Decision **PROPOSED DECISION OF ALJ GAMSON** (Mailed 3/10/15)

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of the California Energy Commission for Approval of Electric Program Investment Charge Proposed 2015 through 2017 Triennial Investment Plan.	Application 14-04-034 (April 29, 2014)
And Related Matters.	Application 14-05-003 Application 14-05-004 Application 14-05-005

DECISION ADDRESSING APPLICATIONS OF THE CALIFORNIA ENERGY COMMISSION, PACIFIC GAS AND ELECTRIC COMPANY, SAN DIEGO GAS & ELECTRIC COMPANY AND SOUTHERN CALIFORNIA EDISON COMPANY FOR APPROVAL OF THEIR TRIENNIAL INVESTMENT PLANS FOR THE ELECTRIC PROGRAM INVESTMENT CHARGE PROGRAM FOR THE YEARS 2015 THROUGH 2017

Table of Contents

Title **Page**

DECISION ADDRESSING APPLICATIONS OF THE CALIFORNIA ENERGY COMMISSION, PACIFIC GAS AND ELECTRIC COMPANY, SAN DIEGO GAS & ELECTRIC COMPANY AND SOUTHERN CALIFORNIA EDISON COMPANY FOR APPROVAL OF THEIR TRIENNIAL INVESTMENT PLANS FOR THE ELECTRIC PROGRAM INVESTMENT CHARGE PROGRAM FOR THE YEARS 2015 THROUGH 2017 1
Summary 2
1. Background 4
2. Protests and Comments 5
3. Review of Investment Plans 7
4. Requirements for EPIC Investment Plans 7
5. Additional Review Components Within the Scope of this Decision 9
6. Overview of the Proposals 10
7. California Energy Commission (CEC) Investment Plan 12
7.1. Compliance with Particular Phase 2 EPIC Decision Requirements 12
7.2. Metrics and ratepayer benefits 14
7.3. Bioenergy funding levels 14
8. New Solar Homes Partnership 15
9. PG&E Investment Plan 17
9.1. Compliance with Particular Phase 2 EPIC Decision Requirements 17
9.2. Metrics and Benefits 21
10. SCE's Investment Plan 21
10.1. Compliance with Particular Phase 2 EPIC Decision Requirements 21
10.2. Metrics and Benefits 24
11. SDG&E's Investment Plan 24
11.1. Compliance with Particular Phase 2 EPIC Decision Requirements 24
14.2. Metrics and Benefits 26
12. Fiscal and Funding Considerations 26
12.1. Level of Budget Detail in Proposals 26
12.2. Reconciling Proposed Budgets 30
12.3. Treatment of Interest 35

Table of Contents Cont'd

Title **Page**

12.4. Definition of Administrative Costs 38
12.5. IOU Remittances to the CEC 41
13. Intellectual Property 41
14. Other Implementation Considerations 45
14.1. Flexibility to Fund new Projects Between Triennial Applications 45
14.2. Leveraging EPIC 2012-2014 Investments 46
14.3. Coordination with EV Proceedings 46
14.4. IOU Administrator Participation in CEC EPIC Solicitations 47
15. General Coordination 53
16. Safety Considerations 55
17. Comments on Proposed Decision 56
18. Assignment and Categorization of Proceeding 57
Findings of Fact 57
Conclusions of Law 59
ORDER 61

Appendix A
Appendix B

DECISION ADDRESSING APPLICATIONS OF THE CALIFORNIA ENERGY COMMISSION, PACIFIC GAS AND ELECTRIC COMPANY, SAN DIEGO GAS & ELECTRIC COMPANY AND SOUTHERN CALIFORNIA EDISON COMPANY FOR APPROVAL OF THEIR TRIENNIAL INVESTMENT PLANS FOR THE ELECTRIC PROGRAM INVESTMENT CHARGE PROGRAM FOR THE YEARS 2015 THROUGH 2017

Summary

Improvements to California's energy systems are vital to the achievement of its energy goals and the preservation of its energy resources. The Electric Program Investment Charge (EPIC) is an energy innovation funding program established under the authority of the California Public Utilities Commission (Commission). Organized around three program areas—Applied Research and Development, Technology Demonstration and Deployment, and Market Facilitation—EPIC seeks to drive efficient, coordinated investment in new and emerging energy solutions.

EPIC investments are funded under the authorization of the Commission as established in Decision (D.) 11-12-035 (the Phase 1 EPIC Decision). D.12-05-037 (the Phase 2 EPIC Decision) requires the Commission to conduct a public proceeding every three years to consider EPIC investment plans for coordinated public interest investment in clean energy technologies and approaches. The Phase 2 EPIC Decision directed the California Energy Commission (CEC), San Diego Gas & Electric Company, Pacific Gas and Electric Company, and Southern California Edison Company, as Administrators of the program, to present their investment plans for the triennial program periods for joint consideration by the Commission.

In 2013, D.13-11-025 (the 2013 EPIC Decision) capped the collection of EPIC funds at $162 million annually and approved the first triennial investment plans for the collection years 2012-2014. This proceeding reviews the

Administrators' 2015-2017 investment plans for compliance with the Phase 2 EPIC Decision and this Decision approves the investment plans, as modified.

This Decision modifies the Administrators' investment plans by clarifying, modifying, or rejecting particular proposals, and by providing additional implementation guidance and direction. If implemented as described herein, the proposals in each investment plan offer a reasonable probability of providing electricity ratepayer benefits by promoting greater reliability, lowering costs, and increasing safety.

The following table summarizes the approved 2015-2017 EPIC budgets by Administrator:

	CEC	PG&E	SCE	SDG&E	Total
Utility Collection/ Funding Allocation	N/A	50.10%	41.10%	8.80%	100%
Authorized EPIC Funding Collection	N/A	$255,401,200	$209,520,700	$44,860,800	$509,782,700
Program Administrator Budget by Funding Element					
Applied Research and Development	$158,166,500	N/A	N/A	N/A	$158,166,500
Technology Demonstration and Deployment	$151,271,600	45,716,800	$37,504,200	$7,868,600	$242,361,200
Market Facilitation	$55,566,400	N/A	N/A	N/A	$55,566,400
Program Administration	$40,782,600	$5,108,000	$4,190,400	$879,300	$50,960,300
Program Oversight (to	$2,039,100	$255,400	$209,500	$44,900	$2,548,900

be remitted to CPUC)					
Total	$407,826,200	51,080,200	$41,904,100	$8,792,800	$509,603,300*

*As discussed in this Decision and appendix, SDG&E's final approved budget here is 98% of its allocated share of the program budget; thus, the grand total in this table does not equate to the triennial collection amount.

In addition to addressing the Administrators' 2015-2017 investment plans for compliance with the Phase 2 EPIC Decision, this Decision resolves issues in connection with the implementation of the investment plans, including:

- Eligibility of investor-owned utilities administrators to participate in CEC EPIC funding solicitations;
- Fiscal administration issues including treatment of interest, budget escalation due to inflation, and the definition of administration and oversight costs;
- Intellectual property rights.

Issues regarding administrator flexibility to fund new projects between application cycles are deferred to a second decision in this docket.

1. Background

Rulemaking (R.) 11-10-003 was instituted to address funding and program issues related to the research, development, and demonstration (RD&D) portions of the now-expired public goods charge (PGC) funding. Decision (D.) 11-12-035, in Phase 1 of R.11-10-003, established the Electric Program Investment Charge (EPIC) to fund public interest investments in applied research and development, technology demonstration and deployment, market support, and market facilitation of clean energy technologies and approaches for the benefit of electricity ratepayers of Pacific Gas and Electric Company (PG&E), San Diego

Gas & Electric Company (SDG&E), and Southern California Edison Company (SCE), the three large investor-owned utilities (IOUs).

D.12-05-037, in Phase 2 of R.11-10-003, determined that the EPIC funding would continue from 2012 through 2020, and established the framework for California Public Utilities Commission (Commission) oversight of the EPIC program. Pursuant to the Phase 2 EPIC Decision, the Commission maintains overall policy oversight of the EPIC program, and program funds are administered under the oversight and control of the Commission. The Phase 2 EPIC Decision designated the California Energy Commission (CEC), PG&E, SCE, and SDG&E as administrators of the EPIC program and authorized the administrators to operate within parameters set by the Commission and further delineated in each approved investment plan. The 2013 EPIC Decision approved the administrators' 2012-2014 investment plans for the first triennial program period.

Pursuant to the Phase 2 EPIC Decision, the Administrators filed their investment plans for the funds to be collected in 2015 through 2017 in spring 2014. Applications (A.) 14-04-034, A.14-05-003, A.14-05-004, and A.14-05-005 were filed by the CEC, PG&E, SDG&E, and SCE, respectively. Each administrator served its application on parties in the prior investment plan proceeding and parties in each of the IOU administrator's pending and/or most recent general rate case proceeding. Notice of the applications appeared in the Commission's Daily Calendar.

2. Protests and Comments

The Office of Ratepayer Advocates (ORA), filed protests between June 2 and June 6, 2014 to each of the four applications. Chargepoint Inc. filed a response to PG&E's application on June 6, 2014. An Administrative Law Judge's

(ALJ) Ruling issued on June 12, 2014 consolidated the four applications into one proceeding. A Prehearing Conference (PHC) was held on June 23, 2014. At the PHC, the administrators were directed to jointly file by July 28, 2014 a single comparison matrix containing each EPIC proposal with the purpose of providing similar information and facilitating Commission review of the proposals.

The July 28, 2014 Scoping Memo and ruling of Assigned Commissioner and Administrative Law Judge (Scoping Memo) established the scope and schedule for the proceeding. On July 31, 2014, a workshop was held at the Commission wherein a panel discussed research program needs, the administrators presented their approach to the investment plans and the EPIC matrix, and parties discussed the questions to be addressed in the subsequent comment period.

Each administrator filed comments on the Scoping Memo and workshop issues on September 17, 2014, as did ORA and the Natural Resources Defense Council (NRDC). Each of the same parties also filed reply comments on October 6, 2014.

There is a robust record in this proceeding to review, assess, modify, and approve the proposed EPIC work and its administration. The administrators state in comments that their respective applications fully meet the requirements of the Phase 2 EPIC Decision. ORA contends that the administrators need to provide more detail, policy justification, and demonstration of non-duplication of efforts. NRDC broadly supports for the goals of the program. Chargepoint states its interest in Electric Vehicle efforts and urges that related efforts should be coordinated with relevant Commission proceedings.

3. Review of Investment Plans

We first discuss each application individually with regard to particular criteria required by the Phase 2 EPIC Decision and administrator-specific issues thereto. Then we discuss the issues that apply to all the applications: Fiscal and Funding Considerations, Intellectual Property, Other Implementation Issues, and Safety Considerations. Appendix A contains direction and modifications to specific proposals. Appendix B contains reconciled and approved budgets.

4. Requirements for EPIC Investment Plans

The Commission retains full authority to approve EPIC investment plans and oversee the administrators as they implement these plans. Explicit direction regarding the content of the application containing the investment plans is contained in the Phase 2 EPIC Decision, Ordering Paragraph (OP) 12.

OP 12 states the following elements shall be included, and this Decision primarily evaluates these elements:

1. A mapping of the planned investments to the electricity system value chain, which includes:
    a. Grid operations/market design;
    b. Generation;
    c. Transmission;
    d. Distribution; and
    e. Demand-side management.
2. Identification of at least the following elements:
    a. The amount of funds to be devoted to particular program areas (applied research and development, technology demonstration and deployment, and market facilitation);
    b. Policy justification for the funding allocation proposed;

c. For the utilities: an informational summary of the research, development, and demonstration activities they are undertaking as part of their approved energy efficiency and demand response portfolios.

d. The type of funding mechanisms (grants, loans, pay-for-output, etc.) to be used for each investment area;

e. Eligibility criteria for award of funds in particular areas;

f. Any suggested limitations for funding (per-project, per-awardee, matching funding requirements, etc.);

g. Other eligibility requirements (technologies, approaches, program area, etc.); and

h. A summary of stakeholder comments received during the development of the investment plan and the administrator's response to the comments.

3. Metrics against which the investment plan's success should be judged, including at least the following:

a. Quantification of estimated benefits to ratepayers and to the state, such as:

- Potential energy and cost savings;
- Job creation;
- Economic benefits;
- Environmental benefits; and
- Other benefits.

b. Identification of barriers or issues resolved that prevented widespread deployment of technology or strategy.

c. Effectiveness of information dissemination.

d. Adoption of technology, strategy, and research data by others.

e. Funding support from other entities for EPIC-funded research on technologies or strategies.

4. A recommended approach to intellectual property rights depending on the specific types of projects and funding proposed.
5. How the investment plan addresses the principles articulated in Public Utilities Code Sections 740.1 and 8360.

5. Additional Review Components Within the Scope of this Decision

In the Scoping Memo, the following review questions were also posed, in accordance with other guidance in the Phase 2 EPIC Decision:

- Do any of the IOU investment plans include proposals to fund electricity generation-only projects that contravene the prohibition of IOUs using EPIC funding for such projects?
- Does each investment plan adequately address how the administrators will avoid duplicative efforts?
- What is the appropriate method for calculating the 10 percent administrative cap?
- Are proposed projects related to electric vehicles appropriately coordinated with efforts in R.13-11-0074 and any other applicable Commission proceedings?
- What are the key safety and resiliency questions that should be answered in the review of the investment plans?

