potentially catastrophic conditions created by past wildfires.¹⁸⁰⁵

Similar to SCE's forecast for ongoing storm activities, the non-labor forecast for Generation Storm Response utilizes a five-year average for the 2025 Test Year. SCE states its labor forecast was based on a last year recorded (2022 recorded costs) methodology. SCE also states that the non-labor and labor total was then adjusted to include additional storm costs of \$0.884 million per year to account for the increasing likelihood of destructive debris flows near SCE's generation facilities. To arrive at this adder, SCE states it utilized costs associated with an August 2022 monsoon event as a proxy for storm-related costs that SCE is likely to incur in the future due to the severe erosion.¹⁸⁰⁶ This segment of SCE's Storm Response program is contested.

22.2. Parties' Positions

22.2.1. Cal Advocates

In response to SCE's proposal for Generation Storm Response, Cal Advocates opposes the inclusion of \$0.884 million in SCE's Generation Storm Response forecast. Cal Advocates argues that these costs should be reviewed in a Catastrophic Event Memorandum Account (CEMA) proceeding and not in SCE's GRC forecast.¹⁸⁰⁷

¹⁸⁰⁴ Ex. SCE-15, Vol. 2 at 5.

¹⁸⁰⁵ Ex. SCE-15, Vol. 2 at 5.

¹⁸⁰⁶ Ex. SCE-15, Vol. 2 at 5.

¹⁸⁰⁷ Ex. CA-14 at 11.

22.2.2. SCE's Rebuttal

SCE argues that the Commission should reject Cal Advocates' position on the Generation Storm Response forecast. In support of its position, SCE asserts the following: (1) Cal Advocates incorrectly implies that SCE would be able to recover all incremental storm-related costs through CEMA, which it cannot;¹⁸⁰⁸ (2) Cal Advocates completely dismisses the Commission guidance in Decision D.21-08-024, which specifically cautions utilities against including costs in CEMA, when those costs could have been forecast in a GRC; and (3) Cal Advocates incorrectly asserts that these costs can just be accounted for in future GRCs.¹⁸⁰⁹

22.3. Discussion

22.3.1. Contested Program

22.3.1.1. Generation Storm Response

We decline to adopt Cal Advocates' recommendation to remove \$0.884 million from the proposed \$1.135 million O&M expenses requested by SCE for Generation Storm Response.¹⁸¹⁰ We authorize and adopt SCE's \$1.135 million O&M forecast for Generation Storm Response for the reasons discussed below.

In D.21-08-024, we determined that if a utility has an understanding of the amount of work needed to address a specific condition that may be subject to CEMA recovery, a utility needs to justify why it was unable to estimate these costs for recovery in a GRC.¹⁸¹¹ Here, SCE has explained in its testimony that the

¹⁸⁰⁸ Ex. SCE-15, Vol. 2 at 6.

¹⁸⁰⁹ Ex. SCE-15, Vol. 2 at 6-8.

¹⁸¹⁰ Cal Advocates OB at 298.

¹⁸¹¹ D.21-08-024 at 16.

\$0.884 million is a proxy for the amount of work that will be needed to remediate the effects of significant debris flows near its generation facilities following heavy rains. SCE used a recent storm event, the August 2022 monsoon, as a proxy for likely future storm-related costs.¹⁸¹² SCE's proxy fits within the contours of D.21-08-024. However, Cal Advocates' position is incongruent with D.21-08-024. Therefore, we decline to adopt Cal Advocates' recommendation.

In conclusion, we adopt \$1.135 million for O&M forecast for Generation Storm Response.

22.3.2. Uncontested Programs

The following 2025 TY O&M SCE forecasts are uncontested. SCE has justified the reasonableness of these uncontested forecasts and therefore, we find reasonable and approve these activities and forecast capital costs:

- Training Drills and Exercise — \$2.320 million;
- Emergency Preparedness and Response — \$8.345 million;
- Distribution, Transmission, Substation, and Telecommunication Storm Response — \$15.593 million; and
- Customer Service — \$0.591 million.

We also approve SCE's unopposed 2023-2025 capital expenditures forecast for Emergency Management of \$198.903 million, which includes 2023 recorded capital costs.

23. Cybersecurity

The Cybersecurity BPE encompasses cybersecurity activities and infrastructure for SCE's broader Grid Modernization effort. SCE states a

¹⁸¹² Ex. SCE-15, Vol. 2 at 8-9.

cyber-safe environment is essential for the delivery of power in a landscape where cyberattacks are becoming more sophisticated and more frequent.¹⁸¹³

23.1. Cybersecurity O&M

SCE forecasts TY O&M expenses of \$41.554 million for the Cybersecurity BPE. This forecast includes work for the following activities:¹⁸¹⁴

Activity	TY Forecast (\$000)
Cybersecurity Delivery	31,117
Grid Modernization Cybersecurity	4,487
Software License and Maintenance	5,950
Total	41,554

SCE's Cybersecurity Delivery organization works to enable SCE and its customers to realize the benefits and efficiencies of technology safely, while avoiding excessive risk to the confidentiality, integrity, and availability of these systems and the critical data they contain. The Cybersecurity group is organized into three primary areas: (1) cybersecurity engineering, risk, and governance; (2) cybersecurity architecture technology and operations; and (3) national security policy advocacy and cybersecurity awareness. The Grid Modernization Cybersecurity Program focuses on addressing the security and data protection needs of all new infrastructure and application assets being added through SCE's Grid Modernization program. Lastly, the Cybersecurity Software Licenses and Maintenances activity includes the costs of licenses and maintenance agreements to maintain SCE's cybersecurity hardware and software assets.¹⁸¹⁵ SCE's labor

¹⁸¹³ Ex. SCE-04, Vol. 3 at 4-8 and 28-31.

¹⁸¹⁴ Ex. SCE-15, Vol. 3, Table I-1 at 2.

¹⁸¹⁵ Ex. SCE-04, Vol. 3 at 20-70.

forecast for Cybersecurity Delivery is based on 2022 recorded costs plus adjustments.¹⁸¹⁶ Except for Software License & Maintenance labor costs, the remainder of SCE's forecasts for Cybersecurity O&M are based on an itemized forecast methodology.¹⁸¹⁷

Cal Advocates was the only party to submit testimony regarding SCE's Cybersecurity O&M forecast. Cal Advocates initially recommended a total reduction of \$10.053 million to SCE's Cybersecurity O&M forecast, for a forecast of \$31.501 million.¹⁸¹⁸ Subsequently, Cal Advocates and SCE stipulated to a 2025 TY forecast of \$37.527 million for Cybersecurity O&M.¹⁸¹⁹ The stipulation between SCE and Cal Advocates is uncontested.

We find reasonable and approve the stipulated TY forecast of \$37.527 million for Cybersecurity O&M. The authorized amount represents a \$4.027 million reduction to SCE's initial forecast, and appears to be a reasonable compromise between the party positions.

23.2. Cybersecurity Capital

SCE forecasts the following 2023 recorded and 2024-2025 forecast capital expenditures for Cybersecurity (nominal, \$000).¹⁸²⁰

¹⁸¹⁶ Ex. SCE-04, Vol. 3 at 39-45.

¹⁸¹⁷ SCE does not forecast any labor costs for Software License & Maintenance in the 2025 TY. (Ex. SCE-04, Vol. 3 at 45-47, 60-62, and 70-71).

¹⁸¹⁸ Ex. CA-15 at 5-12.

¹⁸¹⁹ Ex. SCE-41; SCE OB at 272; Cal Advocates OB at 302.

¹⁸²⁰ Ex. SCE-15, Vol. 3, Table I-4 at 5.

Capital Expenditures	2023	2024	2025
Cybersecurity Delivery	64,056	66,605	67,905
Grid Modernization Cybersecurity	42,190	43,694	69,227
Total	106,246	110,299	137,132

SCE's capital forecasts for Cybersecurity Delivery include investments within the following program areas:¹⁸²¹

- (1) Perimeter Defense represents SCE's first layer of cybersecurity protection, which uses technologies (*e.g.*, firewalls and intrusion detection systems) and related processes, hardware, and software to prevent, absorb, or detect attacks and reduce the risk to critical back end systems;
- (2) Interior Defense secures SCE's internal business systems from unauthorized users, devices, and software;
- (3) Data Protection safeguards the computing environment housing SCE's core information;
- (4) Supervisory Control and Data Acquisition (SCADA) Cybersecurity implements risk reduction methods tailored for SCE's SCADA systems, which remotely control and monitor the electric grid; and
- (5) North American Electric Reliability Corporation Critical Infrastructure Protection (NERC CIP) Compliance involves the ongoing implementation of systems and processes to comply with NERC CIP cybersecurity requirements.

SCE's capital forecast for Grid Modernization Cybersecurity is based on an itemized forecasting methodology, and includes 11 initiatives designed to safeguard the integrity of the electric grid while accommodating the increasing

¹⁸²¹ Ex. SCE-04, Vol. 3 at 25-28.

number of new assets and sources of renewable energy that are being monitored and controlled.¹⁸²²

No party provided testimony addressing SCE's Cybersecurity capital expenditures forecast. In connection with the stipulation regarding SCE's Cybersecurity O&M forecast, Cal Advocates and SCE also stipulated to a 2023-2025 capital expenditure forecast of \$353.677 million, consisting of \$106.246 million for 2023, \$110.299 million for 2024, and \$137.132 million for 2025. No party contested the stipulated agreement between SCE and Cal Advocates.¹⁸²³

We find reasonable and adopt SCE's uncontested recorded 2023 costs. We also find reasonable and adopt SCE's unopposed 2024 and 2025 forecasts for SCE's Cybersecurity capital. SCE provides adequate justification for the unopposed forecast, including details regarding the need for each project, how program work is prioritized, as well as forecast expenditures by program component.

24. Physical Security

The Physical Security BPE addresses the physical protection of SCE's infrastructure, facilities, workforce, and customers from threats, disruptions, intrusions, theft, sabotage, active shooter, and property damage.¹⁸²⁴

24.1. Physical Security O&M

SCE forecasts TY O&M expenses of \$23.127 million for the Physical Security BPE, consisting of \$16.802 million in non-labor expense and

¹⁸²² Ex. SCE-04, Vol. 3 at 50-53 and 59-64; Ex. SCE-04, Vol. 3, WP at 89-90.

¹⁸²³ Ex. SCE-41 at 2.

¹⁸²⁴ Ex. SCE-04, Vol. 4 at 4.

\$6.326 million in labor expense.¹⁸²⁵ The O&M forecast includes two activities: (1) Security Technology Operations and Maintenance (\$4.219 million); and (2) the Workforce Protection and Insider Risk Program (\$18.909 million).¹⁸²⁶

Security Technology Operations and Maintenance includes two sub-activities: (1) Project Management Office, which implements standards for physical security projects and tracks and prioritizes these projects; and (2) Break-Fix and Preventative Maintenance, which repairs and/or replaces field assets for both critical and non-critical facilities.

The Workforce Protection and Insider Risk Program includes: (1) security officer services; (2) centralized alarm monitoring and call/dispatch via the Edison Security Operations Center; (3) the badging office, which is responsible for issuing electronically encoded identification badges to SCE's entire workforce; (4) background investigations, used to verify and authenticate every candidate for employment or facility access prior to their start date; (5) the Insider Threat program, an enterprise-wide program designed to reduce a variety of risks inside the workplace; and (6) governance and compliance oversight of security programs.¹⁸²⁷

SCE's forecasts for these activities are based on last year recorded (2022) costs plus adjustments to reflect negotiated savings under a new vendor contract, additional security officer services and staff, and project and program schedules and contract agreements.¹⁸²⁸

¹⁸²⁵ Ex. SCE-04, Vol. 4, Figure II-6 at 17; SCE OB at 257.

¹⁸²⁶ Ex. SCE-15, Vol. 4 at 4, Table II-4; Ex. PAO-07 at 25.

¹⁸²⁷ Ex. SCE-04, Vol. 4 at 17-18 and 21-24.

¹⁸²⁸ Ex. SCE-04, Vol. 4 at 20-21 and 26-27.

SCE's Physical Security O&M forecast is uncontested. Cal Advocates and SCE also stipulated to a TY 2025 forecast of \$23.127 million for Physical Security O&M, corresponding to SCE's initial forecast.¹⁸²⁹ We find reasonable and authorize \$23.127 million in TY O&M expenses for the Physical Security BPE.

24.2. Physical Security Capital

SCE's Physical Security BPE is comprised of the following capital activities: (1) protection of major business functions (non-electrical facilities); (2) protection of grid infrastructure assets; (3) protection of generation assets; and (4) compliance with NERC CIP standards. SCE requests authorization for the following 2023 recorded and 2024-2025 forecast capital expenditures (nominal, \$000) for the Physical Security BPE:¹⁸³⁰

Capital Expenditures	2023	2024	2025
Protection of Major Business Functions	19,988	19,481	17,668
Protection of Grid Infrastructure Assets	30,035	48,433	45,578
Protection of Generation Assets	2,157	1,047	3,078
NERC Compliance Programs	(150)	-	-
Total	52,030	68,961	66,324

The Protection of Major Business Functions Program deploys new physical security systems and upgrades existing security equipment at SCE's non-electric facilities (*e.g.*, headquarters, service centers, office buildings, and warehouses). The Protection of Grid Infrastructure Assets Program addresses the physical

¹⁸²⁹ Even though SCE's Physical Security forecast was uncontested, SCE and Cal Advocates reached a stipulation regarding SCE's contested Cybersecurity forecast, along with its Physical Security forecast, given that Cal Advocates addressed both BPEs in its direct testimony. (Ex. CA-15; Ex. SCE-41; SCE OB at 275).

¹⁸³⁰ Ex. SCE-04, Vol. 4, Table II-9 at 30; Ex. SCE-15, Vol. 4, Table I-2 at 2; Ex. SCE-11, Appendix B at B-3.

protection of SCE employees, assets, and the general public at electric facilities by deterring and protecting against theft, security breaches, and other security incidents. The Protection of Generation Assets Program addresses the physical protection of SCE assets and employees and to mitigate the impact on service to customers resulting from theft, security breaches, and other security incidents at generation facilities. Lastly, NERC Compliance Programs includes compliance with NERC CIP-014, which are the physical security standards NERC developed in 2014 to protect critical substations from physical attacks that could cause widespread outages in the bulk electrical system. SCE's capital forecasts are based on project-specific costs, using historic expenditures for the same or similar work activity, where applicable.¹⁸³¹ The NERC Compliance Programs credit recorded in 2023 reflects the close out of project completion.¹⁸³²

No intervening party contested the reasonableness of SCE's Physical Security forecast. Additionally, Cal Advocates and SCE stipulated to a TY O&M forecast of \$23.127 million and capital expenditure forecast of \$187.315 million (2023-2025) for Physical Security.¹⁸³³

We find reasonable and adopt SCE's uncontested recorded 2023 costs. We also find reasonable and adopt SCE's unopposed 2024 and 2025 forecasts. SCE provides adequate justification for the unopposed forecasts, including details regarding the need for each project, how program work is prioritized, as well as forecast expenditures by program component.

¹⁸³¹ Ex. SCE-04, Vol. 4 at 30-48.

¹⁸³² Ex. SCE-15, Vol. 5, footnote 2 at 2.

¹⁸³³ As explained above, even though SCE's Physical Security forecast is uncontested, SCE and Cal Advocates reached a stipulation regarding SCE's contested Cybersecurity forecast, along with its Physical Security forecast, given that Cal Advocates had addressed both BPEs in its direct testimony. (Ex. CA-15; Ex. SCE-41; SCE OB at 275).

25. Generation**25.1. Hydro****25.1.1. Hydro O&M**

SCE's 2025 TY forecast for Hydro O&M expenses is \$53.020 million.¹⁸³⁴ SCE operates and maintains 32 Hydro generating facilities. These facilities include 33 dams, 43 stream diversions, and approximately 143 miles of tunnels, conduits, flumes, and flow lines. SCE's Hydro generating facilities have an aggregate 1,164 MW of nameplate capacity.¹⁸³⁵

In developing its O&M forecast, SCE used the last recorded year (2022) as the basis for estimating 2025 TY labor expenses. For non-labor expenditures, SCE used a three-year average between 2018-2020 to calculate this forecast. SCE excluded the increase in non-labor costs attributable to CEMA storm restoration and recovery costs as well as recent deferrals of less critical repairs.¹⁸³⁶ SCE also made two reductions to this forecast which relate to storm activities and operational efficiencies. Thus, its total non-labor forecast is \$25.828 million.¹⁸³⁷

25.1.1.1. Parties' Positions**25.1.1.1.1. Cal Advocates**

Cal Advocates recommends that the Commission adopt \$45.067 million for SCE's Hydro O&M forecast.¹⁸³⁸ In support of its recommendation, Cal Advocates makes an array of arguments. First, Cal Advocates asserts that

¹⁸³⁴ Ex. SCE-16E2 at 12E2, Table I-3.

¹⁸³⁵ Ex. SCE-16 at 20.

¹⁸³⁶ Ex. SCE-16 at 21.

¹⁸³⁷ Ex. SCE-16 at 22.

¹⁸³⁸ Ex. CA-16 at 17.

SCE's labor request for its Hydro O&M forecast is unsupported.¹⁸³⁹

Cal Advocates asserts that SCE's organization charts do not support SCE's request to hire 10 employees per year, or 30 employees total, from 2023 through TY 2025.¹⁸⁴⁰ Second, Cal Advocates opposes SCE's non-labor forecast methodology. Cal Advocates recommends a five-year average forecast rather than SCE's three-year average.¹⁸⁴¹ Cal Advocates asserts that a five-year average forecast should be adopted because this methodology best reflects historical costs.¹⁸⁴² Finally, Cal Advocates opposes SCE's request for \$1.895 million in non-labor adjustments.¹⁸⁴³

25.1.1.1.2. TURN

TURN recommends reducing SCE's Hydro O&M forecast by \$0.911 million. In support of its position, TURN argues that this reduction reflects the use of a longer historical period (2016-2020) for calculating base year non-labor O&M and to account for expected delays in work due to the later anticipated issuance of new federal licenses for the Big Creek and Kaweah facilities.¹⁸⁴⁴

25.1.1.1.3. SCE's Rebuttal

In response to Cal Advocates, SCE argues that Cal Advocates improperly relies on Generation organization charts to derive its recommendation for labor

¹⁸³⁹ Ex. CA-16 at 15.

¹⁸⁴⁰ Ex. CA-16 at 16-17.

¹⁸⁴¹ Ex. CA-16 at 19.

¹⁸⁴² Cal Advocates OB at 309.

¹⁸⁴³ Ex. CA-16 at 25.

¹⁸⁴⁴ Ex. TURN-13 at 3, 6, 50, and 54.

expenses.¹⁸⁴⁵ Second, SCE argues that Cal Advocates' recommendation to use a five-year average from 2018-2022 is based upon non-representative data. SCE states its three-year average (*i.e.*, 2018-2020) of recorded costs is reasonable because of the high variability of recorded non-labor expenses during 2021 and 2022 due to three CEMA events.¹⁸⁴⁶ Finally, SCE contends that Cal Advocates' recommendations for SCE's Dam and Public Safety activities, FERC licensing compliance activities, and Hydro Training activities are unreasonable.¹⁸⁴⁷

Next, SCE argues that TURN relies on data that is outside the scope of the GRC and not representative of future needs and costs. SCE asserts that CEMA storm events affected non-labor O&M expenses in 2021 and 2022 and therefore, a historical average including these years would not be representative of non-labor expenses expected to occur in TY 2025.¹⁸⁴⁸ SCE asserts that its three-year average from 2018-2020 is the appropriate basis for its non-labor forecast for TY 2025.

SCE also asserts that TURN's recommended reductions due to FERC license activities for Big Creek and Kaweah are unsupported. SCE testifies that there is no evidence to suggest that its Kaweah license will not be issued and, therefore, its forecast for this project should be approved. For Big Creek, SCE states it agrees to adjust its 2024-2025 Hydro O&M forecast by shifting New License Implementation activities forward by one year, resulting in a reduction of \$0.152 million to its 2025 TY O&M forecast.¹⁸⁴⁹

¹⁸⁴⁵ Ex. SCE-16 at 25.

¹⁸⁴⁶ Ex. SCE-16 at 28.

¹⁸⁴⁷ Ex. SCE-16 at 32-35.

¹⁸⁴⁸ Ex. SCE-16 at 23.

¹⁸⁴⁹ Ex. SCE-16 at 25.

25.1.1.2. Discussion

Non-Labor: We authorize and adopt TURN and Cal Advocates' five-year average (2018-2022) as the TY 2025 Hydro Non-Labor forecast methodology. We agree with Cal Advocates that the five-year average incorporates more recent recorded data and offers a better picture of future forecasting.¹⁸⁵⁰ Therefore, we authorize and adopt Cal Advocates' five-year average of the 2018–2022 historical costs, which results in a base non-labor forecast of \$19.918 million after SCE's reductions for operational efficiencies and storm activities. This reflects a downward adjustment of \$4.016 million¹⁸⁵¹ from SCE's \$24.077 million¹⁸⁵² base non-labor forecast.

Next, we authorize and adopt SCE's request for a \$0.446 million adjustment for FERC's Dam and Public Safety Regulations. We decline to adopt Cal Advocates' downward adjustment of \$0.223 million.¹⁸⁵³ SCE has demonstrated that it is completing FERC's assessments according to the schedule FERC dictates.¹⁸⁵⁴ Therefore, we authorize and adopt SCE's FERC Dam and Public Safety Regulations request.

Finally, we authorize and adopt SCE's request of \$1.331 million to fund the 2025 increases in FERC license compliance activities for Big Creek and Kaweah. SCE has demonstrated in its testimony and workpapers that the Kaweah License will be issued in 2024.¹⁸⁵⁵ SCE has also demonstrated that the Big Creek license

¹⁸⁵⁰ Ex. CA-16 at 24.

¹⁸⁵¹ Ex. Cal Advocates OB at 309.

¹⁸⁵² Ex. SCE-16 at 21.

¹⁸⁵³ Ex. SCE at 277.

¹⁸⁵⁴ Ex. SCE-16 at 33.

¹⁸⁵⁵ App. B, WPSCE-05, Vol. 01 at 58.

will be issued in 2024.¹⁸⁵⁶ Thus, we see no reason to disallow \$1.331 million for the 2025 increases in the FERC licenses as Cal Advocates recommends. We authorize and adopt \$1.331 million for the new FERC license and compliance activities.

After making the above adjustments and including an additional \$0.117 million for training discussed below, we authorize and adopt a TY 2025 non-labor O&M forecast of \$21.812 million.

Labor: We decline to adopt Cal Advocates' adjustment to SCE's labor reductions. We are unpersuaded by Cal Advocates' argument that SCE's organization charts do not support SCE's request to hire 10 employees per year, or 30 employees total, from 2023 through TY 2025. We are persuaded by SCE's argument that organization charts are intended for forecasting and planning.¹⁸⁵⁷ And, as we discuss below, SCE has demonstrated that it has already hired 18 of the 30 employees covered within this category. We agree with SCE that its 2022 recorded costs are the best predictor for forecasting future needs. Given this outcome, we adopt SCE's request to fund training for the 30 staff we authorized above.¹⁸⁵⁸ Thus, we authorize and adopt \$27.192 million for labor¹⁸⁵⁹ and \$0.117 million¹⁸⁶⁰ in non-labor expenses to train the 30 staff SCE will hire.

¹⁸⁵⁶ Ex. SCE-16 at 34.

¹⁸⁵⁷ Ex. SCE-16 at 28-29.

¹⁸⁵⁸ Ex. SCE-16 at 34-35.

¹⁸⁵⁹ Ex. SCE-16 at 22.

¹⁸⁶⁰ Ex. SCE-16 at 27.

25.1.2. Hydro Capital

SCE's 2023-2025 capital expenditure forecast for Hydro is \$229.657 million.¹⁸⁶¹ SCE's capital expenditures for its Hydro generating facilities include infrastructure upgrades and improvements, equipment replacement, and FERC compliance to secure new FERC licenses.¹⁸⁶² Cal Advocates and TURN recommend a series of downward adjustments to SCE's proposed Hydro-capital expenditures forecast and Hydro O&M, which we discuss below.

25.1.2.1. Parties' Positions

25.1.2.1.1. Cal Advocates

Cal Advocates recommends \$32.072 million for 2023, \$38.684 million 2024, and \$73.646 million for 2025.¹⁸⁶³ Cal Advocates recommends forecast changes to projects in the following Hydro categories: (1) Dams and Waterways; (2) Prime Movers; (3) Licensing and Implementation; and (4) Decommissioning.

First, with respect to Dams and Waterways, Cal Advocates states SCE has not demonstrated that it can complete many or most of its projects on time. Cal Advocates recommends a deferral of certain costs to more accurately reflect overall project readiness.¹⁸⁶⁴ Second, Cal Advocates recommends \$63.550 million for Prime Movers for 2023-2028, which is a \$10.011 million decrease from SCE's request. This reflects a downward adjustment to SCE's capital forecast request to the Generator Coils and Rewinds. Cal Advocates asserts that there is a lack of justification for this work.¹⁸⁶⁵

¹⁸⁶¹ Ex. SCE-16E5 at 11E5, Table I-3.

¹⁸⁶² Ex. SCE-05 at 67.

¹⁸⁶³ Ex. CA-16 at 34.

¹⁸⁶⁴ Ex. CA-16 at 31.

¹⁸⁶⁵ Ex. CA-16 at 35.

Third, Cal Advocates recommends \$114.270 million in total for 2023-2028 for Licensing and Implementation/Relicensing. This 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 2028.¹⁸⁶⁶ Cal Advocates' recommendations for Licensing and Implementation consist of reductions in Big Creek Rehabilitation and New Facility Construction, and in Infrastructure Modifications.¹⁸⁶⁷

Fourth, Cal Advocates argues that the San Geronio Hydro Decommissioning Project should be delayed until 2025 with costs normalized from 2025-2028. Cal Advocates states that the project has been delayed because of weather-related issues.¹⁸⁶⁸ Cal Advocates argues that because of this one-year delay, the project should be shifted to 2025 which shifts the costs associated with the project as follows: \$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.¹⁸⁶⁹

25.1.2.1.2. TURN

TURN makes an array of arguments for reductions in Hydro capital costs. In total, these reductions amount to \$36.678 million.¹⁸⁷⁰ These adjustments include: (1) moving the assumed date of issuance for FERC licenses to later years in order to reflect SCE's revised expectations; (2) removing capital additions from the RO Model for projects that are delayed; (3) harmonizing start dates for Big

¹⁸⁶⁶ Ex. CA-16 at 38.

¹⁸⁶⁷ Cal Advocates OB at 316.

¹⁸⁶⁸ Ex. CA-16 at 48.

¹⁸⁶⁹ Ex. CA-16 at 47.

¹⁸⁷⁰ Ex. TURN-13 at 6

Creek area recreation projects with a 2007 Settlement Agreement; and (4) adjusting the cost of the Big Creek 4 Unit 1 generator rewind to reflect a lower escalation in materials costs.¹⁸⁷¹ TURN also recommends reducing San Gorgonio's decommissioning costs by at least \$10 million.¹⁸⁷²

We note that SCE's rebuttal testimony made a series of concessions to TURN's positions with respect to delays in FERC licensing and decommissioning activities and Big Creek generator rewind costs.¹⁸⁷³ This results in a forecast for 2024-2028 that is identical to TURN's recommendation.¹⁸⁷⁴ The remaining dispute relates to the treatment of capital expenditures at San Gorgonio, which is discussed below.

25.1.2.1.3. SCE's Rebuttal

In response to Cal Advocates, SCE argues that Cal Advocates misunderstands how requests for proposals and commercial operation dates fit within project timelines.¹⁸⁷⁵ SCE asserts that its funding request correctly considers project timelines and sequencing, and thus should be approved.¹⁸⁷⁶ SCE also argues that Cal Advocates' recommendation for generator rewinds should be rejected. SCE asserts that Cal Advocates fails to consider variations in generator size, inflation, and ongoing projects.¹⁸⁷⁷

¹⁸⁷¹ Ex. TURN-13-E at 23-25.

¹⁸⁷² Ex. TURN-13E at 25.

¹⁸⁷³ Ex. SCE-16 at 39 and 43-44.

¹⁸⁷⁴ Ex. TURN-13-E, at 6, Table 1; SCE-16 at 36; *see also* Ex. SCE-40 at A43.

¹⁸⁷⁵ SCE OB at 285.

¹⁸⁷⁶ Ex. SCE-16 at 49.

¹⁸⁷⁷ Ex. SCE-16 at 50.

Next, in response to TURN, SCE states that after the filing of SCE's GRC application, several unforeseen events caused delays to SCE's forecast 2023 capital work on its Hydro facilities. SCE states that its relicensing efforts for Big Creek were delayed by FERC and extraordinary weather events in 2023 caused delays to the decommissioning of the San Gorgonio and Borel facilities. SCE also states that the 2020 Apple Fire damaged the San Gorgonio facility, causing SCE to perform additional unanticipated work and further delay decommissioning activities.¹⁸⁷⁸ However, SCE states that it agrees to accept TURN's Hydro capital forecast values. Thus, for 2023, SCE proposes the Commission approve SCE's actual 2023 capital expenditures of \$52.051 million.

Next, SCE argues that TURN's recommended reductions for San Gorgonio Decommissioning are unjustified. SCE argues it reasonably spent past funding on ongoing decommissioning costs and is not at fault for project delays or increased costs.¹⁸⁷⁹ SCE contends that the Commission should not reduce the costs of any work that has already been performed or will be performed in the 2025-2029 GRC period. With respect to SCE's Big Creek Generator rewinds, SCE states it agrees to accept TURN's proposed escalation.¹⁸⁸⁰

Finally, SCE argues that its requested small Hydro decommissioning accrual should be approved to fund the inevitable decommissioning of its small Hydro projects. SCE states its requested accruals are necessary to begin to

¹⁸⁷⁸ SCE OB at 282.

