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Decision 18-01-008 January 11, 2018

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of Pacific Gas and Electric Company for Approval of its 2018-2020 Electric Program Investment Charge Investment Plan. (U39E).	Application 17-04-028
And Related Matters.	Application 17-05-003 Application 17-05-005 Application 17-05-009

DECISION ADDRESSING APPLICATIONS OF THE CALIFORNIA ENERGY COMMISSION, PACIFIC GAS AND ELECTRIC COMPANY, SOUTHERN CALIFORNIA EDISON COMPANY AND SAN DIEGO GAS & ELECTRIC COMPANY FOR APPROVAL OF THEIR TRIENNIAL INVESTMENT PLANS FOR THE ELECTRIC PROGRAM INVESTMENT CHARGE PROGRAM FOR THE YEARS 2018 THROUGH 2020, AND MODIFYING DECISION 12-05-037

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Summary

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 pursuant to Decision (D.) 11-12-035. D.12-05-037 designated the California Energy Commission (CEC), Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE) and San Diego Gas & Electric Company (SDG&E) as the administrators of the program, and requires the Commission to conduct a public proceeding every three years to review and approve the investment plans of each EPIC administrator to ensure coordinated public interest investment in clean energy technologies and approaches.

As explained herein, this decision reviews and approves the CEC's 2018-2020 investment plan, establishes the overall three-year funding level of the EPIC program for 2018-2020 at $555 million, allocates that amount between the CEC, PG&E, SCE and SDG&E, and directs the utilities to collect EPIC funds from their ratepayers. D.12-05-037 is modified to allow the Commission to use any reasonable method to adjust the triennial EPIC collection amount for inflation. Finally, this decision also establishes a framework for improved research and

policy coordination based, in part, on recommendations made in a recent evaluation of the EPIC program. Other matters within the scope of this proceeding, including (1) review of the investment plans of PG&E, SCE and SDG&E and (2) consideration of the remaining recommendations made in the EPIC evaluation, will be addressed in a second decision in this proceeding.

1. Procedural Background

The California Public Utilities Commission (CPUC or Commission) opened Rulemaking (R.) 11-10-003 to address funding and program issues related to the research, development, and demonstration (RD&D) portions of the public goods charge funding that expired in 2011. A number of decisions in that Rulemaking established the structure and funding of the successor program.

First, Decision (D.) 11-12-035 established the Electric Program Investment Charge (EPIC) on an interim basis for 2012, in order to fund public interest investments in: (1) applied research and development (R&D); (2) technology demonstration and deployment (TD&D); and (3) market facilitation of clean energy technologies and approaches, to be undertaken for the benefit of electricity ratepayers of Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE) and San Diego Gas & Electric Company (SDG&E). Decision 11-12-035 also established the EPIC funding collection levels for 2012.

Next, D.12-05-037 ordered that the EPIC program would continue from 2012 through 2020[1] and authorized EPIC funding collections by PG&E, SCE and SDG&E from January 1, 2013 through December 31, 2020 to coincide with the timeframe (at that time) for completion of certain Renewable Procurement

[1] D.12-05-037, Ordering Paragraph 1.

Standard and greenhouse gas emissions reduction requirements pursuant to Assembly Bill 32.[2] The Commission stated that it could reassess at that time whether the EPIC program and surcharge should be continued, modified, or eliminated.

D.12-05-037 designated the CEC, PG&E, SCE, and SDG&E as administrators of the EPIC program, with the CEC administering 80% of the EPIC funds and investing in applied R&D, TD&D, and market facilitation. The three large Investor-owned Utilities (IOUs) would administer the remaining 20% of the EPIC funds, with IOU investments restricted to TD&D.

The Commission also clarified in D.12-05-037 that the "primary and mandatory guiding principle of the [EPIC] shall be to provide electricity ratepayer benefits, defined as promoting greater reliability, lower costs, and increased safety."[3] The Commission also established certain required elements that the administrators must include in their triennial investment plans. Finally, the Commission established the framework for Commission oversight of the program, whereby the Commission maintains overall policy oversight of the program, and program funds are administered under the oversight and control of the Commission.

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[2] *Id.* at 64 and Finding of Fact 29. Assembly Bill 32 (Nunez, Stats. 2006, Ch. 488) established the California Global Warming Solutions Act of 2006 which required the state to reduce its greenhouse gas emissions to 1990 levels statewide by 2020.

[3] D.12-05-037, Ordering Paragraph 2.

The administrators filed their first triennial investment plans in 2013, covering the collection years 2012-2014. The Commission approved the plans with some modifications in D.13-11-025, authorized collection of EPIC funds from ratepayers totaling $162 million annually, and further clarified the EPIC guidelines.

The administrators filed their second triennial investment plans in 2014, covering the collection years 2015-2017. The Commission approved the plans, again with some modifications, in D.15-04-020, increased the authorized annual collection from ratepayers to $169 million, and again provided clarifications of program guidelines. Later in the same docket, the Commission issued D.15-09-005 to address issues deferred by D.15-04-020.

The instant proceeding will address the administrators' third triennial investment plans. Pursuant to the timeframe established in D.12-05-037, the administrators filed their 2018-2020 investment plans in Applications (A.) 17-04-028, A.17-05-003, A.17-05-005, and A.17-05-009 (filed by PG&E, the CEC, SCE, and SDG&E respectively). Each administrator served its application on parties in the 2015-2017 investment plan proceeding as well as on 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.

On June 5, 2017, the Office of Ratepayer Advocates (ORA) filed a consolidated protest to each of the four applications. PG&E, SCE, SDG&E and the CEC each filed replies to ORA's protest on June 22, 2017.

In response to a June 5, 2017 motion by ORA, on June 27, 2017 the assigned Administrative Law Judge (ALJ) issued a ruling consolidating all four applications because the applications concern identical or closely-related questions of law or fact.

The assigned ALJ and assigned Commissioner conducted a prehearing conference (PHC) on July 12, 2017. The August 18, 2017 Scoping Memo and ruling of the assigned Commissioner (Scoping Memo) established the scope and schedule for this proceeding. The Scoping Memo determined that the issues in this proceeding are primarily issues of policy and do not implicate reasonably contested material issues of fact, and for that reason hearings are not necessary. Instead, the record necessary to resolve the issues within the scope of this proceeding—beyond the triennial plans themselves—has been developed through public workshops and post-workshop comments and reply comments filed by the administrators and other parties in this proceeding.

2. Issues in this Proceeding

Our review of the triennial investment plans is primarily guided by the requirements of D.12-05-037, which requires that the administrators' triennial investment plans include certain specified information, and imposes additional requirements on the IOUs' investment plans.[4] As noted above, the Commission clarified the requirements established in D.12-05-037 in two subsequent decisions, D.13-11-025 and D.15-04-020. The current requirements for investment plan Compliance with D.12-05-037, as clarified by D.13-11-025, and D.15-04-020, are provided in Appendix A to this decision.

[4] D.12-05-037, Ordering Paragraphs 12 and 13.

In sum, in this proceeding we will review each investment plan for compliance with the requirements established in previous EPIC decisions, and determine whether the investment plan proposals offer a reasonable probability of providing the required electricity ratepayer benefits of greater reliability, lower costs, and increased safety. As required by D.12-05-037, the mandatory and primary guiding principle for our review is this demonstration of the potential to provide those benefits.[5] That decision also found that certain complementary guiding principles include societal benefits, greenhouse gas emissions mitigation and adaptation in the electricity sector, and economic development,[6] but electricity ratepayer benefits are indispensable and must serve as the primary justification for the expenditure of EPIC funds.

The Scoping Memo also identified a number of additional matters that are within the scope of this proceeding.

First, the Commission determined in D.12-05-037 that an independent evaluation of the EPIC program should be conducted in 2016.[7] That evaluation was completed in September, 2017 and distributed to parties in this proceeding. The scope of this proceeding includes review of the results and recommendations contained in that report.[8] The evaluation focused on EPIC's core values of providing ratepayer benefits, advancing energy innovation, and

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

[6] *Ibid.*

[7] D.12-05-037, Finding of Fact 12.