In this proceeding we review each investment plan for compliance with the requirements of the Phase 2 EPIC Decision, and determine whether the investment plan proposals offer a reasonable probability of providing the electricity ratepayer benefits of greater reliability, lower costs, and increased safety.[1] The mandatory and primary guiding principle for our review is this demonstration of the potential to provide benefits. Certain complementary

[1] D.12-05-037, OP 2.

guiding principles include societal benefits, greenhouse gas emissions mitigation and adaptation in the electricity sector, and economic development,[2] but electricity ratepayer benefits are indispensable and must be the primary driver justifying the expenditure of EPIC funds.

6. Overview of the Proposals

The unique structure of this program, as a collective pursuit administered by utilities and a state energy policy and planning agency, is evident in their implementation approaches and investment plan decisions. For the sake of clarity in discussing substantive proposals in this section, the following table shows the organizational terms and funding areas for each administrator.

	CEC	**PG&E**	**SCE**	**SDG&E**
EPIC Program Areas Funded	Applied R&D, Technology Demonstration & Deployment, Market Facilitation	Technology Demonstration & Deployment		
Investment Plan Structure	Strategic Objectives made up of Strategic Initiatives	Four Investment Areas made up of specific project proposals		

The comparison matrix jointly filed by the administrators contained additional detail on each individual proposal. In the matrix, administrators specified the scope and focus of each proposal (at the Strategic Initiative level for the CEC and at the project level for the IOUs), identified relevant Commission proceedings, specified the policy justification and how the proposal avoids duplication, and provided budget information (at the Strategic Objective level for the CEC, the Program Area level for PG&E and SCE, and at the project level for

[2] *Ibid.*

SDG&E). Providing a jointly filed document with similar information for all EPIC proposals facilitated in-depth review and comparison to an extent beyond the additional detail ordered in the previous EPIC Investment Plan application cycle.[3]

The four EPIC Administrators collectively proposed a wide range of research, development, demonstration, deployment, and market facilitation activities. We have carefully scrutinized the substance of each of the administrators' investment plans to ensure they are likely to achieve ratepayer benefits and solicited comments on the same substantive review. The following discussion section addresses the issues raised within each application pursuant to the requirements of the Phase 2 EPIC Decision. We also address various other considerations that are relevant to the applications or are components of these criteria.[4] Issues specific to individual applications are addressed, followed by a review of issues pertaining to all the applications. Appendix A consists of proposal-specific requirements, modifications, and/or additional implementation direction. We determine that as modified and clarified herein, each application adequately addresses the criteria, is just and reasonable, and is likely to provide ratepayer benefits as intended.

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[3] In the January 28, 2013 ruling in A.12-11-001, administrators were asked to provide additional clarity and detail on specific proposals, whereas the matrix filed in this proceeding required additional comparison details for all proposals.

[4] The July 28, 2014 Scoping Memo determined that issues raised pertaining to the applications, identified in the Scoping Memo, or raised in the July 31 workshop were within the scope of this proceeding.

7. California Energy Commission (CEC) Investment Plan

The CEC's 2015-2017 EPIC Investment Plan (A.14-04-034) was filed on April 28, 2014 and contains 21 broad "Strategic Objectives," which are in turn made up of "Strategic Initiatives." Strategic Objectives are provided for each authorized EPIC program funding area: Applied Research and Development (R&D), Technology Demonstration and Deployment (TD&D), and Market Facilitation. Across these areas, the CEC proposes to invest in a wide range of activities related to energy efficiency, demand response, renewable and advanced generation, electric vehicles, smart grid, and energy-related environmental research, development, demonstration, and non-technical market facilitation. A total of $349.92 million for program investments is proposed for the 2015-2017 period.

7.1. Compliance with Particular Phase 2 EPIC Decision Requirements

This section discusses whether the CEC's investment plan contains an accurate mapping of each proposed objective and initiative to the electricity system value chain, an adequate identification of the amount of funds to be devoted to particular program areas, eligibility criteria for award of funds, suggested limitations for funding,[5] and a summary of the stakeholder comments it received.

No party raised concerns about these elements, except as discussed below and in the Fiscal and Funding Considerations Section, which addresses issues raised about all four applications.

[5] The CEC provided funding estimates at the Strategic Objective level in its June 12, 2014 reply to ORA's protest.

ORA claims that the CEC's application does not contain sufficient information in these areas. One of the proposals identified by ORA as lacking sufficient information is Strategic Initiative 1.6, related to the water-energy nexus. In its reply comments, as well as in the comparison matrix, the CEC responds at length to ORA's concerns about this proposal. The CEC provides specific details about the need for the research, and describes how the proposed work will help reduce energy and water use in buildings via technological and non-technical means (such as via support for updated codes and standards). The CEC identifies specific incremental research foci, including the impact of water flow reductions on health and safety and the operation of water supply lines, improved low-flow water distribution systems, and advanced sub-metering technologies.[6] We find that both the specific details of Strategic Initiative 1.6, implemented with the CEC's overall process for administratively avoiding duplication, are satisfactory. However, we remind the CEC that the benefits of research in cross-disciplinary areas such as the water-energy nexus must still accrue to electricity ratepayers in particular.

The issue of the level of budgetary information provided in applications was extensively addressed in comments, and because it pertains to all of the applications generally, rather than just to the CEC's, we address it in Fiscal and Funding Considerations section of this Decision.

Overall, we find that the CEC's plan complies with the criteria laid out in the Phase 2 EPIC Decision.

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[6] CEC Reply Comments, October 6, 2014, at 9-14.

7.2. Metrics and ratepayer benefits

This section discusses the CEC's investment plan for its provision of metrics, and the proposals for their likelihood of yielding ratepayer benefits. No party raised concerns about the CEC's provision of metrics or its plan's likelihood of providing benefits, except where ORA states the application "lacks detailed information such as the metrics against which the project's success should be judged."[7] ORA provides no specified concern regarding metrics or benefits of this application. We agree with ORA that the CEC does not specify which metrics will apply to individual proposals. However, the 2013 EPIC Decision, OP 7, allows administrators to select applicable metrics and provide this information in their annual reports; administrators are not required to specify metrics for individual projects in their investment plans. We find that the proposed metrics included in Chapter 8 of the CEC's investment plan are sufficient. Appendix A contains specific guidance and direction to the CEC on particular objectives and initiatives. As modified, the investments proposed in the CEC's investment plan are likely to provide ratepayer benefits.

7.3. Bioenergy funding levels

The Phase 2 EPIC Decision required 20 percent (approximately $26 million) of the CEC's TD&D budget in the 2012-2014 investment plan to be allocated to bioenergy, and stated that the Commission would re-evaluate this set-aside in subsequent investment periods based on results from the first.[8] However, because the CEC's first investment plan was only approved in late

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[7] ORA Protest of A.14-04-034, June 6, 2014, at 4.

[8] D.12-05-037, at 46; OP 6.

2013, there are not yet results on which to base a re-evaluation of the minimum. The CEC's opening comments address its proposed level of funding for bioenergy: Strategic Initiative 3.1, one of five initiatives in a $20.5 million objective, and Strategic Objective 13, with $18 million allocated funding. The CEC also points to other recent sources of funding for bioenergy, from the State's greenhouse gas emission allowance program, the Department of Food and Agriculture, and other sources, totaling approximately $70 million.[9] It is reasonable and desirable that other new funding for the same topic should result in a reduced EPIC funding level; we further note that the proposed 2015-2017 amount is still substantial and only modestly lower than the 2012-2014 minimum. No other party commented on or protested the CEC's bioenergy funding levels. We find that the CEC's proposed bioenergy initiatives and funding levels are justified, and establish no separate minimum for bioenergy in this Decision.

8. New Solar Homes Partnership

The New Solar Homes Partnership (NSHP) is a program that funds solar on the construction of new homes, and the question of funding NSHP via EPIC was raised in the prior EPIC application cycle. The CEC in A.12-11-001 requested funding for NSHP, and the Commission denied this request.[10] The 2013 EPIC Decision also transferred consideration of the funding source and amounts for the program to another Commission proceeding, R.12-11-005.[11]

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[9] CEC Opening Comments, September 17, 2014, at 30.

[10] The 2013 EPIC Decision, OP 4.

[11] The 2013 EPIC Decision, OP 5.

In the current proceeding, the CEC states that the 2013 EPIC Decision did not *preclude* funding NSHP with EPIC but rather recognized two separate applicable caps should it be funded with EPIC. On this basis CEC requests in its application to reserve the option to at some future point submit a Petition for Modification (PFM) or application to use a portion of its 2015-2017 EPIC funds for NSHP. SDG&E[12] and ORA[13] recommend that the Commission deny this request, stating that the CEC's request and intent is unclear and that the Commission clearly transferred the question of NSHP funding to another proceeding.

There are two potential interpretations of this issue: a policy interpretation and an administrative interpretation. Contrary to some of the parties' comments, these interpretations are not irreconcilable.

The policy interpretation is that the Commission indeed found in the Phase 2 EPIC Decision that there is a policy rationale for funding NSHP with EPIC because the two programs' goals and directives are consistent; the 2013 EPIC Decision did not overturn this finding.[14] We reiterate that in these terms the NSHP can be funded by EPIC, and we support all appropriate efforts to ensure that the NSHP continues to be funded.

The administrative interpretation is that, notwithstanding the policy rationale for funding NSHP under EPIC, the Commission made an administrative decision to transfer the issue of NSHP funding to another proceeding.

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[12] SDG&E Reply Comments, October 6, 2014, at 5.

[13] ORA Opening Comments, September 17, 2014, at 2; Reply Comments, October 6, 2014 at 7.

[14] D.12-05-037, at 54; The 2013 EPIC Decision, at 39.

R.12-11-005 remains the proceeding where a programmatic funding decision for NSHP is expected to be made[15]; accordingly, this Decision makes no judgments thereto. We understand that the CEC's intent in discussing NSHP in this proceeding is to "keep its options open" to request to fund NSHP under EPIC at some possible future time (for example, if the Commission in R.12-11-005 decides not to allocate funding to NSHP), consistent with the policy interpretation in previous EPIC decisions. Should the Commission determine at a later date that it is reasonable to fund NSHP using EPIC funds, the CEC will need to shift funds that were allocated to other projects. We will evaluate such a petition or application to shift EPIC funds to NSHP when and if it is submitted.

9. PG&E Investment Plan

PG&E filed A.14-05-003 containing its investment plan for its share of the 2015-2017 EPIC funds on May 1, 2014. Its plan proposes 30 projects within the TD&D program area. As do all three IOU administrators, PG&E uses a framework in its plan that consists of four investment areas within TD&D: Renewables and Distributed Energy Resource (DER) Integration, Grid Modernization and Optimization, Customer Service and Enablement, and Cross-Cutting/Foundational Strategies and Technologies. Each project falls within one of these areas.

9.1. Compliance with Particular Phase 2 EPIC Decision Requirements

This section considers whether PG&E's application contains the following: an accurate mapping of each proposed objective and initiative to the electricity system value chain; an adequate identification of the amount of funds to be

[15] June 9, 2014 Scoping Memo, R.12-11-005.

devoted to its program area; an informational summary of the research, development, and demonstration activities that are part of its approved energy efficiency and demand response portfolio; suggested funding limitations; eligibility criteria for award of funds; and a summary of the stakeholder comments it received.

No party raised issues relating to these criteria, except for ORA regarding the potential for Project 30 to fund unapproved research areas and the issue of funding detail. We discuss the latter in the Fiscal and Funding Considerations section of this Decision.

PG&E's Project 30 is titled "Leverage EPIC Funds to Participate in Industry-Wide R&D Programs and it is described as "participating and collaborating in multi-utility, industry-wide research, demonstration and deployment initiatives conducted by third-party organizations."[16] In its June 6 protest of PG&E's application, ORA expresses concern that this could violate the Phase 2 EPIC Decision's requirement that IOUs may only fund work in the TD&D phase, not the Applied R&D or Market Facilitation phases. PG&E states in its reply that Project 30 will focus on "industry wide R&D that does not duplicate or violate the applied R&D topics and projects the Commission has determined should be conducted primarily by the [CEC], not the IOUs," and that it intends to focus on technology programs.[17]

We share ORA's concern. PG&E characterizes this project in a way that confuses the Commission's prior direction on the subject. The Phase 2 EPIC

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[16] PG&E's 2015-2017 EPIC Investment Plan, at 64.

[17] PG&E's June 16, 2014 reply to ORA's protest.

Decision (OP 5) states that the IOU EPIC administrators shall fund only the Technology Demonstration and Deployment program area; that decision also clarifies when discussing this requirement that "for activities that are completely pre-commercial in nature, including applied research and development, a state agency with public interest objectives is ideally suited to administer those activities."[18] PG&E appears to now suggest that it may use its EPIC TD&D funding to fund research and development in general that does not overlap with the Applied Research and Development work done by the CEC via EPIC.

However, the requirement that IOUs may only use their EPIC funds for TD&D was not made to reduce duplication in the Applied R&D program area; it was made because the Commission found that Applied R&D should be funded by an entity without a business interest in the results. For PG&E to fund work that is substantively similar to (even if non-duplicative of) the type of work done in the Applied R&D program area would be an improper use of its TD&D budget.

We reiterate that the IOU administrators shall not fund Applied R&D activities[19] nor expressly fund others to do so on their behalf. We do not place any restrictions on which organizations the IOUs may partner with in advancing their EPIC goals, and we continue to recognize that EPIC may fund research institutes (and that "research institutes" often conduct demonstrations and deployments),[20] but IOU administrators may only do so to the extent that their

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[18] D.12-05-037, at 27.