¹⁸⁷⁹ Ex. SCE-16 at 40-43.

¹⁸⁸⁰ SCE OB at 283-284.

provide a reserve balance to offset decommissioning once facilities progress to that point.¹⁸⁸¹

25.1.2.2. Discussion

For the reasons discussed below, we authorize and adopt a total Hydro Capital forecast of \$52.051 million in 2023 (recorded), \$41.314 million in 2024, and \$80.676 million in 2025.

FERC Licensing, Decommissioning, and Big Creek Generator Wind

Costs: SCE's rebuttal testimony made a series of concessions to TURN's positions regarding delays in FERC licensing and decommissioning activities and Big Creek generator wind costs.¹⁸⁸² We adopt the concessions SCE and TURN agreed to. The remaining dispute relates to the treatment of capital expenditures at San Gorgonio.

On one hand, TURN recommends that the Commission reduce the overall ratepayer cost responsibility for San Gorgonio decommissioning by \$10 million.¹⁸⁸³ On the other, SCE asserts that: (1) its prior GRC cost forecasts (and funding) for San Gorgonio decommissioning were necessary to fund SCE's ongoing obligations to the Participating Entities to operate and maintain the San Gorgonio water diversions and flowlines — work that does not include the physical removal of the assets;¹⁸⁸⁴ and (2) SCE's prior GRC cost forecasts only covered project spending during that GRC term and were not meant to capture total project costs.¹⁸⁸⁵

¹⁸⁸¹ Ex. SCE-16 at 45-46.

¹⁸⁸² Ex. TURN-13E at 6, Table 1; *see also* Ex. SCE-16 at 36 and Ex. SCE-40 at A43.

¹⁸⁸³ Ex. TURN-13E at 47.

¹⁸⁸⁴ Ex. SCE-16 at 40.

¹⁸⁸⁵ Ex. SCE-16, pp. 40 and 43.

We find that SCE has demonstrated that it has made meaningful progress towards the project's completion despite project delays. SCE has sufficiently explained through testimony and workpapers that while physical decommissioning activities at San Gorgonio have taken longer to commence than expected, SCE has made reasonable efforts to decommission the project while continuing to work through: (1) water rights disputes between the United States Forestry Service and the other participating entities; and (2) the natural consequences that have resulted from the 2020 Apple Fire and 2023 Tropical Storm Hilary. Thus, we decline to reduce the costs of the work related to the San Gorgonio decommissioning.¹⁸⁸⁶ Finally, we adopt Cal Advocates' recommendation to shift the timing of several hydro project costs including Hydro Relicensing, Hydro Decommissioning, Hydro Dams, and Hydro Waterways.¹⁸⁸⁷ We are persuaded by Cal Advocates' recommendation because it presents the least burdensome approach for ratepayers. Therefore, we adopt Cal Advocates' recommended 2024-2025 forecasts. For 2023, we adopt SCE's recorded capital expenditures.

Generator Rewinds: We authorize and adopt SCE and TURN's agreed escalation rate of four percent for the Big Creek Generator Rewinds.¹⁸⁸⁸ We decline to adopt Cal Advocates' recommendation for SCE's generator rewinds.¹⁸⁸⁹ We find that SCE's forecast for generator rewinds correctly utilizes

¹⁸⁸⁶ Coordination of the San Gorgonio license surrender is a complicated, lengthy process which involves coordination with an array of stakeholders, ranging from the USFS to FERC. The project has also been delayed by intervening events, including the 2020 Apple Fire and 2023 Tropical Storm Hillary. *See* SCE-16 at 40-43.

¹⁸⁸⁷ Cal Advocates OB at 311-321.

¹⁸⁸⁸ Ex SCE-16 at 43-44.

¹⁸⁸⁹ Ex. CA-16 at 44.

recent recorded costs and is also based on the specific generators that are currently undergoing repairs or, are in the final planning stages of repair. Therefore, we authorize and adopt a total Hydro capital forecast of \$52.051 million in 2023 (recorded), \$41.314 million in 2024, and \$80.676 million in 2025.

Small Hydro Decommissioning Accrual: In D.21-08-036, we held that SCE's proposed accrual for depreciation of its small Hydro assets should be reduced to only include Hydro projects with at least a 90 percent probability of decommissioning. With respect to plants assigned a lower than 90 percent probability, we held that given the degree of uncertainty regarding when the decommissioning may occur, there is not sufficient justification to begin recovery of decommissioning costs.¹⁸⁹⁰

Here, SCE is revisiting the parameters behind the last GRC's reasoning and its current approach to collecting funds for future Hydro decommissioning activities. SCE argues that TURN's recommendation to reduce SCE's proposed accrual for depreciation of its small Hydro assets to only include projects with at least a 90 percent probability of decommissioning is based on an incorrect understanding of SCE's request. SCE asserts that there is a significant likelihood of facilities being decommissioned in the near future.¹⁸⁹¹

We decline to depart from our holding in D.21-08-036. While we approve SCE's request to recover future decommissioning costs for assets with a high probability of decommissioning (*i.e.*, greater 90 percent) in this GRC cycle, we decline to allow recovery for those with a lower probability such as those less

¹⁸⁹⁰ D.21-08-036 at 522-525.

¹⁸⁹¹ Ex. SCE-16 at 46.

than 50 percent. We agree with TURN¹⁸⁹² and find that the degree of uncertainty has not changed for when SCE may initiate decommissioning of these plants. Therefore, we find that SCE does not present sufficient justification to begin recovery of decommissioning costs for these plants at this time. This reasoning is discussed further in the Asset Depreciation section.

25.2. Fossil Fuel — Mountainview Generating Station

25.2.1. Mountainview Generating Station — O&M

SCE's proposed 2025 Test Year O&M expense forecast for the Mountainview Generating Station (Mountainview) is \$29.569 million.¹⁸⁹³ Forecasted costs include the costs of major maintenance planned for 2023 through 2027.¹⁸⁹⁴ The 2025 TY O&M expense forecast is based on 2022 recorded expense for labor, a five-year average of the 2018 through 2022 recorded expense for non-labor and other, and one-fourth (*i.e.*, the 2025 through 2027 annual average) of the forecasted cost of the Mountainview Major Inspection Overhaul planned for 2023 through 2027.¹⁸⁹⁵ No party opposed the Mountainview O&M expenses proposed by SCE.

SCE has justified the reasonableness of these uncontested forecasts. Therefore, we find reasonable and approve the following: SCE's 2025 TY O&M expense forecast for Mountainview of \$29. 569 million.¹⁸⁹⁶

¹⁸⁹² TURN RB at 163.

¹⁸⁹³ Ex. SCE-16 at 12, Table I.

¹⁸⁹⁴ Ex. SCE-16 at 52.

¹⁸⁹⁵ Ex. SCE-16 at 52.

¹⁸⁹⁶ Ex. SCE-16 at 53.

25.2.2. Mountainview Generating Station — Capital

SCE owns and operates the gas-fired Mountainview combined-cycle power plant.¹⁸⁹⁷ Mountainview has a capacity of 1,110 MW. The Mountainview facility consists of two combined cycle generating units,¹⁸⁹⁸ with five combustion turbine peaker power plants with an aggregate capacity of 245 MW.

Mountainview also has six diesel engine generators with a capacity of 9.4 MW, with twenty-three 65 kW propane-fueled micro turbines, and one 1.0 MW energy storage battery at SCE's Pebbly Beach Generating Station (PBGS). Mountainview has two fuel cell generating plants with a combined total capacity of 1.5 MW.¹⁸⁹⁹

SCE's proposed 2023-2025 capital expenditure forecast for Mountainview is \$36.998 million.¹⁹⁰⁰ Within this capital expenditure forecast, SCE proposes the following capital projects: (1) turbine/generator improvements;¹⁹⁰¹ (2) turbine control and baseline security center project;¹⁹⁰² (3) heat recovery system generator;¹⁹⁰³ (4) heat recovery system generator purge credit;¹⁹⁰⁴ (5) heat recovery steam generator drains upgrades;¹⁹⁰⁵ (6) heat recovery steam generator

¹⁸⁹⁷ Ex. SCE-05, Vol. 01 at 195.

¹⁸⁹⁸ Ex. SCE-16 at 52.

¹⁸⁹⁹ Ex. SCE-05, Vol. 01 at 195.

¹⁹⁰⁰ Ex. SCE-16 at 54.

¹⁹⁰¹ Ex. SCE-05, Vol. 01 at 220.

¹⁹⁰² Ex. SCE-05, Vol. 01 at 221.

¹⁹⁰³ Ex. SCE-05, Vol. 01 at 223.

¹⁹⁰⁴ Ex. SCE-05, Vol. 01 at 224.

¹⁹⁰⁵ Ex. SCE-05, Vol. 01 at 226.

inlet flow distribution grids;¹⁹⁰⁶ (7) GE variable load path;¹⁹⁰⁷ (8) turbine distributed control system upgrade;¹⁹⁰⁸ (9) capital spares and tools;¹⁹⁰⁹ (10) Unit 3 carbon monoxide catalyst bed replacements;¹⁹¹⁰ (11) Unit 3A and Unit 3B combustion turbine battery replacement;¹⁹¹¹ (12) cooling tower film fill and drift eliminators;¹⁹¹² (13) Unit 3 and Unit 4 Recovery Steam Generator Exhaust Duct Liners; (14) Capital 7FH2 Generator Rotor;¹⁹¹³ and (15) CAVA-MVGS HVAC Assessment and Upgrades.¹⁹¹⁴

25.2.2.1. Parties' Positions

25.2.2.1.1. TURN

In response to SCE's request, TURN makes an array of reductions. TURN's reductions are summarized as follows: (1) reduce SCE's capital expenditure forecast of \$17.692 million between 2023-2028 to reflect the removal of three capital projects;¹⁹¹⁵ (2) reduce allowable recovery by 25 percent for the Inlet Flow Distribution Grid project; and (3) allow SCE to recover costs for the Turbine Generator Improvement program via a one-way balancing account with

¹⁹⁰⁶ Ex. SCE-05, Vol. 01 at 227.

¹⁹⁰⁷ Ex. SCE-05, Vol. 01 at 228.

¹⁹⁰⁸ Ex. SCE-05, Vol. 01 at 229.

¹⁹⁰⁹ Ex. SCE-05, Vol. 01 at 231.

¹⁹¹⁰ Ex. SCE-05, Vol. 01 at 234.

¹⁹¹¹ Ex. SCE-05, Vol. 01 at 233.

¹⁹¹² Ex. SCE-05, Vol. 01 at 234.

¹⁹¹³ Ex. SCE-05, Vol. 01 at 235.

¹⁹¹⁴ Ex. SCE-05, Vol. 01 at 236.

¹⁹¹⁵ The three projects TURN recommends disallowing are: (1) CO Catalyst Replacement; (2) Turbine Control and BCS Project; and (3) GR Variable Load Path Project.

excess costs tracked in a memorandum account.¹⁹¹⁶ TURN's proposals result in a net reduction, relative to SCE's forecast, for 2023-2028 of \$17.692 million.¹⁹¹⁷

TURN recommends reducing SCE's requested accrual for future decommissioning costs for Mountainview and peakers to 15 percent from 20 percent. TURN also recommends basing the accrual on constant dollars at the end of the GRC cycle (*i.e.*, 2028) rather than nominal dollars.¹⁹¹⁸

25.2.2.1.2. SCE's Rebuttal

First, SCE states it accurately forecasts the Catalyst Bed Replacement Project. SCE states it accurately estimated these forecasts because it based the forecasts on consultant estimates and ongoing monitoring of the catalysts. SCE opposes TURN's assertion that SCE may be under- or over-estimating the remaining lives of the catalysts. SCE states that it has provided sufficient justification to support SCE's forecast replacement of the catalysts, and SCE's request should be approved.¹⁹¹⁹

Second, SCE argues that the Commission should reject TURN's recommendation to establish a memorandum account for the Mountainview Turbine(s)/Generator Improvement Program. SCE states that it reasonably assessed and forecasted the Turbine(s)/Generator Improvement Program and has fully vetted its decision to accelerate the timing of the project.¹⁹²⁰

Third, SCE states that TURN's recommendation to reduce the Inlet Flow Distribution Grids Project by 25 percent should be rejected. SCE states that

¹⁹¹⁶ TURN OB at 227.

¹⁹¹⁷ TURN OB at 226.

¹⁹¹⁸ Ex. TURN-16 at 110-111.

¹⁹¹⁹ SCE OB at 288.

¹⁹²⁰ SCE OB 289-290.

TURN's recommendation is based on hindsight review of SCE's decisions as well as a misunderstanding of the historical facts surrounding the project.¹⁹²¹ Fourth, SCE states the Commission should reject TURN's recommendation to disapprove the Turbine Control and Baseline Security Center project.¹⁹²² Fifth, SCE states that it agrees to remove the GE Variable Load Path Update project because of project scope and scheduling changes.¹⁹²³ Finally, SCE argues that TURN's recommendation to reduce SCE's Mountainview and peakers decommissioning forecast project contingency to 15 percent from 20 percent should be rejected.¹⁹²⁴

25.2.2.2. Discussion

We authorize and adopt TURN's proposed recommendations for the Mountainview capital expenses. TURN's testimony identified several capital projects proposed for the Mountainview generation plant that were not adequately supported by SCE in its application. TURN recommends adjusting the capital expenditure forecast through 2028 to remove three capital projects, reduce the recoverable cost for the Inlet Flow Distribution Grids by 25 percent, and recover costs for the Turbine Generator Improvement Program in a one-way balancing account with excess costs tracked in a memorandum account. TURN's proposals result in a net reduction, relative to SCE's initial forecast, for 2023-2028 of \$17.692 million. For the reasons discussed below, we authorize and adopt \$10.998 million in 2023 (recorded), \$7.562 million in 2024, and \$17.487 million in 2025.¹⁹²⁵

¹⁹²¹ Ex. SCE-16 at 61-62.

¹⁹²² SCE OB at 291.

¹⁹²³ SCE OB at 292.

¹⁹²⁴ SCE OB at 292-293.

¹⁹²⁵ Ex. SCE-16 at 54, TURN OB at 227, and JCE at 174.

First, we decline to adopt the catalyst replacement forecast since these costs are forecast for the last attrition year. SCE may present this project in its next GRC filing. Second, we authorize and adopt SCE's Turbine Generator Improvement Program, the cost of which is \$17.506 million. SCE has provided sufficient justification for this project, and we therefore find it reasonable to approve the Turbine Generator Improvement Program. We decline to adopt TURN's proposal to track costs in a one-way balancing account with excess costs tracked in a memorandum account.

Third, we reduce the recoverable cost for the Inlet Flow Distribution Grids by 25 percent. In doing so, we agree with TURN that this reduction fairly allocates some costs resulting from a choice that SCE made in 2007 when it did not repair the existing system or seek remedies from the vendor of the project.¹⁹²⁶ Therefore, we authorize and adopt SCE's proposed installation of new Inlet Flow Distribution Grids in all four Heat Recovery Steam Generators at Mountainview. The cost of this project is adjusted downward by 25 percent, based on the reasoning above, to \$4.80 million from \$6.401 million.

Finally, we decline to adopt the Turbine Control and BCS Project forecast. As SCE notes, this project is not forecasted for the test year and SCE is not requesting additional funds for this project.

25.3. Fossil Fuel — Peakers

Peakers serve the electrical grid by starting quickly and ramping to meet the demand of the California Independent System Operator (CAISO) market. According to SCE, Peakers have relatively low startup costs and can start and stop multiple times each day to support the grid, as needed. SCE testifies that

¹⁹²⁶ Ex. TURN-13-E at 61-63.

each Peaker can reach full load within 10 minutes after a start-up signal is received from the CAISO.¹⁹²⁷ Hybrid Peakers can respond instantaneously to a startup signal from the CAISO by using batteries to meet demand while the combustion turbine ramps up.¹⁹²⁸ In addition, SCE states its Peakers can start without external power from the grid; SCE would rely on this “black-start”¹⁹²⁹ capability to restart the grid in the event of a wide-scale system blackout. SCE owns and operates five General Electric Land/Marine (LM) 6000 aeroderivative gas-fired Peaker power plants, of which two are battery/combustion turbine Hybrid Peakers, providing an aggregate of 245 MW.¹⁹³⁰

25.3.1. Peakers — O&M

SCE’s proposed 2025 Test Year O&M expense forecast for Peakers is \$8.626 million.¹⁹³¹ No party opposed this forecast. SCE has justified the reasonableness of these uncontested forecasts. Therefore, we find reasonable and approve the following: SCE’s 2025 TY O&M expense forecast for Peakers of \$8.626 million.¹⁹³²

25.3.2. Peakers — Capital

SCE’s proposed 2023-2025 capital expenditure forecast for Peakers is \$3.019 million.¹⁹³³ For its capital expenses, SCE proposes the following projects:

¹⁹²⁷ Ex. SCE-05, Vol. 01 at 238.

¹⁹²⁸ Ex. SCE-05, Vol. 01 at 238.

¹⁹²⁹ Black start resource refers to a resource that can restart power after a grid blackout.

¹⁹³⁰ Ex. SCE-05, Vol. 01 at 238.

¹⁹³¹ Ex. SCE-16 at 67-68.

¹⁹³² Ex. SCE-16 at 67.

¹⁹³³ Ex. SCE-16 at 68, Table III-10.

(1) Peaker-Relay Replacements;¹⁹³⁴ (2) Barre Turbine Overhaul;¹⁹³⁵ (3) Mira Loma CO Catalyst, Emissions Reduction Unit, Ammonia Upgrade;¹⁹³⁶ and (4) System 1 Vibration Monitoring Package.¹⁹³⁷ Cal Advocates does not oppose SCE's capital expense forecast. TURN makes an array of recommendations in opposition to some of SCE's forecasts. We discuss the parties' positions, below.

25.3.2.1. Parties' Positions

25.3.2.1.1. TURN

TURN argues that SCE's request to replace the Peaker relays is unsupported. TURN recommends reducing SCE's capital forecast by \$2 million (\$1 million in 2025 and \$1 million in 2026).¹⁹³⁸ These reductions amount to delaying Peaker Relay Replacements until the very end of their service life.¹⁹³⁹

25.3.2.1.2. SCE's Rebuttal

SCE opposes TURN's recommendation to delay or reject the Peaker Relay Replacements until 2027. SCE states that delaying the replacements when the relays have reached the very end of their 20-year service life brings it to a point where it can fail at any time.¹⁹⁴⁰ SCE testifies that its Peakers serve as a crucial black start resource for the state.¹⁹⁴¹ SCE contends that its forecast for the project is reasonable and should be approved.¹⁹⁴²

¹⁹³⁴ Ex. SCE-05, Vol. 01 at 247.

¹⁹³⁵ Ex. SCE-05, Vol. 01 at 249.

¹⁹³⁶ Ex. SCE-05, Vol. 01 at 250.

¹⁹³⁷ Ex. SCE-05, Vol. 01 at 251.

¹⁹³⁸ Ex. TURN-13-E at 10, Table 4.

¹⁹³⁹ TURN OB at 237.

¹⁹⁴⁰ Ex. SCE-16 at 67.

¹⁹⁴¹ Ex. SCE-16 at 70.

¹⁹⁴² SCE OB at 294.

25.3.2.2. Discussion

We authorize and adopt SCE's proposed 2023-2025 capital expenditure forecast for Peakers of \$3.019 million.¹⁹⁴³ We decline to direct SCE to delay replacement until 2027 when the Peakers reach the very end of their useful 20-year service lives.¹⁹⁴⁴ If SCE were to wait until 2027 to begin replacement of the Peaker relays, risk is presented for an in-service failure.¹⁹⁴⁵ Therefore, we find that replacement of the Peaker relays, as SCE proposes, is reasonable. We authorize and adopt SCE's proposed 2023-2025 capital expenditure forecast for Peakers of \$3.019 million.¹⁹⁴⁶

25.4. Fuel Cell

SCE owns and operates two fuel cell generating plants with a combined total capacity of 1.6 MW. The first fuel cell is a 0.2 MW project at University of California Santa Barbara (UCSB). It been operational since 2012 and utilizes an electric-only fuel cell technology. The other fuel cell is a 1.4 MW project at California State University San Bernardino (CSUSB). It has been operational since 2013 and utilizes a combined heat and power fuel cell technology.¹⁹⁴⁷

¹⁹⁴³ Ex. SCE-16, p. 68, Table III-10 line 1.

¹⁹⁴⁴ Ex. SCE-16 at 68-69.

¹⁹⁴⁵ Ex. SCE-16 at 69-70.

¹⁹⁴⁶ Ex. SCE-16, p. 68, Table III-10 line 1.

¹⁹⁴⁷ Ex. SCE-05, Vol. 01 at 264.

25.4.1. Parties' Positions**25.4.1.1. TURN**

TURN argues that SCE should not be allowed to earn a rate of return on the unrecovered rate base for the portion of the fuel cell project that has been taken out of service early.¹⁹⁴⁸

25.4.1.2. SCE's Rebuttal

In response to TURN, SCE makes two arguments. SCE asserts that: (1) the early retirement of the CSUSB Fuel Cell Project was beyond its control;¹⁹⁴⁹ and (2) consideration of the benefits and burdens of the fuel cell project, and its retirement, support full recovery of the remaining rate base and a rate of return.¹⁹⁵⁰

25.4.2. Discussion

We decline to authorize SCE to recover any debt or equity return on the unamortized net book value for its fuel cell facilities. Historically, the Commission has declined the utilities' ability to receive a rate of return on assets that are no longer used and/or useful.¹⁹⁵¹ We are unpersuaded that the facts relating to the issue at hand justify a departure from our decisions regarding the utilities' ability to receive a rate of return on assets that are no longer used and/or useful. SCE should not receive any debt or equity return on the unamortized net book value for its UCSB and CSUSB fuel cell facilities.

¹⁹⁴⁸ Ex. TURN-13 at 99.

¹⁹⁴⁹ Ex. SCE-16 at 83-84.

¹⁹⁵⁰ SCE OB at 295-296.

¹⁹⁵¹ *Duquesne Light Co. et al. v. Barasch et al.* (1989) 488 U.S. 299, 302, 109 S. Ct. 609, 102 L. Ed. 2d 646, 1989 U.S. LEXIS 313, 57 U.S.Lw. 4083, 98 P.U.R.4th 253.

25.5. Solar

SCE's Solar Photovoltaic Program (SPVP) portfolio currently consists of 23 commercial and industrial rooftop solar power sites and one ground mounted site totaling 80.6MW direct current (DC) output power. SCE testifies that the SPVP program includes 320,862 panels spanning 248 total acres at 23 rooftop sites and has successfully operated for fifteen years.¹⁹⁵²

25.5.1. SPVP O&M

SCE's 2025 Test Year forecast for SPVP O&M expenses is \$4.347 million.¹⁹⁵³ SCE states that while it is decommissioning the remaining SPVP sites in 2025 and 2026, it will continue to incur O&M expenses because of lease payments.¹⁹⁵⁴ SCE testifies that remaining lease payments total \$40.490 million.¹⁹⁵⁵ SCE's total TY forecast for the SPVP activities is \$4.347 million, including \$0.072 million labor expense and \$4.275 million non-labor expense.¹⁹⁵⁶

25.5.1.1. Parties' Positions

25.5.1.1.1. TURN

In response to SCE's 2025 TY forecast for SPVP O&M expenses, TURN recommends a reduction to SCE's forecast by \$2.750 million to reflect a 50 percent disallowance of lease payments.¹⁹⁵⁷ TURN also recommends a lower expected escalation rate to reflect inflation assumptions.¹⁹⁵⁸

¹⁹⁵² Ex.SCE-16 at 87.

¹⁹⁵³ Ex. SCE-16 at 92-93

¹⁹⁵⁴ Ex. SCE-16 at 87.

¹⁹⁵⁵ Ex. SCE-16 at 92.

¹⁹⁵⁶ Ex. SCE-05 Vol. 01 at 274, Figure IV-21.

¹⁹⁵⁷ Ex. TURN-13 at 83, 92, and 95; *see also* TURN OB at 242.

¹⁹⁵⁸ Ex. TURN-13 at 90-91.

25.5.1.1.2. SCE's Rebuttal

In response to TURN, SCE makes an array of rebuttal arguments. First, SCE argues that TURN's recommendation to use an alternative lease payment escalation formula should be rejected because it is based on incorrect data and is inconsistent with the lease terms.¹⁹⁵⁹ SCE states that its actual lease payments support SCE's forecasts. Second, SCE argues its normalization of lease payments is appropriate.¹⁹⁶⁰ Third, SCE states that TURN's argument that the Commission should reduce the lease costs by 50 percent is excessive and unjustified.¹⁹⁶¹ Finally, SCE argues that TURN's recommendation to reduce SCE's forecast for ongoing lease payment obligations should be rejected.¹⁹⁶²

25.5.1.2. Discussion

We adopt TURN's recommended reductions to SCE's forecast for the SPVP rooftop lease payments. We adopt an additional 50 percent reduction to account for additional early SPVP lease terminations.

We find that SCE's forecasting methodology incorrectly assumes that total lease payments to three of the SPVP sites will be \$0.974 million in 2025 and \$4.789 million between 2025-2028. These three leases comprise approximately 25 percent of the annual leasing costs forecasted by SCE for the entire SPVP portfolio over this time period.¹⁹⁶³ There is no dispute that these costs will not be incurred by SCE and that any additional lease terminations would only add to the gap between forecasted and actual costs. Given that the actual expenses on

¹⁹⁵⁹ Ex. SCE-16 at 95-96.

¹⁹⁶⁰ Ex. SCE-16 at 97.

¹⁹⁶¹ Ex. SCE-16 at 98-104.

¹⁹⁶² SCE OB at 298.

¹⁹⁶³ TURN OB at 248.

the lease could be lower than the original request, we find it unreasonable to allow SCE to collect amounts from ratepayers through its higher forecasting methodology. Therefore, we authorize and adopt TURN's escalation rates at the lower annual rates for any leases for which ratepayers are responsible, reducing SCE's forecasted lease payments by \$1.224 million.¹⁹⁶⁴

Next, we adopt TURN's 50 percent disallowance of the forecasted lease payments, resulting in a \$1.526 million reduction from SCE's forecast.¹⁹⁶⁵ This reflects the fact that: (1) 25 percent of the forecasted lease payments are associated with leases that have already been terminated; (2) additional leases may be terminated in the coming years because of the landlord's re-roofing requests; and (3) retirement of the SPVP projects will likely result in higher lease payment obligations. We believe this approach shelters ratepayers from the potential of inflated forecasts or adverse consequences to the reroofing requests of SCE's landlords. After applying the above reductions, we authorize and adopt a TY 2025 O&M forecast of \$1.597 million.¹⁹⁶⁶

25.5.2. SPVP Capital

SCE's 2023-2025 decommissioning request for SPVP is \$44.863 million.¹⁹⁶⁷ SCE discusses an array of activities that are part of its decommissioning request.¹⁹⁶⁸ SCE states that de-energization of the solar systems, followed by removal of the infrastructure, will remove safety risks and is the least-cost option for customers. SCE also states that while it plans to move forward with

¹⁹⁶⁴ Ex. TURN OB at 242.

¹⁹⁶⁵ Ex. TURN OB at 242.

¹⁹⁶⁶ Ex. TURN OB at 242.

¹⁹⁶⁷ Ex. SCE-16 at 98.

¹⁹⁶⁸ Ex. SCE-05, Vol. 01 at 272-273.

decommissioning, SCE is also pursuing a potential sale of a portion of the SPVP installations. SCE testifies that if the sale of portions of the SPVP installations is successful, SCE will file an application under Section 851 for approval of the transactions, and propose appropriate ratemaking treatment to ensure that customers are made whole for any revenues authorized by the Commission in this GRC.¹⁹⁶⁹

TURN makes an array of recommendations in opposition to SCE's SPVP capital request, which we discuss below. CalCCA recommends that the Commission reject SCE's decision to decommission the SPVP installations.

25.5.2.1. Parties' Positions

25.5.2.1.1. TURN

In response to SCE's 2023-2025 decommissioning request, TURN makes several recommendations that result in reductions and/or disallowances. First, TURN recommends reducing SCE's capital forecast by \$40.65 million (2023-2028) by adopting a 50 percent disallowance of decommissioning capital costs and the use of a 10 percent decommissioning cost contingency.¹⁹⁷⁰

Second, TURN recommends a \$125 million disallowance (2023-2030) to SCE's revenue requirements to reflect a 50 percent disallowance of net book costs for prematurely retired facilities.¹⁹⁷¹ TURN also recommends no rate of return from rates toward any costs allowed.¹⁹⁷² Finally, TURN recommends requiring SCE to identify the amount of any stranded distribution plant associated with the

¹⁹⁶⁹ Ex. SCE-05, Vol. 01 at 273.

¹⁹⁷⁰ TURN OB at 243; *see also* TURN OB at 272

¹⁹⁷¹ TURN OB at 243.