[8] Electric Program Investment Charge Evaluation Final Report, September 8, 2017 (EPIC Evaluation).

supporting California's energy policy goals. The EPIC Evaluation reached the key findings listed below:[9]

- The EPIC administrators are in compliance with the *letter* of EPIC program requirements, but could better fulfill the *spirit* of some requirements;
- Each project in the EPIC project portfolio is meeting its objectives, but it is unclear if the portfolio as a whole is optimized;
- There is a need to prioritize among EPIC's many objectives;
- There is a need to supplement the administrative structure by convening an independent body to coordinate, facilitate and lend technical expertise; and
- The IOUs, while technically in compliance with program requirements, could improve upon information sharing and stakeholder engagement.

The EPIC Evaluation's detailed recommendations reflecting these key findings are listed in Appendix B to this decision.

Second, the scope of this proceeding includes matters regarding the interaction between the EPIC program and disadvantaged communities in California. The CEC organizes its EPIC investment plan according to eight "Strategic Objectives", one of which is to "catalyze clean energy investment in California's disadvantaged communities."[10] The CEC states that its plan will target a minimum of 25 percent of EPIC technology demonstration and deployment funding for sites located in disadvantaged communities, with a focus on "scaling-up technology solutions best suited to meet the needs of

[9] EPIC Evaluation, Page 1-3 through page 1-11.

[10] CEC's Proposed 2018-2020 Triennial Investment Plan at 18.

residents in disadvantaged communities as well as the businesses and institutions that serve them."[11]

The CEC's plan stimulated discussion at the PHC regarding the question of whether the other administrators are engaging in similar targeting activities. Consistent with that discussion, the Scoping Memo determined that this proceeding shall include two broad topics regarding disadvantaged communities:

1. Funding decisions: determination of strategies and opportunities for directing EPIC projects, and/or their results, to disadvantaged communities. These strategies and opportunities should be informed by meaningful feedback from disadvantaged communities that provides greater understanding of the R&D needs of disadvantaged communities.
2. Outreach and engagement: Determination of the best means of conducting outreach and engaging with disadvantaged communities in order to heighten local awareness of the opportunities for community members to (a) apply for EPIC funds, (b) ensure that beneficial projects are sited in their communities, and (c) benefit from the results of all relevant EPIC projects.

[11] *Id*. at 19. The CEC bases this targeting on the results of its 2016 "Low-Income Barriers Study", which it conducted pursuant to SB 350, the Clean Energy and Pollution Reduction Act of 2015 (Stats. 2017, Chapter 547). The CEC's study explored barriers to and opportunities for expanding clean energy deployment in disadvantaged communities. According to the CEC, its study identified several barriers unique to disadvantaged communities: "Some barriers are structural, inherent to the conditions of poverty in California. These barriers may be mitigated but are difficult to eradicate. Other barriers stem from policy and program decisions, and these may be overcome through new policy development or program refinement."

Further legislative developments since the Scoping Memo issued will also inform our decisions in this proceeding regarding the interactions between the EPIC program and disadvantaged communities. In October 2017, Governor Brown signed AB 523, which formalizes the requirement that the CEC expend at least 25 percent of its EPIC funds for TD&D at sites located in, and benefiting, disadvantaged communities, and adds a new requirement that the CEC expend at least 10 percent of its EPIC funds for TD&D at sites located in, and benefiting, low-income communities located in the state.[12] AB 523 also requires the CEC to take into account, when applicable, the adverse localized health impacts of proposed EPIC projects to the greatest extent possible, and include in its annual EPIC report to the Legislature a brief description of the impact on program administration from the allocations required by the bill, including any information that would help the Legislature determine whether to reauthorize those allocations beyond June 30, 2023.

AB 523 reflects California's intent to make the state's clean energy programs more equitable by moving the state toward greater clean and renewable energy while increasing the participation of economically and environmentally vulnerable communities in this transition. The Commission recognizes the alignment of AB 523 with goals previously established in SB 350, and supports the purpose of this bill.

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[12] Stats. 2017, Chapter 551, amending Section 25711.5 of, and to add and repeal Section 25711.6 of, the Public Resources Code. "Disadvantaged communities" are defined as communities identified pursuant to Section 39711 of the Health and Safety Code. "Low-income communities" are defined as communities within census tracts with median household incomes at or below either (a) eighty percent of the statewide median income, or (b) the applicable low-income threshold listed in the state income limits updated by the Department of Housing and Community Development and filed with the Office of Administrative Law pursuant to subdivision (c) of Section 50093 of the Health and Safety Code.

Third, the scope of this proceeding includes items identified by the CEC in its application or at the PHC:

- Clarification of the requirements of D.12-05-037 with respect to whether EPIC funding collection amounts should be adjusted on January 1, 2018 by the amount of the change in the U.S. or California-specific Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W); and
- Clarification or modification of D.13-11-025, as necessary, regarding the circumstances under which the CEC may grant licenses to load-serving entities for EPIC-created intellectual property.

Fourth, the scope of this proceeding includes items identified by PG&E in its application:

- Whether to extend the general authorization for EPIC program funding beyond 2020 by rulemaking;
- Whether to provide flexibility for utilities to participate as subcontractors for CEC-funded EPIC projects;
- Whether to approve an increase in PG&E's total approved 2018-2020 budget by $7 million, which is proposed to be sourced by leveraging the forecasted unspent project and administration funds from the 2012-2014 investment period; and
- Whether to provide a more streamlined, expedited Tier 2 advice letter approval process for new projects initiated between EPIC plan approvals.

2.1. A Limited Subset of Issues Are Addressed in this Decision

For several reasons, the instant decision addresses only a subset of the issues listed above.

First, we find that it is important to respond to the request made by the CEC at the PHC, that the Commission issue a decision addressing its application as soon as possible in order to accommodate the CEC's unique funding situation as compared to the IOU administrators. As a State agency, the CEC is the only EPIC administrator that also participates in the state's budgeting process, and that process imposes some unique implementation and timing constraints on the CEC that would be lessened if the CEC, ideally, receives approval of its EPIC plan in December.[13] It is our intent in issuing the proposed decision in December to assist the CEC with its timing issues. This, in turn, requires that we establish both the overall 2018-2020 EPIC program funding level and the administrator-specific funding allocations in this decision.

Second, for reasons discussed herein, we address one recommendation made in the EPIC Evaluation: that the Commission supplement the administrative structure of the EPIC program by convening an independent body to coordinate, facilitate and lend technical expertise to the program.

A subsequent decision will resolve the remaining issues in this proceeding. We note here that any program management-related guidance we provide in that decision will apply to the CEC as well as to the IOUs. Examples include matters such as project funding in, outreach to, and engagement with disadvantaged communities; additional adjustments to program structure or governance in response to the EPIC Evaluation, the post-Evaluation workshop and subsequent comments by parties; intellectual property; and the other issues identified in the Scoping Memo and listed above. Some of this guidance will surely affect the project-level management of its EPIC projects, and may include guidance for how approved projects are administered, but we do not intend to require wholesale changes to the CEC plan we approve in this decision, nor will

[13] Reporter's Transcript (RT) at 44-45.

we make material changes to the CEC budget approved herein. In short, this decision approves the CEC's Investment Plan, and our subsequent decision will provide administrative guidance to the CEC as it administers that plan.

3. Workshop and Comments Regarding the 2018-2020 Investment Plans

On September 8, 2017, the Commission hosted a workshop in order to provide a forum for stakeholders to discuss the administrators' 2018-2020 investment plans. Pursuant to the Scoping Memo, the intent of the workshop was to provide an opportunity for parties to clarify their understanding of the administrators' investment plans and their compliance with the requirements of D.12-05-037, as well as to discuss other implementation and programmatic issues, including investing in disadvantaged communities.

A comparison exhibit filed jointly on September 1, 2017 by the administrators provided additional detail on each proposal in the plans. Following a matrix format, administrators specified the scope and focus of each proposal, identified the Commission proceedings that are relevant to each proposal, explained the policy justification and how the proposal avoids duplication, and provided budget information. The comparison exhibit facilitated in-depth review and comparison of projects, and the collective effort of the administrators is acknowledged and appreciated.

The Research Center Coalition and Social Science Researchers filed post-workshop comments on September 20, 2017. Each administrator filed post-workshop comments on September 22, 2017, as did ORA, the California Environmental Justice Alliance/The Greenlining Institute (jointly), Angel Plus LLC and the California Clean Energy Fund.[14] Reply comments were filed on October 9, 2017 by each administrator, ORA and the California Environmental Justice Alliance/The Greenlining Institute (jointly). On October 26, 2017 PG&E and SDG&E filed supplemental reply comments addressing ORA's opening comments.