[19] Defined in D.12-05-037 Finding of Fact 3 as "activities supporting pre-commercial technologies and approaches that are designed to solve specific problems in the electricity sector."

[20] The 2013 EPIC Decision, Conclusion of Law 42.

EPIC funding allocations support TD&D activities specifically.[21] PG&E's project 30 shall only fund TD&D activities.

Additionally, we identified an area of concern related to PG&E's proposals as characterized in the comparison matrix filed on July 28. The category "Coordination with CPUC Proceedings or Legislation" intended to identify current policymaking efforts related to the proposed work. Of its 30 projects, PG&E identified only two as having any coordination or relation to Commission proceedings, with the rest identified as "N/A" (not applicable) to that category. PG&E was the only administrator to leave this category nearly empty for its entire portfolio.

While PG&E may not be able to fully specify these details at this time, we stress that Commission energy proceedings will be applicable to PG&E's EPIC work, and vice versa.

Because PG&E's EPIC Investment Plan proposes to invest in TD&D that will be related to proceedings, we direct PG&E to identify specific proceedings addressing issues related to each EPIC project in its annual EPIC reports. This requirement also extends to the other EPIC administrators. The administrators are encouraged to coordinate with Energy Division staff to identify these proceeding—project linkages. Identifying the proceedings that address related issues is an important part of the administrative responsibility to ensure work is non-duplicative and justified by policy, and will help the administrators,

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[21] D.12-05-037 Finding of Fact 4 defines TD&D activities as "the installation and operation of pre-commercial technologies or strategies at a scale sufficiently large and in conditions sufficiently reflective of anticipated actual operating environments to enable appraisal of the operational and performance characteristics and the financial risks."

Commission staff, and proceeding stakeholders learn about and share EPIC results and incorporate them into California energy policy decisions.

As modified herein and in Appendix A, we find PG&E's application meets the specific criteria discussed in this section.

9.2. Metrics and Benefits

No party raised concerns about PG&E's provision of metrics or the plan's likelihood of providing benefits. Specific guidance and direction for particular projects is contained in Appendix A. Based on our review, we find that PG&E's investment plan contains an adequate provision of metrics, and the proposals as modified are likely to yield ratepayer benefits.

10. SCE's Investment Plan

SCE filed A.14-05-005 containing its investment plan for its share of the 2015-2017 EPIC funds on May 1, 2014, and amended the application on May 8. Its plan proposes 27 projects within the TD&D program area, organized within the IOU four-category framework.[22]

10.1. Compliance with Particular Phase 2 EPIC Decision Requirements

This section considers whether SCE's application contains the following: an accurate mapping of each proposed objective and initiative to the electricity system value chain; an adequate identification of the amount of funds to be devoted to its program area; an informational summary of the research, development, and demonstration activities that are part of its approved energy efficiency and demand response portfolio; suggested funding limitations;

[22] In the future, SCE's investment plans should contain a numbered list/table of contents of its proposed projects for the sake of transparency, particularly in light of the improperly included project (discussed later in this section).

eligibility criteria for award of funds; and a summary of the stakeholder comments it received.

No party raised specific concerns or addressed these criteria, except ORA's general concerns regarding flexibility and funding details, which are addressed later in this Decision. ORA did raise a specific example of its concern that the plan does not include specific policy justifications, stating, "under the Optimize Control of Multiple Storage Systems project, SCE …does not discuss whether the proposed project's standards are applicable to or consistent with the policies and requirements under the Energy Storage decision D.13-10-040."[23] SCE's reply states in general that the proposals in its plan "map to the Commission's EPIC principles and rules, and align with the State's energy policy objectives."[24] SCE also provided information about its projects in the comparison matrix filed July 28, notating for this specific project that it would be coordinated with the Commission's Energy Storage Order Instituting Rulemaking (OIR) and Resource Adequacy OIR.

We find that the overall information provided by SCE is adequate, and its proposals, as modified by this Decision, meet the applicable criteria.

ORA also raised a similar issue regarding funding R&D as it did with PG&E's plan, stating its concern that SCE's "EPRI Research Program 60: Electric and Magnetic Fields [EMF] and Radio-Frequency Health Assessment" project may not be within the bounds of TD&D, which is the program area IOUs may

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[23] ORA Protest of A.14-05-004, June 6, 2014, at 2-3.

[24] SCE Reply to ORA protest, June 16, 2014, at 4.

fund via EPIC. SCE's reply states that the Commission "expressly permitted EPIC Administrators to fund research institutes."[25]

SCE's reply is a misrepresentation of ORA's concern. To our understanding, ORA is not concerned that SCE will fund research institutes; ORA is concerned that SCE will fund RD&D-type activities with its TD&D budget. As we have previously discussed, research institutes may indeed be funded, but IOUs may only fund TD&D activities using EPIC funds. Therefore, SCE is directed to ensure that the projects its funds under EPIC support TD&D activities. Furthermore, upon reviewing the project in question, we find that the proposal contains multiple references to research activities that appear to qualify as Applied R&D ("research investigating…safety questions"; "exposure characterization research"; "analyses of key external studies"). Overall the project is described as "research and public communication on EMF and RF health and safety questions."

We find that ORA's concerns are justified and that this project appears to propose non-TD&D activities. Some of the technologies and strategies listed may qualify as TD&D, however, and insofar as they do, this would be an acceptable project. We approve the project subject to the requirement that SCE must only fund the demonstration and deployment of technologies and strategies in this area, not background research. We extend this requirement to all SCE's projects and strongly reprove the IOU administrators to carefully ensure their proposals for TD&D funding include only activities that fall into that category as defined by the Phase 2 EPIC Decision.

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[25] SCE Reply to ORA's protest, June 16, 2014.

On a final note in terms of our review of SCE's investment plan with regards to specific the Phase 2 EPIC Decision requirements, we identified an SCE project within the July 28 comparison matrix that is not proposed or included in its application. For the sake of clarity, we note that the project in the matrix titled "CAISO Operations and Utility Grid Coordination" is not in SCE's application and thus is not approved.

10.2. Metrics and Benefits

No party raised concerns about SCE's provision of metrics or the plan's likelihood of providing benefits. Specific guidance and direction for particular projects is contained in Appendix A. Based on our close review, we find that SCE's investment plan contains an adequate provision of metrics, and the proposals as modified are likely to yield ratepayer benefits.

11. SDG&E's Investment Plan

SDG&E filed A.14-05-004 containing its investment plan for its share of the 2015-2017 EPIC funds on May 1, 2014. Its plan proposes 6 projects within the TD&D program area, organized within the IOU four-investment area framework.

11.1. Compliance with Particular Phase 2 EPIC Decision Requirements

This section considers whether SDG&E's application contains the following: an accurate mapping of each proposed objective and initiative to the electricity system value chain; an adequate identification of the amount of funds to be devoted to its program area; an informational summary of the research, development, and demonstration activities that are part of its approved energy efficiency and demand response portfolio; suggested funding limitations;

eligibility criteria for award of funds; and a summary of the stakeholder comments it received.

No party raised specific concerns or addressed these criteria, except ORA, which raised general concerns regarding flexibility and funding details (addressed later in this Decision) and regarding the funding of Applied R&D. ORA is concerned about the inclusion of Project 6, which funds "industry-wide research, demonstration, and deployment," to the extent that it may fund work that is Applied R&D rather than TD&D. SDG&E's reply comments make the same argument as PG&E and SCE did (that funding research institutes is allowed).

We have already discussed this issue when discussing the compliance of PG&E's and SCE's applications, and those comments and findings apply equally here.

SDG&E adds the argument that the Commission approved a PG&E project in its 2012-2014 EPIC plan titled "Multi-Utility, Industry-Wide RD&D Programs Such as Those Conducted by EPRI." However, that project specifically states that it will fund via its participation in collaboration with research institutes "demonstrations, analyses, and results of the testing and study of distribution equipment and strategies."[26] It clearly indicates that the proposal will focus on pilots and projects; this is consistent with work in the TD&D phase. That the Commission approved a project thus defined is not equivalent to permitting the funding of general research as SDG&E and the other administrators suggest.

[26] PG&E's 2013-2014 EPIC Investment Plan, at 72.

We reiterate to all the parties that funding research institutes is permitted; that the IOU administrators may not fund Applied R&D using their TD&D funds; and that any such projects with research institutes can and must fund the actual demonstrations and deployment of the strategies in question and not applied research.

Finally, and contrary to ORA's concern, our review of SDG&E's Project 6 finds that it adequately describes the work to be funded as focusing on demonstrations; therefore we find it is a reasonable and appropriate proposal in this regard.

14.2. Metrics and Benefits

No party raised concerns about SDG&E's provision of metrics or its proposals' likelihood of providing benefits. Specific guidance and direction for particular projects is contained in Appendix A. Based on our review, we find that SDGE's investment plan contains an adequate provision of metrics, and the proposals as modified are likely to yield ratepayer benefits.

12. Fiscal and Funding Considerations

12.1. Level of Budget Detail in Proposals

One of the primary questions discussed by the parties in this proceeding has been whether the level of budget detail provided by the administrators is sufficient. Specifically at issue is the provision, or lack thereof, of budget estimates at the level of individual proposed projects and initiatives within broader program categories.

SCE and PG&E provide the greatest level of funding detail at the four-category IOU investment area level. The CEC provides funding estimates at the EPIC program area and Strategic Objective (not strategic initiative) level. SDG&E was the only administrator to provide funding estimates at the project level.

PG&E and SCE maintain that providing a greater level of budget detail is not feasible, necessary, or consistent with the record.

NRDC advocates against requiring more budget detail because of uncertainties and timing issues.

ORA raises a number of concerns related to this issue, stating that:

- Detailed budgets are necessary to determine the appropriateness and justification of each proposed initiative/project; without this information the Commission cannot decide these matters.
- The ALJ asked for more detailed information at the PHC and this is the type of additional detail that should have been provided. ORA also states that the prior EPIC proceeding the ALJ also ruled more information was needed on budgets;
- ORA provides examples questioning the budget levels that are provided, such as the fact that SCE's DC Fast Charging project is within a category with $3 million in funding along with five other projects, although other current pilot programs cost almost half that;
- ORA provides two suggestions for providing cost estimates for projects: either compare the proposals to similar existing work, or estimate the costs of project technologies (such as energy storage devices).

We agree with the administrators. This scoping requirement pursuant to the Phase 2 EPIC Decision asks if funding levels for the program areas (Applied R&D, TD&D, Market Facilitation) have been provided, and they have. Administrators can only shift up to 5% of these funds among program areas without Commission approval, providing flexibility but restricting them to the overall funding levels as proposed.

While a highly detailed budget giving amounts for each project or initiative would indeed provide more information at this time, that information

would be necessarily speculative and non-binding, and thus less useful. The projects and initiatives in the administrators' Investment Plans are relatively general, far more so than the fully-defined and scoped solicitations will be once the plans are approved and administrators can begin "putting shovels in the ground." While we could ask the administrators to provide project/initiative budget estimates, this would require a substantial amount of time on their part and likely yield estimates that prove to be inaccurate, since these details could change in the several years between this Decision and when these projects must begin. ORA's second recommended method for estimating project costs would be limited in this way; the cost of energy storage technologies that may be used in several years may be very different than they are today. Additionally, administrators have full authority to shift funds within program areas (thus, among projects/initiatives) without limitation; how useful could project budget estimates be given that administrators are not held to them once they are approved?

SDG&E provided project level budget estimates, but its $7.9 million EPIC portfolio is an order of magnitude smaller than the CEC's and only 9.9% of the IOU portion (the IOU budgets represent only 20% of the overall EPIC program). It is much more feasible and reliable to estimate precisely how $7.9 million may be allocated to demonstrations over a three year period than it is to do the same for $151 million (the CEC's budget for Applied R&D).

We also find that the assessment of the initiatives and projects, even lacking individual budget proposals, is still possible, as demonstrated by ORA's example regarding SCE's fast charging project. The project is described by SCE as seeking to "demonstrate public DC fast charging stations at SCE facilities near freeways in optimal locations to benefit electric vehicle miles traveled (eVMT) by

plug-in electric vehicles (PEVs) while implementing smart grid equipment and techniques to minimize system impact." It is reasonable and possible to question how a project of this scope could be fit into a $3 million funding area along with other projects including cybersecurity work, PEV submetering demonstrations, and microgrid controller demonstrations. The lack of project/initiative-level budget detail does not prevent our review.

As ORA's comments state, in the prior EPIC proceeding, a January 2013 ruling asked administrators for additional clarity, including budgets for some projects. Those requests appear to have been linked to specific concerns with those projects; the Commission did not require every project and initiative from all four administrators to have a budget in A.12-11-001, the Phase 2 EPIC Decision does not require it, and this Decision does not either, for the reasons discussed above. We did require an additional filing with details on every proposal: the comparison matrix. The level of budget detail provided in the applications, comments, and comparison matrix is appropriate and sufficient.