¹⁹⁷² TURN OB at 260-265.

retired solar facilities and be permitted to recover only 50 percent of that amount with no rate of return over 6 years.¹⁹⁷³

25.5.2.1.2. CalCCA

CalCCA recommends that the Commission should disallow the costs associated with SCE's decision-making approach to decommission the SPVP assets.¹⁹⁷⁴ First, CalCCA argues that SCE's decision to decommission its SPVP assets relies on a present value of revenue requirement analysis that is based on dated and inaccurate information.¹⁹⁷⁵ Second, CalCCA contends that SCE's present value of revenue requirement utilized inaccurate O&M inputs.¹⁹⁷⁶ Third, CalCCA states that SCE's reliance on a single snapshot for present value of revenue requirement as an analysis is unreasonable.¹⁹⁷⁷

25.5.2.1.3. SCE's Rebuttal

SCE argues that its contingency of 15 percent for its SPVP decommissioning is reasonable and appropriate. In response to TURN's recommendation to reduce the contingency to 10 percent, SCE states 15 percent is reasonable because it is based on SCE's actual experience from decommissioning an SPVP site.¹⁹⁷⁸ Second, SCE argues that the circumstances of the SPVP Program justify a rate of return. SCE argues that TURN ignores the Commission's precedent of recovering the remaining rate base and earning a rate of return in situations where early retirement was caused by events outside of

¹⁹⁷³ TURN -13 at 98.

¹⁹⁷⁴ CalCCA OB at 50.

¹⁹⁷⁵ Ex. CalCCA-04 at 2 and CalCCA-03 at 2.

¹⁹⁷⁶ Ex. CalCCA-03 at 9-31.

¹⁹⁷⁷ CalCCA OB at 59-61.

¹⁹⁷⁸ Ex. SCE-16 at 101.

SCE's control.¹⁹⁷⁹ SCE also argues that decommissioning the SPVP assets results in significant customer benefits when compared to keeping the operation going.¹⁹⁸⁰ Third, SCE argues that TURN's recommended disallowance of unrecovered rate base and decommissioning costs is excessive and unjustified.¹⁹⁸¹

With respect to CalCCA, SCE argues that the Commission should reject CalCCA's recommendations for SPVP decommissioning. First, SCE asserts that CalCCA's economic analysis is flawed and relies on hindsight.¹⁹⁸² Second, SCE contends that its decision to decommission the SPVP assets ignores the safety issues and risk of fires that could result from continued operation of the SPVP buildings.¹⁹⁸³ Third, SCE states that CalCCA's estimates for removal and reinstall of the SPVP assets exclude major cost components and are inaccurate.¹⁹⁸⁴ Finally, SCE argues that it properly assessed and rejected the option of selling the assets.¹⁹⁸⁵

25.5.2.2. Discussion

We authorize and adopt the following recommendations presented by TURN: (1) reduction of the contingency amount to 10 percent from 15 percent; (2) no rate of return on unrecovered rate base because the assets were taken out

¹⁹⁷⁹ Ex. SCE-16 at 102. The retirement of the SPVP program resulted from events that include, but are not limited to: (1) having certain components cause rooftop fires; and (2) renewable energy credit pricing suffering significant decline. *See* Ex. SCE-16 at 103.

¹⁹⁸⁰ Ex. SCE-16 at 103.

¹⁹⁸¹ Ex. SCE-16 at 105.

¹⁹⁸² Ex. SCE-16 at 113.

¹⁹⁸³ Ex. SCE-05, Vol. 01 at 270.

¹⁹⁸⁴ Ex. SCE-16 at 114.

¹⁹⁸⁵ Ex. SCE-16 at 115-116.

of service early; and (3) a 50 percent disallowance on unrecovered rate base and decommissioning costs. We decline to adopt CalCCA's recommendations. We discuss our reasoning below.

First, TURN recommends a 10 percent contingency factor be applied to the decommissioning cost estimates. This recommendation would reduce the total estimate to \$74.643 million from \$77.967 million.¹⁹⁸⁶ We find TURN's recommendation reasonable because the near-term dates for decommissioning limit the potential for unexpected long-term developments to increase overall costs.¹⁹⁸⁷

Second, we decline to authorize a rate of return on unrecovered rate base because the assets were taken out of service early. It is a longstanding regulatory principle that shareholders should earn a return only on used and useful plant.¹⁹⁸⁸ The Commission has explained that in the case of a premature retirement, the ratepayer typically still pays for all of the plant's direct cost even though the plant did not operate as long as was expected. The Commission further reasoned that shareholders recover their investment but should not receive any return on the undepreciated plant. This is a fair division of risks and benefit.¹⁹⁸⁹

We note that the Commission has on occasion made exceptions to this general policy. In making such exceptions, the Commission has emphasized that the specific circumstances of each situation must be evaluated. The Commission

¹⁹⁸⁶ Ex. TURN-13-E at 86.

¹⁹⁸⁷ Ex. TURN-13-E at 85.

¹⁹⁸⁸ D.92-12-057, 1992 Cal. PUC LEXIS 971 at 83.

¹⁹⁸⁹ D.85-08-046, 1985 Cal. PUC LEXIS 687 at 22.

held that it would be poor public policy to include large amounts of plant that is not used and useful in rate base without a full analysis and consideration of the specific facts and circumstances.¹⁹⁹⁰

Here, these previous decisions demonstrate the basic presumption that, for any prematurely retired facility, the utility may not earn any return on unrecovered capital. Even in cases involving special circumstances, the Commission has authorized less than a full rate of return. By contrast, SCE's position in this case would result in a full return for abandoned plant. Consistent with decades of relevant decisions addressing similar situations, the Commission must deny this request and enforce the longstanding prohibition on a utility earning a return on plant that is no longer used and useful.

Third, we authorize and adopt a 50 percent disallowance on unrecovered rate base and decommissioning costs. We find that this disallowance is reasonable because SCE has not justified a full recovery from the rate base and decommissioning costs. TURN presented persuasive, substantial evidence that SCE's decision to de-energize all the remaining SPVP facilities approximately half-way through their expected operational lives — citing safety concerns and economic analysis — was not reasonable.¹⁹⁹¹ Finally, we decline to adopt CalCCA's recommendation to fully disallow SCE's SPVP decommissioning cost request.

¹⁹⁹⁰ D.11-05-018 at 55.

¹⁹⁹¹ TURN OB at 251-258.

After applying the above reductions, we authorize and adopt capital expenditure forecasts of \$4.624 million for 2023, \$0.096 million for 2024, and \$16.048 million for 2025.¹⁹⁹²

25.6. Catalina

SCE states that since 1962, SCE has provided electric service to Santa Catalina Island (Catalina). SCE's Catalina system is a closed electrical system, where reliability, safety, and resiliency are part of SCE's resource planning challenges for the island.¹⁹⁹³ In addition to these resource planning challenges, SCE states that other challenges exist for the island, including: (1) roughly 98.7 percent of the island is classified as a Tier 3 High Fire Threat District; and (2) in September 2022, Catalina experienced a heat wave that set an all-time peak demand at 5.866 MW, which was approximately 9.3 percent higher than the previous peak demand experienced in 2018.¹⁹⁹⁴

SCE's generation maximum nameplate capacity in Catalina totals 11.8 MW. This nameplate capacity is comprised of: (1) six diesel generators (9.3 MW); (2) 23 propane-fueled microturbines (1.5 MW); and (3) one energy storage battery (1.0 MW) at PBGS. SCE states it is conducting a Clean Energy All-Source RFO to determine the availability of zero-carbon resources to reduce diesel-based generation to meet demand on Catalina. In its testimony, SCE states the South Coast Air Quality Management District (SCAQMD), in addition to the Commission, play a key role in determining the generation resources available

¹⁹⁹² SCE-42 at 182. Amount for 2023 based on 50 percent of \$9.723 million (recorded in 2023) minus \$0.475 million reduction due to 10 percent contingency change.

¹⁹⁹³ Ex. SCE-05, Vol. 01 at 253.

¹⁹⁹⁴ Ex. SCE-05, Vol. 01 at 253-354.

on the island. SCAQMD regulates and enforces the federal and state regulations on equipment and facilities with the potential to emit air emissions.¹⁹⁹⁵

25.6.1. Catalina Repower Project

SCE's Catalina Repower Project refers to SCE's efforts to replace six diesel generators.¹⁹⁹⁶ SCE initially presented its request for the Catalina Repower Project in its 2021 GRC proceeding, which led to the Commission's approval of the Catalina Repower Memorandum Account in D.21-08-036. Subsequently, the separate application for the Catalina Repower Project resulted in the April 2022 Settlement Agreement approved by the Commission in D.22-11-007. Some of the diesel generator replacements have not yet been approved by the SCAQMD.¹⁹⁹⁷

Thus, because the SCAQMD has not approved the replacement for some of the diesel generators, SCE is not seeking the recovery of costs recorded in the Memorandum Account in this GRC. Rather, SCE testifies that because the date of SCAQMD's approval is uncertain, SCE is seeking Commission authorization to have the flexibility to seek recovery of costs in the Memorandum Account through a reasonableness review in the next GRC (2029 GRC) or via a Tier 3 Advice Letter.¹⁹⁹⁸

We authorize SCE to seek cost recovery of the costs associated with this project in a Memorandum Account, titled Catalina Repower Project Memorandum Account, through a reasonableness review in the next GRC (*i.e.*, the 2029 GRC) or via a Tier 3 Advice Letter. This approach is reasonable because the date of SCAQMD's approval is uncertain.

¹⁹⁹⁵ Ex. SCE-05, Vol. 01, at 254.

¹⁹⁹⁶ Ex. SCE-05, Vol. 01 at 24-29.

¹⁹⁹⁷ Units 8 and 10 diesel generators; *see* Ex. SCE-05, Vol. 01 at 26.

¹⁹⁹⁸ SCE OB at 312.

25.6.2. Catalina O&M

SCE's TY 2025 labor and non-labor forecasts for its Catalina O&M costs total \$5.781 million.¹⁹⁹⁹ No party opposed SCE's O&M request. SCE has justified the reasonableness of these uncontested forecasts. Therefore, we find reasonable and approve the following: SCE's total Catalina Test Year O&M forecast expense of \$5.781 million, including \$3.413 million labor expense and \$2.368 million non-labor expense.²⁰⁰⁰

25.6.3. Catalina Capital

SCE's planned capital expenditure forecast for Catalina is \$3.451 million.²⁰⁰¹ SCE testifies that its request will support reliable service, compliance with laws and regulations, and safe operations for employees and the public. Specifically, the capital forecast focuses on the following projects:²⁰⁰²

- Rule 1470 Unit 15 Order for Abatement: Solar Carports;
- Rule 1470 Unit 15 Order for Abatement: R95 Fuel Test; and
- Diesel offloading improvements.

TURN offers alternative ratemaking proposals for two of SCE's Catalina capital projects, which we discuss below.

25.6.3.1. Parties' Positions

25.6.3.1.1. TURN

TURN recommends reductions and removals to an array of SCE's requests. Specifically, for Catalina capital, TURN proposes reducing SCE's capital forecast by \$3.858 million (2023-2028) based on the removal of the solar

¹⁹⁹⁹ SCE OB at 313.

²⁰⁰⁰ Ex. SCE-16 at 72.

²⁰⁰¹ SCE-16E4 at 74E4, Table III-12.

²⁰⁰² Ex. SCE-16 at 73.

carport project, the Battery Control System project, and repurposing of the microturbine space.²⁰⁰³

Additionally, TURN recommends an enforcement of a permanent disallowance of solar carport project costs due to what TURN argues is SCE's violation of the Settlement Agreement adopted in D.22-11-007.²⁰⁰⁴ TURN argues that the remedy for this violation should be a removal of the project costs from the capital forecast, a prohibition on placing these costs into rate base, and a requirement that project costs be borne by SCE's shareholders. Additionally, TURN recommends that the project timeline be moved to reflect a likely online date of January 2026, asserting that the solar carports should not be assumed to be in service until early 2026.²⁰⁰⁵

25.6.3.1.2. SCE's Rebuttal

In response to TURN, SCE states that the timeline of the Settlement Agreement process in A.21-10-005, and the Commission's issuance of D.22-11-007 approving the Settlement Agreement, make clear that the Solar Carports project does not fall within the Catalina Repower Project or any provision of the Settlement Agreement.²⁰⁰⁶

Next, SCE argues that the Commission should reject TURN's position for the NaS Battery Replacement Upgrade program. In support of its position, SCE states: (1) it is making the most cost-effective decision for its customers; and (2) this capital project falls within the attrition years because it would not be in service until 2026. SCE asserts that the ratemaking treatment for this capital

²⁰⁰³ TURN OB 271-272.

²⁰⁰⁴ TURN OB at 272.

²⁰⁰⁵ TURN OB at 272-278.

²⁰⁰⁶ Ex. SCE-16 at 77-78.

project should use a budget-based attrition methodology for capital where capital additions for the attrition years will be escalated based on the Commission's authorized TY capital expenditures.²⁰⁰⁷

25.6.3.2. Discussion

Catalina – Solar Carports: We decline to adopt SCE's request to rate base its proposed solar carport project. We agree with TURN that SCE must consider third-party ownership in accordance with the express terms of the settlement agreement adopted in D.22-11-007.²⁰⁰⁸ Therefore, we remove this project from Catalina's capital forecast and decline to allow this project's costs to go into SCE's rate base.

Catalina – NaS Battery Replacement Upgrade: SCE states that it is no longer requesting Commission approval of its budget-based forecast for Catalina capital projects in the attrition years. SCE states that, therefore, the Commission does not need to make a finding on SCE's capital forecast of \$1.0 million in 2026 for the NaS Battery Replacement/Upgrade capital project.²⁰⁰⁹

Therefore, the Commission declines to adopt or authorize SCE's capital forecast of \$1.0 million in 2026 for the NaS Battery Replacement/Upgrade capital project. Overall, for Catalina capital projects, we authorize and adopt \$0.090 million in 2023 (recorded), \$0 in 2024, and \$1.000 million in 2025.

25.7. Nuclear

SCE owns 15.8 percent of Palo Verde Nuclear Generating Station (Palo Verde) Units 1, 2, and 3 – one of the nation's largest nuclear installations. Palo

²⁰⁰⁷ SCE OB at 319.

²⁰⁰⁸ Ex. TURN-13 at 71-78.

²⁰⁰⁹ SCE RB at 168.

Verde is located approximately 50 miles west of Phoenix, Arizona. The Arizona Public Service Company (APS) operates Palo Verde. The rated electrical generating capacities of Palo Verde Units 1, 2, and 3 are approximately 1,346 net MW per unit. SCE states its ownership interest in Palo Verde has provided SCE customers with a safe, clean, reliable, and economical source of baseload generation since the mid-1980s. SCE obtains revenues to pay for its share of Palo Verde O&M and Capital expenses through general rate cases, and revenues to pay for its share of Palo Verde Nuclear Fuel expenses through ERRAs proceedings.²⁰¹⁰

25.7.1. Nuclear O&M

SCE's 2025 Test Year forecast for Nuclear O&M expenses is \$83.104 million.²⁰¹¹ SCE records all invoiced O&M costs from Palo Verde as non-labor costs. SCE's labor costs thus consist of SCE's own oversight costs.²⁰¹² TURN opposes SCE's O&M costs, which we discuss below.

25.7.1.1. Parties' Positions

25.7.1.1.1. TURN

First, TURN recommends reducing non-labor O&M by six percent to correct for sustained historic overforecasting and tracking costs in a balancing account with overspending limited to 110 percent of the forecast value.²⁰¹³

Second, TURN recommends that the Commission reject SCE's request to collect 100 percent of its share of Nuclear Energy Institute (NEI) dues. Thus, TURN recommends reducing the Palo Verde non-labor O&M by \$0.132 million

²⁰¹⁰ Ex. SCE-16 at 118.

²⁰¹¹ Ex. SCE-16E2 at 12E2, Table I-3; *see also* Ex. SCE-16 at 127.

²⁰¹² Ex. SCE-16 at 118.

²⁰¹³ TURN OB at 286; *see also* TURN-13-E at 107.

to reflect enforcement of the Commission's requirement that 50 percent of NEI trade association dues be paid by shareholders.²⁰¹⁴

25.7.1.1.2. SCE's Rebuttal

In response to TURN's opposition against SCE recovering NEI dues, SCE contends that it has provided more detailed descriptions of the activities, the associated costs, and the resulting benefits to both SCE and SCE customers than in any prior GRC case.²⁰¹⁵

Next, SCE argues that reducing its non-labor O&M by six percent should be rejected. SCE acknowledges an over-collection during 2018-2020 because of unexpected attrition and cost reductions at Palo Verde.²⁰¹⁶ SCE further states that it had only a small over-collection during 2021-2023 (SCE's 2021 GRC period) of \$1.644 million (or 0.7 percent) and forecasts an under-collection of \$3.308 million (or 3.9 percent) in 2024, resulting in a cumulative under-collection of \$1.644 million (or 0.5 percent) during the 2021-2024 period.²⁰¹⁷

25.7.1.2. Discussion

NEI Membership Dues: Palo Verde is a member of the Nuclear Energy Institute (NEI), which is the policy organization of the nuclear technologies industry. SCE includes its share of NEI membership dues as Palo Verde non-labor expense.

TURN recommends that the Commission remove 50 percent of NEI fees from the Palo Verde non-labor forecast.²⁰¹⁸ TURN argues that the Commission

²⁰¹⁴ Ex. TURN-13-E at 103 and TURN OB at 286.

²⁰¹⁵ Ex. SCE-16 at 120.

²⁰¹⁶ Ex. SCE-16 at 129; *see also* SCE-05, Vol. 01S, at 7-13.

²⁰¹⁷ Ex. SCE-16 at 131-132.

²⁰¹⁸ Ex. TURN-13-E at 107.

has consistently removed half of the costs for NEI dues in recent GRC cases, recognizing the organization's dual role of promoting nuclear power through public relations and lobbying, while also working to cut industry costs.²⁰¹⁹ For its part, SCE states that there are significant customer benefits of NEI membership and that NEI does not primarily engage in lobbying activities.²⁰²⁰

In D.21-08-036, we held that SCE did not provide the required additional information that would justify a different allocation of NEI dues and thus, disallowed SCE's request for full recovery of the NEI Membership dues.²⁰²¹ While SCE provides more information in this GRC than the last GRC regarding the benefits of NEI membership, we are still unconvinced that the benefits accrue to customers as opposed to primarily, the company.

Historically, we have adopted a 50/50 sharing of NEI dues between ratepayers and shareholders. Based on the foregoing, we do not find justification for departure from our past treatment of NEI dues. Therefore, we continue to authorize ratepayer funding of 50 percent of SCE's share of the NEI dues, and adopt a downward adjustment of \$0.132 million.

TURN also recommends a percent reduction to SCE's non-labor forecast based on historic overforecasting and to track costs in a balancing account. We adopt this six percent reduction to SCE's forecast and discuss the balancing account treatment, below. Overall, with the above adjustments, we authorize and adopt a TY 2025 O&M forecast of \$78.006 million.

²⁰¹⁹ Ex. SCE-16 at 120.

²⁰²⁰ Ex. SCE-16 at 126-127.

²⁰²¹ D.21-08-036 at 366.

Nuclear O&M Non-Labor Balancing Account: TURN and SCE both support the use of a balancing account that tracks both the actual Palo Verde operating costs and revenue collected related to Palo Verde non-labor. Under TURN's proposal, SCE would be limited to automatic recovery of no more than 110 percent of forecast costs in any year and would need to demonstrate the reasonableness of any costs above the 110 percent cap in the next GRC.²⁰²² SCE does not oppose a two-way balancing account for non-labor O&M expenses for Palo Verde because SCE generally has no control over the actual-incurred pass-through costs, as SCE is not the operator of the facility.²⁰²³ However, SCE disagrees with the imposition of a cap and proposes an uncapped two-way balancing account that would include all components of Palo Verde non-labor O&M costs (net of Palo Verde NEI lobbying fees and voluntary contributions).²⁰²⁴

We authorize and adopt TURN's recommendation and direct SCE to establish a balancing account for Palo Verde's Non-Labor O&M expenses. SCE shall be limited to automatic recovery of no more than 110 percent of forecast costs in any year and would need to demonstrate the reasonableness of any costs above the 110 percent cap in the next GRC.

Therefore, within 30 days upon issuance of this decision, SCE shall file a Tier 1 advice letter with the Commission's Energy Division establishing a balancing account, titled "Palo Verde Non-Labor O&M Expenses Balancing Account," for the purposes of tracking both actual Palo Verde operating costs and revenue collection related to Palo Verde O&M non-labor. Under this

²⁰²² Ex. TURN-13 at 107.

²⁰²³ SCE OB at 323.

²⁰²⁴ Ex. SCE-16 at 132-133.

balancing account, SCE shall be limited to automatic recovery of no more than 110 percent of forecast costs in any year and would need to demonstrate the reasonableness of any costs above the 110 percent cap in the next GRC.

25.7.2. Nuclear Capital

SCE's 2023-2025 capital expenditure forecast for Nuclear is \$122.215 million.²⁰²⁵ The activities within the capital forecast include the following: (1) Plant Modifications; (2) Plant Equipment and Replacements; (3) Water Reclamation Facility; (4) Buildings; (5) General Plant; (6) Computers; (7) Emergent Work Fund; and (8) Overheads and Distribution equipment.²⁰²⁶ No party opposed this capital forecast.

SCE has justified the reasonableness of these uncontested forecasts and, therefore, we find reasonable and approve the following: SCE's 2023-2025 capital expenditure forecast for Nuclear of \$122.215 million.

26. Energy Procurement

SCE's O&M expense forecast for Energy Procurement is \$29.399 million²⁰²⁷ and its capital forecast is \$2.590 million for 2023-2025.²⁰²⁸ TURN does not oppose SCE's forecasts²⁰²⁹ but Cal Advocates recommends a reduction to the labor component of its O&M forecast.

²⁰²⁵ Ex. SCE-16 at 134, Table V-19.

²⁰²⁶ Ex. SCE-05, Vol. 01 at 296, Table V-50.

²⁰²⁷ Joint Comparison Exhibit at 85. SCE's rebuttal position of \$29.711 million fails to incorporate an Operational Excellence reduction of \$0.312 million (Ex. SCE-16 at 138, footnote 501).

²⁰²⁸ Ex. SCE-16 at 142-143.

²⁰²⁹ Ex. SCE-05, Vol. 2 at 8-9.

26.1. Summary of O&M and Capital Request

SCE's Energy Procurement is responsible for procuring energy and capacity via contracts and from the wholesale market, under Commission-approved procurement plans and decisions. This includes selling and procuring emission products to meet compliance and contractual obligations, and natural gas products (commodity, capacity, and storage) to supply SCE's utility-owned and contracted gas-fired generation. Additionally, Energy Procurement manages the bidding and scheduling of SCE's utility-owned generation (UOG) and utility-owned storage (UOS) portfolio with the CAISO energy markets, to optimize resources on behalf of its customers and to comply with the Commission's Least-Cost Dispatch (LCD) requirement.²⁰³⁰

SCE states that the costs associated with performing energy procurement activities include both O&M expenses (labor and non-labor) and capital expenditures. SCE's testimony on Energy Procurement O&M expenses includes an analysis of five years of recorded data (2018–2022) and a three-year forecast for 2023–2025.²⁰³¹ The 2025 TY O&M expense forecast for Energy Procurement is \$29.399 million, including \$27.967 million labor expense and \$1.432 million in non-labor expenses.²⁰³²

26.2. Parties' Positions

26.2.1. Cal Advocates

As stated above, SCE forecasts \$29.399 million for its 2025 TY Energy Procurement O&M expenses. Cal Advocates recommends that the Commission

²⁰³⁰ Ex. SCE-05, Vol. 2 at 8-9.

²⁰³¹ Ex. SCE-16 at 138.

²⁰³² Joint Comparison Exhibit at 85.

authorize \$26.763 million for SCE's Energy Procurement O&M expenses, which reduces SCE's forecast by \$2.636 million.²⁰³³

Cal Advocates does not oppose SCE's Non-Labor forecast associated with Energy Procurement O&M expenses. However, Cal Advocates recommends \$25.331 million for Labor O&M expense.²⁰³⁴ In support of its position, Cal Advocates opposes SCE's methodology because it exceeds historical averages of recorded labor costs over the last five years.²⁰³⁵ Cal Advocates' recommendation relies on the following data: (1) SCE's 2022 recorded total Labor and Non-Labor expenses of \$24.444 million; (2) SCE's 2018–2022 recorded average expenses of \$27.201 million (total combined Labor and Non-Labor); (3) SCE's 2018–2022 recorded average of \$25.366 million for Labor; (4) the 2021 authorized amount of \$26.760 million; and (5) what Cal Advocates describes as conflicting ongoing evidence within SCE's organizational charts as the basis for its recommendation.²⁰³⁶

26.2.2. SCE's Rebuttal

SCE argues that the Commission should reject Cal Advocates' recommendation. In support of its contention, SCE makes an array of arguments. SCE states it used historical costs — not organization charts — to forecast future costs as the preferred method of forecasting, consistent with the direction provided by D.04-07-022.²⁰³⁷ SCE states it correctly utilized 2022 recorded costs as the base 2025 TY labor forecast amount. SCE also states it

²⁰³³ Ex. CA-16 at 8.

²⁰³⁴ Ex. CA-16 at 8.

²⁰³⁵ Ex. CA-16 at 7-8.

²⁰³⁶ Ex. CA-16 at 7.

²⁰³⁷ Ex. SCE-16 at 139.

made adjustments to account for identified reductions related to operational efficiencies, as well as requesting additional funding to address an identified staffing shortfall of employees, along with adjustments to reflect certain changes made to SCE's employee compensation program, yielding a 2025 TY labor forecast of \$28.279 million.²⁰³⁸

Furthermore, SCE argues that current staffing levels are not sustainable to effectively perform the Energy Procurement functions. SCE testifies that current staffing levels make it difficult to continue to improve and update its processes to remain current with changes in the market (*e.g.*, the establishment of the Extended Day-Ahead Market at the CAISO and the new 24-hour slice-of-day resource adequacy implementation).²⁰³⁹

26.3. Discussion

SCE has justified the reasonableness of the Energy Procurement O&M and Capital forecasts. We decline to adopt Cal Advocates' recommendation. Thus, we find reasonable and approve SCE's O&M expenses of \$29.399 million and its capital forecast of \$2.590 million for 2023-2025. SCE has demonstrated that historical averages do not account for the increasing energy procurement staffing needs to manage large enhancements in CAISO market mechanisms and added complexity in meeting resource adequacy requirements. Thus, we authorize and adopt SCE's O&M expenses and capital forecasts.

²⁰³⁸ Ex. SCE-05, Vol. 2 at 10-11.

²⁰³⁹ Ex. SCE-16 at 139.

27. Enterprise Technology

27.1. Technology Delivery

The Technology Delivery activity is responsible for the execution of non-routine system enhancements, implementation, and post-implementation stabilization activities of the capital software projects for SCE's Operating Units (OU). SCE forecasts \$9.306 million for the 2025 TY for Technology Delivery O&M, including \$6.450 million for labor and \$2.856 million for non-labor.²⁰⁴⁰

SCE developed this forecast by using the last recorded year for labor and a modified itemized forecast for non-labor. SCE's non-labor forecast was developed based on the following: (1) itemized forecast for known O&M resulting from OU Capitalized Software projects forecast in 2023-2028; (2) adding an adjustment of the non-itemized portion of the OU Capitalized Software forecast from 2025-2028 to account for the related O&M in those years because not all of the projects forecast for those years are itemized and therefore no O&M forecast exists, up to three percent of the OU Capitalized Software Projects; (3) miscellaneous O&M expenses; and (4) normalizing the resulting forecast for the years 2025-2028.²⁰⁴¹ Cal Advocates opposes this forecast.

27.2. Digital and Process Transformation

The Digital & Process Transformation (DPT) work activity is responsible for transforming the most critical processes within SCE through process analysis and user-centered design. SCE states that DPT enables business operations with digital solutions, supported by advanced analytics for data driven decision making.²⁰⁴²

²⁰⁴⁰ Ex. SCE-17, Vol. 1 at 5-6; Ex. SCE-17, Vol. 1 Errata 2 at 6.

²⁰⁴¹ Ex. SCE-17, Vol. 1 at 7.

²⁰⁴² Ex. SCE-17, Vol. 1 at 10-11.

SCE forecasts \$11.408 million for the 2025 TY for DPT O&M, including \$9.989 million for labor and \$1.419 million for non-labor. SCE's DPT forecast includes adding, on average, 15.5 resources per year over a six-year period from 2023-2028. SCE testifies that demand for DPT work continues to outpace the capacity of SCE's existing resources to deliver technology solutions.²⁰⁴³ Cal Advocates recommends reductions to SCE's DPT labor forecast only.

27.3. Service Management Office and Operations

The Software Maintenance and Replacement work activity includes costs required to maintain SCE's operating software assets through on-premise licenses, off-premise licenses (cloud), subscription, and maintenance contract agreements.²⁰⁴⁴ According to SCE, this activity also includes refreshes of the core Operating Software comprised of operating systems, business intelligence systems, database management systems, cross-system integration tools, IT monitoring tools, and end-user productivity and collaboration software which enable business applications enterprise-wide to take advantage of the underlying hardware features and functions to deliver efficient and high-quality services to SCE customers.²⁰⁴⁵ Lastly, this work activity includes application refresh activities, which consist of the management, upgrade, maintenance, optimization, monitoring, and testing of about 700 existing IT business applications and more than 5,000 interfaces through their lifecycles.²⁰⁴⁶

SCE's Software Maintenance & Replacement work is divided into three sub-work activities: (1) Cloud; (2) Perpetual License; and (3) Application Refresh.

²⁰⁴³ Ex. SCE-06, Vol. 1 at 26-28 and 36.

²⁰⁴⁴ Ex. SCE-17, Vol. 1 at 21.

²⁰⁴⁵ Ex. SCE-17, Vol. 1 at 21

²⁰⁴⁶ Ex. SCE-1.7, Vol. 01 at 21.