As a result of the workshops, subsequent comments and reply comments filed by parties, and the joint comparison exhibit, there is a robust record in this proceeding to enable the Commission to review and approve, with any modifications found to be necessary, the 2018-2020 EPIC investment plans. Although this decision addresses only the CEC's plan, the same record will serve as the basis for our review of each IOU's plan in our subsequent decision.

4. The California Energy Commission's 2018-2020 Investment Plan

The CEC requests Commission approval of its 2018-2020 EPIC investment plan (CEC Plan) pursuant to D.12-05-037, D.13-11-025, and D.15-04-020. The CEC Plan proposes projects and associated funding that fall into the three EPIC program areas:

1. Applied research and development, which includes activities to support pre-commercial technologies and approaches at applied lab-level or pilot-level stages.
2. Technology demonstration and deployment, which involves installation and operation of pre-commercial technologies or strategies at a scale that will reflect actual operating, performance, and financial characteristics and risks.

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[14] Mark Miles Consulting Inc. filed comments on September 19, 2017 but they were rejected by the Commission's Docket Office.

3. Market facilitation, which includes a range of activities, such as commercialization assistance, local government regulatory assistance and streamlining, market analysis, and program evaluation to support deployment and expand access to clean energy technology and strategies.

The CEC Plan is organized by eight strategic themes or objectives, with each theme including multiple sub-themes and funding initiatives.[15] The strategic themes cut across all three EPIC program areas. As noted above, with AB 523 becoming law the CEC is required to allocate at least 25 percent of its EPIC TD&D budget toward projects located in and benefitting disadvantaged communities, and to allocate an additional 10 percent of TD&D funds toward projects located in and benefitting low-income communities. As also noted above, although the CEC developed its EPIC plan prior to the passage of AB 523, its 2018-2020 investments will target a minimum of 25 percent of TD&D funding for sites located in disadvantaged communities.[16]

The CEC requests a total 3-year budget of $444 million, which reflects the inflation adjustment required by D.12-05-037 that is calculated using the CEC's proposed adjustment factor, the California-specific Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

ORA's consolidated protest of all four EPIC plans included two recommendations that apply to the CEC Plan:

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[15] CEC Plan at 18.

[16] For example, the CEC identifies two initiatives that specifically target TD&D in disadvantaged communities: Initiative 1.2.1, Deploy Next Generation Window and Building Envelope Systems in Existing Residential and Commercial Buildings, and Initiative 8.2.1, Investments for Energy Resilient Neighborhoods in Low-Income and Disadvantaged Communities. See CEC Plan at 35 and 240.

- The 2018-2020 EPIC plans do not sufficiently describe policy justifications for proposed projects; and
- The EPIC administrators should inform the Commission how the completed projects will benefit ratepayers

The CEC replied to ORA's recommendations in its June 22, 2017 reply to ORA's protest, and in its September 22, 2017 opening comments following the September 8, 2017 staff workshop.

First, regarding whether its EPIC plan sufficiently describes policy justifications for proposed projects, the CEC responds that its investment plan identifies problems and/or challenges to be addressed by projects and identifies measures taken in coordination with PG&E, SCE, and SDG&E to avoid duplicative projects.[17] The CEC also states that its plan:[18]

> "is rooted in support of California's energy policy and goals. Policy objectives of the state, such as the energy efficiency and renewable energy goals set forth in SB 350 (Statutes of 2015, chapter 547) and the greenhouse gas (GHG) reduction goals set forth in SB 32 (Statutes of 2016, chapter 249), are identified and discussed in the Executive Summary of the CEC 3rd EPIC Plan.
>
> Further, the CEC provides justifications for investments needed to meet the state's energy policy goals under each theme of the 3rd EPIC Plan."

Second, regarding whether administrators should inform the Commission how the completed projects will benefit ratepayers, the CEC responds that:[19]

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[17] CEC Reply to ORA protest at 5.

[18] CEC Post-workshop Comments at 20-21.

[19] CEC Reply to ORA protest at 7-13.

1. Administrators must report to the Commission annually on the results of EPIC-funded projects;
2. The CEC has satisfied the requirements of D.13-11-025 by filing Annual Reports for 2013, 2014, 2015, and 2016; and
3. The CEC has made available the data, findings, results, and other products developed through EPIC-funded projects as required under D.13-11-025.

The CEC further explains that its plan "contains numerous tables, located at the end of each sub-theme, that detail how the proposed initiatives will address the ratepayer benefits identified in D.12-05-037. Each sub-theme in the CEC 3rd EPIC Plan identifies the potential ratepayer benefits, and each funding initiative within the sub-theme describes the impact of a successful initiative."[20]

4.1. Discussion of the CEC Plan

As discussed below, we conclude that the CEC's 2018-2020 EPIC plan complies with the criteria established in D.12-05-037, D.13-11-025, and D.15-04-020, and should therefore be approved in this decision. At the same time, we take this opportunity to introduce several concepts that we will carry forward to our upcoming decision that will address the IOUs' EPIC plans and resolve the remaining issues in this proceeding.

First, regarding the CEC Plan and ORA's broad recommendations that apply to that plan, we find that we need not delay the CEC from moving forward with its plan based on ORA's concerns. The CEC provides considerable detail in its plan demonstrating its compliance with D.12-05-037, D.13-11-025, and D.15-04-020. Each of the CEC's EPIC initiatives maps to the electricity value chain, and the CEC's plan sufficiently makes the requisite showings pursuant to

[20] CEC Post-workshop Comments at 21.

Ordering Paragraph 12 of D.12-05-037. In its application, the CEC also articulates its competitive solicitation process, through which matching funding may be determined, and project proposals are selected. The CEC's scoring criteria incorporates important programmatic requirements such as project technical merit and need, and impacts and benefits to California IOU ratepayers. The CEC's application also identifies energy savings, cost savings, job creation and economic benefits related to its initiatives, where applicable. In all, the CEC has "sufficiently described policy justifications for proposed projects" and "informed the Commission how the completed projects will benefit ratepayers." ORA has not specifically demonstrated otherwise and we see no basis to direct the CEC to add information to its plan.

With respect to its focus on disadvantaged communities and the new funding allocation requirements established by AB 523, the CEC's Plan does include 25 percent of TD&D funding for sites located in disadvantaged communities. Although we have no record regarding whether the CEC's Plan also allocates 10 percent of TD&D funding for sites located in low income communities, the CEC states "If AB 523 is signed into law, the CEC will commit to complying with the additional funding requirements in the bill for [disadvantaged communities] and low-income communities in the state."[21] We have no doubt that the CEC will comply with the new requirements of the Public Resources Code as it implements its plan, and will update us on its progress. We note that the funding allocations created by AB 523 are minimum requirements, and encourage the CEC to pursue benefits for disadvantaged and

[21] September 22, 2017 CEC Opening Comments In Support of Applications for Approval of EPIC 2018-2020 Triennial Investment Plans at 23.

low-income communities wherever feasible, practical, and useful within the context of the EPIC program.

Finally, we reiterate for the benefit of the CEC and the IOU administrators that our upcoming decision addressing the EPIC Evaluation may include guidance on future program management that will apply to all four administrators, the CEC included. In other words, the CEC Plan is certainly in compliance with the foundational EPIC decisions listed above, but it is likely that all the administrators will be required to adjust their EPIC-related management activities as the 2018-2020 EPIC investment cycle progresses.

5. Policy + Innovation Coordination Group Framework

As noted above, the EPIC Evaluation identified "a need to explicitly supplement the existing administrative structure by convening an independent body that provides coordination and facilitation support to the administrators and compiles and helps disseminate information."[22] The evaluators recommend that the CPUC and/or the administrators fund and convene such a body to perform these functions "and lend technical expertise". More specifically, the evaluators suggest that such a body could support high priority areas such as:[23]

- Convening and engaging stakeholders earlier in the investment planning process;
- Engaging stakeholders and ensuring any input that would lead to greater ratepayer and state policy benefits is considered by the administrators in their investment plans;
- Supporting administrator and CPUC efforts to track and prioritize policy goals and funding criteria, and

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[22] EPIC Evaluation at 11-20.