The issue raised by ORA regarding SCE's fast charging project also raises another issue that may need clarity: administrators have the flexibility to decide not to fund a project that is included in their authorized investment plans. Stated another way, EPIC funds may only be spent on authorized work, but not all authorized work must be funded. This is a natural aspect of the nature of the program, because as technologies change and results of R&D are generated, some of the proposed and authorized work may be shown to be unnecessary or no longer an optimal use of EPIC funds. This is clearly understood by the CEC, which states in its application: "Proposed initiatives identified in the 2015 - 2017 EPIC Investment Plan represent the full scope of possible awards. The Energy Commission may not issue solicitations or make awards in every initiative area if

funding is inadequate, there is a lack of qualified applicants, or further analysis of market conditions indicates that an initiative is not currently a high priority or it is already adequately funded by other entities." PG&E and SCE also acknowledge this at various points in their applications, stating that the proposed work is potential, and may be "off-ramped" or "de-selected" in the future.[27] SDG&E makes no acknowledgement of this in its plan.[28]

12.2. Reconciling Proposed Budgets

We now turn from the question of level of detail in proposed budgets to the total budgets. We found in our review of the four EPIC investment plans that budget levels vary among each application. Variations include different applications of the escalation rate (to be applied to EPIC collections starting on January 1, 2015), and varying presentations of the budget (annually versus triennially; program area budgets presented with and without administrative budgets). More substantially, the administrators have varying interpretations of what their total budgets should be.

The CEC's application requests a total amount of $388.8 million for the triennial period, including administrative and program budgets. This table indicates a total CEC triennial budget of $383.4 million.

PG&E provided a budget table at the July 31 workshop as well as in its comments and recommends the Commission adopt this version of the budget,

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[27] PG&E Investment Plan, at 6; SCE Investment Plan, at 4.

[28] SDG&E also submitted a PFM for the prior EPIC investment plan requesting, in part, that we clarify it does not need to fund everything approved in its plan.

which proposes a total annual budget for PG&E of $17.134 million ($51.402 million for the triennial total).[29]

SDG&E states that its calculated triennial TD&D budget is $7.92 million, but its application only proposes to invest a total of $7.8 million. SDG&E states in addressing this difference that "the amount in SDG&E's plan is merely an estimate and SDG&E is not beholden to it, so long as it does not exceed its maximum allowable project budget or allow administrative costs to exceed 10% of its program budget, SDG&E's final spending amount will be acceptable."[30]

SCE gives conflicting recommendations as to its 2015-2017 budget: its application estimates its TD&D budget at $37 million[31] not including administration budget (which at a maximum of ten percent would yield a total budget of at least $40.7 million), its September 17 comments recommend we adopt the table presented by PG&E that gives SCE's total budget as $42.169 million, and its October 6 comments ask us to confirm a total SCE budget of $40.4 million. Our review was frustrated by the lack of a single, clear breakdown of SCE's proposed program area, administrative, and oversight budgets.

The CEC in its September 17 comments acknowledges the discrepancy we discuss next.

OP 5 of the Phase 2 EPIC Decision states that EPIC program funding shall be allocated among the administrators with 80% of funding for the CEC and 20% for the IOUs, but Table 2 of that same decision provides dollar amounts that

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[29] PG&E September 17 Comments, at 2.

[30] SDG&E September 17 Comments, at 6.

[31] SCE Investment Plan, at 9.

equate to a 78.89% - 20.6% split. Table 2 was also modified by D.12-07-001 to increase the IOU administration budget from $3.3 million to $3.4 million "to allow the Program Administration row of the table to add correctly to the total." However, because D.12-07-001 does not provide information about why or how this correction was made, and does not resolve the discrepancy in budget splits in the Phase 2 EPIC Decision, it is less helpful to us now. The CEC's budget proposal uses the 80% figure; the IOUs' proposals use the interpretation based on Table 2. This is significant—the IOU administrators are proposing that the CEC's budget should be $5.4 million less than the amount the CEC proposes for itself. Additionally, the D.12-07-001 modification also increased the IOU administrative budget to $3.4 million, which is more than 10% of their total budget ($33.3 million), contrary to the Phase 2 EPIC Decision requirements.

The CEC also suggests that budget discrepancies could be caused by the allocation of the 0.5% oversight amount that is remitted to the Commission for its program oversight expenses. The Phase 2 EPIC Decision (OP 5) states that this amount "shall be capped at no more than 0.5% of the total budget," but again, Table 2 does not specifically indicate how this 0.5% should be allocated among the administrators. For 2012-2014, the IOU administrators were directed to remit to the Commission their portion (allocated in the same proportion as the funding collection allocation) of an annual oversight budget of $800,000 because that is the amount given in the Phase 2 EPIC Decision's Table 2; however, $800,000 is not 0.5% of $162 million.

The numerous discrepancies in budget amounts proposed by the administrators demonstrate a lack of coordination and agreement among them. They also undoubtedly result from the limited, conflicting guidance previously given by the Commission. We are unable to approve the budget amounts and

presentations as proposed because they use conflicting approaches and directives and do not sum to the authorized $162 million annual amount. Therefore, we find it necessary to make clarifications and modifications for EPIC 2015-2017 budgets in this Decision. We find that:

- The guidance from the Phase 2 EPIC Decision ordering the EPIC budget to be allocated 80% to the CEC and 20% to the IOUs should be preserved; the IOUs' portion shall be allocated among them in the same percentage as their collection allocations;
    - Because it is reasonable that the CEC should fairly share the oversight costs paid to the Commission, and consistent with the CEC's own suggestion, 80% of the total 0.5% oversight budget should come out of the CEC budget;
    - Because it would be unreasonable for each IOU administrator to pay the same portion of oversight costs, given their substantially different budgets, we allocate the remaining 20% of the total oversight budget to each utility in the following manner: 50.1% from PG&E, 41.1% from SCE, and 8.8% from SDG&E.
    - Therefore, the administrators' share of the total annual 0.5% oversight budget is as follows: CEC 80%, PG&E 10.02%, SCE 8.22%, and SDG&E 1.76%.
    - For administrative efficiency, and because of the CEC's limited ability to maneuver funds that are not approved by the Legislature as part of its budget, the IOUs should remit their respective shares of the CEC's oversight budget to the Commission on behalf of the CEC.
- Each administrator's administrative budget shall be no more than 10% of their individual total EPIC budgets, and each administrator's individual total EPIC budget includes their program budget, administrative budget, and oversight budget.

This supersedes the budget allocations given in the Phase 2 EPIC Decision's Table 2 as modified by D.12-07-001, since those interpretations also contained discrepancies. These modifications do not impact the total EPIC annual budget ($162 million) or the 2012-2014 EPIC budgets as approved in the 2013 EPIC Decision.

We resolve this confusion by clarifying each administrator's un-escalated budget for 2015-2017 in Appendix B, Tables 1 through 4.

This necessary clarification also results in changes to the administrator's budgets, since the amount the utilities allocated to oversight payments has changed. We have adjusted their approved budgets accordingly as demonstrated in the following tables. We recognize that making numerous budget changes in this Decision is not ideal, given the time the administrators spent in preparing their budget allocations, but it is necessary and reasonable. We note that at the July 31 workshop the administrators were asked to reconcile their budgets and present a single approach in comments, but did not do so. Also, our changes have a smaller impact on proposed budgets than do the conflicting proposals themselves (we do not adjust any administrator's budget as much as the IOUs suggest we should for the CEC).

We next address the unique budget approach taken by SDG&E. Its application did not propose to invest its full program allocation but SDG&E maintains it may spend up to that amount. We disagree. SDG&E's position implies that the administrators are authorized to spend their full program allocation regardless of the Commission's approval of investment plans, which is not the case. The purpose of this proceeding is to review and approve program investment plans and budgets for the amounts previously authorized to each administrator. Particularly because SDG&E gives no explanation for why it

proposed to use less than its full allocation, we are unable to conclude that our authorization of its investment plan extends to funds not asked for in that plan. Thus, SDG&E's approved budget in this Decision reflects the amount proposed in its application, adjusted in the proportions we have discussed. This leads to a situation wherein, as it requested, SDG&E is approved to invest less than the amount allocated to it; SDG&E may wish to file a future application or PFM identifying how it plans to invest the remaining amount.

We finally clarify that we have applied the escalation ordered by the Phase 2 EPIC Decision, which directs a collection escalation shall be made by January 1, 2015, and reflect the average change in the Consumer Price Index, specifically the Consumer Price Index for Urban Wage Earners and Clerical Workers for the third quarter, for the previous three years. This is shown separately for the sake of clarity given our other changes. The final escalated budgets approved by this Decision are shown in Appendix B, Table 5.

Because budget information was not presented in similar or consistent format in this proceeding, complicating our review, this Decision additionally requires all future EPIC applications from each administrator to include a budget proposal in table format, broken down by each budget area, including grand totals. Budget tables for each administrator shall show proposed budgets by triennial period, with collections (for the IOUs) and oversight amounts presented for annual and triennial periods.

12.3. Treatment of Interest

The 2013 EPIC Decision (OP 42) states: "The budget adopted for a subsequent investment plan cycle must be reduced by the amount of interest accumulated during the preceding investment plan cycle. Funds that are committed or encumbered for projects in one investment cycle will not reduce

future investment cycle funds." PG&E, SDG&E, ORA, and the CEC discussed the issue and requested clarity from the Commission. The main point of discussion is whether, given that 2012-2014 funds are permitted to roll over to the 2015-2017 period,[32] to do the same with any interest; and additionally how to administratively achieve the desired result.

PG&E asks the Commission to confirm that the administrators should offset their *revenue requirement,* not their budget, by the amount of accumulated interest. Alternatively, PG&E asks the Commission to allow accumulated interest to apply to the program budget.

SDG&E maintains that depending on whether OP 42's two sentences are read as separate thoughts, OP 42 either means administrators' budgets should be reduced by the amount of accumulated interest, or it means that this only must occur if the accumulated interest has not been encumbered by the administrator. SDG&E advocates for the second interpretation, stating that this would allow the administrator to encumber the interest for the benefit of the program goals without increasing ratepayer costs.

ORA maintains that any accumulated interest for an investment cycle should be rolled forward and deducted from any new budget authorization, and unspent funds returned to ratepayers at the end of the program.

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[32] As permitted by the 2013 EPIC Decision OP 39, which states: "Given the shortened timeframe of the initial investment plan cycle, and for the purposes of the initial investment plan cycle only (2012-2014), the uncommitted and unencumbered funds that would, under normal circumstances be returned to ratepayers if legally permitted to do so, must be rolled over as if those funds were encumbered or committed. At the conclusion of the second investment plan cycle, if any funds approved for the first investment plan cycle are uncommitted or unencumbered, they must be credited against the approved budget for the third investment plan cycle."

The CEC agrees with ORA, stating that the proper treatment of accumulated interest is for it to reduce program budgets in subsequent investment periods. The CEC makes two exceptions to this. First, it maintains that the rollover of 2012-2014 funds to the 2015-2017 cycle permits accompanying interest to also roll over. Second, it notes that it may not have legal ability to return funds to ratepayers, but can administratively report unspent funds and interest as the end of the EPIC program nears and reduce its invoices to IOUs accordingly; then, the Commission could order the IOUs to return EPIC funds that are not invoiced.

We agree with ORA. The 2013 EPIC Decision clearly intended for accumulated interest from a prior investment period to accordingly reduce subsequent costs to ratepayers. SDG&E's effort to interpret the decision otherwise is unfounded. If we intended to allow accumulated interest to be spent, we would not have established a mechanism for it to be returned.

However, we do appreciate the administrative issues raised, and especially recognize the complications caused by the delay of the 2012-2014 cycle and its rollover allotment. Thus, we clarify the following:

1. Accumulated interest is meant to be returned to ratepayers, not invested in EPIC. Otherwise, the program would exceed its authorized funding amount.
2. The roll-over treatment of 2012-2014 EPIC funds to the 2015-2017 cycle applies to the treatment of interest on those funds. All interest on 2012-2014 and 2015-2017 funds remaining at the end of the 2015-2017 cycle shall be returned to ratepayers. Accumulated interest on 2018-2020 funds shall also be returned to ratepayers.
3. Interest shall be returned to ratepayers in the form of reduced collections for the subsequent program period. Administrators' 2018-2020 investment plans shall identify

the amount of accumulated interest expected to reduce collections in that period, and their proposed budgets should be adjusted accordingly.

4. The CEC shall take every effort to track interest and reduce its program invoices to IOU administrators accordingly. The IOUs will be required to return ratepayer funds as necessary.

12.4. Definition of Administrative Costs

PG&E, SDG&E, and the CEC responded to the scoping question regarding the proper calculation of the administrative cost cap. While there is consensus on the point that these costs should be no more than 10% of the administrator's total budget, differences arise in terms of how administrative costs are defined.

PG&E states that it interprets administrative costs as "costs for non-project, program level expenses, including coordination, filing, collaboration, etc."[33]

SDG&E also interprets administrative costs as non-project costs -- "anything that is not specific to an approved EPIC project" –and project costs as "project-specific management, development of project implementation plans, developing the technical content for procurements, metrics development for each project…" SDG&E also states it counts "payments made to project-specific contractors and vendors, the purchasing or renting of project-specific equipment and space, and contracts with and management of industry-wide collaborative consortia projects, like those of [the Electric Power Research Institute]."[34]

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[33] PG&E September 17, 2014 Comments, at 2.

[34] SDG&E September 17, 2014 Comments, at 5.

The CEC interprets administrative costs differently than do PG&E and SDG&E: as "all EPIC program planning, technical project management, and oversight work," including program execution, workshops, and reporting. The CEC includes project-specific management in administrative costs. The CEC requests clarity on our definition of "monitoring and overseeing projects" with regards to the cap. The CEC also requests confirmation that its IP-related work is excluded from the administrative cost cap for this investment period as it was in the last.