SCE forecasts \$156.337 million for Test Year 2025 for Software Maintenance and Replacement O&M. SCE's forecast for each sub-activity is based on an itemized forecast. SCE forecasts \$125.298 million for Test Year 2025 for Cloud and Perpetual License O&M, including \$57.010 million for Cloud and \$68.288 million for Perpetual License.²⁰⁴⁷

For Application Refresh O&M, SCE forecasts \$31.039 million for the 2025 TY, including \$12.485 million for labor and \$18.554 million for non-labor.²⁰⁴⁸

Cal Advocates opposes SCE's Test Year forecast for Cloud, Perpetual License, and Application Refresh.

27.4. Parties' Positions

27.4.1. Cal Advocates

27.4.1.1. Technology Delivery

Cal Advocates recommends reductions to SCE's Technology Delivery activity non-labor forecast of \$2.856 million. Cal Advocates recommends using the last recorded year's expenses of \$2.047 million for the 2025 TY forecast because there is a downward trend in non-labor expenses. Cal Advocates explains that this downward trend would support the use of the last recorded year's expenses. Moreover, Cal Advocates opposes SCE's forecast for two reasons. First, Cal Advocates argues that 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, Cal Advocates argues that SCE's previous methodology resulted in significant overcollection.²⁰⁴⁹

²⁰⁴⁷ Ex. SCE-17, Vol. 1, at 23 and 40.

²⁰⁴⁸ Ex. SCE-17, Vol. 1 at 41-42.

²⁰⁴⁹ Ex. CA-17 at 8-9.

27.4.1.2. Digital and Process Transformation

Cal Advocates recommends a DPT labor forecast of \$2.879 million, a reduction of \$7.110 million.²⁰⁵⁰ Cal Advocates states its recommendation is based on the stability of SCE's labor expenses for three or more years. Cal Advocates asserts that this stable trend supports the use of the last recorded year's expenses.²⁰⁵¹

27.4.1.3. Services Management Office and Operations

Cal Advocates opposes SCE's TY forecast for Cloud, Perpetual License, and Application Refresh. Cal Advocates argues that SCE's previous GRC forecast was based on a similar itemized approach, which resulted in significant inaccuracy, and SCE failed to provide enough evidence to support an overall incremental increase of almost 59 percent from the last recorded year (2022) to the 2025 TY.²⁰⁵²

For Cloud-Based Subscriptions expenses, Cal Advocates recommends a \$53.361 million forecast for the 2025 TY, or \$3.649 million less than SCE's forecast.²⁰⁵³

For Perpetual License expenses, Cal Advocates recommends using the last recorded year of \$36.825 million as its 2025 TY forecast instead of SCE's \$68.288 million forecast.²⁰⁵⁴

²⁰⁵⁰ Ex. CA-17 at 11-12.

²⁰⁵¹ Cal Advocates OB at 331.

²⁰⁵² Ex. CA-17 at 13-14.

²⁰⁵³ Ex. CA-17 at 15-16.

²⁰⁵⁴ Ex. CA-17 at 13 and 19.

For Application Refresh, Cal Advocates does not oppose SCE's labor forecast but opposes the non-labor forecast.²⁰⁵⁵ In particular, Cal Advocates recommends adjustments to the following subcategories under the non-labor forecast: (1) O&M Projects (\$2.671 million); (2) Consulting and Professional Services (\$3.044 million); and (3) Ongoing Maintenance (\$0).²⁰⁵⁶

27.4.2. SCE's Rebuttal

27.4.2.1. Technology Delivery

In response to Cal Advocates, SCE makes an array of arguments. SCE argues that Technology Delivery's underspend compared to authorized was driven by changes in capital-related expenses and O&M projects, namely: (1) further assessment of planned work that determined capital treatment to be the more appropriate treatment for the project; and (2) the optimization of expenses in the delivery phases for certain software.²⁰⁵⁷ SCE also states:

More specifically, the underspend in 2021-2022 is explained by the overall improvements in efficiencies and the lower costs of project deliverables. This does not invalidate the reasonableness of the itemized forecast methodology for the 2025 Test Year, which has already been factored into SCE's modified itemized forecast going forward. SCE's past underspend to authorized, particularly in one or two years, are not expected to reoccur in this GRC period, and should not be used as a basis to reduce SCE's Technology Delivery non-labor forecast.²⁰⁵⁸

Next, SCE asserts that Cal Advocates' reliance on the last recorded year is misguided. SCE states its modified itemized forecast method is the more

²⁰⁵⁵ Ex. CA-17 at 23.

²⁰⁵⁶ Ex. CA-17 at 23-24, 26-27.

²⁰⁵⁷ Ex. SCE-17, Vol. 1 at 8.

²⁰⁵⁸ Ex. SCE-17, Vol. 1 at 8.

appropriate forecasting method for Technology Delivery non-labor O&M expenses. SCE argues that Technology Delivery's non-labor forecast is dependent on the OU Capitalized Software forecast, which drives the non-labor expenses. SCE contends that Cal Advocates' recommendation to use the last recorded year should be rejected because it does not consider the underlying driver of OU Capitalized Software projects forecast — a forecast that Cal Advocates generally does not challenge — in its calculation. By way of example only, for 2023, Technology Delivery recorded \$2.338 million of non-labor expenses, which is higher than Cal Advocates' proposed forecast using the last recorded year (2022).²⁰⁵⁹

SCE asserts that its Technology Delivery O&M forecast of \$9.306 million should be authorized in full.

27.4.2.2. Digital and Process Transformation

In response to Cal Advocates' reductions to SCE's DPT labor forecast, SCE makes an array of arguments. SCE argues that: (1) Cal Advocates misstates SCE's request for additional resources and its recommendation does not consider increased demand for DPT work;²⁰⁶⁰ (2) SCE included benefits in its request based on projects implemented from the last rate case;²⁰⁶¹ and (3) Cal Advocates' recommendation to use 2022 recorded costs for O&M is not representative of future costs needed to deliver required solutions.²⁰⁶²

²⁰⁵⁹ Ex. SCE-17, Vol. 1 at 8.

²⁰⁶⁰ Ex. SCE-17, Vol. 1 at 12.

²⁰⁶¹ Ex. SCE-17, Vol. 1 at 12-13.

²⁰⁶² Ex. SCE-17, Vol. 1 at 14-15.

27.4.2.3. Service Management Office and Operations

In response to Cal Advocates' recommended reductions, SCE argues that Cal Advocates ignores the business drivers that result in the forecast increases.²⁰⁶³ SCE asserts that Cal Advocates' recommendations and reductions will be detrimental to reliability and security of its technology environment.²⁰⁶⁴

With respect to SCE's Cloud and Perpetual License category, SCE contends that: (1) its itemized forecast methodology for Cloud is based on actual vendor contract agreements and should be accepted;²⁰⁶⁵ (2) vendor contractual agreements factually support SCE's perpetual license forecast;²⁰⁶⁶ and (3) the perpetual license and cloud sub-category spending variances should be assessed together and the historical reasons for underspending of SCE's authorized perpetual license forecast are less likely to impact future years.²⁰⁶⁷

With respect to its Application Refresh category, SCE states this activity consists of two distinct work activities. These activities include: (1) management, upgrade, maintenance, optimization, monitoring, and testing of about 700 existing IT applications, 5,000 interfaces, and 400 digital technologies through their lifecycle; and (2) management, data engineering, and analytics activities of increasing volume of structured and unstructured data supporting the applications. SCE states these applications, digital tools and technologies, and data management and integration initiatives collectively support a majority of

²⁰⁶³ Ex. CA-17 at 13-14.

²⁰⁶⁴ SCE OB at 333.

²⁰⁶⁵ SCE OB at 335-336.

²⁰⁶⁶ Ex. SCE-17, Vol. 1 at 35.

²⁰⁶⁷ Ex. SCE-17, Vol. 1, at 36-39.

SCE's business processes and capabilities, including mission critical applications that help provide customers with safe and reliable energy along with satisfying mandated compliance and security requirements.²⁰⁶⁸ The activities and applications captured within Application Refresh include O&M projects²⁰⁶⁹ as well as consulting and professional services.²⁰⁷⁰

SCE asserts that if it does not receive the requested funding, the backlog of Application Refreshes for O&M Projects will continue to grow, and eventually SCE's applications' reliability and availability will be compromised. SCE also asserts that not performing this work increases SCE's cybersecurity exposure and the potential loss of data or data breaches.²⁰⁷¹

27.5. Discussion

27.5.1. Stipulation Regarding Enterprise Technology Capital Expenditures Forecast

While the stipulation Cal Advocates and SCE agreed to was not proffered as part of a larger settlement agreement, it is similar in substance. Accordingly, we review this uncontested stipulation pursuant to Rule 12.1(d), which provides that the Commission must find a settlement "reasonable in light of the whole record, consistent with law, and in the public interest." We apply these elements to the parties' stipulation, below.

First, we find that the stipulation is reasonable in light of the whole record. Cal Advocates and SCE submitted their stipulation for the Enterprise Technology capital expenditure forecast for the purposes of resolving all contested issues

²⁰⁶⁸ Ex. SCE-17, Vol. 1 at 40.

²⁰⁶⁹ SCE OB at 340.

²⁰⁷⁰ SCE OB at 341.

²⁰⁷¹ Ex. SCE-17, Vol. 1 at 46-47.

regarding this matter. The parties have shown that the stipulation reflects a compromise of disputed litigation positions on a range of issues addressed by Cal Advocates and SCE and constitutes an integrated agreement. Thus, we find the stipulation reasonable in light of the whole record.

Second, we find the stipulation is consistent with the law. We do not find any inconsistency with the Pub. Util. Code, Commission decisions, or the law in general. No party opposed the stipulations or notified the Commission of any statutory provisions or applicable law that would be contravened or compromised by the stipulations. Therefore, we find that the stipulations are consistent with the law.

Third, the stipulation is in the public interest. The stipulation is joined by SCE and Cal Advocates on the disputed capital forecast for Enterprise Technology and includes the participation of intervenor Cal Advocates representing the interests of ratepayers. Furthermore, approval of the stipulation conserves party and Commission resources by avoiding the need for further litigation and allows for timely resolution of the issues. Therefore, the stipulation is in the public interest.

For the reasons stated above, the proposed stipulation meets the criteria for approval under Rule 12.1(d), and therefore, we approve the proposed stipulation without modification. In light of the record and stipulation entered into by Cal Advocates and SCE we authorize and adopt the following:²⁰⁷²

- 2023-2025 capital expenditures forecast of \$541.670 million, consisting of \$172.519 million for 2023, \$163.330 million for 2024, and \$205.821 million for 2025.²⁰⁷³

²⁰⁷² Ex. SCE-30 at 1-3.

²⁰⁷³ Ex. SCE-32.

27.5.2. Technology Planning, Design and Support O&M Expense Forecast

SCE's proposed 2025 TY O&M expense forecast for Technology Planning, Design and Support is \$7.267 million.²⁰⁷⁴ No party opposed the forecast. We find this forecast reasonable and adopt \$7.267 million for Technology Planning, Design and Support.

27.5.3. Fixed Price Technology and Maintenance

SCE's proposed 2025 TY O&M forecast for Fixed Price Technology and Maintenance is \$73.855 million. No party opposed this forecast. We find this forecast reasonable and adopt \$73.855 million for Fixed Price Technology and Maintenance.

27.5.4. Technology Infrastructure Maintenance & Replacement

SCE's proposed Technology Infrastructure Maintenance & Replacement forecast is \$24.067 million for the 2025 TY. No party opposed this forecast. We find this forecast reasonable and adopt \$24.067 million for Technology Infrastructure Maintenance & Replacement.

27.5.5. Technology Delivery

We adopt and authorize SCE's \$9.306 million forecast for TY O&M, including \$2.856 million for non-labor O&M for Technology Delivery.

We find that SCE has demonstrated that an itemized non-labor forecast is the more appropriate methodology, particularly for a forecast driven by OU Capitalized Software. SCE has shown that Technology Delivery's non-labor forecast is dependent on the OU Capitalized Software forecast, which drives the non-labor expense. SCE provided a modified itemized forecast method

²⁰⁷⁴ Ex. SCE-17, Vol. 1 at 2.

including an itemized forecast for known O&M resulting from OU Capitalized Software projects forecast for 2023-2028 that already have detailed non-labor forecasts, and a second portion of forecast accounting for the non-itemized part of the OU Capitalized Software forecast from 2025-2028 for which an O&M forecast does not yet exist. We agree that this hybrid method is more appropriate given the fact that technology products and operating systems change rapidly and pinpointing an exact forecast multiple years in the future can be challenging and lead to large variances.²⁰⁷⁵ The use of the last recorded year method does not consider the underlying driver of OU Capitalized Software projects forecast which we find incomplete.

In conclusion, we adopt and authorize SCE's \$9.306 million forecast for TY 2025 O&M, including \$2.856 million for non-labor O&M for Technology Delivery.

27.5.6. Digital and Process Transformation

We adopt and authorize \$4.298 million for TY 2025 for Digital and Process Transformation O&M, including Cal Advocates' recommended labor forecast of \$2.879 million for labor.

We are persuaded by Cal Advocates' arguments and evidence that SCE's Digital and Process Transformation O&M request should be reduced. We find that: (1) while SCE provides evidence of savings achieved by Digital and Process Transformation, SCE does not provide an estimate of the amount of savings from future solutions of this activity;²⁰⁷⁶ (2) Although SCE cites some areas where it

²⁰⁷⁵ Ex. SCE-17, Vol. 1 at 11.

²⁰⁷⁶ Ex. CA-17 at 12.

expects Digital and Process Transformation to evaluate solutions²⁰⁷⁷ and provides data showing its backlog of use cases²⁰⁷⁸, this information alone does not constitute sufficient support for the increase in work demand to be undertaken in the test year; and (3) even with the additional resources requested, SCE forecasts that its backlog will grow.²⁰⁷⁹

Given the above reasons, we adopt and authorize \$4.298 million for TY 2025, including Cal Advocates' recommended labor forecast of \$2.879 million for labor.

**27.5.7. Service Management
Office and Operations**

27.5.7.1. Cloud and Perpetual License

We authorize and adopt SCE's request of \$57.010 million forecast for the 2025 TY for Cloud Based Subscriptions. We also authorize and adopt Cal Advocates' proposed \$36.825 million forecast for Perpetual License for the 2025 TY.

First, SCE has reasonably based its forecast for its Cloud Based Subscriptions upon known vendor contracts. The record does not show that the costs or terms in those contracts are unreasonable. For example, SCE's testimony demonstrates that its Cloud forecast is primarily based on itemized executed vendor contracts, which include contractual terms.²⁰⁸⁰ Thus, the evidence presented before us in this GRC shows that the vendor contracts are the best indicator of SCE's future costs for these services. With respect to the Perpetual

²⁰⁷⁷ Ex. SCE-06 Vol. 01 at 32 and 36-37.

²⁰⁷⁸ Ex. SCE-17 Vol. 01 at 12.

²⁰⁷⁹ Ex. SCE-17 Vol. 1C, Appendix A at A16.

²⁰⁸⁰ Ex. SCE-17, Vol. 1 at 26-27; *see also* 32-39.

License forecast, we agree with Cal Advocates that SCE's use of an itemized forecast is an overestimate of the actual Perpetual License spending.²⁰⁸¹ Thus, in light of the arguments and evidence presented by Cal Advocates, we adopt Cal Advocates' proposed TY 2025 forecast of \$36.825 million for Perpetual License. We note that SCE's NextGen application (A.25-03-009) expects many benefits for the implementation of its proposed SAP upgrade and identified O&M and capital expenditures that will no longer be required due to the NextGen ERP Program between 2025-2028.²⁰⁸² SCE proposes to establish a balancing account to track those benefits to credit customers for amounts that are approved in SCE's Test Year 2025 GRC.²⁰⁸³ Technology Integration is a benefit that is listed throughout the GRC period.²⁰⁸⁴ Recognizing that some O&M and capital expenditures will not be required due to the implementation of SCE's NextGen Program, the Commission declines to approve SCE's request for perpetual licenses. In conclusion, we authorize and adopt SCE's request of \$57.010 million forecast for TY 2025 for Cloud Based Subscriptions. We also authorize and adopt Cal Advocates' proposed TY 2025 forecast of \$36.825 million for Perpetual License.

27.5.7.2. Application Refresh

We authorize and adopt SCE's non-labor O&M Projects forecast of \$11.957 million. We also authorize and adopt SCE's non-labor Consulting & Professional Services (C&PS) forecast of \$6.457 million. Cal Advocates requests to reduce Ongoing Maintenance from \$4.660 million to \$0; we note in rebuttal

²⁰⁸¹ Ex. CA-17 at 21.

²⁰⁸² Ex. SCE-01, Vol. 2 at 77.

²⁰⁸³ Ex. SCE-01, Vol. 2 at 78.

²⁰⁸⁴ Ex. SCE-01 at 77, Table VI-30.

testimony, SCE does not oppose reducing this cost to \$0.²⁰⁸⁵ Therefore, since there is no dispute that the cost for Ongoing Maintenance should be \$0, we do not authorize or adopt an amount.

We agree with SCE that Cal Advocates' recommendation for SCE's Application Refresh capital forecast is not based on correct assumptions made from the status of 2023 projects prior to the end of 2023.²⁰⁸⁶ Additionally, we find that Cal Advocates' forecast does not take into account the expanding assets and new work that this activity will perform in 2024 and 2025.²⁰⁸⁷ SCE's proposed updated 2023 forecast based on the recorded 2023 capital expenditures, as well as its 2024 and 2025 forecasts, reflect the expanding scope of SCE's IT efforts — this gives the Commission and stakeholders visibility into the security of SCE's application and software tools. Finally, we also find that SCE's C&PS accounts for new work that is required of SCE to manage its portfolio. Thus, we find that SCE's request for its Application Refresh is reasonable.

We authorize and adopt SCE's non-labor O&M Projects forecast of \$11.957 million. We also authorize and adopt SCE's non-labor C&PS forecast of \$6.457 million. No amount, or \$0, is authorized or approved for SCE's Ongoing Maintenance. In total, we authorize and adopt \$31.039 million for the Application Refresh forecast.

²⁰⁸⁵ Ex. SCE-17, Vol. 1 at 50.

²⁰⁸⁶ Ex. SCE-17, Vol. 1 at 59.

²⁰⁸⁷ Ex SCE-17, Vol. 1 59.

28. Operating Unit Capitalized Software

In this section of the decision, we discuss SCE's Operating Unit (OU) Capitalized Software and the stipulation that Cal Advocates and SCE reached regarding this matter.

As indicated in Exhibit SCE-32, Cal Advocates and SCE subsequently reached a stipulation of their disputed issues regarding SCE's OU Capitalized Software (Technology Solutions) capital expenditures forecast for 2023-2025 of \$346.395 million, including recorded capital expenditures of \$127.650 million in 2023, forecast capital expenditures of \$117.883 million in 2024, and forecast capital expenditures of \$100.862 million in 2025.²⁰⁸⁸

Additionally, SCE requests that the Commission find reasonable the \$17.33 million SCE recorded over authorized for 2021 and \$28.93 million it recorded over authorized for 2022 for its OU Capitalized Software projects.²⁰⁸⁹ No party provided testimony opposing this request or disputed the need for the projects that were undertaken or the reasonableness of SCE's 2021 and 2022 recorded costs.

TURN opposed SCE's request for the NextGen Enterprise Resource Planning (ERP) SAP Memorandum Account (NGESMA).²⁰⁹⁰ We discuss this matter, below.

28.1. NextGen ERP Memorandum Account

SCE proposes to establish the NGESMA to record its as-yet-unknown Implementation costs. SCE states that its SAP ERP solution is a comprehensive

²⁰⁸⁸ Ex. SCE-32.

²⁰⁸⁹ Ex. SCE-06, Vol. 2 at 4-5.

²⁰⁹⁰ Ex. TURN-15 at 16-17.

set of enterprise resource planning applications and systems that perform several critical functions and provide data and information to support SCE's core processes so that it can safely, reliably, and affordably serve its customers faster and with more accuracy.²⁰⁹¹ SCE also states that its transition to NextGen ERP will occur in five phases: Solution Planning, Solution Analysis Phase 1, Solution Analysis Phase 2, Implementation and Post-Implementation.²⁰⁹²

SCE seeks to establish the NGESMA with a January 1, 2024 effective date, to record the revenue requirements associated with O&M expenses and capital expenditures for activities related to the Implementation phase of the NextGen ERP project. SCE testifies that the NGESMA is necessary because the program costs for executing the Implementation and Post-Implementation phases will not be known with enough certainty until the completion of Solution Analysis Phase 2, which is expected in the fourth quarter of 2024. SCE states it plans to file a separate standalone cost recovery application at the end of 2024 for those Implementation costs once the final solution approach, timing, and estimates are complete.²⁰⁹³

28.2. Parties' Positions

28.2.1. TURN

TURN opposes SCE's proposed establishment of the NGESMA. TURN argues that these costs should be covered by the Test Year 2021 GRC forecast. TURN asserts the NGESMA is unnecessary because SCE seeks to record capital

²⁰⁹¹ Ex. SCE-17, Vol. 1 at 87.

²⁰⁹² Ex. SCE-06, Vol. 2 at 73-88.

²⁰⁹³ Ex. SCE-17, Vol. 1 at 88.

costs that are “highly unlikely to close to plant separately from the 2021 GRC capital forecast.”²⁰⁹⁴

TURN argues that the new memorandum account seems to be addressing a non-existent cost recovery risk. TURN further argues that the only 2024 costs to be incurred are likely to be capital, and there will not be O&M costs that need to be separately recovered.²⁰⁹⁵

28.2.2. SCE’s Rebuttal

In response to TURN, SCE states that it is not reasonable for NextGen ERP Implementation costs to be subsumed by the 2021 GRC authorized amount for OU Capitalized Software because they will only begin recording in 2024.²⁰⁹⁶ SCE states that these Implementation costs were not forecastable at the time the 2021 GRC was developed and submitted, and were not included as part of that forecast, which was submitted in August of 2019.²⁰⁹⁷ SCE also states that to the extent no costs are recorded in 2024 for NGESMA, there will be no costs for which SCE will need to seek recovery, and customers will be no worse off than if the NGESMA had not been established. SCE asserts that customers will not be harmed by the creation of NGESMA because the mechanism provides for tracking of SCE’s Implementation Phase costs until the approval of SCE’s standalone NextGen ERP application.²⁰⁹⁸

²⁰⁹⁴ Ex. TURN-15 at 16-17.

²⁰⁹⁵ Ex. TURN-15 at 16-17.

²⁰⁹⁶ Ex. SCE-17, Vol. 1 at 83.

²⁰⁹⁷ Ex. SCE-17, Vol. 1 at 88-89.

²⁰⁹⁸ SCE OB at 344.

28.3. Discussion

Capital expenditures in OU Capitalized Software are focused on implementing capitalized software platforms and applications to support business capabilities across SCE and its enterprise-level systems. SCE's capital expenditures forecast for 2025-2028 targets improvements in its capabilities and proficiency in several areas, including Resiliency, Customer Interactions, Distribution Grid, Enterprise Support, Substation, System Augmentation, Energy Procurement, and Generation.²⁰⁹⁹ First, we address the stipulation Cal Advocates and SCE agreed to. Then we discuss SCE's request for the NGESMA.

The stipulation Cal Advocates and SCE agreed to was not proffered as part of a larger settlement agreement, but it is similar in substance. Accordingly, we review this uncontested stipulation pursuant to Rule 12.1(d), which provides that the Commission must find a settlement "reasonable in light of the whole record, consistent with law, and in the public interest." We apply these elements to the parties' stipulation, below.

First, we find that the stipulation is reasonable in light of the whole record. Cal Advocates and SCE submitted their stipulation for the OU Capitalized Software for the purpose of resolving all contested issues with respect to the capital forecasts for this topic in this proceeding. The parties have shown that the stipulation reflects a compromise of disputed litigation positions on a range of issues addressed by Cal Advocates and SCE and constitutes an integrated agreement. Thus, we find the stipulation reasonable in light of the whole record.

²⁰⁹⁹ Ex. SCE-17, Vol. 1 at 83.

Second, we find the stipulation is consistent with the law. We do not find any inconsistency with the Pub. Util. Code, Commission decisions, or the law in general. No party opposed the stipulation or notified the Commission of any statutory provisions or applicable law that would be contravened or compromised by the stipulation. Therefore, we find that the stipulation is consistent with the law.

Third, the stipulation is in the public interest. The stipulation is joined by SCE and Cal Advocates on the disputed OU Capitalized Software issues and includes the participation of intervenor Cal Advocates representing the interests of ratepayers. Furthermore, approval of the stipulation conserves party and Commission resources by avoiding the need for further litigation and allows for timely resolution of the issues. Therefore, the stipulation is in the public interest.

For the reasons stated above, the proposed stipulation meets the criteria for approval under Rule 12.1(d), and therefore, we approve the proposed stipulation without modification. In light of the record and stipulation entered into by Cal Advocates and SCE we authorize and adopt the following:²¹⁰⁰

- SCE's OU Capitalized Software (Technology Solutions) capital expenditures forecast for 2023-2025 of \$346.395 million for 2023-2025 for OU Capitalized Software (Technology Solutions), including recorded capital expenditures of \$127.650 million in 2023, forecast capital expenditures of \$117.883 million in 2024, and forecast capital expenditures of \$100.862 million in 2025; and
- The amounts SCE recorded over authorized for its OU Capitalized Software projects, \$17.33 million over authorized for 2021 and \$28.93 million over authorized for 2022.

²¹⁰⁰ Ex. SCE-30 at 1-3.

Finally, we agree with TURN and decline to adopt SCE's request to establish the NGESMA.²¹⁰¹ To authorize the establishment of a memorandum account, the Commission must typically find that the following conditions exist, as set forth in the Commission's Standard of Practice U-27-W:²¹⁰²

- Costs at issue were caused by an event of an exceptional nature outside of the utility's control;
- Expenses could not have been included in utility's GRC forecast;
- The utility is already incurring, or is about to incur, the costs and such costs will occur before the utility's next GRC;
- Costs are substantial and not speculative;
- Costs are incremental and not already recovered in rates; and
- Ratepayers will benefit by the memorandum account treatment.

Here, we find that the requirements for establishing the NGESMA have not been met. SCE has not shown that the above conditions have been met in its testimony or briefs. We do not see any argument that the costs SCE wishes to track in the NGESMA were caused by an event of an exceptional nature outside of SCE's control. Furthermore, SCE does not provide sufficient justification for not including the costs in the prior GRC. A utility should include the forecast costs needed to run operations in the GRC, subject to some exceptions where the Commission authorizes discrete applications for review. Here, however, there is not a sufficient basis for SCE not to include the 2024 costs in the prior GRC or

²¹⁰¹ D.25-01-003 at 3-4; *see also* D.22-12-005 at 17-18.

²¹⁰² *See* Standard Practice U-27-W Section D.

granting memorandum account treatment backward to January 1, 2024.

Therefore, we decline to authorize the NGESMA.

29. Enterprise Planning and Governance (Non-Insurance)

29.1. Financial Oversight and Transactional Processing

The Financial Oversight and Transactional Processing BPE supports SCE's efforts to: (1) adhere to and fulfill financial compliance and reporting requirements; (2) meet SCE's contractual billing and reporting obligations with government agencies, jointly owned facility partners, and third parties; and (3) provide cost savings through optimizing SCE's vendor discount and other miscellaneous payments programs. SCE's Financial Oversight and Transactional Processing costs have historically been driven by accounting-related activities as well as activities associated with maintenance and governance of various types of charges and credits.²¹⁰³

SCE requests TY O&M expenses totaling \$44.792 million for the following activities in its Financial Oversight and Transactional Processing BPE:²¹⁰⁴

Activity	TY Forecast (\$000)
Accounting, Financial Compliance, and Financial Reporting	26,779
Vendor Discount and Other Miscellaneous Payments	(566)
Participant Credits and Charges	21,234
Third-Party Non-Energy Billing Credits	(2,656)
Total	44,792

²¹⁰³ Ex. SCE-06, Vol. 3 at 4.

²¹⁰⁴ Ex. SCE-17, Vol. 2, Table II-3 at 5; *also*, Ex. SCE-05, Vol. 1S at 40-42 (updating the Participant Credits and Charges resulting from Palo Verde supplemental testimony). Issues concerning insurance expense are discussed in a separate section below.

SCE's TY O&M forecasts for the above activities are based on a combination of 2022 recorded costs plus adjustments, as well as recent three-year, four-year, and five-year historical averages.²¹⁰⁵

We find reasonable and approve SCE's uncontested request of \$44.792 million in TY O&M expenses for the Financial Oversight and Transactional Processing BPE.

29.2. Legal

The Legal Organization (Legal) represents SCE in all its regulatory and legal matters and provides advice and counsel to support the safe and reliable operation of SCE's business. Legal includes three departments: (1) the Law Department, which advises SCE management on compliance with applicable laws and regulations, represents SCE before courts and regulatory agencies, and supports commercial transactions; (2) the Claims Department, which investigates, processes, and resolves claims that are made against SCE, as well as claims that SCE asserts against third parties; and (3) the Workers' Compensation and Disability Management Department (Workers' Compensation Department), which administers/determines eligibility for workers' compensation benefits, disseminates information to SCE employees regarding such benefits, and handles contested workers' compensation claims.²¹⁰⁶

SCE requests a total of \$95.474 million in TY O&M expenses for the following Legal departments and activities:²¹⁰⁷

Activity	TY Forecast (\$000)
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²¹⁰⁵ Ex. SCE-06, Vol. 3 at 7-25.