[23] *Id.* at page 1-7 to 1-8.

periodically revisiting priorities as policy goals change and EPIC matures;

- Supporting administrator and CPUC efforts to ensure that those priorities are effectively addressed in the administrators' investment plans;
- Supporting administrator efforts to categorize projects by technology and/or policy areas, to facilitate easier access of EPIC project information for interested stakeholders;
- Reviewing administrator project research plans and quarterly status reports, such as by policy and/or technology areas; tracking related developments in CPUC proceedings and engaging relevant stakeholders in projects of interest; and helping to identify issues or concerns;
- Planning and facilitating a quarterly meeting devoted to a particular topic of interest to stakeholders, including publicizing the meetings to stakeholders and addressing their needs;
- Coordinating an effort to develop a centralized EPIC website, database and listserv; helping to identify interested parties; and ensuring that those parties are linked to relevant information on projects and topic areas of interest; and
- Identifying interested stakeholders and appropriate forums for administrators to more broadly disseminate their results.

In their post-evaluation workshop comments addressing this recommendation, the administrators offered varied reactions.

PG&E supports the establishment of an EPIC advisory group that would be similar to other advisory groups in other CPUC-approved programs.[24] Like

[24] PG&E Opening Comments on the Final Evaluation Report at 4. PG&E cites the Procurement Review Groups for electricity procurement planning; the advisory groups established in the

Footnote continued on next page

those groups, PG&E suggests that an EPIC advisory group should serve primarily as an advisory committee for providing advice on EPIC program plans and projects. PG&E also recommends that advisory group members must be well-established R&D and industry experts, as well as include other stakeholders such as groups representing utility customers, but cautions that group members must not be EPIC recipients with actual or apparent conflicts of interest. However, PG&E recommends that implementation of this advisory group should occur after the 2018-2020 EPIC cycle, given the time needed to properly define the group's role and structure to ensure maximum benefit to the program, while minimizing any excessive impact to customers.[25]

SCE also supports the recommendation to convene an independent body to help coordinate among the administrators but, like PG&E, suggests that in order to properly define the role and structure of this independent body this recommendation would be best implemented after the conclusion of the 2018-2020 investment plan cycle. SCE believes this independent body should provide a dual purpose: providing task-focused functions by a third party and a separate independent advisory council that provides coordination and support on programmatic plans and projects. Task-focused functions would include creating and maintaining a central database of all EPIC projects; coordinating reporting for all administrators, including benefits metrics; and coordinating and hosting stakeholder engagement, including benchmarking for nonduplication and workshop outreach for interested stakeholders (*e.g.,* disadvantaged

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utilities' electric vehicle programs; and the Distribution Planning Advisory Group established for review of the Utility Regulatory Incentive Pilots in the IDER proceeding

[25] *Ibid.*

communities). The separate independent body's advisory council could help to fulfill the EPIC Evaluation's recommendation for greater transparency into the investment plans, while also improving the efficiencies of the program's current processes and overall program effectiveness. In order to provide technical support for the EPIC program, the advisory council needs to be a cross-section of diverse industry experts, which could include: the IOUs, the CEC, Electric Power Research Institute, social science researchers at universities, national labs, the Independent System Operator (CAISO), CPUC, ORA and other interested stakeholders. In order to fund a third party to coordinate and administer the reporting (including benefits metrics and the maintenance of a project database) and stakeholder engagement, SCE recommends using the existing funding allocation split among the administrators.

SDG&E states that an independent body, if properly designed, could alleviate some administrative burdens and provide efficiencies in the overall EPIC program management but, like PG&E and SCE, recommends implementation after the conclusion of the EPIC 3 investment plan cycle.

SDG&E agrees with the recommendations in the EPIC Evaluation that an independent body could provide support and assistance to the EPIC administrators by:

- engaging stakeholders early in the investment planning process; assisting in efforts to track and prioritize policy goals and funding criteria and ensure these are reflected in investment plans;
- categorizing projects to facilitate easier access of EPIC project information;
- reviewing administrator plans and reports;
- planning and facilitating coordination meetings; and

- disseminating relevant information on projects to stakeholders.

The CEC strongly disagrees with the recommendation to fund and convene an independent body to coordinate, facilitate, and lend technical expertise. The CEC explains that it has established a successful process for administering its share of EPIC funding and believes an additional body will take resources away from its implementation of EPIC, and duplicate efforts and activities already conducted by the CEC. The CEC also feels this recommendation could potentially lead to situations in which the independent body proposes direction that could contradict state law or Commission and/or CEC policy or direction. Finally, the CEC lists several new activities it has already implemented or initiated in order to further increase outreach, dissemination of information, and technical support.[26]

The comments of the non-EPIC administrator intervenors also offered varied reactions to the idea of an independent body. CEJA and Greenlining support development of an independent body to assist with implementation of EPIC projects related to disadvantaged communities (DACs): "an Independent Body would provide a helpful way to coordinate the DAC program to ensure that meaningful participation is happening across the State and that the DAC projects are not duplicative and are targeted toward reducing different barriers."[27] ORA, on the other hand, believes it is more efficient to require changes from the Program Administrators themselves to address the deficiencies

[26] October 2, 2017, Opening Comments of the California Energy Commission Regarding Electric Program Investment Charge Evaluation, at 17-18.

[27] October 2, 2017, Opening Comments of CEJA and Greenlining on the EPIC Evaluation, at 16, 17.

identified in the Report. ORA states that adding an independent body at this point of the EPIC program "would add another administrative layer on top of the Commission and four Program Administrators, unnecessarily complicating the EPIC program" and increasing administrative costs.[28]

5.1. Discussion

This decision establishes a framework for a new Policy + Innovation Coordination Group (PICG), with specific goals and purposes, and with narrow limitations on its authority and structure. The PICG shall conduct specific coordination functions to achieve one overarching goal: to ensure that EPIC investments are optimally aligned with and informed by key Commission and California energy innovation needs and goals. This decision does not adopt specific activities, structure, and implementation direction for establishing the PICG, or a budget; these details will be determined in the next decision in this proceeding pursuant to the process described below. The framework described here and adopted in this decision is based in part on recommendations made in the EPIC Evaluation, and also reflects the feedback provided by the EPIC administrators.

We adopt this framework in this decision because we wish to move quickly to establish a formal process to improve overall coordination, especially while the CEC begins to implement its 2018-2020 investment plan, since its program represents 80% of total EPIC investments. Our review of the EPIC Evaluation and the administrators' applications and comments showed that while coordination efforts do occur today, and are more comprehensive and formalized at the CEC than at the other administrators, they are relatively *ad hoc*

[28] October 2, 2017, Opening Comments of ORA on the EPIC Evaluation, at 9.

across all administrators. We agree that there is room for targeted improvement in the existing formal coordination requirements established in earlier EPIC decisions. We disagree with the utilities' recommendations that we defer this action until a future EPIC investment cycle. This goal is a high priority and should not be left unaddressed in the 2018-2020 investment cycle. With EPIC's large budget ($555 million in the current proceeding, over $900 million in previously approved funds) it is crucial to ensure more substantial and ongoing coordination than is taking place via the two annual public workshops that are currently required.

Finally, we take seriously the EPIC Evaluation's finding and recommendation that "given the many policy areas EPIC is attempting to address, we have identified a need to prioritize the guiding principles, policies and strategic objectives, and operationalize what it means for a portfolio to be optimized."[29] The evaluators recommend that, "to ensure that EPIC is generating the optimal mix of projects that maximize ratepayer benefits, lead to energy innovation and support the state's key policy goals", the Commission should establish priorities among its current policy goals and funding criteria to better guide the administrators in their investment planning and, to achieve the same outcome, the administrators collaborate in categorizing and summarizing projects (such as by technology type and/or policy area) and review projects by topic areas to ensure that the portfolio of projects effectively supports key policy goals."[30] Indeed, the evaluators identified "supporting administrator and CPUC efforts to track and prioritize policy goals and funding criteria, and periodically

[29] EPIC Evaluation at 1-5.

[30] *Ibid.*

revisiting priorities as policy goals change and EPIC matures" as one of the high priority areas to be supported by their recommended independent body.[31]

It is also our intent that by establishing the framework for this process and its guiding principles now, we can then seek comment on specific aspects of its structure, activities, and budget and finalize those aspects of the process in a subsequent decision in this proceeding.