That the program administrators are interpreting the administrative cost cap differently warrants greater clarity from the Commission. The prior EPIC decisions provide guidance here. The Phase 2 EPIC Decision states, "We clarify that for EPIC purposes, administrative costs include staffing costs of the administrators, associated general and administrative expenses and overhead, and related contracting costs to: prepare the investment plans, conduct solicitations, select funding recipients, and monitor and oversee the progress of projects and investments."[35] Also, the 2013 EPIC Decision recognizes that certain IOU administrator in-house activities are not included as administrative costs; namely, IOU staff contributing *direct, necessary, technical coordination on projects with outside contractors*.[36]

We agree with the CEC's interpretation of activities that qualify as administrative. The Commission gave basic guidance when it decided that administration of the EPIC program should be accounted for separately from the

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[35] D.12-05-037, at 65-66.

[36] The 2013 EPIC Decision, at 51-53.

research and demonstration activities themselves. Although the 2013 EPIC Decision makes allowances for certain IOU in-house activities, its wording and intent at 51-53 clearly show that these allowances are for necessary technical coordination. It specifically notes that these activities are not the type that would be performed by managerial or administrative staff. Many of the activities SDG&E lists as "project specific activities" (thus not subject to its administrative cap) are the types of activities comprised of monitoring and overseeing: project team management, metrics development, and reporting. We are also concerned that SDG&E intends to include overhead (space, equipment) and contract management costs within its TD&D budget, as its comments indicate.

Our definition in the Phase 2 EPIC Decision of administrative activities – including staffing, overhead, contracting, monitoring and overseeing the work—was not based on whether the activities were specific to a project. It was based on differentiating energy innovation investments from the administrator activities that make them possible and effective.

We reject PG&E and SDG&E's interpretation that an EPIC activity is somehow inherently non-administrative simply because it is related to a specific project. Overhead, project management and oversight, research consortia membership fees that do not support TD&D directly, reporting, and internal coordination are all administrative activities and shall count towards the administrative caps, consistent with a good-faith interpretation of the Phase 2 EPIC Decision's definition. The administrators must use special diligence to ensure that their activities are charged to the proper budget (and for the utilities, appropriately tracked in their EPIC balancing accounts).

Finally, we again confirm that the CEC's necessary IP activities are not subject to the administrative cap, given their extensive and mandated nature.

12.5. IOU Remittances to the CEC

SCE states in its comments that the CEC recommended the utilities submit program expenditures quarterly when they send the CEC its administrative funds.[37] The CEC states this is incorrect, and that the CEC will invoice the IOUs for program funds after they are legally encumbered by the CEC, consistent with the 2013 EPIC Decision OP 46.[38] We clarify that the process is as described by the CEC, as directed by OP 46.

Upon review of these processes, we also find it reasonable to clarify that for the IOU remittances of the CEC's administrative costs,[39] these payments shall be made in advance for the quarter on the first business day of that quarter. This ensures consistent accounting by all four administrators.

13. Intellectual Property

In its application, SCE requested clarity from the Commission with regards to intellectual property (IP) in three areas: weighing the costs and benefits of IOU IP ownership, licensing EPIC-developed IP, and limiting the indemnification of the State of California to claims that arise from EPIC projects but not to subsequent licensing.[40]

In this first area, SCE states that the Commission should allow for flexibility for the administrators to forgo their IP ownership rights when the benefits therein are outweighed by other benefits. SCE gives two examples of

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[37] SCE September 17 Comments, at 7.

[38] CEC October 6 Comments, at 22.

[39] D.12-05-037 OP 9 states in part that the IOU administrators "shall remit one-quarter of the annual administrative budget for the CEC to the CEC quarterly beginning July 1, 2012 from their EPIC balancing accounts."

[40] SCE Investment Plan amendment, at 43.

when forgoing these rights may be beneficial to the EPIC program goals: when doing so allows the administrator to partner or contract with entities that would benefit the program but that would not participate if they had to permit administrator IP ownership, and when forgoing ownership allows co-funding a project or technology with other entities that cannot allow administrator IP ownership.

Second, SCE is concerned that administrator access to nonexclusive licensing rights may deter potential bidders, who may fear the administrator will compete against them by sublicensing the IP to others. SCE requests we "clarify that the nonexclusive licenses granted to the IOUs do not require that the IOUs sublicense IP to third parties."

Third, SCE raises broad concerns about the EPIC IP requirement to indemnify the state of California, because many universities and laboratories cannot indemnify a third party for their actions.

In its September 17 comments, PG&E recommends the Commission evaluate the benefits of IP ownership using the same EPIC guiding principles of safety, reliability, and lower costs, as well as the provision of benefits. PG&E also suggests that the Commission authorize administrators to file a Tier 1 Advice Letter (AL) when they wish to request a waiver or additional flexibility of the Commission's EPIC IP standards and criteria.

In response, the CEC states it is unclear whether it is meant to apply to the CEC as well, and thus takes the following positions: 1) the CEC has no position if PG&E's AL proposal would not apply to the CEC; 2) it disagrees if this would require "the CEC to file a Tier 1 advice letter to change anything related to IP other than the specific IP requirements imposed on the CEC by the Commission's EPIC decisions"; and 3) it supports the CEC being able to file a

business letter to request changes to specific IP requirements imposed by the Commission.[41]

ORA opposes the AL process suggested by PG&E, saying it would be an inappropriate delegation of the Commission's authority to allow such informal review and changes to IP terms.[42] ORA further states that this request is unjustified, and supports administrators filing a PFM, not an AL, to request IP changes or waivers.

We reiterate that many of the issues surrounding IP requirements were addressed at length in the 2013 EPIC Decision. We address only the specific, limited requests and issues raised in this proceeding.

First, with regards to establishing a process for administrators to request exceptions to IP requirements, we agree this could be desirable in some cases. The benefits of public interest RD&D programs extend far beyond those provided by IP, and the value of IP first depends upon the successful growth of the technology or approach it covers. If during their implementation of this program, an administrator identifies an overwhelming justification of the need for a specific waiver of our EPIC IP requirements at the individual project/solicitation level, we will allow them (except for the CEC) to file with the Energy Division a Tier 3 Advice Letter making this request. The CEC may provide a business letter to the Energy Division, and serve it to the service list in this consolidated proceeding. The CEC shall not implement any waiver until it is provided with a letter confirming the waiver from the Energy Division.

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[41] CEC Comments, October 6, 2014, at 17.

[42] ORA October 6 Comments, at 8.

Energy Division shall provide at least ten days for parties to review any such business letter before confirming a waiver. Such filing shall detail the specific requirements at issue and a demonstration of quantifiable benefits that are at risk should the waiver not be granted. The filing shall be a Tier 3 Advice Letter, because we wish to balance the need for comment, due process, and careful review with expediency. The Tier 3/business letter process is intended to be used in limited circumstances and broad requests with program-wide impacts will not be an appropriate use of the waivers.

Second, we clarify and confirm as SCE requested that the nonexclusive licenses granted to the IOUs do not *require* the IOUs to sublicense the IP to third parties.

Third, we agree that EPIC IP requirements should include an exception for the third party indemnification/hold harmless requirement for government entities that are prevented legally from indemnifying a third party. Otherwise, federal and state entities may be completely excluded from entering into EPIC agreements with the administrators. Government entities that may not legally indemnify or hold a third party harmless are exempted from this requirement within the EPIC program. All other entities are still bound by these requirements.

14. Other Implementation Considerations

14.1. Flexibility to Fund new Projects Between Triennial Applications

One of the major issues discussed in this proceeding has been the question of whether administrators should have the flexibility to fund "new" projects –ones not included in their triennial investment plans—between application cycles. This issue also includes the question of whether administrators may fund a "second phase" of EPIC 2012-2014 work using 2015-2017 funds. The issue has been raised in the applications, protests, replies, at the workshop, and in comments. SCE suggested a workshop be held to further discuss this issue, and in light of the level on input and importance given to the subject by the parties, we find that a workshop would be helpful. However, we do not wish to delay the approval of the applications, and find that this particular issue is not specific to the investment plans that have been proposed, but rather to implementation and administration between applications. Therefore, the Commission has decided to bifurcate this proceeding. This Decision approves the applications, allowing administrators to proceed with their investments. This proceeding will remain open to discuss the issue of flexibility to fund new projects between application cycles, a workshop will be held in early 2015, and a second decision will be issued on that matter.

Although this matter will be fully resolved in the subsequent decision, we find it necessary to clarify that administrator authority to fund new EPIC projects without Commission approval does not currently exist. For now, we clarify that the EPIC administrators do not currently have independent authority to approve proposals that may receive EPIC funds, that applications approved by the Commission represent the full scope of authorized investments, and that EPIC funds cannot be spent on unauthorized work.

14.2. Leveraging EPIC 2012-2014 Investments

The question of whether administrators may fund a second phase of 2012-2014 work using 2015-2017 funds (when no second phase was included in their 2015-2017 plan) will be addressed as discussed in the preceding section. However, we clarify that administrators may leverage prior investments via actually proposing a second phase of a project in their 2015-2017 plans, as several have done. These "leveraged" investments, which will be conducted in relation to the work authorized under the 2013 EPIC Decision, face no different restrictions or review beyond that done for the rest of their proposals.

14.3. Coordination with EV Proceedings

The Scoping Memo specifically directed our review towards the coordination of proposed EV work with related Commission proceedings.

PG&E responds that its proposed EV work is coordinated with Rulemaking (R.) 13-11-007 and cites its Joint Proceedings Inventory filed on June 3, 2014 in that proceeding. However, as previously discussed, PG&E did not provide this detail and justification in the comparison matrix, complicating our review.

The CEC provides detail regarding its coordination with Commission EV proceedings in its application, the comparison matrix, and its opening comments.

SDG&E states this criterion is not applicable to its plan, since it did not propose EV work.

We find the administrators' EV work is appropriately coordinated with our proceedings, as modified by Appendix A.

14.4. IOU Administrator Participation in CEC EPIC Solicitations

Several parties addressed the issue of whether the IOU administrators should be permitted to compete for EPIC funds in CEC solicitations or otherwise receive EPIC funds from the CEC.

PG&E in its opening comments stated that the "IOUs should be allowed to participate in CEC EPIC solicitations so long as there is no conflict of interest. The administrators will work closely to ensure IOUs do not have an advisory role in developing the solicitations or participating in reviews on behalf of the CEC, such that there is a conflict of interest."[43]

SDG&E's comments state that IOUs "should be allowed to bid in both prime and subcontracted roles" in CEC solicitations, saying their participation will strengthen the CEC's EPIC work, increase beneficial R&D, and encourage cooperation among the administrators.[44] SDG&E further states that it is unlikely to respond to CEC solicitations that require matching funds due to its own limited EPIC budget, and that it has already declined requests from the CEC for assistance drafting solicitations both because of limited resources and to preserve its ability to potentially bid for those solicitations.

In its October 6, 2014 reply comments, the CEC addresses this issue at length. It states a number of concerns and requests the Commission clarify the extent to which IOUs may participate in CEC EPIC solicitations, stating it is preferable to have IOU input on their development rather than as bidders or recipients.

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[43] PG&E Opening Comments, September 17, 2014, at 10.

[44] SDG&E Opening Comments, September 17, 2014, at 14.

The CEC states:

- To ensure fairness to all applicants, potential applicants may not bid on solicitations they helped to develop unless their input occurred in a public forum;
- The four administrators meet frequently, currently weekly, to coordinate program administration, and because it is difficult to know which topics IOUs may choose to bid on, the CEC does not discuss solicitations it is currently developing.
- The CEC may want more active IOU participation in its solicitation development as EPIC implementation grows.
- The four administrators must necessarily coordinate. Because the IOUs help shape future CEC EPIC work, they could be put in the position of commenting on competitors for EPIC funding while helping shape future efforts.
- No other applicant will have the level of access to CEC EPIC staff or influence on the overall EPIC process as the IOUs. Their role as administrators should limit their ability to be EPIC bidders. This will "ensure unbiased – both perceived and real – input, communications, and actions by the IOUs in working with the CEC."
- There are IP concerns stemming from the fact that IOUs can receive IP rights to CEC EPIC project results. IOUs may receive an unfair advantage from this. "For example, an entity could create IP through a project in the CEC's first investment plan, and if successful might compete in the CEC's second or third EPIC investment plans for follow-on work to further the IP. If the IOUs are allowed to directly compete for CEC EPIC funding, they could both attempt to gain access to the entity's IP and compete against the entity. No other entities competing for CEC EPIC funding have the opportunity to obtain rights to their competitor's IP."
- The Commission decided in the Phase 2 EPIC Decision that the role of the IOUs in EPIC is not to develop new technology but to demonstrate and deploy technologies on

their systems, which is why it limited the IOU's administrative portion to the TD&D program area. Because some technologies developed in the Applied R&D program area may be later tested on the IOU systems, it would be desirable to have their input in developing those solicitations.

- The CEC sometimes requests support letters from bidders. IOUs may deny a competitor in a solicitation a support letter.
- Overall, the CEC states that if the Commission limits IOU competition in CEC solicitations, this will enable frequent coordination on solicitation development and review, to the benefit of the EPIC program goals.
- The CEC suggests that if IOU staff time is required for a CEC EPIC-funded project, the IOUs be permitted to use their EPIC funds for this time.