²¹⁰⁶ Ex. SCE-06, Vol. 3 at 44-45.

²¹⁰⁷ Ex. SCE-17, Vol. 2, Table IV-14 at 27.

Law	47,698
Claims	30,828
Workers' Compensation	16,948
Total	95,474

SCE's TY forecast of \$16.948 million for Workers' Compensation is uncontested. This GRC activity consists of \$4.557 million for Workers' Compensation staff expenses and \$12.391 million for Workers' Compensation injuries and damages.²¹⁰⁸ SCE's forecast methodology is based on a combination of 2022 recorded costs plus adjustments (staff expenses) and a five-year average of historical costs (injuries and damages).²¹⁰⁹ We find reasonable and approve SCE's uncontested TY O&M forecast for Workers' Compensation.

Cal Advocates proposes reductions for SCE's other two Legal activity forecasts, which are discussed below.

29.2.1. Law

SCE's TY O&M forecast of \$47.698 million for the Law work activity is comprised of: (1) \$29.706 million for SCE's in-house legal staff and related expenses; (2) \$14.918 million for fees and expenses charged by outside law firms, experts, and consultants; and (3) \$3.074 million for corporate governance and miscellaneous expenses. SCE's forecast for in-house legal resources is based on an increase of \$3.3 million over 2022 recorded expenses to reflect SCE's Employee Compensation Program and the backfilling of vacant positions and insourcing more work. SCE's forecast for outside counsel is based on a four-year average of recorded costs between 2018–2022 (excluding 2021 recorded costs),

²¹⁰⁸ Ex. SCE-17, Vol. 2 at 38.

²¹⁰⁹ Ex. SCE-06, Vol. 3 at 68-70.

then adjusted downward by \$1.5 million to reflect the development of tighter controls on managing outside counsel costs. SCE excluded 2021 recorded costs from its forecast calculation to reflect an insurance recovery offset of \$5.7 million to the recorded level of expenses in that year.²¹¹⁰ SCE's forecast for corporate governance and miscellaneous expenses is based on 2022 recorded non-labor costs.²¹¹¹

For the 2025 TY, Cal Advocates recommends \$28.338 million for in-house legal expenses (*i.e.*, a reduction of \$1.368 million to SCE's request), and \$13.231 million²¹¹² for outside-counsel legal expenses (*i.e.*, a reduction of \$1.687 million to SCE's request). Cal Advocates' recommendation for in-house legal expenses is based on the Commission-approved forecast for the 2024 attrition year in SCE's last GRC. In support of its position, Cal Advocates asserts: (1) SCE's recorded in-house legal expenses during 2020–2022 show a downward trend; and (2) between 2021–2022, SCE spent approximately \$2 million less than it was authorized to collect for in-house legal work. In making its recommendation, Cal Advocates also considered the five-year historical trend for this account and the negative impact SCE's current spending pattern would have on the remaining attrition years of the 2021 GRC.²¹¹³

²¹¹⁰ Ex. SCE-06, Vol. 3 at 52-53.

²¹¹¹ Ex. SCE-06, Vol. 3 at 48-55; Ex. SCE-17, Vol. 2 at 27.

²¹¹² In its rebuttal testimony, SCE states Cal Advocates made a transposition error in its testimony for the 2019 recorded amount, and that Cal Advocates' corrected TY O&M forecast for outside-counsel legal expenses should be \$13.291 million. (Ex. SCE-17, Vol. 2 at 30). Cal Advocates did not provide testimony errata to reflect this correction, or note the correction in its briefs.

²¹¹³ Ex. CA-18 at 7.

Cal Advocates' recommendation for outside-counsel legal expenses is based on a five-year average of 2018–2022 recorded costs (including 2021 recorded expenses) plus a downward adjustment of \$1.5 million to reflect program-enhancement savings that SCE anticipates during the GRC cycle. Cal Advocates asserts a five-year average of historical costs, which includes the 2021 insurance recovery of \$5.7 million costs, is a more accurate calculation of TY expenses because it recognizes that inflated prior year historical costs should not be rolled into future rates.²¹¹⁴

Concerning the forecast for in-house legal expenses, SCE provides the following arguments: (1) Cal Advocates' recommendation is based on a simple attrition mechanism based on an analysis conducted back in 2020 and is not a substitute for SCE's newer analysis and forecasting; (2) Cal Advocates did not substantively analyze SCE's 2025 forecast; and (3) Cal Advocates' proposed \$1.368 million reduction is a close 'match' to the \$1.399 million increase in in-house legal expenses attributed to SCE's company-wide Employee Compensation Program, which Cal Advocates does not object to.²¹¹⁵ Concerning the use of a four-year average versus a five-year average for forecasting SCE's outside-counsel legal expenses, SCE asserts that, regardless of when the underlying events or developments occurred that ultimately drove the insurance recovery, the *impact* of the insurance recovery was felt in 2021 recorded expenses. SCE also asserts Cal Advocates does not provide any further analysis to support its position, and that it is unreasonable to use the anomalous impact of the

²¹¹⁴ Ex. CA-18 at 4 and 6-10; Cal Advocates OB at 346-349.

²¹¹⁵ Ex. SCE-17, Vol. 2 at 28-29; SCE OB at 345-346.

insurance recovery, which does not itself represent a lower level of activity, as the basis to inform the forecast revenue requirement for 2025 and beyond.²¹¹⁶

We authorize a total of \$45.343 million in TY O&M expenses for the Law work activity, comprised of \$27.838 million for SCE's in-house legal work, \$14.431 million for outside-counsel legal expenses, and \$3.074 million for corporate governance and miscellaneous expenses.

Regarding the forecast methodology for in-house legal resources, we find SCE's 2022 recorded costs to be more predictive of test year expenses than the 2024 attrition level approved in SCE's 2021 GRC. As argued by SCE, the 2024 attrition level from SCE's prior GRC is the result of analyses and assumptions dating back to 2020, whereas SCE's 2022 recorded expenses reflect the most updated information available at the time SCE filed its GRC application. Moreover, while SCE's 2022 recorded costs are at the lower end of SCE's five year-historical cost data from 2018–2022, the evidence in this proceeding does not support Cal Advocates' assertion that SCE's in-house legal costs are likely to continue to decline. Despite the fact that SCE's recorded in-house legal costs declined from 2020–2022, SCE's larger five-year historical cost data for this account reflects both decreases and increases.²¹¹⁷ Moreover, SCE's 2023 recorded O&M costs for in-house legal resources show a slight increase relative to 2022 recorded costs.²¹¹⁸

While SCE's forecasting methodology is reasonable, we also find that SCE has not provided sufficient justification to support the proposed \$1.9 million

²¹¹⁶ Ex. SCE-17, Vol. 2 at 30-31; SCE OB at 346.

²¹¹⁷ Ex. SCE-06, Vol. 3, Table IV-II at 47.

²¹¹⁸ Ex. SCE-11, Appendix A at A8.

increase over 2022 recorded costs attributed to backfilling vacant positions and insourcing additional work.²¹¹⁹ SCE's justification for this work activity consists of one sentence in direct testimony where SCE indicates the funding will be used to backfill current positions and reduce the need to use more expensive outside counsel work, and to create a new "Staff Counsel" position to support SCE attorneys.²¹²⁰ It is not clear how the new Staff Counsel position will reduce the need for outside counsel costs, and SCE does not identify the number of vacancies to be backfilled or the corresponding savings attributed to the expected decrease in outside counsel work activities. Absent further showing, we find SCE has failed to demonstrate the proposed increase associated with backfilling vacant positions and insourcing additional work, and authorize \$27.838 million for SCE's in-house legal staff activities based on 2022 recorded costs with an adjustment to include SCE's Employee Compensation Program.

Concerning whether to include 2021 recorded expenses in the forecast methodology for outside legal counsel, SCE states the impact of the \$5.7 million insurance recovery occurred in 2021, while the insurance recovery offset does not itself represent a lower level of activity in the actual work and effort performed.²¹²¹ By SCE's own admission, if SCE's 2021 recorded expenses were adjusted to include the \$5.7 million insurance recovery, then including this adjusted 2021 amount in the five-year average should reflect the actual work and effort performed. This adjusted five-year average also results in a slightly lower

²¹¹⁹ SCE's TY forecast for in-house legal resources is based on 2022 recorded costs plus an increase of \$3.3 million. Of the \$3.3 million, SCE states \$1.399 million is attributed to SCE's Employee Compensation Program. (Ex. SCE-06, Vol. 3 at 49-50; Ex. SCE-17, Vol. 2 at 29).

²¹²⁰ Ex. SCE-06, Vol. 3 at 49-50.

²¹²¹ Ex. SCE-17, Vol. 2 at 30-31.

TY forecast of \$14.431 million for outside legal counsel work, compared to SCE's \$14.918 million request.

Importantly, Cal Advocates states its forecast recommendation will allow "cost savings from the insurance recovery to flow back to ratepayers."²¹²² SCE's arguments in this proceeding focus on the appropriate methodology to forecast future and ongoing outside legal counsel work, and SCE appears to miss Cal Advocates' broader proposal to ensure ratepayers benefit from the \$5.7 million insurance recovery. It is not clear, based on the record of this proceeding, whether and how ratepayers may have benefited from the \$5.7 million insurance recovery for outside counsel spending; accordingly, we decline to make any further adjustments at this time. However, SCE is instructed to explain whether and how ratepayers received any benefit from the \$5.7 million insurance recovery as part of its next GRC filing.

Lastly, we find reasonable and authorize SCE's uncontested TY O&M request of \$3.074 million for corporate governance and miscellaneous expenses.

29.2.2. Claims

SCE's TY O&M forecast of \$30.828 million for the Claims work activity is comprised of: (1) \$3.821 million for administrative and general expense; (2) \$15.900 million for injuries and other damages; and (3) \$11.107 million for write-offs.²¹²³ SCE's forecast for administrative and general expense is based on 2022 recorded expenses with an adjustment to reflect certain changes made to

²¹²² Ex. CA-18 at 10.

²¹²³ Write-offs can occur from unpaid claims involving damage to SCE facilities. Although SCE states it makes all reasonable efforts to collect from the responsible party, when invoices are deemed uncollectible, the invoice is written off and the amount is recorded to the write-offs account. (Ex. SCE-17, Vol. 2 at 32 and 35-36).

SCE's Employee Compensation Program. SCE's forecast for injuries and other damages is based on a five-year average of recorded costs from 2018–2022. SCE's forecast for write-offs is based on a three-year average of recorded costs from 2020–2022.²¹²⁴ As explained by SCE, calculating the write-off activity is accomplished monthly by multiplying the outstanding claims receivable balance by the five-year historical ratio of write-offs. 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 required balance.²¹²⁵

Cal Advocates recommends TY forecasts of \$11.665 million for injuries and other damages and \$9.621 million for write-offs. Cal Advocates' forecast for injuries and other damages is based on a two-year average of recorded costs in 2021 and 2022, as opposed to SCE's five-year average. In support of its position, Cal Advocates asserts the fluctuations of recorded expenses from 2018–2022 for this activity show a discernable downward trend, with the decrease in costs between 2021–2022 being more discernable and representative of this trend. Cal Advocates also highlights that SCE collected \$9.625 million more than it spent for injuries and other damages between 2021–2022.²¹²⁶ Cal Advocates' forecast for write-offs is based on a three-year historical ratio, as opposed to SCE's five-year historical ratio. Cal Advocates agrees with SCE's use of a three-year average of recorded costs between 2020–2022, which yields a lower

²¹²⁴ Ex. SCE-06, Vol. 3 at 60-62; Ex. SCE-06, Vol. 3E4 at 64.

²¹²⁵ Ex. SCE-17, Vol. 2 at 36.

²¹²⁶ Ex. CA-18 at 11-13; Cal Advocates OB at 350-352.

forecast than a five-year average.²¹²⁷ Cal Advocates again asserts that SCE has historically underspent for this activity, having collected approximately \$10.721 million more than it spent during 2021–2022.²¹²⁸

In response, SCE asserts: (1) the costs for injuries and other damages are driven by external factors and fluctuated up and down materially throughout 2018–2022, making a longer-period averaging methodology appropriate; (2) SCE’s forecast methodology for injuries and other damages is consistent with Commission guidance and the forecasting methodology approved in SCE’s last three GRCs; (3) Cal Advocates’ selection of the two lowest recorded years for injuries and other damages is arbitrary and appears results-oriented; (4) Cal Advocates erroneously uses the three-year historical ratio for write-offs in nominal dollars, which is inconsistent with Commission guidance; (5) if converted to constant dollars, Cal Advocates’ forecast for write-offs would be higher than SCE’s proposed TY forecast;²¹²⁹ and (6) actual recorded costs can differ from what SCE requested for a variety of reasons, including factors outside of SCE’s control, while the Commission has recognized that utilities may need to re-prioritize spending within a GRC cycle.²¹³⁰

We find reasonable and authorize SCE’s full TY forecasts of \$15.900 million for injuries and other damages and \$11.107 million for write-offs. In keeping

²¹²⁷ In its testimony and briefs, Cal Advocates states its forecast for write-offs is based on a three-year average of recorded costs between 2019–2022. (Ex. CA-18 at 14; Cal Advocates OB at 354). The inclusion of year 2019 appears to be an error based on SCE’s initial direct testimony, which was subsequently corrected in errata. (Ex. SCE-06, Vol. 3E4 at 64; also, Ex. SCE-17, Vol. 2 at 37).

²¹²⁸ Ex. CA-18 at 14; Cal Advocates OB at 353-355.

²¹²⁹ Ex. SCE-17, Vol. 2 at 33-38.

²¹³⁰ Ex. SCE-18, Vol. 1 at 122-126.

with D.89-12-057 and D.04-07-022, a forecast based on average historical costs is appropriate for accounts with significant fluctuations from year to year, or which are influenced by external forces beyond the control of a utility, while the period of time over which to calculate an average is typically four years.²¹³¹ As shown in SCE's direct testimony, the recorded costs for injuries and other damages have fluctuated significantly over time.²¹³² Further, no party disputes that the costs for injuries and other damages are driven by external factors that are beyond SCE's control. Therefore, we agree with SCE that Cal Advocates' recommendation to use the lowest two years of recorded costs for this activity appears arbitrary and inconsistent with Commission precedent.

Concerning the 2025 TY amount for write-offs, we agree with SCE that Cal Advocates' alternative forecast appears to use nominal dollars to calculate its recommended amount of \$9.621 million,²¹³³ instead of constant dollars per Commission guidance.²¹³⁴ The conversion of nominal dollars to constant dollars is necessary to compare dollar values from one year to another. As noted by SCE, correcting this mistake would result in a TY forecast that is higher than SCE's request. Therefore, we find SCE's lower TY request for write-offs to be reasonable and in ratepayers' best interest, and approve it. We also find reasonable and approve SCE's uncontested TY O&M forecast of \$3.821 million for administrative and general expense.

²¹³¹ D.89-12-057, 34 CPUC 2d 199, 231; also, D.04-07-022 at 16-17.

²¹³² For claims injuries and other damages, SCE recorded \$20.960 million in 2018, \$15.297 million in 2019, \$19.914 million in 2020, \$13.997 million in 2021, and \$9.333 million in 2022 (Constant \$2022). (Ex. SCE-06, Vol. 3, Table IV-14 at 59).

²¹³³ Ex. SCE-17, Vol. 2 at 37.

²¹³⁴ D.07-07-004, Appendix A at A-31.

Cal Advocates' assertion that SCE underspent for the Claims activity during prior years is raised several times in the Enterprise Planning and Governance BPE. While the Commission has, on numerous occasions, reduced or denied forecast costs for an activity based, at least in part, on historic underspending,²¹³⁵ the Commission has also acknowledged that ratemaking is not an exact science that guarantees perfect results from all perspectives, and that adopted estimates of revenues and expenses may be at variance with actual hindsight experience.²¹³⁶ As such, the question of whether to approve a funding request is highly fact-specific and is something that the Commission evaluates on a case-by-case basis.

29.3. Business and Financial Planning

Business and Financial Planning activities support SCE's efforts to develop, coordinate, and implement policies and practices that address federal and state regulatory and cost recovery requirements and related goals, as well as developing and managing business and financial operating plans and goals.²¹³⁷ SCE's Business and Financial Planning BPE consists of the following work activities: (1) Business Planning; (2) Corporate Services; and (3) Modeling, Analysis, and Forecasting.

29.3.1. Business Planning

SCE's TY O&M forecast for Business Planning is \$36.532 million, which is an approximately \$9 million increase relative to 2022 recorded costs.²¹³⁸ SCE's

²¹³⁵ See, e.g., D.23-11-069 at 121-124 and 134; D.21-08-036 at 454; D.15-11-021 at 345-346; D.07-03-044 at 94-95.

²¹³⁶ D.85-03-042, 17 CPUC2d 246, at 254.

²¹³⁷ SCE OB at 348.

²¹³⁸ Ex. SCE-17, Vol. 2, Table V-29 at 42.

labor forecast is based on 2022 recorded costs plus adjustments. The labor adjustments include increases attributed to accounting changes (\$2.969 million), the replacement of contingent workers with permanent staff (\$0.861 million), incremental staff for new work (\$1.201 million),²¹³⁹ and SCE's Employee Compensation Program (\$1.279 million). It also includes a forecast labor cost decrease associated with operational efficiencies (\$0.372 million).²¹⁴⁰ SCE's non-labor forecast methodology is based on 2022 recorded costs (\$5.263 million) plus a net increase of \$3.07 million associated with additional consultant work on complex strategic issues, external consultants and Edison International staff support, and a decrease in contingent worker non-labor expense.²¹⁴¹

Cal Advocates recommends a TY forecast of \$32.751 million for Business Planning, which is \$3.781 million lower than SCE's forecast. Cal Advocates' forecast consists of a labor component of \$24.160 million and a non-labor component of \$8.591 million, and is based on a three-year average of recorded costs from 2020–2022. In support of its recommendation, Cal Advocates asserts: (1) the historical trendline in this account shows that recorded expenses moved in a downward direction for this account, starting from -4 percent in 2019 and peaking at -19 percent in 2022; (2) between 2021–2022, SCE spent \$15.431 million less for the Business Planning activity than it was authorized to collect from ratepayers; and (3) Cal Advocates' forecast provides SCE with an increase

²¹³⁹ While SCE initially forecast \$1.9025 million for 13 new staff positions, in rebuttal testimony SCE reduced its request by \$0.701 million to reflect five positions that SCE determined are no longer needed. (Ex. SCE-17, Vol. 2 at 44).

²¹⁴⁰ Ex. SCE-06, Vol. 3 at 79-84; Ex. SCE-17, Vol. 2 at 43-44.

²¹⁴¹ While SCE confirms in rebuttal testimony that it is seeking a total \$3.073 million increase over 2022 recorded non-labor costs, SCE's individual adjustments in direct testimony total \$3.907 million. (Ex. SCE-17, Vol. 2 at 46; Ex. SCE-06, Vol. 3 at 84-85; Ex. SCE-06, Vol. 3E4 at 85).

20 percent above 2022 recorded costs, in contrast to SCE's request for a 35 percent increase.²¹⁴²

TURN recommends a TY O&M forecast of \$33.459 million for Business Planning, which includes SCE's request for labor expenses but uses 2022 recorded costs for forecast non-labor expenses. TURN highlights that SCE's non-labor costs for Business Planning declined each year from 2018-2022, while SCE spent less than the approved amount each year over the same timeframe. TURN also questions why SCE needs to increase non-labor costs for consulting work when SCE's labor request includes significant additional capacity and expertise to the Business Planning staff.²¹⁴³

In response, SCE states: (1) since Business Planning labor costs have declined over the past three years, Commission guidance provides that the last recorded year forecasting methodology is appropriate; (2) SCE conservatively used the last recorded year as the basis for its labor and non-labor forecasts, which is the lowest year in the relevant recorded period; (3) Cal Advocates did not specifically contest the validity of SCE's proposed labor and non-labor adjustments; (4) for non-labor, SCE identified errors in Cal Advocates' testimony, which Cal Advocates acknowledges; (5) SCE's recorded 2023 labor and non-labor Business Planning expenses exceeded the authorized amount by \$2.988 million; (6) TURN's recommendation of only using the last recorded year, standing alone and absent any adjustments, is an incomplete picture; and (7) TURN misstates

²¹⁴² Ex. CA-18 at 16-17.

²¹⁴³ Ex. TURN-11 at 3-4; TURN OB at 302-305.

the number of new positions being requested by SCE, while TURN is incorrect in trying to “trade off” between labor additions and non-labor costs.²¹⁴⁴

We authorize \$33.459 million in TY O&M expenses for Business Planning, which consists of \$28.196 million in labor expenses and \$5.263 million in non-labor expenses. For labor, since Business Planning labor costs show a downward trend from 2020–2022, we agree that SCE’s use of 2022 recorded costs is more appropriate than a three-year average, and find SCE’s labor adjustments to be reasonable. SCE discusses the adjustments to its 2022 recorded labor costs in great detail, including the additional positions being requested and the duties the positions would cover, and sufficiently demonstrates that the workload for this account has increased since the last GRC. Cal Advocates does not contest or otherwise address the reasonableness of the specific adjustments included in SCE’s forecast. Further, Cal Advocates’ forecast does not account for SCE’s company-wide Employee Compensation Program, which Cal Advocates does not oppose.

Concerning SCE’s non-labor forecast, given the downward trend in costs, SCE’s use of the last-year recorded forecasting methodology is appropriate. However, we agree with TURN that SCE has not sufficiently demonstrated it is likely to incur an increase in non-labor over 2022 recorded costs for the 2025 TY. The largest component of SCE’s non-labor adjustment is attributed to targeted use of consultants on complex strategic issues to address “emerging issues.”²¹⁴⁵ SCE does not provide any explanation concerning what these emergent issues may include, and it is not clear based on the evidence presented in this

²¹⁴⁴ Ex. SCE-17, Vol. 2 at 42-47; SCE OB at 348-349; SCE RB at 177-179.

²¹⁴⁵ Ex. SCE-06, Vol. 3 at 84.

proceeding why these issues cannot be addressed through the eight new positions approved in SCE's labor request above. Further, as highlighted by TURN, SCE's non-labor costs for Business Planning declined each year from 2018–2022, while SCE spent less than the authorized amount each year over the same timeframe. SCE's history of consistently underspending further draws into question whether it is likely to incur additional non-labor costs in 2025. For all these reasons, we adopt TURN's recommendation to utilize the last recorded year as the non-labor forecast for Business Planning.

29.3.2. Corporate Services

SCE's TY O&M forecast for Corporate Services is \$23.782 million.²¹⁴⁶ SCE's labor and non-labor forecasts are based on 2022 recorded costs (\$21.846 million) plus adjustments. The labor adjustments include a net increase of \$1.875 million attributed to eight new staff, shifting contingent workers to permanent staff, the filling of current vacancies, SCE's Employee Compensation Program, and operational efficiency savings.²¹⁴⁷ For non-labor, SCE is requesting a net increase of \$0.063 million attributed to outside subject matter and technical expertise, training and skill-building in tools and risk assessment methods, third party direct/curated data sources and providers, non-routine staff augmentation, operational efficiency savings, and the transfer of contract labor resources to permanent staff.²¹⁴⁸

Cal Advocates recommends a TY O&M forecast of \$23.994 million for Corporate Services. Cal Advocates' forecast is based on a five-year average of

²¹⁴⁶ Ex. SCE-17, Vol 2 at 48.

²¹⁴⁷ Ex. SCE-06, Vol. 3E at 93-95; Ex. SCE-06, Vol. 3 at 96.

²¹⁴⁸ Ex. SCE-06, Vol. 3 at 96-97; Ex. SCE-17, Vol. 2 at 47-50. SCE's forecast also includes \$3,000 in other savings. (Ex. SCE-17, Vol. 2 at 47).

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.²¹⁴⁹

We authorize SCE's TY O&M forecast of \$23.782 million for Corporate Services. Due to the additional operational efficiencies included in SCE's rebuttal position, SCE's request is actually \$0.212 million below Cal Advocates' recommended amount for the 2025 TY. Further, we agree with SCE that the last year recorded forecasting methodology is appropriate in this instance, since recorded labor costs show a consistent increasing trend between 2018-2022 while recorded non-labor costs show a consistent decreasing trend between 2019-2022.²¹⁵⁰

29.3.3. Modeling, Analysis, and Forecasting

The Modeling, Analysis and Forecasting BPE is comprised of the following primary functions: (1) a long-term forecasting function creating detailed sales, demand, and market price forecasts; (2) system resource planning; (3) developing and maintaining various existing and emerging planning frameworks and methodologies; and (4) climate adaptation and resilience planning.²¹⁵¹

SCE's TY O&M forecast for Modeling, Analysis, and Forecasting is \$8.402 million.²¹⁵² SCE's labor forecast is based on 2022 recorded costs (\$3.728 million) plus increases attributed to backfilling eight vacant positions

²¹⁴⁹ Ex. CA-18 at 17-19; Cal Advocates OB at 358-360.

²¹⁵⁰ Ex. SCE-17, Vol. 2, Table V-32 at 47.

²¹⁵¹ Ex. SCE-06, Vol. 3 at 98-99.

²¹⁵² Ex. SCE-17, Vol. 2, Table V-33 at 51.

(\$1.075 million), staffing four new positions (\$0.537 million), changes made to SCE's Employee Compensation Program (\$0.194 million), and other/miscellaneous costs (\$0.007 million).²¹⁵³ SCE's non-labor forecast of \$2.860 million is based on an itemized methodology, and includes costs associated with the next Climate Adaptation Vulnerability Assessment (CAVA) filing,²¹⁵⁴ site-specific vegetation studies for SCE's Big Creek hydro facility, and incremental vegetation management activities driven by climate projections.²¹⁵⁵

Cal Advocates does not challenge the reasonableness of SCE's Modeling, Analysis, and Forecasting request, but recommends the \$2.628 million in CAVA-related costs be removed from SCE's TY forecast and instead be recorded in SCE's CAVA Memorandum Account (CAVAMA) to be recovered through a future ERRRA filing. Cal Advocates asserts CAVA-related costs are not annual occurrences and thus should not be included in the TY forecast.²¹⁵⁶

In response, SCE asserts: (1) the Commission has not authorized SCE to maintain the CAVA Memorandum Account to record CAVA-related costs beyond the scope of SCE's last CAVA filing in 2022; (2) SCE plans on incurring costs to support its next CAVA filing due in 2026; and (3) SCE's Climate Adaption team is responsible for incorporating future climate projections into

²¹⁵³ Ex. SCE-06, Vol. 3WP at 235; Ex. SCE-17, Vol. 2, Table V-33 at 51.

²¹⁵⁴ Pursuant to D.20-08-036, SCE, PG&E, and the Sempra Utilities are required to file vulnerability assessments focusing on climate change impacts/risks every four years in alignment with the timing of each IOU's GRC cycle. (D.20-08-036 at 3-5).

²¹⁵⁵ Ex. SCE-06, Vol. 3 at 106-107.

²¹⁵⁶ Cal Advocates OB at 361-362.

key long-term planning processes across the company on a reoccurring basis every year.²¹⁵⁷

In authorizing the IOUs to establish the CAVAMA, the Commission states:²¹⁵⁸

The IOUs need funding for their vulnerability assessments, but the IOUs should request this funding in a different ratesetting proceeding, such as a GRC or separate application. In the meantime, the IOUs should track costs directly related to their vulnerability assessments and community engagement pertaining to these vulnerability assessments in a memorandum account.

Based on the plain language in D.20-08-046, the Commission intended for the CAVAMA to be a temporary mechanism until CAVA-related costs could be incorporated into a GRC or separate ratesetting application. Further, we find SCE has sufficiently demonstrated that its CAVA and climate-related work is performed on an annual basis, and as such it is appropriate to include in SCE's GRC TY forecast.

With that said, as noted by SCE, the Commission is in the process of updating its guidance to the IOUs for conducting future CAVAs under R.18-04-019. At the time of this decision, it is not clear whether forthcoming guidance will make one or more memorandum accounts available as a funding mechanism for future Climate Adaptation work. To the extent the Commission authorizes continued use of the CAVAMA, or authorizes the establishment of a new memorandum account, SCE shall follow the specific guidance provided in R.18-04-019.

²¹⁵⁷ Ex. SCE-17, Vol. 2 at 51-53; SCE OB at 350.

²¹⁵⁸ D.20-08-046 Finding of Fact 26.

Aside from Cal Advocates' recommendation to remove CAVA-related costs from the TY forecast, no party contests the level of SCE's request or SCE's forecast methodology. We find reasonable and adopt SCE's uncontested forecast methodologies, as well as SCE's uncontested non-labor request of \$2.860 million for the 2025 TY. Concerning SCE's labor forecast, we find SCE has failed to fully justify the backfilling of eight vacant positions. SCE's primary justification for the backfilling of these positions is to address a vacancy rate of about 25 percent in 2022.²¹⁵⁹ However, elsewhere, SCE states that labor costs remained relatively consistent year-over-year between 2018–2022, with variances between years amounting to less than 10 percent.²¹⁶⁰ SCE also states that while the implementation of D.20-08-046 and the addition of the Climate Adaptation team increased labor spend, it was "offset by vacancies in other areas that allowed overall spend to remain relatively stable."²¹⁶¹ Given that labor costs have remained relatively stable and/or have been offset by vacancies in other areas, it is not clear whether a 25 percent vacancy rate is atypical, whether the current level of vacancies has impacted the work produced by the Modeling, Analysis and Forecasting team, or whether it is necessary to completely backfill the 2022 vacancy rate of 25 percent.