The framework we adopt in this decision focuses on two related goals: establishing a coordination-focused working group with an overarching view of the program, and ensuring targeted coordination among EPIC and the Commission while avoiding creating an additional administrative burden for the administrators. The evaluators found that EPIC is unique in that it is essentially four separate programs administered by four distinct entities, each with their own internal processes; no one administrator has a "bird's-eye view" of all EPIC investments. We find that an overarching "bird's-eye view" perspective is a basic prerequisite to understanding how different investments in an area may be pertinent to current Commission proceedings, or to a set of challenges in a particular area that may be facing parties or policymakers. At the same time, the administrators have made it clear that they are primarily focused on actual program implementation and wish to avoid distractions from that substantive work. It is our intent that the framework we establish in this decision will provide a new, dedicated process to ensure that meaningful coordination and feedback occurs, in alignment with state policy needs and research developments, without overly burdening the program administrators with

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[31] *Id.* at 1-7.

administrative tasks that are made more difficult by the simple fact of the program's structure.

With these goals in mind, we establish the following broad framework of this new group:

Mission Statement

> The PICG is dedicated to (1) the technical, complex coordination task of identifying timely opportunities for substantive feedback and coordination among EPIC investments and California's energy innovation needs and goals, and (2) providing the support functions to allow this feedback and coordination to occur effectively.

Regarding this mission statement, we clarify here that, as reflected in the mission statement and our preceding discussion, the PICG will focus jointly on both technical and coordination tasks because improving policy-research coordination and feedback loops requires this dual focus. The PICG will focus on tracking EPIC work and key Commission energy policy proceedings (which requires an understanding of technical material), and supporting productive coordination (which requires facilitation, collaboration, and communication capabilities). For example, the PICG would identify a research area that is yielding results that are key to decisionmaking in a Commission proceeding, and support coordination among the EPIC administrators, researchers, and proceeding stakeholders to help them identify ways the proceeding could build on the research findings. Doing this successfully requires expert focus, which is why we establish the PICG.

Dedicated Entity

> To ensure that this formalized process succeeds, we agree that it should be undertaken by a dedicated entity. Defining specific tasks, budget, roles and responsibilities for this process

will best ensure that the entity achieves the goals we set in today's decision.

Activities

To achieve its mission statement, the PICG will need to undertake the following broad activities:

- Track or identify key goals or research needs in the Commission's energy-related proceedings that may be informed by EPIC investments;
- Track or identify substantive developments and discoveries in EPIC projects that may inform the Commission energy-related -*+proceedings;
- Leverage existing technical and program expertise, to determine which innovations or policy gaps are "ripe," and timely; and
- Facilitate targeted coordination meetings and other coordination and feedback activities that bring EPIC findings to bear on state policy proceedings, and vice versa.

As described below, a forthcoming staff proposal will describe these PICG activities in further detail. Other specific activities may be considered, to the extent they complement the framework established here. However, we do not intend the PICG to be a broad administrative support body, as the utilities' comments appear to envision. For example, the PICG will not take over any administrator responsibility for benefits reporting or information dissemination in general.

Structure

The PICG will be an independent support body and will take direction from the Commission with input from the administrators. The EPIC administrators will each have a representative that will provide input to the PICG, but the PICG will not be itself made up only of administrator representatives. We anticipate this group could consist of a consultant team, selected through a competitive solicitation process and under contract with the Commission or one of the administrators acting as a fiscal agent, but we will consider options in the second phase of this proceeding.

Funding

In D.12-05-037, the Commission reserved 0.5% of the total EPIC budget to support the Commission staff's policy and program oversight of the program. As discussed in more detail below, we find that it is reasonable to re-direct a portion of this policy and program oversight funding to support the PICG. Once the budget is finalized, any remaining amounts can be returned to ratepayers.

Limitations on the PICG

The PICG will have no oversight authority over the EPIC administrators. That activity shall always remain solely the responsibility of Commission staff. The purpose of the PICG is to facilitate coordination, not to enforce rules and requirements.

The PICG will operate within clear budget limitations and be accountable for ensuring that its activities do not create undue burdens on the EPIC administrators. Its tracking of EPIC projects will focus on existing processes and information and it will not have the authority to issue data requests to the administrators or impose reporting requirements. Coordination should be targeted on critical, high-value areas.

The PICG will not provide any formal direction or guidance to administrators regarding what projects they should fund, nor how they should administer their approved plans. Its role is to support the development of the administrators' capacity to understand Commission policies and proceedings, and how their projects best align with those policies and proceedings; and to support the Commission's capacity to understand and leverage energy innovations in key policy areas

Implementation and Next Steps

In order to begin taking the steps necessary to establish the PICG, this decision directs the Commission's Energy Division to prepare a staff proposal as soon as possible in 2018 that provides further detail regarding how the PICG framework adopted in this decision should be implemented. Parties shall submit comments and reply comments on the staff proposal, and the Commission shall establish the final operational structure, tasks, budget and competitive selection process in a subsequent decision in this proceeding.

6. EPIC Program Funding for 2018-2020

In this decision it is also necessary to establish the three-year EPIC program funding level for 2018-2020, allocate that amount between the CEC, PG&E, SCE and SDG&E, and determine the amounts that PG&E, SCE and SDG&E shall collect from their respective ratepayers to fund the 2018-2020 EPIC investments.   Several factors must be reviewed here in order to complete this task.

First, as noted above, D.12-05-037 ordered that the total collection amount shall be adjusted for inflation on January 1, 2018 in accordance with specified changes in the consumer price index. Second, in D.15-04-020 the Commission included several orders regarding the treatment of interest to ensure that ratepayer costs are offset by interest earned on EPIC funds that have been collected by administrators but not yet expended:[32]

[32] D.15-04-020, Ordering Paragraphs 12 – 15.

- Accumulated interest from EPIC program budgets shall be returned to ratepayers;
- All interest on 2012-2014 and 2015-2017 EPIC funds remaining at the end of the 2015-2017 cycle shall be returned to ratepayers in the form of reduced collections for the 2018-2020 period. Interest accrued during the 2018-2020 cycle shall also be returned to ratepayers;
- The CEC shall track interest from EPIC funding and reduce its EPIC program invoices to other EPIC administrators accordingly; and
- The 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.

To facilitate these adjustments, D.15-04-020 also ordered each administrator to include in future applications a budget proposal in table format, broken down by each budget area, including grand totals, and presented for annual and triennial periods.[33]

Finally, in order to complete the budgetary determinations necessary for this decision, two issues identified in the Scoping Memo must also be resolved: (1) the CEC's request for clarification of D.12-05-037 with respect to whether EPIC funding collection amounts should be adjusted on January 1, 2018 by the amount of the change in the U.S. or California-specific Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W), and (2) PG&E's request for approval to increase its total 2018-2020 budget by $7 million, which PG&E proposes to be sourced by leveraging the forecasted unspent project and administration funds from its first EPIC investment plan (2012-2014).

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[33] *Id.*, Ordering Paragraph 11.

6.1. Adjusted Collection Amount to Take Effect January 1, 2018

As noted above, in D.12-05-037 the Commission set the total annual EPIC budget at $162.0 million beginning January 1, 2013 and continuing through December 31, 2020, unless otherwise ordered or adjusted in the future by the Commission.[34] The same decision also ordered that the total collection amount shall be adjusted on January 1, 2015 and January 1, 2018 "commensurate with the average change in the Consumer Price Index, specifically the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) for the third quarter, for the previous three years."[35] Acting pursuant to this direction, in D.15-04-020 the Commission increased the annual collection amount from $162.0 million to $169.9 million annually, or $509.8 million for the 2015-2017 EPIC program cycle.[36]

In its application in this proceeding the CEC requests that the Commission clarify which measure of CPI-W should be used to adjust the total collection amount on January 1, 2018: the national CPI-W or the California CPI-W. The CEC proposes using the California CPI-W because it provides more accurate estimates of inflation for California compared to the national CPI-W (the California CPI-W is calculated by the California Department of Finance (DOF)).

The CEC also proposes using DOF projections for the 2018-2020 period, rather than average the CPI-W from the previous three years (2014-2016) to estimate an annual growth rate for 2018-2020. The CEC explains that the

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[34] D.12-05-037, Ordering Paragraph 7.

[35] *Ibid.*

[36] D.15-04-020, Appendix B.

California CPI-W from the DOF "is more specific to California and better reflects California economic activity, and is used by California for state budgeting. Additionally, the DOF projections utilize more accurate and sophisticated economic modeling to forecast inflation, compared to a simple average of the previous three years."[37]

PG&E states that it does not object to the approach proposed by the CEC and SDG&E states that it will follow the guidance provided by the Commission regarding which escalation methodology to use.[38]

We agree with the CEC that the California CPI-W should be used to adjust the total collection amount on January 1, 2018. The purpose of an inflation adjustment is to ensure that the investment power of the triennial budgets is not eroded over time by the forces of inflation, and therefore it is reasonable to use an adjustment factor that best captures expected rates of inflation in California, rather than nationwide. For the same reason, we also agree with the CEC that the adjustment should be calculated by using DOF projections for the 2018-2020 period, rather than by averaging the CPI-W from the previous three years (2014-2016) to estimate an annual growth rate for 2018-2020. Using this method, the CEC calculates an adjustment factor equal to 8.862%.