ORA's reply comments also address this issue, stating that if a utility's plans "already include projects that fall within a CEC TD&D solicitation," the utility should "have every opportunity to participate, but that the 2013 EPIC Decision prohibits utilities from responding to CEC solicitations outside of the TD&D area.[45]

We shall address these comments in reverse order. We find ORA's comments to be incorrect and unclear. First, the issue at hand is whether IOU administrators may receive or compete for CEC EPIC funds, not whether they may use their own funds within a CEC solicitation. Second, we find that neither the 2013 EPIC Decision nor any of the other EPIC decisions expressly prohibit IOU administrators from receiving or competing for CEC EPIC funds. The prohibition ORA cites, and that we have discussed already in this Decision, is

[45] ORA Reply Comments, October 6, 2014, at 5.

that the IOU administrators may not use their own EPIC budgets for activities outside of the TD&D category. It does not address whether they may receive the CEC's funds in other categories. One regards what IOUs may do as administrators; the other refers to what they may do as bidders or funded entities. This has been reflected in the CEC's solicitations for EPIC funds under the 2012-2014 plan, which do not bar any entities from competing.

Next we address whether the IOU administrators should be allowed to participate in CEC EPIC solicitations. There are programmatic, legal, and practical considerations with regards to this issue. Programmatically, the Commission must consider the intents and purposes of the EPIC program and the impacts IOU participation in CEC EPIC solicitations may have on EPIC program goals. The guiding principle of providing electricity ratepayer benefits must be a prime consideration here. The Phase 2 EPIC Decision clearly limited the IOU's role as administrator to TD&D, but does not provide explicit guidance as to whether they may compete for other administrators' funds.

With regards to legal considerations, at issue is whether IOU participation raises IP or conflict of interest problems. The IOUs – at least PG&E and SDG&E, which addressed the question of IOU participation in CEC solicitations in their comments – recognize the potential for conflict of interest and state they will avoid it through coordination and/or declining to provide input on solicitations they may bid on. They did not address potential future concerns relating to obtaining IP from CEC-funded work. The Commission must also consider practical considerations such as how the IOUs may be required to act as full cooperating partners where the CEC deems necessary on its solicitations.

We are primarily guided by programmatic considerations in deciding this issue. We find that all four EPIC administrators should be EPIC administrators

first and foremost, and should not undertake EPIC program activities that negatively impact their roles as administrators. One of the primary responsibilities of each administrator is to ensure coordination of EPIC work. PG&E, SDG&E, and the CEC's comments each state that the potential for administrator IOU bidding in CEC solicitations has already limited and/or prevented cross-coordination. The CEC in fact categorically states it does not discuss EPIC solicitation development details with the other administrators as a result. PG&E and SDG&E state they will continue to not provide input to the CEC on solicitations for which they may want to bid.

Guided by this finding of "administrators are administrators first and foremost," we find that IOU administrator participation in CEC EPIC solicitations should be limited because it undermines each administrators' ability to coordinate their EPIC investments. This issue is likely to have already had negative impacts on the EPIC administrators and the EPIC program, as the CEC has already developed and released multiple solicitations but states it has not been able to coordinate with its fellow administrators on these solicitations. A lack of coordination and communication among the administrators with regards to research needs, scope, and other implementation details can be reasonably expected to negatively impact CEC solicitations, particularly because a good deal of its work funds innovations that will need to be demonstrated within the IOU's systems. Simply saying they *might wish* to bid on a solicitation is not a compelling reason for the IOU administrators to refuse to coordinate with the CEC.

Not providing input where necessary therefore entirely and inherently undermines the IOUs' roles as administrators. Preserving the IOUs' participation abilities is less important than ensuring they are able to coordinate

with their fellow administrators about planned program activities. Additionally, there does not seem to be any reliable method of determining in advance which solicitations IOU administrators may wish to bid on, particularly because we wish to avoid convoluted, opaque, and uncertain rules regarding which EPIC administrators may share input on each other's EPIC plans. At this stage in the program, open and close coordination among the administrators is essential.

With regard to the legal and practical considerations, we are concerned about the issues raised by the CEC regarding competitive disadvantages that energy innovators may face if competing with IOU administrators who could get access to their IP. We also agree that IOU participation may create perceptions among other bidders of bias, unfair advantage, and disproportionate influence. Being an administrator of a program necessarily translates to having more influence upon its priorities, focus, and specific outcomes. However, making a definitive determination on those counts is neither feasible (since we cannot speculate what various parties may do in the future with currently non-existent IP) nor necessary. As stated above, the Commission primarily decides this question with regards to the programmatic consideration, and on that basis makes its determination. Because it hampers coordination, IOU participation in CEC EPIC solicitations negatively impacts, and is contrary to, the administrator's role and it is limited on that basis.

This Decision requires the CEC to provide whatever information it deems necessary about under-development solicitations to the IOU administrators as a standard item in administrators' regular meetings to ensure its EPIC work is coordinated. IOU administrators are not required to assist the CEC in drafting solicitations, reviewing them, or other work that is solely the purview of each administrator; the IOUs *are* required to provide strategic input to the CEC as

requested as it does that work. This coordination is a necessary and normal part of their administrative activities.

This explicit requirement for the IOU administrators to provide input on CEC EPIC solicitations as requested effectively and intentionally prevents them from bidding on those solicitations under the CEC's rules.

The CEC must facilitate the IOUs' input on its solicitations in an efficient manner. IOU input on a CEC EPIC solicitation will not confer any responsibility on the IOU for that investment; that responsibility is still held by the CEC.

If an IOU administrator chooses to be a necessary partner on a CEC EPIC project (for example, on a project demonstrating an energy storage device connected to the utility's grid), the IOU may use its EPIC funds for those in-house costs; in this case, the IOU's reports shall identify the CEC project title and amount of IOU funding used, but the CEC shall be responsible for all other substantive reporting as with all its other projects.

We urge the IOU administrators to accept this requirement in good faith consistent with their commitment to a well-coordinated program and in recognition of our objective intent to protect the overall EPIC program goals.

15. General Coordination

In its application, SCE proposes an "annual California EPIC symposium" for administrators to present key results from their respective Investment Plans to the Commission and stakeholders. Such a public forum would increase the overall transparency of the Program and moreover, would provide the

opportunity to gain insight on the progress the Administrators have made on EPIC funded projects."[46] For several reasons, we agree.

First, the budget discrepancies, inconsistent application of proposed investments to Commission proceedings in the comparison matrix, and the comments regarding IOU-CEC coordination on CEC solicitations lead us to find that the administrators' coordination could be improved.

Second, the modifications and clarifications made in Appendix A demonstrate that EPIC work has an enormous impact upon Commission work and energy policy in general, and with such a significant funding program, we wish to improve EPIC-policy feedback loops. The Commission is currently overseeing a significant energy policy transformation in California, and this should be closely integrated with the EPIC investments administered on our behalf.

Third, the comments regarding administrator flexibility show that there is clearly a demand and a need for closer interaction among the four administrators and the Commission beyond just triennial application cycles. A symposium would be a practical way of building positive coordination.

Thus, we find it reasonable to approve SCE's suggestion and require the four administrators to coordinate to host an annual "EPIC Innovation Symposium" as part of their normal administrative duties starting in 2015. The purpose of these symposiums is to share progress, results, and future plans; improve coordination and understanding among administrators, parties, and the Commission, Energy Division in particular; raise awareness and visibility of

[46] SCE Investment Plan at 42.

EPIC investments; connect administrators, policymakers, and innovators; and improve program transparency. We view this requirement as a simple clarification of our requirement in the Phase 2 EPIC Decision OP 15, and this annual symposium may be counted as one of the two workshops required by that OP. Administrators shall make every effort to include the Commission, especially Energy Division staff working on affected proceedings, in the symposiums, and shall coordinate with and incorporate input from the Energy Division in producing this symposium. All other stakeholders, especially those named in the Phase 2 EPIC Decision (OP 15), shall be encouraged to attend.

16. Safety Considerations

As part of our review of the applications, the Commission has evaluated safety considerations thereto. Safety is a primary driving principle of the EPIC program, and thus although we address it specifically here, it has been a part of our review throughout. Two of the administrators addressed safety considerations in their comments: SDG&E briefly states its view that there are no key safety and resiliency questions that should be answered in our review. The CEC suggests we consider the following:

- Does each investment plan adequately address the principles articulated in Public Utilities Code Section 740.1 (e)(2)?
- Do emerging clean energy technologies and strategies include relevant public health and safety considerations?
- Do the investment plans include resiliency of the electricity system for extreme climate conditions?

These are reasonable and appropriate components of our review, and we have applied them throughout. As modified herein, the investment plans appropriately address safety and resiliency questions.

17. Comments on Proposed Decision

The proposed decision in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed on March 30, 2015, and reply comments were filed on April 6, 2015 by each of the administrators and ORA. We make several clarifications herein based on comments.

In its comments on the Proposed Decision, SCE's comments address the permissibility of funding research institutes such as EPRI, and the IOU prohibition under EPIC to fund Applied R&D. SCE states that "the IOUs are not able to buy pieces of an EPRI program. The IOUs are required to buy an entire EPRI project, and cannot just selectively purchase individual projects or discrete pieces of projects."[47] However, SDG&E in its comments states regarding the same issue that it understands and must follow the Commission's "spending rules for IOUs (i.e., only TD&D, no generation-only programs)" and intends to follow these rules as it funds institutes like EPRI. SDG&E makes no similar claim to SCE's that our rules render the IOUs unable to fund EPRI, nor do we intend for our rules to create such an outcome.[48] SDG&E's planned approach to funding beneficial work through research institutes while adhering to the Commission's IOU EPIC rules is appropriate, and SCE (as well as PG&E) should follow a similar approach.

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[47] SCE Comments on the Proposed Decision, at 2.

[48] SDG&E Comments on the Proposed Decision, at 2.

18. Assignment and Categorization of Proceeding

This proceeding is assigned to Administrative Law Judge David Gamson and Commissioner Michael Picker. This proceeding has been designated as ratesetting. We confirm that evidentiary hearings are not necessary.

Findings of Fact

1. EPIC is organized around three program areas: Applied R&D, TD&D, and Market Facilitation.

2. Decision 11-12-035 funded EPIC investments under the authorization of the Commission.

3. Decision 12-05-037 requires the Commission to consider EPIC investment plans every three years to coordinate investment in clean energy technologies and approaches for the public interest.

4. Both the specific details of Strategic Initiative 1.6, implemented with the CEC's overall process for administratively avoiding duplication, are satisfactory.

5. The proposed metrics included in Chapter 8 of the CEC's investment plan are sufficient.

6. As modified, the investments proposed in the CEC's investment plan are likely to provide ratepayer benefits.

7. The CEC's proposed bioenergy initiatives and funding levels establish no separate minimum EPIC funding for bioenergy.

8. PG&E's investment plan contains an adequate provision of metrics, and the proposals as modified are likely to yield ratepayer benefits.

9. The level of budget detail, provided in the EPIC applications, comments, and comparison matrix is appropriate and sufficient.

10. The EPIC oversight budget is 0.5% of total EPIC funding levels.

11. SDG&E's EPIC budget proposal did not account for the entirety of its share of the EPIC budget.

12. Administrative costs are defined as all EPIC program planning, technical project management, and oversight work, including program execution, workshops, and reporting.

13. The benefits of public interest Applied R&D programs extend far beyond those provided by Intellectual Property.

14. The value of Intellectual Property first depends upon the successful growth of the technology or approach it covers.

15. The nonexclusive licenses granted to the IOUs do not require the IOUs to sublicense the Intellectual Property to third parties.

16. Leveraged investments, conducted in relation to the work authorized under the 2013 EPIC Decision, face no different restrictions or review beyond that done for the rest of their proposals.

17. EPIC Administrators' Electric Vehicle work, as modified, is appropriately coordinated with these proceedings.

18. IOU Administrator participation in CEC EPIC solicitations can conflict with each Administrator's ability to coordinate their EPIC investments.

19. The EPIC Administrators submitted uncoordinated program and budget proposals.

20. EPIC investments need to be closely integrated so that significant energy policy transformation goals in California are met.

21. The project in the matrix titled "CAISO Operations and Utility Grid Coordination" is not in SCE's application.

22. Overhead, project management, oversight, research consortia membership fees, reporting, and internal coordination costs are all administrative activities.

Conclusions of Law

1. It is necessary to make clarifications and modifications to EPIC Administrators' 2015-2017 investment plan budgets.

2. EPIC Administrators' 2015-2017 investment plans should be approved with modifications.

3. As modified herein, the EPIC investment plans appropriately address safety and resiliency questions.

4. Each application, as modified and clarified herein, adequately addresses the criteria for EPIC investment, is just and reasonable, and is likely to provide ratepayer benefits.

5. Overall, the CEC's EPIC investment plan complies with the criteria laid out in the Phase 2 EPIC Decision.

6. The overall information provided by SCE is adequate, and its proposals, as modified herein, meet the applicable EPIC investment criteria.

7. SCE's "EPRI Research Program 60: Electric and Magnetic Fields and Radio-Frequency Health Assessment" project should be approved, subject to the requirement that SCE must only fund the demonstration and deployment of technologies and strategies in this area, not background research.

8. The lack of project/initiative-level budget detail does not prevent Commission review of EPIC Administrators' budgets.

9. It is unreasonable for each IOU administrator to pay the same portion of oversight costs, given their substantially different budgets.

10. It is reasonable that 80% of the total 0.5% oversight budget should come out of the CEC budget; the remaining 20% is allocated as follows: 50.1% from PG&E, 41.1% from SCE, and 8.8% from SDG&E.

11. EPIC Administrators may only fund projects or initiatives that have been approved by the Commission.

12. The roll-over treatment of 2012-2014 EPIC funds to the 2015-2017 cycle should apply to the treatment of interest on those funds.

13. Interest should be returned to ratepayers in the form of reduced collections for the subsequent program period. Interest on 2018-2020 funds should also be returned to ratepayers.