In light of these concerns, we authorize half of SCE's request (*i.e.*, \$0.538 million) for the backfilling of four positions. We also find reasonable and approve SCE's increases for staffing four new positions and the changes made to SCE's Employee Compensation Program. Taken together, this decision

²¹⁵⁹ Ex. SCE-06, Vol. 3 at 105.

²¹⁶⁰ Ex. SCE-06, Vol. 3 at 104.

²¹⁶¹ Ex. SCE-06, Vol. 3 at 104-105.

authorizes \$7.865 million in TY O&M expenses for the Modeling, Analysis, and Forecasting workflow.

29.4. Supply Chain Management and Supplier Diversity and Development

SCE's Operational Services organization manages mailing services, graphics production, procurement, and warehousing (collectively referred to as "Supply Chain Management") and Supplier Diversity and Development (SD&D). SD&D plans, manages, and executes various internal and external activities to drive diverse supplier discovery, inclusion, development, and outreach in alignment with GO 156 and other applicable laws and regulations. The Supply Chain Management BPE consists of the following activities:

(1) Logistics, Graphics, and Center of Excellence; and (2) SD&D.²¹⁶²

29.4.1. Logistics, Graphics, and Center of Excellence

SCE's TY O&M forecast for the Logistics, Graphics, and Center of Excellence activity is \$4.259 million.²¹⁶³ SCE's labor forecast is based on 2022 recorded costs (\$2.356 million) plus an adjustment to reflect SCE's Employee Compensation Program. SCE's non-labor forecast is based on a three-year average of 2018-2020 recorded expenses.²¹⁶⁴

We find reasonable and approve SCE's uncontested TY O&M forecast of \$4.259 million for the Logistics, Graphics, and Center of Excellence activity.

²¹⁶² Ex. SCE-06, Vol. 3 at 108 and 115-116.

²¹⁶³ Ex. SCE-17, Vol. 2, Table VI-34 at 55.

²¹⁶⁴ Ex. SCE-06, Vol. 3 at 114-115.

29.4.2. Supplier Diversity and Development

SCE's TY O&M forecast for SD&D is \$3.596 million.²¹⁶⁵ SCE's labor forecast for SD&D is based on 2022 recorded costs (\$0.971 million) plus an increase of \$0.349 million attributed to two positions that were filled in the latter part of 2022 and an adjustment to reflect SCE's Employee Compensation Program. SCE's non-labor forecast is based on 2022 recorded costs plus an upward adjustment to account for a payment methodology change that limits sponsorship payments to the year the sponsorship occurs.²¹⁶⁶

Cal Advocates recommends \$3.275 million in TY O&M expenses for SD&D based on a five-year (2018–2022) averaging method to forecast both 2025 labor and non-labor expenses. In support of its recommendation, Cal Advocates asserts: (1) the percentage changes from year to year show a downward trend in SD&D spending between 2018–2022; (2) between 2021 and 2022, SCE collected approximately \$1.804 million more in rates than it spent for this activity; and (3) the level of unspent authorized funding is likely to be significantly higher for 2023 and 2024.²¹⁶⁷

In response, SCE asserts: (1) the last year recorded (plus adjustment), as proposed by SCE, is consistent with Commission guidance and is the correct forecasting methodology for SD&D; (2) Cal Advocates' averaging methodology for labor does not reflect the fact that SD&D became fully staffed in August 2023; (3) Cal Advocates' averaging methodology for non-labor does not take into account the change in payment methodology that occurred in 2022; and (4) in

²¹⁶⁵ Ex. SCE-17, Vol. 2, Table VI-36 at 56.

²¹⁶⁶ Previously, SCE allowed for the approval of payments to advocacy organizations for sponsorships set to occur in the following year. (Ex. SCE-06, Vol. 3 at 119-120).

²¹⁶⁷ Ex. CA-18 at 22-23; Cal Advocates OB at 364-365.

contrast to Cal Advocates' assertion, recorded labor and non-labor costs for 2023 are trending upward.²¹⁶⁸

We agree with SCE that the last year recorded (plus adjustments) methodology is appropriate for forecasting the SD&D activity. As argued by SCE, Cal Advocates' averaging methodology does not account for the change in SCE's payment methodology, SD&D's current staffing level, or SCE's Employee Compensation Program (which Cal Advocates does not oppose). Further, Cal Advocates' recommendation is premised, in part, on the expectation that SCE's SD&D expenses would continue to decline in 2023, which did not occur. Therefore, we approve SCE's TY O&M forecast of \$3.596 million for SD&D.

30. Insurance

In this section of the decision, we discuss Cal Advocates', SCE's, and TURN's stipulation and agreed upon non-wildfire insurance and use of a new balancing account, called the General Liability & Property Insurance Balancing Account (GL&PBA). But first, we discuss SCE's wildfire liability insurance.

30.1. Liability Insurance (Wildfire)

SCE's testimony summarizes the context of its wildfire liability insurance. On February 22, 2023, Cal Advocates, SCE, and TURN entered into an agreement entitled *Agreement Between Southern California Edison Company, The Utility Reform Network And The Public Advocates Office At The California Public Utilities Commission To Jointly Petition To Modify D.21-08-036 On Wildfire Liability Insurance Issues* (Agreement), to establish a wildfire liability customer-funded

²¹⁶⁸ Ex. SCE-17, Vol. 2 at 57-60; SCE OB at 351-354.

self-insurance program for SCE covering July 1, 2023 through December 31, 2028.²¹⁶⁹

Pursuant to that Agreement, on February 22, 2023, the Parties filed a Joint Petition for Modification of the 2021 GRC Decision seeking expedited approval and adoption of the Agreement (Joint Petition) in the 2021 GRC proceeding.²¹⁷⁰

On May 12, 2023, while the Joint Petition was still pending, SCE filed its 2025 GRC application. In its direct testimony, SCE proposed to extend the self-insurance program through 2028 pursuant to the Agreement.²¹⁷¹ On May 18, 2023, the Commission adopted D.23-05-013 granting the Joint Petition and approving the Agreement.²¹⁷² However, D.23-05-013 only extended the self-insurance program through December 31, 2024, while acknowledging that the Parties may seek to extend the program as part of SCE's 2025 GRC.²¹⁷³ An extension through 2028, if adopted, would establish a \$300 million revenue requirement for 2025, subject to the adjustment mechanism set forth in the Agreement.²¹⁷⁴

No party contested SCE's request to extend its self-insurance program through this GRC cycle; TURN and Cal Advocates filed testimony in support.

On March 25, 2024, SCE, TURN, and Cal Advocates filed a Joint Motion in this docket seeking a decision on SCE's extension request by August 1, 2024. This early decision was sought to avoid substantial and unwarranted premiums

²¹⁶⁹ SCE OB at 354.

²¹⁷⁰ D.21-08-036.

²¹⁷¹ Ex. SCE-06, Vol. 3 at 36.

²¹⁷² D.23-05-013.

²¹⁷³ D.23-05-013 at 16-17, Ordering Paragraph 2.

²¹⁷⁴ SCE OB at 354.

for commercial wildfire liability insurance policies. A decision approving this extension request was adopted on July 11, 2024.²¹⁷⁵

30.2. Liability Insurance (Non-Wildfire)

SCE forecast \$64.422 million for non-wildfire general liability and requested a new, two-way General Liability Insurance Balancing Account (GLIBA).²¹⁷⁶ SCE forecast \$14.763 million for other non-wildfire liability insurance, including fiduciary liability, directors and officers liability, workers compensation, cyber liability and other miscellaneous liability insurance. SCE's combined non-wildfire liability request, after adjustments, is \$79.185 million.²¹⁷⁷

TURN recommended \$48.147 million for all of SCE's non-wildfire liability insurance costs (inclusive of general liability). TURN opposed SCE's ratemaking proposal to create a new GLIBA for recording non-wildfire general liability insurance costs.²¹⁷⁸

Cal Advocates recommended \$58.672 million for SCE's proposed GLIBA (Cal Advocates did not oppose the creation of SCE's proposed balancing account), a \$5.750 million reduction.²¹⁷⁹

30.3. Property Insurance

SCE forecast \$25.185 million for property insurance to protect SCE's property against potential physical loss or damage caused by natural disasters such as fire, earthquake, flood, or accidental mechanical breakdown, and acts of

²¹⁷⁵ D.24-07-016.

²¹⁷⁶ Ex. SCE-17, Vol. 2 at 18.

²¹⁷⁷ Ex. SCE-17, Vol. 2, at 9, 17, and 25.

²¹⁷⁸ Ex. TURN-15 at 30.

²¹⁷⁹ Ex. CA-17 at 6 and 58.

terrorism.²¹⁸⁰ SCE's property insurance recommendation included blanket crime insurance coverage for losses due to theft, robbery, and computer and wire fraud. SCE also purchases nuclear property insurance to cover the SONGS switchyard, with a portion of the nuclear property insurance cost for SCE's participant share at the Palo Verde Nuclear Generating Station, and coverage for unplanned outages at Palo Verde related to replacement power.²¹⁸¹

TURN recommended \$19.647 million using 2022 recorded costs escalated by 10 percent annually through 2025 or alternatively \$20.5 million, using SCE's recorded costs for 2018-2022 with 2020 excluded.²¹⁸²

Cal Advocates recommended \$19.494 million in Test Year 2025 for non-nuclear property and also recommended recognition of \$1.235 million in broker commission refunds and reductions for Palo Verde property insurance.²¹⁸³

30.4. Stipulation

During the period between service of rebuttal testimony and the scheduled cross-examination on insurance-related issues, TURN, Cal Advocates and SCE successfully negotiated a proposed stipulation.²¹⁸⁴ This stipulation proposes to resolve all disputed non-wildfire insurance issues, including the non-wildfire liability insurance forecast amount. The proposed stipulation addresses the funding for non-wildfire liability and property insurance together, and would adopt a forecast of \$82.27 million for all such costs. The funding would also be

²¹⁸⁰ SCE OB at 356.

²¹⁸¹ Ex. SCE-17, Vol. 2 at 9 and 17.

²¹⁸² Ex. TURN-15 at 28.

²¹⁸³ Ex. CA-17 at 16-20, and 58-59.

²¹⁸⁴ TURN OB at 307; *see also* SCE OB at 357 and Cal Advocates OB at 365-366.

subject to balancing account treatment through a new two-way General Liability & Property Insurance Balancing Account (GL&PBA).²¹⁸⁵

30.5. Discussion

While the stipulations discussed above were not proffered as part of a larger settlement agreement, they are similar in substance. Accordingly, we review these uncontested stipulations pursuant to Rule 12.1(d), which provides that the Commission must find a settlement “reasonable in light of the whole record, consistent with law, and in the public interest.” We apply these elements to the parties’ above stipulations, below.

First, we find that the stipulations are reasonable in light of the whole record. The parties served testimony and rebuttal testimony and then, scheduled cross-examination on the contested non-wildfire insurance issues. However, TURN, Cal Advocates, and SCE negotiated a proposed stipulation that resolves the disputed non-wildfire insurance issues, including the non-wildfire liability insurance forecast amount. Thus, we find the stipulation reasonable in light of the whole record. Thus, these stipulated terms are reasonable in light of the whole record.

Second, we find the stipulations are consistent with the law. We do not find any inconsistency with the Pub. Util. Code, Commission decisions, or the law in general. No party opposed the stipulations or notified the Commission of any statutory provisions or applicable law that would be contravened or compromised by the stipulations. Therefore, we find that the stipulations are consistent with the law.

²¹⁸⁵ TURN OB at 307.

Third, the stipulations are in the public interest. The stipulations are joined by all parties that submitted testimony on SCE's disputed non-wildfire insurance issues and include the participation of intervenors representing the interests of ratepayers namely, Cal Advocates and TURN. Furthermore, approval of the stipulations conserves party and Commission resources by avoiding the need for further litigation and allows for timely resolution of the issues. Thus, the stipulations are in the public interest.

In doing so, we authorize and adopt a 2025 expense forecast of \$82.27 million for non-wildfire general liability insurance cost, self-insured retention costs excess of \$2 million, employment practices liability insurance, and property insurance cost, including Palo Verde accidental outage coverage that is purchased directly by SCE, combined, for each year of the 2025 GRC cycle.²¹⁸⁶ Costs will be tracked in a new GL&PBA. Any broker commission refunds will be returned via the GL&PBA.²¹⁸⁷

At the end of the GRC cycle (presently expected to be December 31, 2028), any overcollection or undercollection will be determined by comparing the cumulative forecast amount over the four-year GRC cycle (that is, \$329.08 million) with the recorded costs. The full amount of overcollection, if any, would be returned to SCE customers as an offset to the authorized revenue requirement. The full amount of undercollection, if any, would be eligible for recovery via application for reasonableness review. To the extent SCE's under-collected balance exceeds \$15 million at the conclusion of any year during

²¹⁸⁶ Ex. SCE-34 (Stipulation of TURN, Cal Advocates, and SCE on Non-Wildfire Insurance).

²¹⁸⁷ Ex. SCE-34 (Stipulation of TURN, Cal Advocates, and SCE on Non-Wildfire Insurance).

the 2025 GRC cycle, SCE may file an application to recover those costs in the interim.²¹⁸⁸

The Palo Verde nuclear property insurance costs that are procured by APS as the operator and billed to SCE would be tracked in a separate balancing account for Palo Verde. The parties do not contest SCE's forecast \$14.763 million for other non-wildfire liability insurance, including fiduciary liability, directors and officers (D&O) liability, workers compensation, cyber liability and other miscellaneous liability insurance.²¹⁸⁹

For the reasons stated above, the proposed stipulations meet the criteria for approval under Rule 12.1(d), and therefore, we approve the proposed stipulations without modification.

31. Employee Benefits, Training, and Support

SCE's Employee Benefits, Training, and Support activities are organized into three BPEs: (1) Employee Support; (2) Employee Benefits and Programs; and (3) Employee Training. Each is addressed, in turn, below.

31.1. Employee Support

The Employee Support BPE consists of two GRC activities: OU Support Services and Talent Solutions. The responsibilities of OU Support Services include supporting the OUs as a whole, such as Business Partner Support and Organizational Development/Organizational Effectiveness Support, and other employee-specific activities, such as Employee Relations, Labor Relations, Internal Communications, and Administrative Support. The Talent Solutions

²¹⁸⁸ Ex. SCE-34 (Stipulation of TURN, Cal Advocates, and SCE on Non-Wildfire Insurance).

²¹⁸⁹ Ex. SCE-34 (Stipulation of TURN, Cal Advocates, and SCE on Non-Wildfire Insurance).

department provides governance, consultation, guidance, and assistance with attracting, assessing, and managing organizational talent.²¹⁹⁰

SCE's TY O&M forecast for Employee Support is \$52.267 million, consisting of \$40.008 million for OU Support Services and \$12.260 million for Talent Solutions.²¹⁹¹ SCE's forecasts are based on last year recorded (2022) costs with adjustments.²¹⁹² Cal Advocates recommended a reduction of \$6.432 million, for a total forecast of \$45.836 million for Employee Support.²¹⁹³ TURN recommended a reduction of \$5.654 million, for a total forecast of \$46.613 million for Employee Support. No other party contested SCE's forecast.²¹⁹⁴ TURN, Cal Advocates and SCE subsequently stipulated to a 2025 TY forecast of \$47.338 million for Employee Support (Employee Support Stipulation). The Employee Support Stipulation provides that, for purposes of determining final values for each of the categories, the final escalation amounts adopted by the Commission should apply to any identified values in the stipulation.²¹⁹⁵

While the stipulation was not tendered as part of a larger settlement agreement, it is similar in substance. Accordingly, we review the Employee Support Stipulation pursuant to Rule 12.1(d), which provides that the Commission must find a settlement "reasonable in light of the whole record, consistent with law, and in the public interest."

²¹⁹⁰ Ex. SCE-06, Vol. 4 at 13-14 and 25.

²¹⁹¹ Ex. SCE-17, Vol. 3, Table II-3 at 3.

²¹⁹² Ex. SCE-06, Vol. 4 at 21-25 and 34.

²¹⁹³ Ex. CA-20 at 4.

²¹⁹⁴ Ex. TURN-14 at 3.

²¹⁹⁵ Ex. SCE-31 at 1-2.

First, we find the Employee Support Stipulation to be reasonable in light of the record. The stipulating parties state the agreement reflects a compromise of disputed litigation positions on a range of issues addressed by the parties.²¹⁹⁶ As set forth above, we agree the stipulation reflects a reasonable compromise of the parties' respective litigation positions on material issues, and falls within a reasonable range of outcomes that might have been reached had the issues been fully litigated.

Second, we find the Employee Support Stipulation to be consistent with law. We are unaware of any inconsistency with the Pub. Util. Code, Commission decisions, or the law in general. No party opposed the stipulation or notified the Commission of any statutory provisions or applicable law that would be contravened or compromised by the stipulation.

Finally, we find approval of the Employee Support Stipulation to be in the public interest. The stipulation is joined by all parties that submitted testimony on SCE's Employee Support request, and includes intervenors that represent ratepayer advocacy interests. Additionally, approval of the stipulation will conserve party and Commission resources by avoiding the need for further litigation and allow for timely resolution of the issues.

For the reasons stated above, the proposed Employee Support Stipulation meets the criteria for approval under Rule 12.1(d), and therefore, we find reasonable and approve the stipulated 2025 TY forecast of \$47.338 million for Employee Support.

²¹⁹⁶ Ex. SCE-31 at 1.

31.2. Employee Benefits and Programs

SCE's total compensation programs encompass base pay, short-term incentives, long-term incentives, recognition awards, and benefits. SCE forecasts TY O&M expenses of \$538.047 million for the following Employee Benefits and Programs:²¹⁹⁷

Employee Benefits and Programs	TY Forecast (\$000)
401(k) Savings Plan	129,716
Dental Plans	13,125
Disability Management – Administration	1,112
Disability Management – Programs	14,505
Executive Benefits	17,817
Executive Compensation	17,438
Group Life Insurance	1,325
Long-Term Incentives	22,017
Medical Programs	151,408
Miscellaneous Benefit Programs	2,390
Post-Retirement Benefits Other than Pensions (PBOP) Costs ²¹⁹⁸	\$0
Pension Costs (Service)	44,934
Recognition	411
Severance	1,288
Short-Term Incentive Program (STIP)	118,338

²¹⁹⁷ Ex. SCE-17, Vol. 3, Table III-8 at 20; SCE OB at 359. Disability Management – Administration, Executive Compensation, Long-Term Incentives, Recognition, Severance, and Short-Term Incentive Program are shown in 2022 constant dollars. All other benefit programs shown in nominal dollars. (Ex. SCE-17, Vol. 3 at 20).

²¹⁹⁸ SCE is requesting \$0 for PBOP for this GRC cycle due to the current surplus in the PBOP trust. (SCE OB at 377-378).

Employee Benefits and Programs	TY Forecast (\$000)
Vision Service Plan	2,223
Total	538,047

Cal Advocates recommends adjustments to the forecasts for Executive Benefits, Executive Compensation, Medical Programs, Long-Term Incentives, STIP, and the Recognition Program. TURN recommends adjustments to the forecasts for the 401(k) Savings Plan, Medical Programs, Pension Costs, Long-Term Incentives, and STIP. EPUC recommends adjustments to the forecasts for STIP and Long-Term Incentives. The remainder of SCE's forecasts are unopposed.

We find reasonable and adopt the unopposed forecasts²¹⁹⁹ with one condition: SCE shall modify the forecasts, as necessary, based on the final adopted labor forecast. SCE's general approach of determining the number of eligible employees in 2025, multiplying the number of eligible employees by the cost per employee for 2022, and then accounting for escalation, is reasonable. The contested forecasts are discussed below.

31.2.1. Short-Term Incentive Program

SCE's Short-Term Incentive Program (STIP) is an annual variable pay program that gives employees an opportunity to earn a cash award based on achieving company goals and individual performance. SCE's STIP includes the following plans: (1) the Short-Term Incentive Plan for non-executives; and (2) the

²¹⁹⁹ The unopposed forecasts are: Dental Plans, Disability Management – Administration, Disability Management – Programs, Group Life Insurance, Miscellaneous Benefit Programs, Severance, and the Vision Service Plan. SCE describes its forecast methodologies for these benefits and programs in Ex. SCE-06, Vol. 4.

Executive Incentive Compensation Plan (EICP) for those executives who are not officers (less than one percent of the employee population).²²⁰⁰

Two factors are used to determine an exempt employee's STIP payout. The first factor is the company's performance on its corporate goals to arrive at a corporate multiplier. The corporate goals change from year to year, as do the weightings of each metric. The second factor is based on an evaluation of the individual employee's performance for the year, referred to as an employee's individual performance multiplier (IPM).²²⁰¹

31.2.1.1. Parties' Positions

For the 2025 TY, SCE forecasts STIP GRC activity costs of \$118.338 million.²²⁰² SCE's forecast is derived by multiplying the labor forecast in each year by the ratio of 2022 recorded program costs to 2022 recorded labor, then accounting for escalation.²²⁰³ In this GRC, SCE also proposes to transfer all STIP to base pay for hourly employees, and a portion of the STIP target to base pay for exempt employees.²²⁰⁴

The Total Compensation Study (TCS) shows SCE's target total compensation to be 0.5 percent below the market average and actual total compensation to be 0.6 percent below the market average.²²⁰⁵ Accounting for sampling error, this result shows that SCE's total compensation is statistically

²²⁰⁰ Ex. SCE-06, Vol. 4 at 62.

²²⁰¹ SCE OB at 360-362.

²²⁰² Ex. SCE-17, Vol. 3 at 21.

²²⁰³ Ex. SCE-06, Vol. 4 at 66.

²²⁰⁴ Ex. SCE-06, Vol. 4 at 46-47.

²²⁰⁵ Total compensation consists of base pay, short-term incentives, and benefits for all employees, plus long-term incentives for Executives and certain jobs in the Manager/Supervisor category. (Ex. SCE-06, Vol. 4 at 44).

equivalent to the market average.²²⁰⁶ SCE argues that “at risk” pay programs like STIP and EICP are an important part of SCE’s ability to attract and retain a high-performing and diverse workforce, and represent a legitimate business expense that should be recovered in cost-of-service based rates. SCE also argues that disallowing funding for incentive compensation would drop authorized funding below the market average.²²⁰⁷

SCE also argues that the company goals for the program are tied to matters benefiting customers. SCE’s STIP and EICP goals for 2023 are categorized as: (1) Safety and Resiliency; and (2) Performance Management and Operational Excellence. The Safety and Resiliency goals include: Public Safety and Wildfire Resiliency (weighted 30 percent); Employee Safety (weighted 10 percent); Cybersecurity (weighted five percent); Quality in Operations (weighted five percent); and Capital Deployment (weighted five percent). The Performance Management and Operational Excellence goals include: Core Earnings (weighted 25 percent); Reliability, Clean Energy Transition, and Customer Experience (weighted at a total of 12 percent); Diversity, Equity, and Inclusion (weighted four percent); and Operational Excellence (weighted four percent).²²⁰⁸ SCE’s STIP and EICP goals for 2024 are similar, but include some weighting adjustments to the Clean Energy Transition and Customer Experience goals as well as other changes to representative success measures.²²⁰⁹ SCE contends that financially-based metrics do not only benefit shareholders since “the financial

²²⁰⁶ Ex. SCE-06, Vol. 4 at 44-45.

²²⁰⁷ Ex. SCE-06, Vol. 4 at 41-49; SCE OB at 360-366.

²²⁰⁸ Ex. SCE-06, Vol. 4, BookB WP at 10.

²²⁰⁹ Ex. SCE-17, Vol. 3 at 40.

health of the company is imperative to ensure SCE is able to attract investors and have access to capital for the direct benefit of its customers.”²²¹⁰ SCE also recommends using the 2024 goals and allocations, which were presented in SCE’s rebuttal testimony, based on the assertion that the STIP goals for the 2025 TY will be developed using the 2024 goals as a starting point.²²¹¹

Lastly, SCE argues that any disallowance for a particular corporate goal should be cut in half to reflect that the weighting of the Corporate Goal only applies to the corporate multiplier and not to the individual performance multiplier.²²¹²

Cal Advocates recommends ratepayer funding of \$43.195 million (36 percent) for SCE’s 2025 TY STIP expenses based on: (1) removing ratepayer funding for the Core Earnings financial stability goal; and (2) sharing the remaining STIP costs between ratepayers and shareholders.²²¹³ Cal Advocates states its recommendation is consistent with the final decisions in PG&E’s 2023 GRC (D.23-11-069) and SCE’s 2021 GRC (D.21-08-036). Cal Advocates also argues that shareholders benefit from the STIP as much, if not more, than ratepayers, and that this type of discretionary spending should be reined in at a time when SCE’s ratepayers are facing increasing electric rates and bills.²²¹⁴

TURN recommends ratepayer funding of \$73.447 million (61 percent) for SCE’s 2025 TY STIP expenses, based on: (1) removing all ratepayer funding for the Capital Deployment, Core Earnings financial stability, and Clean Energy

²²¹⁰ Ex. SCE-06, Vol. 4 at 65.

²²¹¹ Ex. SCE-17, Vol 3 at 38-39.

²²¹² Ex. SCE-06, Vol. 4 at 53.

²²¹³ Ex. CA-19 at 4-5.

²²¹⁴ Ex. CA-19 at 4-6; Cal Advocates OB at 368-372.

Transition goals; (2) a three percentage-point funding reduction in Public Safety and Wildfire Resiliency for covered conductor deployment; and (3) a two percentage-point funding reduction for the Operational Excellence goal.²²¹⁵

TURN also recommends any reductions to the STIP forecast be based on SCE's 2023 STIP goals, rather than the 2024 goals, since parties were not privy to SCE's 2024 STIP goals and allocations during the pendency of SCE's case in chief.²²¹⁶

TURN asserts the costs associated with STIP goals that align with shareholder benefits should be completely or partly removed from the 2025 TY forecast. With respect to the Core Earnings goal, TURN states the Commission has long held that it is inappropriate for STIP financial goals to be funded by ratepayers. Concerning the Capital Deployment and Clean Energy Transition goals, TURN asserts these goals will directly benefit shareholders due to the rate of return on capital spending, regardless of whether the investments are consistent with regulatory policy or climate mitigation targets. Concerning covered conductor deployment, TURN asserts shareholders will benefit from the rate of return on capital spending while ratepayers will benefit from SCE's suite of wildfire mitigation activities, and recommends shareholders and ratepayers evenly share the cost of the covered conductor goal. Lastly, concerning the Operational Excellence goal, TURN asserts that, while ratepayers benefit to some degree from long-term operational efficiencies, shareholders also benefit from efficiencies found after the GRC application is filed.²²¹⁷

²²¹⁵ Ex. TURN-14-E2, Table 8 at 11.

²²¹⁶ TURN OB at 322-323.

²²¹⁷ Ex. TURN-14-E2 at 12-22; TURN OB at 313-320.

TURN states the amount that SCE pays in STIP in a given year (*i.e.*, the STIP pool) is wholly determined by the company's performance against STIP goals, and is not affected by employees' IPM which are a "zero sum game across the utility." As such, TURN asserts any reduction adopted for the STIP should be fully recognized, and not cut in half as recommended by SCE.²²¹⁸

Lastly, regarding SCE's plan to convert a portion of its STIP compensation to base pay, TURN recommends SCE be required to submit a Tier 2 advice letter to show the conversion that occurred and to inform the Commission of any additional adjustments to SCE's STIP targets.²²¹⁹

EPUC opposes funding for the portion of SCE's STIP forecast attributable to the Core Earnings financial stability goal. EPUC asserts SCE's proposal to include in its cost of service incentives tied to financial performance is unjust and unreasonable, and would only benefit shareholders at the expense of SCE customers. EPUC also asserts SCE has failed to demonstrate that removing the financial-related performance incentives from SCE's total compensation would cause SCE to fall below the competitive market compensation level.²²²⁰

While acknowledging the Commission has disallowed funding for the financial goals metric in the past, SCE argues the Commission should reconsider that holding here, since both shareholders and customers benefit from a financially healthy utility.²²²¹

²²¹⁸ Ex. TURN-14-E2 at 23-25.

²²¹⁹ TURN OB at 324.

²²²⁰ EPUC OB at 32-34.

²²²¹ Ex. SCE-17, Vol. 3 at 30.

In response to Cal Advocates, SCE states that: (1) Cal Advocates' proposal is inconsistent with cost of service ratemaking; (2) other than the financial stability goal, Cal Advocates does not take issue with SCE's goals or dispute SCE's showing that achievement of the goals benefits customers; (3) Cal Advocates incorrectly portrays the Commission's prior holdings regarding STIP; and (4) the circumstances in SCE's current rate case are different from PG&E's TY 2023 rate case.²²²²

In response to TURN, SCE asserts: (1) capital spending benefits customers by providing safe, reliable service, and shareholder returns are vital to raising upfront capital; (2) failure to adequately compensate shareholders for their risk would lead to increased costs in the long run; (3) SCE does not have a STIP goal tied to share price performance, while underinvestment of capital in a given year can actually result in increased utility earnings; (4) the Commission has rejected similar arguments that STIP goals should be funded in whole or in part by shareholders whenever there is an alignment of shareholder and customer interests; and (5) SCE should be encouraged to achieve operational efficiencies, which result in lower costs to customers. SCE maintains that funding reductions due to STIP goals should be cut in half, since an employee's individual performance multiplier for a year has the same impact on their STIP payout as the corporate multiplier for that year. SCE asserts that TURN does not address the fact that the IPM is a separate factor that can significantly impact the STIP payout calculation.²²²³ SCE does not oppose submitting an information-only advice letter to report on the STIP-to-base pay conversion that occurred and

²²²² Ex. SCE-17, Vol. 3 25-29; SCE OB at 364-366.