Based on the above determinations, the funding amount for 2018-2020 adopted in this decision is calculated by escalating the funding amount established for 2015-2017 by D.15-04-020 ($509,782,700) by 8.862%, which yields $554,959,643. For administrative simplicity, we round this amount to

[37] CEC Post-workshop Comments at 40-41.

[38] PG&E Post-workshop Comments at 10 and SDG&E Post-workshop Comments at 8.

$555,000,000. This value is used to establish the administrator-specific budgets later in this decision.

6.2. PG&E's Request for Approval to Increase its Total 2018-2020 Budget

In D.13-11-025 the Commission directed that unspent funds remaining at the end of a triennial investment funding period will offset future program funding requirements.[39] PG&E requests approval to instead use $7 million in (forecasted) unspent project and administration funds from its first EPIC investment plan (2012-2014) to increase its total 2018-2020 budget.[40] ORA opposes PG&E's request.[41]

In addition to directing that unspent funds should offset future EPIC funding requirements, the Commission also directed administrators to explain in their triennial investment plans what caused any unspent funds in the prior investment plan cycle, and how the unspent funds would affect the program area(s) and projects.[42] In support of its request to carry unspent funds forward, PG&E provides several explanations for its expected underspending:[43]

- Internal prioritization ultimately deprioritized projects for a number of reasons;
- The results of continued diligence and industry benchmarking to reduce risk of unnecessary duplication;
- Project savings opportunities identified by project teams;

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[39] D.13-11-025, Ordering Paragraph 38.

[40] PG&E Application at 5.

[41] Opening Comments of ORA addressing 2018-2020 EPIC applications at 23-25.

[42] *Id.*, Ordering Paragraph 41.

[43] A.17-04-028, Attachment 1, PG&E's Electric Program Investment Charge Triennial Plan (2018-2020) at 94-95.

- The emergence of different technologies made some of the original proposed projects no longer the best use of available program funds;
- Vendor interest dropped for a variety of reasons;
- Technology costs reduced between the time of the original project was proposed and budgeted to the time of finalizing contracting with vendors (*e.g*. batteries); and
- Projects were formally withdrawn with the Commission due to the GRC already addressing one project, and another having been incorporated in the CEC program.

PG&E concludes that the unspent funds from 2012-2014 demonstrate responsible administration of customer dollars, and therefore requests that the Commission modify D.12-05-037 and D.13-11-025 by authorizing PG&E to add the forecasted unspent project and administrative funds remaining from its 2012-2014 Investment Plan (estimated to be approximately $7 million) to its 2018-2020 budget.[44]

In its comments on the 2018-2020 EPIC applications, ORA states that PG&E's request "is not the outcome the Commission established for the EPIC program."[45] First, ORA notes that the Commission has consistently held that unspent funds remaining at the end of a triennial investment funding period will offset future program funding requirements,[46] and even more specifically directed that at the conclusion of the second investment plan cycle, if any funds approved for the first investment plan cycle are uncommitted or unencumbered,

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[44] PG&E identifies D.12-05-037 (Ordering Paragraph 7) and D.13-11-025 (Ordering Paragraph 38 and 39) as the decisions to be modified.

[45] Opening Comments of ORA addressing 2018-2020 EPIC applications at 25.

[46] D.13-11-025 Ordering Paragraph 38.

they must be credited against the approved budget for the third investment plan cycle.[47] Second, ORA cites Commission Resolution E-4863 for support of the concept that "the rollover of unused funds to reduce future collections … [will] allow ratepayers to benefit from program efficiencies in the form of refunds."[48] Finally, ORA observes that PG&E's 2018-2020 EPIC plan does not identify any particular project that it must fund with the unspent funds.

We agree with ORA that PG&E should not be authorized to add the unspent funds from 2012-2014 to its 2018-2020 budget. Although PG&E reports that the funds are only available by virtue of responsible project management during the earlier investment cycle, the Commission anticipated that circumstance in determining that excess funds made available in that manner should be returned to ratepayers, not used for future investment plan cycles. The program is working as intended, and we see no reason to modify D.12-05-037 and D.13-11-025 to create the option requested by PG&E.

6.3. Approved 2018-2020 Administrator Budgets

Having determined the total 2018-2020 EPIC funding amount above, the next step is to calculate the budgets that should be approved in this decision for each administrator. We utilize the same calculation method as used in the 2012-2014 and 2015-2017 budgets, with one further adjustment to separately identify funds to implement the PICG framework adopted earlier in this decision.

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47 *Id.*, Ordering Paragraph 39.

48 Commission Resolution E-4863, August 10, 2017, at 20.

In D.12-05-037, the Commission discussed the reservation of 0.5% of the total EPIC budget for Commission policy and program oversight of the program, explaining that it is necessary "due to the ongoing oversight that will now regularly reside with the Commission and its staff, which is a new activity" that was not otherwise funded by the Commission's budget.[49] The Commission explained that it anticipated several ongoing proceedings to oversee the EPIC investments, analogous to Commission policy and program oversight of energy efficiency portfolios, the California Solar Initiative, and the Self Generation Incentive program. The 0.5% budget amount would fund staff time devoted to EPIC policy and program oversight, as well as the cost of the independent evaluator that has now performed the EPIC Evaluation under review in this proceeding.[50] In D.15-04-020, the Commission reiterated that the EPIC policy and program oversight budget is 0.5% of <u>total</u> EPIC funding levels.[51] Since those decisions, the oversight funds have been spent as the Commission anticipated, including on the EPIC Evaluation. Because the program is maturing and the evaluation is complete, in this decision we find it reasonable to direct one half of the Commission's policy and program oversight budget in order to implement the PICG framework without further impacting the administrators' budgets.

Based on the above, the table below shows the budgets authorized in this decision for each administrator. The CEC is authorized to begin spending its funds in support of the projects in its 2018-2020 EPIC plan. The IOUs, on the other hand, shall begin collecting their allocated funds, but may not begin

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[49] D.12-05-037 at 67 and Conclusion of Law 11.

[50] D.12-05-037 at 67.

[51] D.15-04-020, Finding of Fact 10.

spending any of their 2018-2020 EPIC funds until they are authorized to do so by a subsequent decision in this proceeding.

EPIC program Administrator Budget by Investment Area

	CEC	PG&E	SCE	SDG&E	Total
Allocation to program administrators	80%	10%	8%	2%	100%
Projects: Applied Research and Development	$158,912,222	N/A	N/A	N/A	$158,912,222
Projects: Technology Demonstration and Deployment	$172,237,778	$49,771,845	$40,830,795	$8,742,360	$271,582,778
Projects: Market Facilitation	$66,230,000	N/A	N/A	N/A	$66,230,000
Total Project Funding	**$397,380,000**	**$49,771,845**	**$40,830,795**	**$8,742,360**	**$496,725,000**
Program Administration (Capped at 10% of Total)	$44,400,000	$5,561,100	$4,562,100	$976,800	$55,500,000
Policy and program Oversight (to be remitted to CPUC)	$1,110,000	$139,028	$114,053	$24,420	$1,387,500
Funds to be remitted to CPUC for PICG	$1,110,000	$139,028	$114,053	$24,420	$1,387,500
Total Authorized EPIC program Funding	**$444,000,000**	**$55,611,000**	**$45,621,000**	**$9,768,000**	**$555,000,000**

6.4. Authorized IOU Collections from Ratepayers for the 2018-2020 EPIC Cycle

The Commission determined in D.12-05-037 that responsibility for collection of the funding for the EPIC program shall be allocated to the utilities in the following percentages: PG&E 50.1%; SCE 41.1%; and SDG&E 8.8%.[52] On that basis, the amounts that each utility shall collect from its ratepayers to fund the EPIC program from 2018-2020 are shown in the table below:

[52] D.12-05-037, Ordering Paragraph 7.