14. Administration of the EPIC program should be accounted for separately from the research and demonstration activities themselves.

15. PG&E and SDG&E's interpretation that an EPIC activity is inherently non-administrative simply because it is related to a specific project is not reasonable.

16. Intellectual Property activities (and related costs) are not subject to the administrative cap for the CEC given the extensive and mandated nature of the activity.

17. The Tier 3/business letter process is intended to be used in limited circumstances. EPIC Administrators should not use this process to file Intellectual Property waivers with program-portfolio wide impacts.

18. EPIC Intellectual Property requirements should include an exception for the third party indemnification/hold harmless requirement for government entities that are prevented legally from indemnifying a third party.

19. Neither the 2013 EPIC Decision nor any of the other EPIC decisions expressly prohibit IOU administrators from receiving or competing for CEC EPIC funds.

20. IOU administrator participation in California Energy Commission (CEC) EPIC solicitations should be allowed only if the utilities do not provide assistance

or strategic input to the CEC in a non-public forum during the CEC's solicitation development..

21. The project in the matrix titled "CAISO Operations and Utility Grid Coordination" is not in SCE's application and should not be approved.

22. Overhead, project management, oversight, research consortia membership fees that do not support TD&D directly, reporting, and internal coordination costs should count towards the administrative caps.

23. Petitions or applications to shift EPIC funds to the New Solar Home Partnership should be evaluated when and if submitted.

24. This proceeding should remain open to discuss the issue of flexibility to fund new projects between application cycles.

O R D E R

IT IS ORDERED that:

1. Electric Program Investment Charge Administrators' (The California Energy Commission (CEC), Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), Southern California Edison Company (SCE)) investment plans are approved as modified herein and in Appendix A. Final, escalated budgets and collection levels authorized herein are detailed in Appendix B. The 2015-2017 total EPIC budget is $509,782,700. The CEC's total EPIC budget for this period is $407,826,200; PG&E's total is $51,080,200; SCE's total is $41,904,100; and SDG&E's total is $8,792,800.

2. In their roles as Electric Program Investment Charge Administrators, Pacific Gas and Electric Company, San Diego Gas & Electric Company and

Southern California Edison Company shall not fund Applied Research and Development activities nor expressly fund others to do so, on their behalf.

3. No restrictions are placed on which organizations Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company may partner with in advancing their EPIC goals. Electric Program Investment Charge funds may fund research institutes that conduct demonstrations and deployments.

4. Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company may fund research institutes to the extent that their Electric Program Investment Charge funding allocations support Technology Demonstration and Deployment activities specifically.

5. Pacific Gas and Electric Company's project 30 shall only fund Technology Demonstration and Deployment activities.

6. The California Energy Commission, Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company shall identify specific Commission proceedings addressing issues related to each Electric Program Investment Charge (EPIC) project in their annual EPIC reports.

7. Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company shall ensure their proposals for Technology Demonstration and Deployment funding include only activities that fall into that category as defined by the Phase 2 EPIC Decision.

8. The project in the matrix titled "CAISO Operations and Utility Grid Coordination" for Southern California Edison Company is not approved.

9. The California Energy Commission (CEC), Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E) and Southern California Edison Company (SCE) share of the total annual 0.5%

oversight budget shall be as follows: CEC 80%, PG&E 10.02%, SCE 8.22%, and SDG&E 1.76%. The utilities shall remit their annual oversight payment amount, as well as their respective proportional amounts of the CEC's oversight payment, to the Commission by July 1 annually and consistent with the process detailed in the Oversight Payment Process letters sent to each utility September 19, 2014.

10. Each Electric Program Investment Charge (EPIC) administrator's administrative budget shall be no more than 10% of their individual total EPIC budgets, and each administrator's individual total EPIC budgets includes their program budget, administrative budget, and oversight budget.

11. Each Electric Program Investment Charge (EPIC) Administrator shall, as part of all future EPIC applications, include a budget proposal in table format, broken down by each budget area, including grand totals, and presented for annual and triennial periods.

12. Accumulated interest from Electric Program Investment Charge program budgets shall be returned to ratepayers.

13. All interest on 2012-2014 and 2015-2017 Electric Program Investment Charge funds remaining at the end of the 2015-2017 cycle shall be returned to ratepayers. Interest accrued during the 2018-2020 cycle shall also be returned to ratepayers.

14. The California Energy Commission shall track interest from Electric Program Investment Charge (EPIC) funding and reduce its EPIC program invoices to other EPIC administrators accordingly.

15. Administrators' 2018-2020 investment plans shall identify the amount of accumulated interest expected to reduce collections in that period, and their proposed budgets should be adjusted accordingly.

16. Project management and oversight, research consortia membership fees, reporting, and internal coordination are all administrative activities and shall count towards the administrative caps for the California Energy Commission, Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company.

17. Investor-owned utilities' remittances of the California Energy Commission's administrative costs shall be made in advance for the quarter on the first business day of that quarter.

18. A Tier 3 Advice Letter (except for the California Energy Commission (CEC)) must be filed with the Energy Division when an administrator identifies a compelling need for a specific waiver of our Electric Program Investment Charge Intellectual Property requirements, at the individual project/solicitation level. The CEC shall provide a business letter to the Energy Division and serve it on the consolidated service list in this proceeding. The CEC shall not implement any waiver until it is provided with a letter from the Energy Division confirming the waiver. Energy Division shall provide at least ten days for parties to review any such business letter before confirming a waiver.

19. Requests for waiver of the Commission's Electric Program Investment Charge Intellectual Property requirements shall detail the specific requirements at issue and include a demonstration of quantifiable benefits that are at risk should the waiver not be granted.

20. Government entities that may not legally indemnify or hold a third party harmless may, as EPIC funding recipients, be exempted from EPIC hold harmless/indemnification requirements in their agreements with Administrators. All other entities are bound by these requirements.

21. The California Energy Commission, Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company may leverage prior investments via proposing a second phase of a project in their 2015-2017 plans.

22. Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company shall provide strategic necessary input to the California Energy Commission (CEC) as requested as the CEC plans EPIC solicitations.

23. Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company (the utilities) may participate in California Energy Commission (CEC) solicitations only if the utilities do not provide assistance or strategic input to the CEC in a non-public forum during the CEC's solicitation development.

24. Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company (investor-owned utilities (IOUs)) Electric Program Investment Charge reports shall identify the California Energy Commission (CEC) project title and amount of IOU funding used for joint projects. The CEC shall be responsible for all other substantive reporting.

25. Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company (the utilities) may use their Electric Program Investment Charge (EPIC) funds for those in-house costs connected with projects where the utilities choose to be a necessary partner on a California Energy Commission EPIC project.

26. The budgets authorized in this decision supersede the budget allocations given in Table 2 in Decision 12-05-03, as modified by Decision 12-07-001.

27. The California Energy Commission, Pacific Gas and Electric Company, San Diego Gas & Electric Company and Southern California Edison Company shall coordinate, with input from Energy Division, to host an annual "Electric Program Investment Charge Innovation Symposium" as part of their normal administrative duties starting in 2015. This symposium may be counted as one of the two annual workshops required in D.12-05-037 O.P. 15. The annual EPIC Innovation Symposium is intended to achieve the following:

1) Sharing progress, results, and future plans;
2) Improving coordination and understanding among administrators, parties, and the Commission;
3) Raising awareness and visibility of EPIC investments; and,
4) Promoting program transparency.

28. Applications (A.) 14-04-034 A.14-05-003, A.14-05-004, A.14-05-005 remain open.

This order is effective today.

Dated _____, at San Francisco, California.

APPENDIX A

Appendix A: Modifications/Requirements to Specific Projects and Initiatives

Administrator	Project/Initiative Title	Commission Modifications, Requirements, and Direction
SCE	Optimized Control of Multiple Storage Systems	IOU management and control of the distribution system will affect CAISO management and control of the transmission system, which in turn affects identification of need for generation and other services at the transmission level in the LTPP; for this reason, SCE shall ensure that this project is well-coordinated with CAISO and CPUC procurement planning.
SCE	EPRI Research Program 94: Energy Storage	IOU management and control of the distribution system will affect CAISO management and control of the transmission system, which in turn affects identification of need for generation and other services at the transmission level in the LTPP; for this reason, SCE shall ensure that this project is well-coordinated with CAISO and CPUC procurement planning.

SCE	System Intelligence and Situational Awareness	Substation automation and advanced substation equipment should aid in operation of substations that are links between transmission system and distribution system; improved operations should impact identification of needs in LTPP; for this reason, and to ensure that this effort is efficiently implemented, SCE shall ensure that activities are properly coordinated with the LTPP.
SCE	Regulatory Mandates: Submetering Enablement Demonstration Phase 2	Submetering of PEVs will facilitate their potential participation in the RA program (successor to R.11-10-023); to ensure maximum ratepayer benefits for this work, activities should consider compliance with CAISO and CPUC eligibility requirements for RA resources.
SCE	DC Fast Charging Demonstration	DC fast charging technology is already well-understood, and similar deployments are already underway. However, because the utility role in EV infrastructure is an evolving question, the information provided by a demonstration of this type would be useful. SCE must ensure this project is coordinated with related Commission proceedings regarding EVs.

SCE	Level 1 Make Readies Demonstration	To the extent that the charging equipment encourages mid-day charging, it may serve as a model for how future mid-day overgeneration can be addressed, which is an issue the RA (successor to R.11-10-023) & LTPP (R.13-12-010) proceedings are dealing with; SCE shall consider these concerns in its work.
SCE	EPRI Research Program 60: Electric & Magnetic Fields and Radio-Frequency Health Assessment	This project (and all other IOU administrator projects) shall not fund applied research and development, defined in the Phase 2 EPIC Decision Finding of Fact 3 as "activities supporting pre-commercial technologies and approaches that are designed to solve specific problems in the electricity sector."
SCE	CAISO Operations and Utility Grid Coordination	**This project was not included in SCE's application and is not authorized by the Commission in this Decision.**
SCE	Cyber-intrusion Auto-response and Policy Management System	This project was initiated in 2014 by SCE using 2012-2014 EPIC funds without authorization from the Commission. Authorization of this project may be subject to further review or Commission action.

SCE	Regional Grid Optimization Demonstration - Phase II	To ensure that the results of this project are deployable, consistent with relevant regulatory mechanisms, and well-coordinated, this project should consider how these interconnected devices can participate in the RA program (R.11-10-023 and its successor) and what design features should be included to ensure eligibility.
PG&E	2. Pilot Distributed Energy Management Systems (DERMS)	In its implementation of this project, PG&E should consider whether/how more visible and controllable storage/ EVs/ DG resources can participate in the RA program (R.11-10-023 and its successor) and ensure that the design of the control systems complies with CAISO and CPUC eligibility requirements for RA resources; this will help ensure results are applicable, coordinated, and provide benefits.
PG&E	3. Testing of Smart Inverter Capabilities	As part of PG&E's work to ensure that it provides ratepayer benefits, this project could consider whether or how smart inverters might enable or facilitate residential DG participation in the RA program (R.11-10-023 and its successor) as aggregated resources. Additionally, EV charging stations and on-vehicle smart inverter technologies should be included within the scope of this project.

PG&E	19. Enable Distributed demand-side strategies & technologies	Work addressing local and flexible resource needs should consider RA program (R.11-10-023 and its successor) obligations and resource eligibility/participation requirements. If the project is looking at long-term deployment strategies/roadmapping, then it should also consider coordination with the LTPP proceeding (R.13-12-010). Incorporating these considerations will help ensure these strategies are coordinated and provide ratepayer benefits.
PG&E	20. Real-time energy usage feedback to customers	If "customer participation in energy markets" includes potentially qualifying as an RA resource, then the project must consider CAISO and CPUC RA resource requirements (R.11-10-023 and its successor).
PG&E	26. Customer & Distribution Automation Open Architecture Devices	PG&E shall consider in its implementation of this project how project results might enable behind the meter resources to participate in the RA program (R.11-10-023 and its successor), and what CAISO & CPUC requirements these connection/communication/control paths must comply with in order to have the resources be eligible for RA credit.

SDG&E	Modernization of Distribution System and integration of Distributed Generation and Storage	Advances in distribution system design will affect the planning and operation of transmission system and resources typically planned for in the LTPP; SDG&E should ensure this effort is coordinated with the LTPP to efficiently impact change and deliver ratepayer benefits.
SDG&E	Data Analytics in Support of Advanced Planning and System Operations	This project may have implications for storage and demand response resources. To the extent that it addresses storage and DR resources wishing to receive RA credit, the project should consider CAISO and CPUC RA program requirements for telemetry, for non-generating resources in general, and for statistical reporting for aggregated resources (R.11-10-023 and its successor) to ensure that the project is an effective use of ratepayer dollars. In addition, big data to support power system operations at distribution level likely holds key learnings for power system operations at transmission levels; SDG&E shall consider these factors and coordinate this effort with the LTPP accordingly to ensure results efficiently impact change.

SDG&E	Integration of Customer Systems into Electric Utility Infrastructure	To the extent that the customer systems may serve as RA resources, this project should consider CAISO and CPUC RA program eligibility/participation requirements (R.11-10-023 and its successor) to ensure activities are geared efficiently towards beneficial results.
CEC	S1.2: Develop Model Designs and Strategies for Cost-Effective Zero Net Energy Homes and Buildings	If the value proposition may include participation in CAISO markets as RA resources, then this project might consider how ZNE homes and buildings can be set up to meet CAISO and CPUC eligibility requirements for RA resources (R.11-10-023 and its successor). Additionally, the impact of PEVs integrated with ZNE building scenarios should be considered to ensure these designs and strategies do not dis-incentivize alternative-fueled vehicles.