²²²³ Ex. SCE-17, Vol. 3 at 30-39; SCE OB at 366-367.

further adjustments to SCE's STIP targets, but asserts a Tier 1, rather than a Tier 2, advice letter filing is appropriate.²²²⁴

31.2.1.2. Discussion

Many of the arguments SCE presents in this proceeding have been previously considered and rejected by the Commission in prior GRCs. SCE argues that "at risk" pay programs like STIP and EICP are an important part of SCE's ability to attract and retain a high-performing and diverse workforce, and represent a legitimate business expense that should be recovered in cost-of-service based rates. The Commission has found that "offering employee compensation in the form of incentive payments is useful for recruiting and retaining skilled professionals and improving work performance,"²²²⁵ but has repeatedly rejected arguments that cost-of-service ratemaking principles require ratepayers to fully fund incentive compensation where elements of the program essentially benefit shareholders without a clear demonstrable benefit to ratepayers, including in cases where the utility has argued that the total compensation package was at market.²²²⁶ The Commission has explained that the "sharing of cost responsibility promotes a reasonable matching of costs with benefits experienced both by ratepayers and shareholders,"²²²⁷ and that it is within SCE management's discretion to target incentive compensation to achieve ratepayer benefits.²²²⁸

²²²⁴ SCE RB at 183.

²²²⁵ D.14-08-032 at 520.

²²²⁶ D.21-08-036 at 428; D.19-05-020 at 186; D.15-11-021 at 255-257, 264-265; D.14-08-032 at 521-522; D.12-11-051 at 458.

²²²⁷ D.14-08-032 at 522.

²²²⁸ D.15-11-021 at 257.

Concerning SCE's recommendation to use the more recent STIP and EICP goals, as compared to the 2023 goals presented in SCE's direct testimony, in the 2021 GRC the Commission found it more appropriate to use the goals SCE presented in direct testimony since "management has the discretion to change the goals and weightings each year" and since "other parties did not have the opportunity to present testimony on the revised goals."²²²⁹ SCE asserts the 2024 goals are "more reflective," as compared to the 2023 goals, of what the 2025 goals are likely to be, but also argues that the 2024 goals did not change substantively from the 2023 goals.²²³⁰ SCE's arguments are contradictory. From a more fundamental due process standpoint, we continue to hold that it would be unfair to use the 2024 goals when intervenors were not provided these goals and allocations during the pendency of SCE's case in chief. Accordingly, our review of the STIP/EICP is based on SCE's 2023 goals and weights.

Lastly, as discussed below, the Commission has consistently rejected ratepayer funding for financial goals that primarily benefit shareholders.

In SCE's last three GRCs, the Commission adopted reductions to short-term incentives to account for payouts that are driven by shareholder benefits rather than ratepayer benefits. Specifically, the Commission determined STIP funding levels by first applying the historical ratio of STIP to total labor expense, and then excluding costs associated with goals that primarily benefit shareholders.²²³¹ Due largely to SCE's STIP-to-base pay conversion,²²³² SCE's

²²²⁹ D.21-08-036 at 431.

²²³⁰ SCE RB at 183.

²²³¹ See D.21-08-036 at 429.

²²³² TURN RB at 110.

STIP forecast for the 2025 TY shows a 21 percent decrease from 2022,²²³³ along with a reduction in STIP funding as a percent of total labor expense.²²³⁴ No party directly contests SCE's proposed STIP costs in relation to projected and historical total labor expenses. Accordingly, this decision largely focuses on whether the 2023 STIP/EICP goals primarily benefit shareholders, and whether the associated costs are just and reasonable.

We find that SCE has failed to demonstrate that costs related to the Core Earnings goal category are reasonable, and therefore, adopt the recommendations by TURN, Cal Advocates, and EPUC to exclude ratepayer funding for this goal (25 percent weight). SCE's main argument in support of ratepayer funding for its Core Earnings goals is "the financial health of the company is imperative to ensure SCE is able to attract investors and have access to capital for the direct benefit of its customers."²²³⁵ While acknowledging financial performance may benefit ratepayers, the Commission has held that the ratepayer benefit is much less direct than the shareholder benefit.²²³⁶ For its part, SCE does not attempt to quantify the ratepayer benefit from its Core Earnings goal. The Commission has also held that incentives to increase earnings can potentially work at cross purposes with incentives to address safety or reliability issues,²²³⁷ several examples of which are enumerated in TURN's testimony.²²³⁸ In

²²³³ SCE OB at 366.

²²³⁴ For the 2025 TY, SCE's reported STIP to labor ratio is 10.7 percent, a decrease of 8.6 percent from 2022 recorded, and a decrease of 5.4 percent from the STIP to labor ratio adopted in SCE's 2021 GRC. (D.21-08-036 at 430; Ex. SCE-06, Vol. 4, BookB WP at 69).

²²³⁵ Ex. SCE-17, Vol. 3 at 30.

²²³⁶ D.21-08-036 at 432; D.19-05-020 at 186; D.15-11-021 at 261; D.14-08-032 at 521.

²²³⁷ D.14-08-032 at 521; D.15-11-021 at 261.

²²³⁸ Ex. TURN-14-E2 at 14.

short, SCE does not present any new arguments that would warrant a departure from the Commission's long-standing policy to exclude ratepayer funding for financial performance goals.

Based on the evidence presented in this proceeding, we decline to exclude ratepayer funding for any of SCE's other STIP/EICP goals. TURN recommends excluding ratepayer funding for SCE's Capital Deployment and Clean Energy Goals since shareholders earn a rate of return on capital spending and based on arguments that capital spending is "largely duplicative of the financial goal of the STIP and the LTIP."²²³⁹ TURN recommends a 50 percent reduction for the deployment of covered conductor under the Public Safety and Wildfire Resiliency goal based on similar capital spending arguments. We find TURN's arguments to be unpersuasive. As stated by SCE, the Capital Deployment goal is specific to the execution of capital projects which have been approved by the Commission (and by FERC) and which, pursuant to Pub. Util. Code Section 451, must be necessary, just, and reasonable. Similarly, the Clean Energy Goal is aligned with Commission guidance,²²⁴⁰ while the targeted installation of TE charging ports and covered conductor are consistent with the levels of funding approved in this decision. As acknowledged by TURN, SCE's Public Safety and Wildfire Resiliency goal also includes a suite of other wildfire risk mitigation activities which are not capital-related. Additionally, the Commission has held that ratepayer recovery of incentive program costs is reasonable where there is a demonstration of benefits, even if some metrics also align with shareholder

²²³⁹ TURN OB at 315.

²²⁴⁰ Ex. SCE-17, Vol. 3 at 34-35.

benefits.²²⁴¹ In this instance, SCE has sufficiently demonstrated that its capital-related 2023 STIP/EICP goals are aligned with Commission decisions and guidance and will benefit ratepayers.

Similarly, it is undisputed that ratepayers will benefit from the implementation of the Operational Excellence goal, even if those benefits are not realized immediately. The Commission previously approved incentive metrics based on operational efficiency,²²⁴² and encouraging SCE to achieve operational efficiencies throughout this GRC will continue to benefit customers into the next GRC cycle. Moreover, as discussed in Section 42 (Post-Test Year Ratemaking), this decision adopts an attrition mechanism that is intended to realize some of the cost savings from SCE's efficiency measures during this GRC cycle. Lastly, as discussed above, the Commission has held that ratepayer recovery of incentive program costs is reasonable where there is a demonstration of benefits, even if some metrics also align with shareholder benefits.

We reject Cal Advocates' recommendation to share STIP costs equally between ratepayers and shareholders, after removing ratepayer funding for the Core Earnings goal. Cal Advocates does not take issue with SCE's goals (aside from the Core Earnings goal), or dispute SCE's showing that achievement of the goals benefits customers. Further, Cal Advocates' reference to PG&E's 2023 GRC is inapposite to this case, since the Commission's decision in PG&E's GRC was based, in part, on the fact that PG&E's total compensation was 8.9 percent above

²²⁴¹ D.19-09-051 at 433 and 542; also, D.21-08-036 at 433.

²²⁴² D.19-09-051 at 542.

the average of the competitive market,²²⁴³ while SCE's total compensation is at market.²²⁴⁴

Lastly, we reject SCE's recommendation to cut any reduction to STIP funding in half. While each STIP payout is a product of an employee's individual performance multiplier and the corporate multiplier for that year, as explained by TURN, the total amount that SCE can award through the STIP in a given year (*i.e.*, the amount that the GRC is intended to forecast) is fixed, and is wholly determined by the company's performance against STIP goals.²²⁴⁵

We find reasonable and approve SCE's uncontested movement of STIP target payments to base pay. SCE indicates it has already completed two of the three phases for its STIP-to-base pay transition, and has communicated to employees that the third phase will go into effect the first pay period of 2025.²²⁴⁶ SCE indicates it does not oppose TURN's recommendation to submit an advice letter to show the STIP-to-base pay conversion that occurred and to inform the Commission of any additional adjustments to SCE's STIP targets, but asserts a Tier 1, rather than a Tier 2, advice letter filing is appropriate.²²⁴⁷ We find TURN's uncontested reporting recommendation to be reasonable, but clarify that this update shall be filed as a Tier 1 advice letter, which is more appropriate for information-only filings that are not requesting a specific action or decision.

Therefore, we reduce SCE's forecast by 25 percent to remove costs associated with the Core Earnings financial goal. All other intervenor

²²⁴³ D.23-11-069 at 608.

²²⁴⁴ SCE OB at 370.

²²⁴⁵ Ex. TURN-14-E2 at 24; TURN OB at 321.

²²⁴⁶ Ex. SCE-17, Vol. 3 at 43.

²²⁴⁷ Ex. SCE-17, Vol. 3 at 43

recommendations to reduce ratepayer funding for the remaining 2023 STIP/EICP goals are denied. The final STIP forecast will depend on the adopted labor forecast and be calculated in the RO Model.

31.2.2. Long-Term Incentive Program

Long-Term Incentive (LTI) compensation is offered to executives in the form of stock options, restricted stock units, and performance shares. In 2021, SCE launched a Long-Term Incentive Program (LTIP) for non-executive principal-level employees, attorneys, and some project managers. SCE forecasts expenses of \$22.107 million for costs related to long-term incentives in the 2025 TY.²²⁴⁸

SCE acknowledges that the Commission has not viewed SCE's past requests for rate recovery of its LTI compensation favorably. However, SCE argues that LTI compensation should be recoverable as a cost of service because it is an integral part of the total compensation package for executives and is essential to SCE's efforts to attract and retain high-performing leaders and provide cost savings benefits to customers. SCE notes that nearly every IOU and comparable business enterprise includes LTI in the total compensation package for executives. SCE also asserts the TCS shows the LTI costs are just and reasonable when compared to the market, and that any disallowance of market-based long-term incentive compensation beyond the narrow prohibition in Pub. Util. Code Section 706 would be inconsistent with the legislative intent in AB 1054.²²⁴⁹

²²⁴⁸ Ex. SCE-17, Vol. 3 at 49; SCE OB at 370.

²²⁴⁹ Ex. SCE-06, Vol. 4 at 68-72; Ex. SCE-17, Vol. 3 at 49-52; SCE OB at 369-371; SCE RB at 186.

Cal Advocates, TURN, and EPUC argue the Commission should deny SCE's request to have ratepayers fund any portion of the LTI program. These parties argue that LTI compensation is intended to reward SCE employees for promoting the company's financial performance and shareholder interests, and that SCE does not raise any arguments which would warrant a departure from the Commission's longstanding policy of excluding these costs from rates.²²⁵⁰

Going back to at least the 2009 GRC, the Commission has excluded SCE's LTI costs from rates because LTI compensation does not align executives' interests with ratepayer interests.²²⁵¹ SCE does not present any new arguments that would warrant a departure from this longstanding policy. We continue to find that LTI compensation is primarily designed to reward SCE employees for promoting shareholder interests. SCE explains that "[the] actual value of the [LTI] award at payout after the vesting period is tied to company performance."²²⁵² Moreover, LTI compensation is closely tied to the stock performance of Edison International (EIX).²²⁵³ SCE's arguments concerning the passage of AB 1054 are addressed in D.21-08-036,²²⁵⁴ and do not need to be repeated here.

Based on the foregoing, we see no reason to discontinue our longstanding policy of denying ratepayer recovery for LTI compensation. Therefore, SCE's request to include these costs in rates is denied.

²²⁵⁰ Cal Advocates OB at 372-374; TURN OB at 324-325; EPUC OB at 31-32.

²²⁵¹ D.21-08-036 at D.19-05-020 at 188; D.15-11-021 at 266; D.12-11-051 at 451-452; D.09-03-025 at 134-135.

²²⁵² Ex. SCE-06, Vol. 4 at 68.

²²⁵³ Ex. SCE-06, Vol. 4 at 69.

²²⁵⁴ D.21-08-036 423-424.

31.2.3. Executive Compensation

The Executive Compensation activity includes base salaries, annual short-term incentive compensation, associated expenses, and outside service expenses for executives.²²⁵⁵ Pursuant to Pub. Util. Code Section 706, electrical and gas corporations are prohibited from using ratepayer dollars for compensation to employees who are officers.²²⁵⁶

For the 2025 TY, SCE forecasts \$17.438 million for Executive Compensation.²²⁵⁷ SCE's forecast is based on 2022 recorded expenses.²²⁵⁸ Consistent with Pub. Util. Code Section 706 and D.21-08-036, SCE's forecast excludes Rule 3b-7 officers of SCE and shared officers who are Rule 3b-7 officers.²²⁵⁹

Cal Advocates recommends \$14.394 million for Executive Compensation, or a \$3.044 million reduction to SCE's TY request. Cal Advocates argues that SCE's EICP costs are already included within the STIP, and should not also be recovered through the Executive Compensation activity.²²⁶⁰ Aside from

²²⁵⁵ Ex. SCE-06, Vol. 4 at 56.

²²⁵⁶ "Compensation" is defined as any annual salary, bonus, benefits, or other consideration of any value, paid to an officer of an electrical corporation or gas corporation, while "officer" is defined as employees of the IOUs in positions with titles of Vice President or above, consistent with Rule 3b-7 of the Securities Exchange Act. (Pub. Util. Code Section 706; Resolution E-4963 at 8, Finding 5; D.21-08-036 at 412-420).

²²⁵⁷ Ex. SCE-17, Vol. 3 at 45.

²²⁵⁸ Ex. SCE-06, Vol. 4 at 62.

²²⁵⁹ Ex. SCE-06, Vol. 4 at 57-62; also, D.21-08-036 at 411-420. Certain executives are dual officers of both SCE and its parent company, Edison International (EIX). The salaries, expenses, and incentive costs of these "shared officers" are allocated between SCE and EIX. (Ex. SCE-06, Vol. 4 at 57).

²²⁶⁰ Ex. CA-19 at 8-9.

Cal Advocates, no other party contests SCE's forecast for Executive Compensation.

Cal Advocates' recommendation is based solely on the assertion that SCE's EICP costs are already included within the STIP. We do not find any merit in Cal Advocates' assertion. As explained in SCE's testimony, the EICP costs within the STIP GRC activity are the short-term incentive costs for executives who are not officers, whereas the EICP costs within the Executive Compensation GRC Activity are for executives who are officers (*i.e.*, with the title of Vice President or above).²²⁶¹ This is also consistent with how SCE allocated short-term incentive costs in the 2021 GRC.²²⁶² Accordingly, we find no evidence of double-counting. We also find SCE's uncontested forecast methodology based on 2022 recorded expenses to be reasonable.

However, as noted in the STIP discussion above, we adopt a 25 percent reduction of the STIP funding to be paid for by SCE ratepayers. Since the STIP and EICP are based on the same goals and weights,²²⁶³ EICP costs in the Executive Compensation forecast should likewise be reduced by 25 percent. With this adjustment, we authorize \$16.677 million in 2025 TY expenses for Executive Compensation.²²⁶⁴

²²⁶¹ SCE-06 Vol. 4 at 56 and 62; Ex. SCE-17, Vol. 3 at 46.

²²⁶² D.21-08-036, footnote 1339 at 413.

²²⁶³ Ex. SCE-06, Vol. 4 at 49.

²²⁶⁴ The portion of SCE's 2025 TY Executive Compensation forecast that is associated with EICP is \$3.044 million. Applying 25 percent to this amount results in an associated reduction of \$0.761 million. (Ex. SCE-06, Vol. 4 at 61).

31.2.4. Pension

For the 2025 TY, SCE forecasts \$44.934 million for employee Pension Plan costs.²²⁶⁵ SCE's forecast is based on a new proposed funding policy that SCE asserts is needed to fix structural issues with the legacy funding policy arising from the Pension Plan having closed to new employees after December 31, 2017. Under the current policy, SCE calculates its contributions to the Pension Plan by using anticipated future covered payrolls for current plan participants. Under the new proposed policy, funding would be equal to the annual service cost (*i.e.*, the actual amount SCE needs to cover employees' pension benefits) plus an eight-year amortization of the Projected Benefit Obligation (PBO) shortfall under United States generally accepted accounting principles, less the amount by which asset returns are expected to exceed the discount rate. SCE proposes to fix this amount through the GRC period, unless a higher amount is required to: (1) meet the legal annual required minimum contribution; or (2) maintain an annual 85 percent Adjusted Funding Attainment Percentage.²²⁶⁶

TURN recommends the Commission maintain the historical funding policy and authorize a pension expense of \$17 million, rather than adopt the new funding policy proposed by SCE. While TURN acknowledges that the closing of the Pension Plan to new participants will reduce the pension-eligible payroll over time, TURN asserts that SCE's proposal would have customers pay approximately \$110 million in higher revenue requirement during the 2025 GRC cycle to mitigate risks that are neither as time-sensitive nor as dire as SCE makes them out to be. In support of its position, TURN provides the following

²²⁶⁵ SCE OB at 372.

²²⁶⁶ Ex. SCE-06, Vol. 4 at 81-82.

arguments and observations, among others: (1) SCE’s “historical funding policy” for its pension plan has been in place since at least 1982; (2) according to the calculations SCE presented from its actuary, the additional funding under SCE’s “new funding policy” would serve to avoid having the plan underfunded by approximately one percent in 2028, while SCE estimates the pension-eligible payroll will not reach zero until 2068; (3) SCE does not explain why a revenue requirement that is higher by approximately \$28 million per year (or a cumulative \$110 million over the four-year GRC period) is warranted given that SCE expects to attain a 100 percent funding level for three of four GRC years, and a one-year period at 99 percent funded; (4) as shown in TURN’s testimony, adjusting SCE’s forecast to account for the \$349 million in actual investment return SCE recorded in 2023 suggests a substantially reduced likelihood of the plan being underfunded during the 2025–2028 period, even with retention of the historical funding policy; and (5) SCE’s new funding policy would prevent any credits from higher-than-forecasted market returns from flowing to ratepayers during the 2025 GRC cycle.²²⁶⁷

Lastly, while SCE does not propose any changes to the operation of the Pension Cost Balancing Account (PCBA) in this GRC, TURN asserts the PCBA will not operate in the same way under the new funding policy because the returns in excess of the annual forecast amounts would no longer flow through it to provide near-term rate relief to SCE’s customers.²²⁶⁸

In response, SCE asserts: (1) since the pension-eligible payroll shrinks when employees hired prior to December 31, 2017 leave the organization, there is

²²⁶⁷ Ex. TURN-18 at 7-8; TURN OB at 331-343.

²²⁶⁸ TURN OB at 342.

real urgency to address the pension funding policy now; (2) TURN's argument that the new pension funding policy does not exclude expected returns on plan assets is incorrect; (3) since at least 2015, recovery under the historical funding policy has significantly lagged behind actual service costs; (4) while market returns have remained strong, yet volatile, over the last 15 years, historical asset performance is no guarantee that the Pension Plan will remain in a strong funded position in the coming years; (5) 2023 was not a typical year for investment returns; (6) making a change to a more stable and sustainable policy at a time where the Pension Plan is not in an underfunded position (as is the case now) is favorable and promotes intergenerational equity; (7) the proposed new funding policy is balanced on both the upside and downside from an intergenerational equity perspective; (8) PG&E and SDG&E both currently use funding policy mechanisms similar to the one proposed by SCE; and (9), while SCE's proposed policy would postpone credits from higher than forecasted market returns until the next GRC TY, it would also postpone collections from customers to make up the deficit from lower than forecasted market returns until the next TY.²²⁶⁹

With respect to the PCBA, SCE states "any overcollection of Pension Costs from customers will be returned to customers at the next ERRA proceeding (and any undercollection will be recouped from customers) — exactly how the PCBA has operated for the last two decades."²²⁷⁰

²²⁶⁹ SCE OB at 371-374; SCE RB at 186-191.

²²⁷⁰ SCE OB at 375.

31.2.4.1. Discussion

We approve \$17 million in TY expenses for employee Pension Plan costs, consistent with TURN's recommendation to maintain, for now, SCE's historical funding policy. SCE is authorized to work with other interested parties to develop and propose a consensus-based process to ensure that changed circumstances do not warrant a different approach on relatively short notice.²²⁷¹ SCE may request Commission review and approval of this consensus-based process through a Tier 2 advice letter filing.

In recent years, the combination of investment returns and ongoing ratepayer-funded contributions have produced a pension asset that is slightly overfunded (*i.e.*, the asset exceeds the present value of all benefits earned to date).²²⁷² While SCE's Pension Plan has continued to benefit from strong, historic investment returns,²²⁷³ since the Pension Plan has been closed to new participants, the pension-eligible payroll will decrease over time as currently eligible participants leave the organization.²²⁷⁴ Parties do not dispute the need to modify the plan at some point in the foreseeable future.²²⁷⁵ Rather, the principal point of dispute is whether there is an urgent need to modify the funding of the plan during the 2025–2028 GRC period.

Based on current projections, the record of this proceeding indicates that SCE's Pension Plan will be adequately funded during the 2025–2028 GRC period under the historical funding policy. SCE projects the plan to be underfunded by

²²⁷¹ TURN OB at 343.

²²⁷² TURN OB at 331.

²²⁷³ Ex. SCE-17, Vol. 3 at 62.

²²⁷⁴ Ex. SCE-06, Vol. 4 at 89-90; Ex. SCE-17, Vol. 3 at 62-63.

²²⁷⁵ TURN OB at 331-332; SCE RB at 187-188.

approximately one percent in the last year of this GRC cycle, while the pension-eligible payroll is not expected to reach zero until 2068.²²⁷⁶ As argued by TURN, when SCE's forecasted investment return is adjusted to reflect the actual investment return recorded by SCE in 2023, SCE's Pension Plan is expected to be fully funded through the 2025–2028 period, even with retention of the historical funding policy.²²⁷⁷

SCE asserts historical asset performance is no guarantee the Pension Plan will remain in a strong funded position in the coming years, and that making a change to a more stable and sustainable policy at a time where the Pension Plan is not in an underfunded position is favorable and promotes intergenerational equity. While asset performance cannot be guaranteed, any deviations from the projections presented in this proceeding are highly speculative. Moreover, given that the new funding policy will increase the revenue requirement by approximately \$28 million per year, there are also clear, direct ratepayer impacts in the event SCE's Pension Plan remains overfunded.

Due to the lack of urgency associated with SCE's new funding policy request, and in consideration of the magnitude of SCE's overall GRC revenue requirement request, we find it reasonable to continue to maintain SCE's historical funding policy over this GRC period. However, we authorize SCE to work with other interested parties to develop a process to ensure that "changed circumstances do not warrant a different approach on relatively short notice."²²⁷⁸ There is very limited record explaining what this annual review process would

²²⁷⁶ Ex. TURN-114.

²²⁷⁷ Ex. TURN-112 at 2-8; TURN OB at 336-338.

²²⁷⁸ TURN OB at 343.

entail or, in the event a different funding approach is deemed necessary prior to SCE's next GRC, how the new funding approach would be submitted for Commission review and approval. Accordingly, while SCE is authorized to work with interested parties to establish this annual monitoring process, further details regarding the process shall be submitted via a Tier 2 advice letter filing before being implemented.

Lastly, since this decision approves TURN's recommendation to maintain the historic funding method, TURN's concerns regarding how costs will be tracked in the PCBA are deemed moot. We approve SCE's request to continue and modify the PCBA in Section 39 (GRC-Related Balancing and Memorandum Account Proposals).

31.2.5. 401(k)

The Edison 401(k) Savings Plan is a defined contribution plan that provides employees with an opportunity to defer current income, potentially reducing their current taxable income, and save for their future financial needs. Employees choose how to invest the deferred income, plus receive SCE contributions.

For the 2025 TY, SCE forecasts \$129.716 million for the 401(k) GRC activity. SCE derives its forecast by multiplying the labor forecast in each year (2025–2028) by the ratio of 2022 recorded program costs to 2022 recorded labor costs. Costs for this program are assumed to increase at the standard labor escalation rate.²²⁷⁹ As part of the 401(k) Savings Plan, SCE matches 401(k) contributions on a dollar-for-dollar basis up to six percent of base pay.²²⁸⁰

²²⁷⁹ SCE-06, Vol. 4 at 102-103; Ex. SCE-17, Vol. 3 at 65.

²²⁸⁰ Ex. SCE-06, Vol. 4 at 109.

TURN recommends a reduction of \$5.146 million to SCE's 401(k) forecast as it opposes any increases to SCE's 401(k) costs that result from the STIP-to-base pay transition, discussed above. TURN argues that the method for calculating the 401(k) company match is mechanical and arbitrary, and can and should be adjusted such that the absolute amount of 401(k) contribution, and therefore total compensation, remains consistent with the levels prior to the STIP-to-base pay conversion.²²⁸¹

In response, SCE asserts: (1) having the 2025 labor forecast reflect the STIP to base pay transition acknowledges the reality that the STIP to base pay transition will be in effect in 2025, while SCE's forecast appropriately reflects the costs resulting from market average base pay; (2) TURN's adjustment would result in decreasing the 401(k) matching contribution percentage, which would be seen as a takeaway by employees, and would require negotiations from represented employees; and (3) maintaining the existing contribution rates would have very little effect on SCE's overall actual total compensation compared to the market average.²²⁸²

The evidence of the increase to the 401(k) forecast as a result of the STIP-to-base pay conversion is not in dispute.²²⁸³ Since SCE matches employee contributions under the 401(k) Savings Plan on a dollar-for-dollar basis up to six percent of the employees' base pay, the base pay increases from SCE's proposed STIP-to-base pay transition result in higher overall 401(k) costs for the 2025 TY.

²²⁸¹ TURN OB at 325-330.

²²⁸² SCE OB at 375-377.

²²⁸³ Ex. SCE-17, Vol. 3 at 66-67; TURN OB at 327.

SCE's 401(k) matching contribution policy and calculation methodology have been approved in several prior rate cases, including SCE's 2012, 2015, 2018 and 2021 GRCs.²²⁸⁴ Given the long-standing existence of SCE's matching contribution benefit, we disagree with TURN that SCE's method of calculating the 401(k) contribution forecast is arbitrary, and agree with SCE that any decrease to SCE's 401(k) matching contribution percentage would, at this point, be seen as a reduction in the benefits of the plan. Moreover, while TURN contests the increase to the 401(k) Savings Plan associated with the STIP-to-base pay conversion, no party directly contests SCE's proposed STIP-to-base pay conversion itself. As discussed above, we approve SCE's uncontested proposal to transfer all STIP to base pay for hourly employees, and a portion of the STIP target to base pay for exempt employees. As argued by SCE, having the 2025 labor forecast reflect the STIP-to-base pay transition acknowledges reality that base pay increases from the STIP to base pay transition will be in effect in 2025.

For the foregoing reasons, we find reasonable and approve \$129.716 million in TY expenses for the 401(k) GRC activity, based on SCE's rebuttal testimony. The final 401(k) forecast will depend on the adopted labor forecast and be calculated in the RO Model.

31.2.6. Post-Retirement Benefits Other Than Pensions (PBOP)

PBOP includes post-retirement medical, dental, vision, Medicare Part B premium reimbursement, Medical Part D Income Related Monthly Adjustment

²²⁸⁴ D.12-11-051 at 4668; D.15-11-021 at 275; D.19-05-020 at 181; D.21-08-036 at 410; also, Ex. SCE-17, Vol. 3 at 66.

Amount, and term life insurance for certain employees. For the 2025 TY, SCE forecasts \$0 for the PBOP GRC activity.²²⁸⁵

TURN raises no objection to SCE's historical funding policy mechanism for PBOP or the PBOP forecast for the 2025 TY. However, TURN expresses concern about the level of overfunding in the PBOP trust – which was overfunded by approximately \$1.5 billion by the end of 2023 – and recommends SCE be “directed to, no later than its next GRC, present a showing regarding its efforts seeking ways to address the funding imbalance, and any ‘paths forward’ it has identified for protecting ratepayers’ interest in these funds.”²²⁸⁶

In response, SCE asserts: (1) the PBOP funding surplus is the result of several factors, including favorable asset returns and favorable legislation and marketplace developments; (2) SCE is exploring additional ways to use the surplus funds to pay for healthcare costs for active employees, as well as to find ways that the surplus funds can be used to benefit customers; (3) the existing two-way PBOP balancing account ensures any overcollections are refunded to customers; and (4) since surplus PBOP funds are held in a trust, they cannot be misused. Based on these arguments, SCE asserts the Commission should not impose any additional disclosure or reporting requirements.²²⁸⁷

We find reasonable and approve SCE's uncontested PBOP forecast of \$0 for the 2025 TY. Notwithstanding SCE's arguments that the PBOP funds are held in a trust and are subject to “very tight guidelines” on how the funds can be

²²⁸⁵ SCE is requesting \$0 for PBOP for this GRC cycle due to the current surplus in the PBOP trust. (SCE OB at 377-378).