Funds to be Collected from IOU Ratepayers, 2018-2020

	PG&E	SCE	SDG&E	Total
Utility Collection/ Funding Allocation	50.1%	41.1%	8.8%	100%
Authorized EPIC Funding Collections	$278,055,000	$228,105,000	$48,840,000	$555,000,000

7. Safety Considerations

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 project-by-project review of the CEC's EPIC plan. The CEC correctly states in its application that, regarding potential safety issues, it does not anticipate any safety-related issues from the projects and activities proposed in its 2018-2020 investment plan. Within the plan itself, the CEC also properly and specifically notes whether each of its proposed projects will provide a safety benefit, as required by D.12-05-037. For example, the further development of Cal-Adapt will enable better planning for safety and resiliency in light of climate change, and the evaluation of strategies to mitigate the impacts of the electricity system on the environment, public health, and safety will help the state better understand and reduce the risks of new hazards created in the wake of rapid innovation in energy technologies.

Based on our review, we find that the CEC's investment plan appropriately addresses safety and resiliency matters, and will provide valuable safety benefits in high priority areas such as climate adaptation, GHG reduction, and environmental equity.

8. Comments on Proposed Decision

The proposed decision of ALJ Roscow 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. Pursuant to Rule 14.3 (c), comments shall focus on factual, legal or technical errors in the proposed decision and in citing such errors shall make specific references to the record or applicable law. Comments which fail to do so will be accorded no weight.

Comments were filed on December 18, 2017 by CEJA and Greenlining (jointly), on December 22, 2017 by the CEC, and on December 28, 2017 by PG&E and SCE. Reply comments were filed on January 5, 2018 by ORA and the CEC. The discussion below addresses only items where comments suggested changes to the PD. We have revised the PD to provide additional clarity, but have made no substantive changes in response to comments.

PG&E did not suggest changes to the PD, but offered several observations regarding the role of the PICG established in the PD. We expect that PG&E will have the opportunity to pursue its suggestions as part of its comments on the upcoming PICG staff proposal mandated by the PD.

SCE offers "conditional" support for the proposed PICG, but states that "the PCIG needs to do more than simply provide coordination; it should also provide support for the four EPIC Administrators" and recommends that the PD not exclude the PICG's potential administrative support activities at this time.[53] ORA opposes SCE's request, as does the CEC, which states that the PD correctly limits the PICG from becoming a broad administrative support body. We have not modified the PD in response to SCE's request, as we prefer to allow the record on the specifics of SCE's concerns to develop in the course of parties' comments on the staff report, as well as our consideration of the

[53] December 28, 2017 SCE Comments on the PD at 2.

recommendations made in the EPIC Evaluation as we move toward our second decision in this proceeding.

SCE also requests that our second decision, which will address the IOUs' investment plans, allow the IOUs a full three years to commit funding to projects.[54] ORA opposes SCE's request, stating that this matter is outside the scope of this instant PD. We agree that the PD does not address this issue, but we will address the concerns of SCE and PG&E in our upcoming decision addressing the IOU investment plans.

The CEC asks that the PD be clarified to reflect the CEC's previously stated commitment to allocate ten percent of its TD&D funding for projects located in and benefiting low-income communities in the state in accordance with AB 523. We have modified the PD accordingly.

The CEC also offers suggestions regarding the PICG; like PG&E, we expect that the CEC will pursue its suggestions as part of its comments on the upcoming staff proposal mandated by the PD.

CEJA and Greenlining take issue with the PD's treatment of the implementation of AB 523 and recommend that this decision or a subsequent decision provide guidance related to AB 523 to ensure compliance with statutory mandates. Specifically, CEJA and Greenlining request that the Commission (1) provide "guidance and markers" to ensure that EPIC funds meet relevant policy and statutory requirements; (2) determine whether the CEC's definition of "disadvantaged communities" meets the statutory requirements; (3) determine how the CEC should allocate its funds for disadvantaged communities to meet

[54] SCE Comments at 3. PG&E interprets the PD as already providing for a full 3-year implementation period (PG&E December 28, 2017 Comments at 2).

statutory requirements; (4) set forth markers and a reporting requirement to ensure the CEC meets its mandate of expending at least ten percent of technology TD&D funds at sites located in, and benefiting, low-income communities; (5) set forth guidance and a reporting requirement to ensure the CEC meets its mandate of taking into account adverse localized health impacts of proposed projects; and (6) establish a process for the CEC to submit additional information on its implementation of AB 523.[55]

In reply comments, the CEC notes that "AB 523 directs the CEC to meet these requirements and does not require the Commission to provide any additional guidance or direction, or establish additional reporting requirements". The CEC further notes that it has repeatedly stated that it is committed to complying with the requirements set forth in AB 523 and disagrees that, as a matter of law or fact, further direction from the Commission is required.[56]

We agree with the CEC's response to CEJA and Greenlining. CEJA and Greenlining incorrectly suggest that Public Resources Code section 25710(a) requires this Commission to institute the EPIC program through its decisions. That code section merely defines the Electric Program Investment Charge, and this Commission is not bound by the Public Resources Code, just as the CEC is not bound by the Public Utilities Code. The CEC is already bound to comply with AB 523 without our further direction. We also agree with the CEC that Public Resources Code section 25711.6(e)(1) already defines the term "disadvantaged communities," and that the CEC is following that statutory

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[55] CEJA/Greenlining Comments at 3-5.

[56] CEC Reply Comments at 2. The CEC also states that it is planning to hold a workshop in the spring of 2018 to discuss implementation of AB 523 and welcomes stakeholder input.

direction.[57] Finally, we note that this decision defers issues related to disadvantaged communities to our second decision in this proceeding.

9. Assignment of Proceeding

Martha Guzman Aceves is the assigned Commissioner and Stephen C. Roscow is the assigned ALJ in this proceeding.

Findings of Fact

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

2. Decision 12-05-037 funded EPIC investments under the authorization of the Commission from 2012 through 2020.

3. The EPIC program is administered by the CEC, PG&E, SCE and SDG&E.

4. Decision 12-05-037 requires the Commission to conduct a public proceeding every three years to review and approve the investment plans of each EPIC administrator to ensure coordinated public interest investment in clean energy technologies and approaches.

5. As a State agency, the CEC is the only EPIC administrator that also participates in the state's budgeting process, and that process imposes some unique implementation and timing constraints on the CEC.

6. The investments proposed in the CEC's 2018-2020 investment plan offer a reasonable probability of providing electricity ratepayer benefits by promoting greater reliability, lowering costs, and increasing safety.

7. The CEC's application also identifies energy savings, cost savings, job creation and economic benefits related to its initiatives, where applicable.

[57] CEJA and Greenlining also appear to acknowledge the CEC's compliance. (*See*, CEJA and Greenlining September 22, 2017 Opening Comments on the EPIC program, at 6.)

8. The CEC's 2018-2020 investment plan appropriately addresses safety and resiliency matters and will provide valuable safety benefits in high priority areas such as climate adaptation, GHG reduction, and environmental equity.

9. The level of budget detail provided in the CEC's EPIC application, comments, and comparison matrix is appropriate and sufficient.

10. The EPIC Evaluation under review in this proceeding identified a need to explicitly supplement the existing administrative structure of the EPIC program by convening an independent body that provides coordination and facilitation support to the administrators and compiles and helps disseminate information. The evaluators recommend that the Commission and/or the administrators fund and convene such a body to perform these functions and lend technical expertise.

11. The total EPIC budget provides funding for the investment plans, for program administration (up to 10% of total EPIC funds) and for policy and program oversight by the Commission (0.5% of total EPIC funds).

12. Ordering Paragraph 7 of D.12-05-037 specifies that the total EPIC collection amount shall be adjusted on January 1, 2015 and January 1, 2018 commensurate with 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.

13. The California CPI-W provides more accurate estimates of inflation for California compared to the national CPI-W.

14. Using projections of the California CPI-W for the 2018-2020 period will result in a more accurate forecast of inflation, compared to a simple average of the previous three years.

15. Using projections of the California CPI-W for the 2018-2020 period to adjust the 2015-2017 EPIC funding amount yields $554,959,643, which rounds up to $555,000,000, for the 2018-2020 triennial period.

16. PG&E expects to have $7 million in forecasted, unspent project and administration funds from its 2012-2014 EPIC investment plan.

Conclusions of Law

1. The Commission should issue a decision addressing the CEC's application as soon as possible in order to accommodate the CEC's unique funding situation as compared to the IOU administrators.

2. The CEC's 2018-2020 investment plan should be approved because it complies with the criteria established in D.12-05-037.