CEC	S1.6: Advance Strategies to Reduce the Impact of California Buildings on the Water-Energy Nexus	To ensure that its investments are coordinated with electricity regulations and provide ratepayer benefits, the CEC in implementing this initiative may wish to consider how TOU water rates could be integrated into future LTPP scenarios (R.13-12-010). Additionally, the CEC is advised that the consulting firm Navigant is developing a calculator for embedded energy as part of the Commission's water/energy nexus proceeding, and duplication with that effort should be avoided.

CEC	S2.1: Develop and Test Demand Response Technologies to Assess Performance, Increase Reliability and Improve Forecasting Techniques	To ensure this work is coordinated with ongoing DR regulatory changes, the CEC should consider how these advanced DR technologies and capabilities may impact or be impacted by the RA program (R.11-10-023 and its successor), as well as whether/how better DR/forecasting should be integrated into production cost simulation models for the RA program (ELCC modeling) and/or the LTPP proceeding (Operational Flexibility modeling, R.13-12-010). This will help ensure that CEC DR applied R&D is non-duplicative of concurrent innovations in this space and efficiently provides ratepayer benefits. Additionally, forecasting of DR should aid confidence in DR demand-side assumptions in the LTPP, including trends in DR over time; forecasting improvements should assist in finding, forecasting, and assuming DR. This work is likely to be relevant to/impacted by the DR rulemaking (R.13-09-011), which is not identified in the comparison matrix for this project; the CEC shall ensure that this effort is coordinated with/informed by these proceedings.

CEC	S4.2: Develop Innovative Tools and Strategies to Increase Predictability and Reliability of Wind and Solar Energy Generation.	Improved forecasting of wind/solar can help make assumptions about renewables more accurate in the LTPP; this in turn will help directly create ratepayer savings; thus the CEC shall ensure this initiative is coordinated with or can inform the LTPP.
CEC	S5.3: Improve Science for Water Management in Power Generation: Hydropower Forecasting and Alternative Sources of Cooling Water.	When investigating the technologies and strategies that may be applied and demonstrated in this space, the CEC should consider how these innovations may interact with the RA program, for example by informing how the qualifying capacity for hydropower resources should be calculated (R.11-10-023 and its successor). It should also consider whether/how they should be integrated into production cost simulation models for the RA program (ELCC modeling) and/or the LTPP proceeding (Operational Flexibility modeling, R.13-12-010).
CEC	S5.4: Provide Tools and Information for Regional Climate Change Adaptation Measures for the Electricity Sector	If this initiative demonstrates that wind/solar availability are affected by climate change, such change in availability could get incorporated into LTPP assumptions, to the direct benefit of ratepayers; thus the CEC shall ensure that relevant results are shared with the appropriate Energy Division staff to help inform future procurement planning proceedings.

CEC	S8.1: Develop Customer Systems to Manage Demand Response, Renewables, and Electric Vehicles, and Integrate these Tools with the Grid	To ensure customer-side innovations are well-coordinated with ongoing regulatory decisions and can provide ratepayer benefits, the CEC in implementing this initiative should consider how these customer-side systems can enable participation in the RA Program (considering CAISO and CPUC eligibility/participation criteria) - R.11-10-023 and its successor.
CEC	S9.1: Advance Electric Vehicle Charging to Increase Renewable Energy Levels and Improve Grid Reliability.	To ensure the results of this initiative have the maximum impact and usefulness, the CEC should in its implementation and scoping clearly identify use cases and specific grid functionalities that are being explored. Automatic frequency response should be included as one application that gets tested, as this is a key area needing demonstration in this space.
CEC	S9.2: Advance Vehicle-Grid Integration Technologies and Methods for Broader Use and Benefit for Residential, Private, and Public Users.	The CEC shall ensure that these efforts are coordinated with ARB and CPUC developments in this area, as these agencies' ongoing definitions of use cases in particular will impact this work.
CEC	S9.3: Advance Technologies and Methods to Enable Safe, Efficient, and Smart Recycling of Electric Vehicle Batteries	This initiative could seek to define different levels of recycling of batteries, which would help inform pertinent regulatory and policy action.

CEC	S16.1: Demonstrate the Ability of Electric Vehicles to Provide Advanced Grid Services	Results of this initiative will be directly relevant to CAISO and operation of its market; the presence of EVs as providers of grid services would affect LTPP assumptions and could become part of the mix of available resource solutions. For this reason, and to ensure results benefit ratepayers, the CEC shall ensure that results are appropriately shared with Energy Division staff to help inform future LTPP proceedings.
CEC	S19.2 Facilitate Innovative Procurement Strategies to Reduce Costs for Clean Energy Technologies	The CEC should consider in implementing this initiative how best to ensure that these strategies support the ability of aggregated systems to contribute to reliability as RA resources; rather, CAISO and CPUC eligibility and participation criteria will be important factors to consider when deploying innovative procurement strategies.
CEC	S21.1 Conduct Analyses on Different Technology Options and Strategies for the Electricity System	The 2016 LTPP cycle will be developing/setting out scenarios to achieve the 2050 GHG goals. Because this initiative may also directly engage in roadmap development, scenario-building, and analysis of trends and gaps, the CEC must coordinate planning and share results with Energy Division LTPP staff.

APPENDIX B:

Appendix B: Reconciled and Approved Budget Tables

This appendix provides budget information in two parts, showing the methodologies and budgets described in the Reconciling Proposed Budgets section of this Decision.

Tables 1-4 clarify the proper reconciled budgets for each administrator, *unescalated*. Table 5 uses these clarified methodologies and applies the escalation rate to the reconciled budgets to give the approved collection amounts and administrator budgets for the 2015-2017 period.

The CEC's general budget breakdown methodology is: The CEC's total EPIC budget is 80% of the EPIC program amount; the CEC pays 80% of the 0.5% EPIC program oversight budget, taken out of its total EPIC budget; 10% of the CEC's total budget is allocated for administration; and its three program area budgets are kept at the proposed percentage of its total program budget.

The utilities' general budget breakdown methodology is: the three utilities have 20% of the EPIC program budget, allocated pursuant to their collection amount; they altogether pay 20% of the program oversight amount, allocated among them pursuant to their collection amount; 10% of each utility's budget is allocated for administration; and the remainder is allocated for the TD&D program area.

Table 1: CEC Reconciled 2015-2017 Budget, Unescalated

Total EPIC Budget:	$486,000,000	
Total CPUC Oversight Budget:	0.5% of total EPIC budget	0.005 * $486,000,000 = $2,430,000
CEC EPIC Budget	80% of total EPIC budget	0.8 * $486,000,000 = $388,800,000
CEC Administrative Budget	10% of CEC EPIC Budget	0.1 * $388,800,000 = **38,880,000**
CEC Share of Oversight Budget	80% of total CPUC oversight budget	0.8 * $2,430,000 = **$1,944,000**
CEC Program Area Budget	CEC EPIC Budget – administrative and oversight budgets	$388,800,000 - $38,880,000 - $1,944,000 = **$347,976,000**

We next adjust proposed program area budgets, preserving their proposed ratio to the total program investment budget.

Program Area	Proposed Budget	Proposed Budget as Percent of Total Program Area Budget	Reconciled Program Area Budget, Preserving the Proposed Percentage of Total Program Area Budget*
Applied Research and Development	$151,630,000	43.33%	**$150,787,611**
Technology Demonstration and Deployment	$145,020,000	41.44%	**$144,214,333**
Market Facilitation	$53,270,000	15.22%	**$52,974,055**

*Rounded down to whole dollar amounts.

Table 2: PG&E Reconciled 2015-2017 Budget, Unescalated

Total EPIC Budget:	$486,000,000	
Total CPUC Oversight Budget:	0.5% of total EPIC budget	0.005 * $486,000,000 = $2,430,000
IOUs' Portion of Total EPIC Budget:	20% of total EPIC budget	0.2 * $486,000,000 = $97,200,000
PG&E Collection Allocation	50.1%	
PG&E EPIC Budget	50.1% of IOU share of EPIC budget	$97,200,000 * 0.501 = **$48,697,200**
PG&E Administrative Budget	10% of PG&E EPIC Budget	$48,697,200 * 0.1 = **$4,869,720**
PG&E Share of Oversight Budget	10.02% of total CPUC oversight budget (50.1% of remaining 20% not paid by CEC)	0.1002 * $2,430,000 = **$243,486**
PG&E Program Area (TD&D) Budget	PG&E EPIC Budget – administrative and oversight budgets	$48,697,200 - $4,869,720 - $243,486 = **$43,583,994**

Table 3: SCE Reconciled 2015-2017 Budget, Unescalated

Total EPIC Budget:	$486,000,000	
Total CPUC Oversight Budget:	0.5% of total EPIC budget	0.005 * $486,000,000 = $2,430,000
IOUs' Portion of Total EPIC Budget:	20% of total EPIC budget	0.2 * $486,000,000 = $97,200,000
SCE Collection Allocation	41.1%	
SCE EPIC Budget	41.1% of IOU share of EPIC budget	$97,200,000 * 0.411 = **$39,949,200**
SCE Administrative Budget	10% of SCE EPIC Budget	$39,949,200 * 0.1 = **$3,994,920**
SCE Share of Oversight Budget	8.22% of total CPUC oversight budget (41.1% of remaining 20% not paid by CEC)	0.0822 * $2,430,000 = **$199,746**
SCE Program Area (TD&D) Budget	SCE EPIC Budget – administrative and oversight budgets	$39,949,200 - $3,994,920 - $199,746 = **$35,754,534**

Table 4: SDG&E Reconciled 2015-2017 Budget, Unescalated

Total EPIC Budget	$486,000,000	
Total CPUC Oversight Budget	0.5% of total EPIC budget	0.005 * $486,000,000 = $2,430,000
IOUs' Portion of Total EPIC Budget	20% of total EPIC budget	0.2 * $486,000,000 = $97,200,000
SDG&E Collection Allocation	8.8%	
SDG&E EPIC Budget	8.8% of IOU share of EPIC budget	$97,200,000 * 0.088 = **$8,553,600**
SDG&E Administrative Budget	10% of SDG&E EPIC Budget	$8,553,600 * 0.1 = **$855,360**
SDG&E Share of Oversight Budget	1.76% of total CPUC oversight budget (8.8% of remaining 20% not paid by CEC)	0.0176 * $2,430,000 = **$42,768**
SDG&E Program Area (TD&D) Budget	SDG&E EPIC Budget – administrative and oversight budgets	$8,553,600 - $855,360 - $42,768 = **$7,655,472**
SDG&E Proposed TD&D Budget, as percent of total TD&D Budget*	$7,800,000 / 7,920,000 = 98%	
SDG&E Reconciled TD&D Budget, Adjusted to Proposed Level	$7,655,472 * 0.98 = **$7,502,362****	

*As discussed in the Reconciling Proposed Budgets section of this Decision, SDG&E did not propose to invest its entire authorized amount. Therefore this Decision preserves the ratio of proposed budget to entire authorized budget.

**Rounded down to the whole dollar.

Approved Budgets by Administrator, Escalated

The Phase 2 EPIC Decision Ordering Paragraph 7 directs a collection escalation be made on January 1, 2015 commensurate with the average change in the Consumer Price Index for Urban Wage Earners and Clerical Workers for the third quarter for the previous three years. This index was unavailable when the administrators' applications were filed, but became available during our review.

The CPIs for Urban Wage Earners and Clerical Workers for the third quarters of 2012, 2013, and 2014 were as follows: 226.540 in 2012, 229.879 in 2013, and 233.791 in 2014. Using the same CPI from 2011 (222.884) to determine the change in these indices for the three year period yields a compounded annual growth rate of 1.605%. This annual growth rate is then compounded by three years (for the 2015-2017 triennial period) as follows: 1.605^3 – 1 = 4.89%.

Thus, the proper compounded triennial escalation rate by which the EPIC program collection and budget amounts shall be increased is 4.89%. This yields a total of $509,782,783.87, which we will round to $509,782,800.00. We used this total of $509,782,800.00 to arrive at the final, escalated, approved budgets in Table 5, via the same methodology used to reconcile the budgets in Tables 1 through 4, increased by 4.89%. The final budgets are rounded to the nearest hundred for administrative simplicity.

Table 5: Approved, Escalated 2015-2017 EPIC Budgets by Administrator

Amounts are rounded to the nearest hundred

	CEC	PG&E	SCE	SDG&E	Total
Utility Collection/ Funding Allocation	N/A	50.10%	41.10%	8.80%	100%
Authorized EPIC Funding Collection	N/A	$255,401,200	$209,520,700	$44,860,800	$509,782,700
Program Administrator Budget by Funding Element					
Applied Research and Development	$158,166,500	N/A	N/A	N/A	$158,166,500
Technology Demonstration and Deployment	$151,271,600	45,716,800	$37,504,200	$7,868,600	$242,361,200
Market Facilitation	$55,566,400	N/A	N/A	N/A	$55,566,400
Program Administration	$40,782,600	$5,108,000	$4,190,400	$879,300	$50,960,300
Program Oversight (to be remitted to CPUC)	$2,039,100	$255,400	$209,500	$44,900	$2,548,900
Total	$407,826,200	51,080,200	$41,904,100	$8,792,800	$509,603,300*

*As previously discussed in this Decision and appendix, SDG&E's final approved budget here is 98% of its allocated share of the program budget; thus, the grand total in this table does not equate to the triennial collection amount.