²²⁸⁶ TURN OB at 345.

²²⁸⁷ SCE OB at 377-379; SCE RB at 192-193.

used,²²⁸⁸ SCE also indicates it is “exploring additional ways to use the surplus funds to pay for healthcare costs for active employees, as well as to find ways that the surplus funds can be used to benefit customers.”²²⁸⁹ Since SCE is exploring alternative uses for surplus PBOP funds, we agree with TURN that additional information is warranted. Accordingly, SCE is directed to present, no later than its next GRC filing, a showing regarding any identified uses or “paths forward” for the surplus funds, as well as an explanation for how ratepayers’ interests are being served and protected.

31.2.7. Medical Programs

Under SCE’s Medical Programs, three types of medical coverage may be available based on an employee’s geographic location: Preferred Provider Organization (PPO), Health Maintenance Organization (HMO), and Exclusive Provider Organization (EPO). SCE’s PPO, HMO and EPO plans offer comprehensive medical coverage for employees and their dependents.²²⁹⁰

For the 2025 TY, SCE forecasts \$151.408 million for the Medical Programs GRC activity.²²⁹¹ SCE used an itemized forecast methodology to arrive at its TY forecast, which includes a new premium-sharing design.²²⁹² Forecast costs were performed through the RO Model by multiplying the projected number of

²²⁸⁸ SE OB at 379.

²²⁸⁹ SCE OB at 378.

²²⁹⁰ SCE OB at 379.

²²⁹¹ Ex. SCE-17, Vol. 3 at 72.

²²⁹² SCE’s new premium-sharing design was implemented in 2024, and includes a reduction to the employee share of: (1) healthcare premiums across all medical plans; and (2) select medical-plan co-pays and out-of-pocket costs; as well as (3) implementation of a standard/closed prescription drug formulary for the pharmacy program offered by Express Scripts. The reduction in employee premiums is paid for by SCE. (Ex. SCE-06, Vol. 4 at 118; SCE RB at 193-194).

eligible employees by the projected per-eligible-employee cost. An additional 5.5 percent was then applied to the forecast, reflecting medical premium escalation for each year.²²⁹³

Cal Advocates recommends \$126.312 million in TY expenses for Medical Programs. Based on the 21.47 percent increase that occurred from 2019–2022, Cal Advocates increased 2022 recorded costs by 21.47 percent to arrive at its 2025 TY forecast of \$126.312 million. Cal Advocates asserts SCE’s historical recorded data shows some variability in the expense for Medical Programs from year to year, and that Cal Advocates’ alternative forecast represents a considerable increase compared to the more recent 2023 recorded expense of \$104.2 million for Medical Programs. Cal Advocates also argues that, in the event SCE’s actual medical expenses are greater than forecast, the additional costs will be captured in the Medical Programs Balancing Account (MPBA).²²⁹⁴

TURN opposes SCE’s proposal to add 16 percent to its forecast to reflect proposed premium-sharing design changes. TURN asserts the changes are not justified, while SCE’s proposal ignores “the existing, generous overall benefits package and a total compensation package that SCE and its compensation consultant has found to be at-market.”²²⁹⁵

CUE recommends approving SCE’s full forecast, agreeing with SCE’s arguments regarding the premium-sharing changes and regarding medical benefits being a key factor in employee recruitment and retention. CUE asserts increasing the employer share of medical premiums will bring SCE’s medical

²²⁹³ Ex. SCE-06, Vol. 4 at 119-120.

²²⁹⁴ Cal Advocates OB at 375-376.

²²⁹⁵ Ex. TURN-14-E2 at 34-35; TURN OB at 330-331.

benefits closer in line to PG&E and the health care market in California, and asserts that “competitive medical benefits reduce attrition and are a key factor in employee recruitment and retention.”²²⁹⁶ CUE also argues that “SCE’s forecast reflects an employee benefits package negotiated as part of a collective bargaining agreement,” and that not fully funding the forecast would undermine the collective bargaining process itself.²²⁹⁷

SCE provides the following arguments in response: (1) as detailed in SCE’s testimony, SCE employees have been paying significantly above market for their premium contribution; (2) SCE’s premium-sharing design changes are necessary to stay competitive in the current job market, will have a small impact on SCE’s total compensation (SCE estimates an associated increase of less than 0.2 percent), and are less than what PG&E currently covers; (3) SCE’s premium-sharing medical design changes have been negotiated with the union and are part of the collective bargaining agreement; (4) Cal Advocates’ simple historical average ignores SCE’s plan design changes, the effects of COVID-19, and the various market trends that SCE’s health plan providers considered in developing the 5.5 percent projected escalation rate; and (5) Cal Advocates’ reliance on the MPBA misses the intent of forecast-based ratemaking.²²⁹⁸

We adopt TURN’s proposal to remove the 16 percent adjustment that SCE includes for the premium-sharing design changes, but otherwise find SCE’s itemized forecast methodology to be reasonable. Accounting for the 16 percent adjustment, this decision approves \$130.541 million in TY expenses for SCE’s

²²⁹⁶ CUE OB at 44.

²²⁹⁷ CUE OB at 45.

²²⁹⁸ Ex. SCE-06, Vol. 4 at 114-118; Ex. SCE-17, Vol. 3 at 71-77; SCE OB at 379-382; SCE RB at 193-194.

Medical Programs, based on SCE's rebuttal testimony. The final Medical Programs forecast will depend on the adopted labor forecast and be calculated in the RO Model.

Notwithstanding SCE's arguments that employees have been paying above market for their medical premium contribution, SCE's Medical Program is one part of an overall benefits package that is approximately 20 percent above market.²²⁹⁹ SCE's argument that the premium-sharing design changes are necessary to stay competitive in the market is also undercut by SCE's TCS, which found that, when accounting for sampling error, SCE's total compensation is statistically equivalent to the market average.²³⁰⁰ SCE argues that PG&E already pays a higher percentage of enrollee premiums; however, SCE does not address how PG&E's benefits and total compensation compare, as a whole, to that of SCE. Given that SCE's employee benefits are, as a whole, significantly higher than market, while total compensation is at market, we agree with TURN that SCE has failed to justify why the premium-sharing design is necessary.

We decline to adopt Cal Advocates' recommendation. As argued by SCE, Cal Advocates' historical average does not incorporate actuarial forecasts, market trends, or the expertise of health plan providers, nor does it address SCE's proposed premium-sharing design changes.

31.2.8. Recognition

According to SCE, its Recognition Programs are "important tools for promptly recognizing and rewarding employees for safety achievements and

²²⁹⁹ Ex. SCE-06, Vol. 4 at 44-45; TURN OB at 330.

²³⁰⁰ Ex. SCE-06, Vol. 4 at 44-45.

exceptional performance.”²³⁰¹ The Recognition Programs include cash awards, called Spot Awards, and non-cash awards in the form of points redeemable for merchandise through the Encore program. Spot Awards recognize an individual or team for delivering exceptional, measurable results such as making significant contributions to public or employee safety, significantly improving efficiency across one or more OUs, and leading a Company-wide team or major project that notably exceeds expectations within scheduled time frames and under budget. Encore is a non-cash safety recognition program that uses points to award employees for their commitment to ongoing, regular efforts to work safely and for their safety achievements.²³⁰²

SCE forecasts TY expenses of \$0.411 million to administer its Recognition Programs.²³⁰³ SCE’s forecast methodology is based on 2022 recorded costs. The actual cash and non-cash awards are charged to the OU that awards it, and are forecast based on 0.15 percent of total labor dollars derived in the RO Model.²³⁰⁴

Cal Advocates recommends complete rejection of the \$0.411 million 2025 forecast for the Recognition Programs GRC activity, based on the Commission denying customer funding for PG&E’s Service Awards program in PG&E’s 2023 GRC decision (D.23-11-069).²³⁰⁵

In response, SCE asserts it is not requesting funding for service awards under this program, as was the case in PG&E’s 2023 GRC; rather, SCE is only requesting funds to administer the programs. SCE also argues that the

²³⁰¹ SCE OB at 368.

²³⁰² Ex. SCE-06, Vol. 4 at 75-76

²³⁰³ Ex. SCE-17, Vol. 3 at 46-47.

²³⁰⁴ Ex. SCE 06, Vol. 4 at 78-79; Ex. SCE-17, Vol. 3 at 46-47; SCE OB at 368.

²³⁰⁵ Cal Advocates OB at 378-379.

Commission has allowed employee performance programs to be funded by customers.²³⁰⁶

We find reasonable and approve SCE's Recognition forecasts. In D.23-11-069, the Commission denied PG&E's request for Service Awards, which included the costs of an employee "recognition award at each five-year service anniversary and at retirement."²³⁰⁷ Here, SCE is only requesting the costs to administer its Recognition Programs, rather than the awards themselves. Further, as in the 2015, 2018, and 2021 GRCs, we continue to find that "the types of behaviors (*e.g.*, a focus on safety) that [SCE's recognition] programs reward do further the provision of safe and reliable service at just and reasonable rates, and that the program costs appear reasonable relative to the benefits."²³⁰⁸ Moreover, SCE presents sufficient evidence demonstrating that its recognition programs budget request is in line with those used by the majority of organizations for such programs.²³⁰⁹

31.2.9. Executive Benefits

Executive Benefits include the Executive Retirement Plan and other benefits not included in the rate request due to their negligible cost to SCE. The Executive Retirement Plan is a non-qualified pension plan that provides benefits that executives cannot receive in the qualified SCE Retirement Plan due to compensation and payout limits imposed by the Internal Revenue Code on that plan.²³¹⁰

²³⁰⁶ Ex. SCE-17, Vol. 3 at 47-48.

²³⁰⁷ D.23-11-069 at 632.

²³⁰⁸ D.21-08-036 at 435 and D.19-05-020 at 188, citing D.15-11-021.

²³⁰⁹ Ex. SCE-06, Vol. 4 at 77.

²³¹⁰ Ex. SCE-06, Vol. 4 at 140.

SCE forecasts \$17.817 million of TY expenses for Executive Benefits.²³¹¹ To develop its forecast, SCE multiplies the average executive benefit cost per employee in 2022 by the projected number of employees in 2025 with no escalation factor applied.²³¹²

Cal Advocates recommends a 50 percent reduction to SCE's TY forecast for Executive Benefits based on Commission precedent ordering customers and shareholders to equally share this expense.²³¹³

In response, SCE asserts: (1) the Executive Benefits program is part of the competitive benefits package needed to track and retain well-qualified executives; (2) non-retirement attrition and total attrition have increased significantly in the last two years; (3) replacing an executive is costly; and (4) SCE's total compensation package for executives (including Executive Benefits) is, and has been, approximately at or below the market average overall.²³¹⁴

Consistent with the long-standing approach adopted in past GRCs,²³¹⁵ we authorize 50 percent of SCE's forecast resulting in \$8.909 million in TY expenses for Executive Benefits, based on SCE's rebuttal testimony. The final Executive Benefits forecast will depend on the adopted labor forecast and be calculated in the RO Model. SCE's Executive Benefits are based, in part, on executive bonuses

²³¹¹ Ex. SCE-17, Vol. 3 Table III-8 at 20.

²³¹² Ex. SCE-06, Vol. 4 at 143-144.

²³¹³ Ex. CA-19 at 10-11; Cal Advocates OB at 376-377.

²³¹⁴ Ex. SCE-17, Vol. 3 at 78-80; SCE OB at 383-384.

²³¹⁵ D.09-03-025 at 146; D.12-11-051 at 477; D.15-11-021 at 275; D.19-05-020 at 193; D.21-08-036 at 421-422.

related to company goals.²³¹⁶ The Commission has held it is not appropriate to authorize rate recovery for bonuses related to certain company goals.²³¹⁷ The Commission has also held that Executive Benefits costs should be equally shared between ratepayers and shareholders since both receive benefits from the retention of executives and managers.²³¹⁸ These rationales continue to apply in this case, and SCE does not present any new arguments in this GRC that would warrant a departure from the Commission's longstanding policy.

31.3. Employee Training

The Employee Training BPE is composed of various company-wide training and development programs, which are intended to support corporate goals of safety and resiliency, performance management, operational excellence, diversity, and people and culture.²³¹⁹ SCE forecasts Employee Training TY expenses of \$85.689 million for the following activities:²³²⁰

Activity	TY Forecast (\$000)
Employee Training and Development	25,467
Training Seat-Time for T&D	37,023
Training Delivery and Development for T&D	23,198
Total	85,689

Cal Advocates and SCE stipulated to a TY forecast for Employee Training and Development. SCE's forecasts for the remaining two activities are contested by Cal Advocates and TURN. Each activity is addressed, in turn, below.

²³¹⁶ Ex. SCE-06, Vol. 4 at 50 and 140.

²³¹⁷ D.19-05-020 at 193.

²³¹⁸ D.14-08-032 at 533-535.

²³¹⁹ Ex. SCE-06, Vol. 3 at 145-149.

²³²⁰ Ex. SCE-17, Vol. 3, Table IV-20 at 81.

31.3.1. Employee Training and Development

SCE's Employee Training and Development programs provide resources and training to support a variety of leadership, system, technical job, compliance, learning technology, and safety training skills. SCE states that training and development activities and programs are critical to maintain safety performance, regulatory requirements to mitigate risks, leadership development, and technical capabilities.²³²¹

For Employee Training and Development, SCE forecasts \$25.467 million for the 2025 TY.²³²² Cal Advocates initially recommended a reduction of \$7.470 million for the Employee Training and Development GRC activity, for a forecast of \$17.997 million.²³²³ Cal Advocates and SCE subsequently stipulated to a 2025 TY forecast of \$21.732 million for Employee Training and Development (Training and Development Stipulation).²³²⁴ No other party addressed SCE's Employee Training and Development request.

While the Training and Development Stipulation was not tendered as part of a larger settlement agreement, they are similar in substance. Accordingly, and consistent with how we have addressed other stipulations in this decision, we review the stipulation pursuant to Rule 12.1(d), which provides that the Commission must find a settlement "reasonable in light of the whole record, consistent with law, and in the public interest."

First, we find the Training and Development Stipulation to be reasonable in light of the record. The stipulating parties state the agreement reflects a

²³²¹ Ex. SCE-06, Vol. 4 at 152-158; SCE OB at 384-385.

²³²² Ex. SCE-17, Vol. 3 at 82.

²³²³ Ex. CA-20 at 14.

²³²⁴ Ex. SCE-33.

compromise of disputed litigation positions on a range of issues addressed by the parties.²³²⁵ As set forth above, we find the stipulations reflect a reasonable compromise of the parties' respective litigation positions on material issues and fall within a reasonable range of outcomes that might have been reached had the issues been fully litigated.

Second, we find the stipulation to be consistent with law. We are unaware of any inconsistency with the Pub. Util. Code, Commission decisions, or law in general. No party opposed the stipulations or notified the Commission of any statutory provisions or applicable law that would be contravened or compromised by the stipulations.

Finally, we find approval of the stipulation to be in the public interest. The stipulation is joined by the only party that submitted testimony on SCE's Employee Training and Development request, and includes the participation of an intervenor representing customer advocacy interests. Additionally, approval of the stipulation will conserve party and Commission resources by avoiding the need for further litigation and allow for timely resolution of the issues.

Therefore, we approve the Training and Development Stipulation without modification. Consistent with the terms of the stipulation,²³²⁶ the final escalation amounts adopted by the Commission shall apply to any identified values in the stipulation.

31.3.2. Training Seat-Time and Training Delivery and Development for T&D

Transmission & Distribution (T&D) employees plan, engineer, construct, operate, repair and maintain the T&D facilities and equipment used to deliver

²³²⁵ Ex. SCE-33 at 1.

²³²⁶ Ex. SCE-33 at 1.

electricity to SCE's customers throughout its service territory. SCE's T&D training programs provide the skills and knowledge for employees to perform their jobs safely, comply with regulatory requirements and laws, maintain system reliability, and meet the demands of new technology. Training Seat Time – T&D (Training Seat Time) includes the labor and non-labor costs for these employees to attend company training programs. Training Delivery and Development for T&D (Training Delivery) includes the labor, material, contract, and other forecasted expenses associated with delivering training.²³²⁷

For Training Seat Time, SCE forecasts \$37.023 million in TY expenses, consisting of \$31.904 million for labor and \$5.119 million for non-labor.²³²⁸ SCE's labor forecast uses an itemized methodology based on the total labor hours for T&D employees expected to attend training multiplied by the standard labor rate for those employees. The Training Seat Time non-labor forecast utilizes a 17 percent average expected percentage of labor to be associated with non-labor expenses such as travel, meals, lodging, mileage, or other expenses necessary for employees to attend in-person training.²³²⁹

For Training Delivery, SCE forecasts \$23.198 million in TY expenses, consisting of \$17.880 million for labor and \$5.319 million for non-labor.²³³⁰ The Training Delivery labor forecast consists of adjunct, internal SCE employees from other organizations to facilitate training, in addition to T&D Training staff and personnel. As with Training Seat Time, SCE utilizes an itemized forecast

²³²⁷ Ex. SCE-06, Vol. 4 at 169-170 and 181-182.

²³²⁸ Ex. SCE-17, Vol. 3 at 88.

²³²⁹ Ex. SCE-06, Vol. 4, at 180-185; Ex. SCE-17, Vol. 3 at 90-91.

²³³⁰ Ex. SCE-17, Vol. 3 at 98-99.

methodology, based on the volume of expected training hours to be delivered, as well as the fixed cost to cover expenses for a staff of full-time training instructors. The non-labor forecast is a function of the labor forecast, and is based on the number of Training Delivery hours, the supply needs, material costs, as well as employee, travel, meals, lodging, development or other non-labor expenses associated with operating training delivery and facilitation.²³³¹

31.3.2.1. Parties' Positions

For Training Seat Time, Cal Advocates recommends \$25.314 million in TY expenses, consisting of \$21.566 million for labor and \$3.748 million for non-labor. Cal Advocates highlights the increase in training costs requested by SCE in this GRC, and argues that SCE failed to provide sufficient information explaining the number of T&D employees of the new line item for Safety Training included in SCE's forecast. Cal Advocates' alternative forecast incorporates the following three adjustments to SCE's forecast: first, to forecast student training hours, Cal Advocates calculated the average percent change in training hours from 2018, 2019, 2021, and 2022, applied the corresponding percent increase to the three years from 2022 to 2025 (resulting in an overall increase of 16.6 percent for that time), and then applied the corresponding 16.6 percent increase to the 2022 recorded student training hours. Second, Cal Advocates removed the Safety Training (labor) line item. Third, Cal Advocates adjusted the non-labor forecast to be consistent with the adjusted labor forecast.²³³²

For Training Delivery, Cal Advocates recommends \$16.532 million in TY expenses, consisting of \$11.490 million labor and \$4.942 million non-labor. Since

²³³¹ Ex. SCE-06, Vol. 4 at 180-185; SCE OB at 390.

²³³² Ex. CA-20 at 19-21; Cal Advocates OB at 380-384.

delivery of training is dependent on training volume, Cal Advocates used the same rate of increase applied to the student training hours and applied this same rate to personnel hours. Similar to its recommendation for Training Seat Time, Cal Advocates asserts that SCE failed to justify the Safety Training Delivery labor and non-labor items, and adjusted SCE's forecast to remove these items.²³³³

TURN recommends \$28.511 million for Training Seat Time and \$17.872 million for Training Delivery, totaling \$46.383 million in TY expenses for these activities. TURN highlights that SCE's forecast is 62 percent higher than the base year expense, and asserts that SCE has failed to demonstrate that its expected training volume and associated cost increase is just and reasonable. TURN's forecast for Training Seat Time is based on the 2023 recorded unit count for new-hire (or new role-related) training and an average of the 2018-2019 recorded unit count for the ongoing training of existing employees, multiplied by the respective unit cost for new-hire and existing-employee labor. TURN then adjusts the employee compensation benefits (labor) and non-labor forecast to be consistent with the lower labor amount. In briefs, TURN also provides an alternative forecast for Training Seat Time of \$29.204 million, which relies on SCE's forecasts of rates instead of TURN's use of itemized rates.²³³⁴

For Training Delivery, TURN adjusts SCE's forecast by reducing the quantity input to the labor forecast for Training Delivery by the percentage of reductions made to the employee training time labor calculation. TURN also adjusts the employee compensation benefits. TURN asserts this approach is consistent with SCE's testimony, which states Training Seat Time and Training

²³³³ Ex. CA-20 at 21-22; Cal Advocates OB at 384-386.

²³³⁴ Ex. TURN-14-E2 at 36-46; TURN OB at 345-356.

Delivery are based on “the volume of expected training hours to be delivered and standard labor rates averaged by class type for . . . staff and personnel associated with delivering and operating training programs.”²³³⁵

In response, SCE asserts: (1) since SCE calculates its Training Seat Time forecast utilizing total expected employee training *hours*, Cal Advocates’ emphasis on the number of unique T&D employees who will undergo training is irrelevant; (2) Cal Advocates’ use of average year-over-year percentages to arrive at a forecast is insufficient to account for the variety and complexity of individual classes and associated forecasting Training Seat Time hours; (3) as detailed in SCE’s data request responses, information supporting SCE’s Safety Training program was provided in a different section of testimony, and Cal Advocates’ removal of this line item is unsupported; (4) SCE’s recorded training hours for 2023 are higher than Cal Advocates’ and TURN’s forecasts; (5) SCE’s 2023 planned hours are well-supported, reasonable, conservative, and in line with the growing trend demonstrated by SCE’s recorded 2023 hours; (6) reduction to core technical training places SCE employees and the public at potential risk of safety implications; (7) as noted by Cal Advocates and TURN, the non-labor training forecast is a function of labor for both of these GRC activities; and (8) Training Seat Time and Training Delivery are two different activities with different drivers and types of expenses.²³³⁶

31.3.2.2. Discussion

This decision authorizes \$31.570 million in TY expenses for Training Seat Time, and \$20.410 million in TY expenses for Training Delivery. For Training

²³³⁵ Ex. SCE-06, Vol. 4 at 180-181; TURN OB at 356-358.

²³³⁶ Ex. SCE-17, Vol. 3 at 89-102; SCE OB at 384-392; SCE RB at 195-199.

Seat Time, the adopted amount utilizes SCE's forecast methodology but adjusts the labor and non-labor line items by using 2023 recorded hours (391,000 hours) instead of the 2023 planned hours used by SCE (471,000 hours).²³³⁷ The adopted amount for Training Delivery also uses SCE's forecast methodology, but adjusts the quantity of SCE's labor item downward by 17 percent in proportion to the adjustment in the training seat hours above (*i.e.*, from 2023 planned to 2023 recorded). The adopted forecast leaves SCE's non-labor line items and the other labor line items unchanged.

Concerning SCE's use of 2023 planned training hours, SCE states it "expects to operate under similar conditions in 2025 as it had in 2023," and that "SCE's forecast is fairly consistent with the 2023 recorded training hours and associated costs, and training demand is expected to stay the same, or increase slightly, in the next few years."²³³⁸ SCE also states the 2023 recorded volume reflects "the high demand and necessity of training for T&D employees."²³³⁹ While SCE asserts its forecast is "fairly consistent" with the 2023 recorded hours, as noted by TURN, the 2023 recorded volume is 83 percent of SCE's planned hours.²³⁴⁰ SCE's only argument against using the 2023 recorded volume is that this recorded amount was not available at the time SCE developed its initial testimony.²³⁴¹ Since, by SCE's own admission, the 2023 recorded training hours are representative of the conditions in the 2025 TY, and since use of the 2023 recorded training hours would result in significant ratepayer savings as

²³³⁷ Ex. SCE-06, Vol. 4, Figure IV-37 at 180; Ex. TURN-14-E2 at 43-44.

²³³⁸ SCE OB at 389.

²³³⁹ SCE OB at 389.

²³⁴⁰ TURN OB at 351.

²³⁴¹ Ex. SCE-17, Vol. 3 at 96-97.

compared to SCE's planned hours, we find it reasonable and in ratepayers' interest to adjust SCE's Seat Time Training methodology to reflect the actual recorded training volume in 2023.

While the use of 2023 recorded training hours is generally in-line with TURN's position, TURN and Cal Advocates' 2025 labor and non-labor forecasts are lower than 2023 recorded labor and non-labor expenses, suggesting that any further reductions will be insufficient to cover the current individual training classes being provided to T&D employees. Accordingly, we decline to make any further reductions based on the average of 2018–2019 recorded hours for existing employees, or Cal Advocates' use of the historical year-over-year percentages changes. We also find that SCE has sufficiently explained the Safety Training Program line item, which is specific to field injuries and incidents.²³⁴²

Concerning the forecast for Training Delivery, TURN's and Cal Advocates' alternative forecasts are below SCE's 2023 recorded Training Delivery costs, again indicating that the alternative forecast amounts may be insufficient.

Further, while we find some merit in SCE's argument that Training Delivery is not one-to-one nor wholly dependent on Training Seat Time, since Training Delivery includes some fixed cost components, if the number of employee training hours is reduced it is reasonable to expect a similar directional adjustment to Training Delivery expenses. Reducing SCE's labor line quantity by 17 percent results in revised total labor cost of \$15.092 million, which is slightly above the labor costs SCE actually recorded for Training Delivery in

²³⁴² SCE describes the Safety Training Program in Ex. SCE-06, Vol. 6 at 63-65.

2023.²³⁴³ We find this amount to be reasonable and approve it. The remainder of SCE's labor and non-labor forecast items are approved without modification.

32. Environmental Services

SCE's 2025 O&M request involves two GRC activities: (1) Environmental Management and Development; and (2) Environmental Programs. SCE's request also includes its 2023-2025 capital forecasts for Environmental Programs.

Cal Advocates, TURN, and SCE submitted a stipulation for the purposes of resolving all contested Environmental Services issues in this proceeding on May 24, 2024. The stipulation represents an agreement on revenue requirement only. Thus, Cal Advocates, TURN, and SCE agreed upon the following:²³⁴⁴

- 2025 O&M Labor for Environmental Management and Development, with labor \$15.973 million and non-labor \$2.566 million for a total of \$18.539 million;
- 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; and
- 2023-2025 Capital for Environmental Programs capital expenditures forecast of \$7.375 million, with \$1.185 million for 2023, \$3.064 million for 2024, and \$3.126 million for 2025.

In its Reply Brief, Cal Advocates states its discussion of Marine Mitigation should not have been included in its Opening Brief.²³⁴⁵ Cal Advocates states that this issue was addressed and resolved in a Stipulation under Exhibit SCE-30. Therefore, Cal Advocates asserts that the stipulation resolves all contested

²³⁴³ SCE OB at 391. The approved total labor cost of \$15.092 million was derived by adjusting SCE's labor quantity of 270,667 to 224,654 in Ex. SCE-06, Vol. 4, BookCE4 at 248, while keeping all other inputs the same.

²³⁴⁴ Ex. SCE-30 at 1-3.

²³⁴⁵ Cal Advocates RB at 12.

Environmental Services issues in this proceeding including Marine Mitigation. Cal Advocates supports the Stipulation and the resolution of the Marine Mitigation issue included within the Stipulation.²³⁴⁶

32.1. Discussion

While the stipulations discussed above were not proffered as part of a larger settlement agreement, they are similar in substance. Accordingly, we review these uncontested stipulations pursuant to Rule 12.1(d), which provides that the Commission must find a settlement “reasonable in light of the whole record, consistent with law, and in the public interest.”

First, we find that the stipulations are reasonable in light of the whole record. In finding so, we determine that SCE, Cal Advocates, and TURN reached a stipulation of their disputed issues after submitting testimony, conducting discovery, and holding negotiations. Furthermore, the parties submit that their stipulation covers all O&M costs and capital expenditures for Environmental Services.²³⁴⁷ Thus, the parties’ stipulation is reasonable in light of the whole record.

Second, we find the stipulations are consistent with the law. We do not find any inconsistency with the Pub. Util. Code, Commission decisions, or the law in general. No party opposed the stipulations or notified the Commission of any statutory provisions or applicable law that would be contravened or compromised by the stipulations. Therefore, we find that the stipulations are consistent with the law.

²³⁴⁶ Cal Advocates RB at 12.

²³⁴⁷ Ex. SCE-30.

Third, the stipulations are in the public interest. The stipulations are joined by all parties that submitted testimony on SCE's disputed Environmental Services issues and include the participation of intervenors representing the interests of ratepayers, namely Cal Advocates and TURN. Furthermore, approval of the stipulations conserves party and Commission resources by avoiding the need for further litigation and allows for timely resolution of the issues. Thus, the stipulations are in the public interest.

Therefore, in light of the record and stipulation entered into by Cal Advocates, TURN, and SCE presented before the Commission, we find that the stipulated Environmental Services O&M and capital expenditures and forecasts are reasonable. Therefore, we authorize and adopt the following:²³⁴⁸

- 2025 O&M for Environmental Management and Development, with a labor forecast of \$15.973 million and a non-labor forecast of \$2.566 million for a total forecast of \$18.539 million;
- 2025 O&M for Environmental Programs, with a labor forecast of \$1.329 million and a non-labor forecast of \$17.941 million for a total forecast of \$19.270 million; and
- 2023-2025 Capital for Environmental Programs capital expenditures forecast of \$7.375 million, with \$1.185 million for 2023, \$3.064 million for 2024, and \$3.126 million for 2025.

For the reasons stated above, the proposed stipulations meet the criteria for approval under Rule 12.1(d), and therefore, we approve the proposed stipulations without modification.

Next, SDG&E requested cost recovery for its share of the San Onofre Nuclear Generation Station (SONGS) related Marine Mitigation and Workers'

²³⁴⁸ Ex. SCE-30 at 1-3.