3. The CEC's 2018-2020 investment plan appropriately addresses safety and resiliency matters.

4. Because the CEC's 2018-2020 investment plan complies with the criteria established in D.12-05-037, the funding to support those investments is just and reasonable.

5. The Commission should establish a framework for a new Policy + Innovation Coordination Group (PICG) in order to create a formal process to improve overall coordination of the EPIC program as the CEC begins to implement its 2018-2020 investment plan. That framework is described in Section 5.1 of this decision.

6. The Commission should seek comment from parties regarding specific aspects of the structure, activities, and budget of the PICG and finalize those aspects of the process in a subsequent decision in this proceeding.

7. It is reasonable to direct one half of the Commission's policy and program oversight budget to implement the PICG framework without further impacting the administrators' budgets.

8. Ordering Paragraph 7 of D.12-05-037 should be modified to allow the Commission to use any reasonable method to adjust the triennial EPIC collection amount for inflation.

9. It is reasonable to use the California CPI-W, forecasted for 2018-2020, to escalate the EPIC funding level for 2018-2020 instead of the backward-looking average of the previous three years.

10. The 2018 – 2020 EPIC funding amount should be $555,000,000. Those funds should be allocated between the four administrators as shown in Section 6.3 of this decision.

11. PG&E should not be authorized to add unspent funds from 2012-2014 to its 2018-2020 EPIC budget because the Commission determined in D.12-05-037 and D.13-11-025 that excess funds made available in this manner should be returned to ratepayers, not used for future investment plan cycles.

12. EPIC administrators may only fund projects or initiatives that have been approved by the Commission. The CEC should begin spending its funds in support of the projects in its 2018-2020 EPIC plan, but the IOUs may not begin spending any of their 2018-2020 EPIC funds until they are authorized to do so by a subsequent decision in this proceeding.

13. This proceeding should remain open to address the IOU investment plans and the recommendations made in the EPIC Evaluation not addressed in this proceeding.

O R D E R

IT IS ORDERED that:

1. The Electric Program Investment Charge investment plan filed in Application 17-05-003 by the California Energy Commission is approved.

2. This decision establishes a framework for a new Policy + Innovation Coordination Group in order to create a formal process to improve overall coordination of the Electric Program Investment Charge. This framework is described in Section 5.1 of this decision.

3. The Commission's Energy Division shall prepare a staff proposal as soon as possible in 2018 that provides further detail regarding how the Policy + Innovation Coordination Group (PICG) framework adopted in this decision should be implemented. The assigned Commissioner or assigned Administrative Law Judge shall issue the report by ruling and enable parties to submit comments and reply comments on the staff proposal. The Commission shall adopt the final operational structure, tasks, budget and a competitive selection process for the PICG in a subsequent decision in this proceeding.

4. One half of the Commission's policy and program oversight budget shall support implementing the Policy + Innovation Coordination Group framework adopted in this decision.

5. Ordering Paragraph (OP) 7 of Decision 12-05-037 is modified to allow the Commission to use any reasonable method to adjust the triennial EPIC collection amount for inflation. As modified, OP 7 shall now state:

> 7. Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), and Southern California Edison Company (SCE) shall collect funding for the Electric Program Investment Charge (EPIC) in the total amount of $162.0 million annually beginning January 1, 2013 and continuing through December 31, 2020,

> unless otherwise ordered or adjusted in the future by the Commission. The total collection amount shall be adjusted on January 1, 2015 and January 1, 2018. The Commission may use any reasonable method to adjust the triennial EPIC collection amount for inflation. Responsibility for collection of the funding for the EPIC shall be allocated to the utilities in the following percentages: PG&E 50.1%; SDG&E 8.8%; and SCE 41.1%. No later than 30 days after the effective date of this decision, PG&E, SDG&E, and SCE shall each file a Tier 1 Advice Letter modifying their tariff sheets to reflect the EPIC surcharge in accordance with this decision and to authorize them to record authorized EPIC budgets and expenditures and to collect the EPIC funds through December 31, 2020 or as otherwise authorized by the Commission.

6. The California CPI-W, forecasted for 2018-2020 shall be used to escalate the Electric Program Investment Charge funding level for 2018-2020 instead of a backward-looking average of the previous three years as required by Decision 12-05-037.

7. The 2018-2020 total Electric Program Investment Charge budget is $555,000,000. As shown in Section 6.3 of this decision, this amount is allocated as follows: to the California Energy Commission, $444,000,000; to Pacific Gas and Electric Company, $55,611,000; to Southern California Edison Company, $45,621,000; and to San Diego Gas & Electric Company, $9,768,000.

8. Pursuant to Decision 12-05-037 the responsibility for collection of the funding for the 2018-2020 total Electric Program Investment Charge program is allocated to the utilities in the following percentages: Pacific Gas and Electric Company (PG&E) 50.1%; Southern California Edison Company (SCE) 41.1%; and San Diego Gas & Electric Company (SDG&E) 8.8%. As shown in Section 6.4 of this decision, each utility shall collect from ratepayers over the 2018-2010

triennial period the following amounts: PG&E $278,055,000, SCE $228,105,000, and SDG&E $48,840,000.

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

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 policy and program oversight budget.

11. 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.

12. 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% Commission policy and program oversight and Policy + Innovation Coordination Group 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 payment amount, as well as their respective proportional amounts of the CEC's 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.

13. Application (A.) 17-04-028, A.17-05-003, A.17-05-005, and A.17-05-009 remain open.

This order is effective today.

Dated January 11, 2018, at San Francisco, California

MICHAEL PICKER
President
CARLA J. PETERMAN
LIANE M. RANDOLPH
MARTHA GUZMAN ACEVES
CLIFFORD RECHTSCHAFFEN
Commissioners

APPENDIX A

Appendix A: Requirements for Investment Plan Compliance with D.12-05-037, as clarified by D.13-11-025, and D.15-04-020[1]

1. Does each investment plan include an accurate and adequate mapping of the planned investments to the electricity system value chain (including grid operations/market design, generation, transmission, distribution, and demand-side management)?
2. Does each investment plan sufficiently identify the following?
   a. The amount of funds to be devoted to particular program areas (applied research and development, technology demonstration and deployment, and market facilitation);
   b. The policy justification for the proposed funding allocation;
   c. The type of funding mechanisms (grants, loans, pay-for-output, etc.) to be used for each investment area;
   d. The eligibility criteria for award of funds or set-asides in particular areas;
   e. Any suggested limitations for funding (*e.g.,* per-project, per-awardee, matching funding requirements, etc.);
   f. Other eligibility requirements (*e.g.,* technologies, approaches, program area, etc.); and
   g. A summary of stakeholder comments received during the development of the investment plan and the administrator's response to the comments?
3. Do the proposals in each investment plan offer a reasonable probability of providing electricity ratepayer benefits by promoting greater reliability, lowering costs, and increasing safety? If not, how should each investment plan be modified to best provide electricity ratepayer benefits?

[1] D.12-05-037, Ordering Paragraph 12.

4. Does each IOU investment plan include an adequate informational summary of the research, development, and demonstration activities the IOUs are undertaking as part of their approved energy efficiency and demand response portfolios?
5. Does each investment plan include reasonable and adequate metrics against which the investment plan's success may be judged, including:
   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; and
   e. Funding support from other entities for EPIC-funded research on technologies or strategies.
6. Does each investment plan recommend a reasonable approach to intellectual property rights for the specific types of projects and funding proposed?
7. Does each investment plan adequately address the principles articulated in Public Utilities Code (Pub. Util. Code) §§ 740.1 and 8360?[2]
8. What are the key safety and resiliency questions that should be answered in the review of the investment plans?

(END OF APPENDIX A)

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[2] *See* Attachment A of the Scoping Memo for relevant text from Pub. Util. Code §§ 740.1 and 8360.

APPENDIX B

Appendix B

Summary of Recommendations in Electric Program Investment Charge Evaluation Final Report

September 8, 2017

II.I Program Administration

1a) The administrators provide more detailed justification for non-competitive bidding in their Annual Reports.

1b) The CPUC consider requiring a review of the non-competitive bidding cases before they are contracted,

1c) The CPUC require the IOUs to specify the funding amount for the non-competitive award to make it easier to assess the fraction of funding that is being directly awarded.

11.2 Investment Planning Process

11.2.1 Administrator Investment Planning Processes

11.2.2 Portfolio Optimization

2a) The CPUC establish priorities among its current policy goals and funding criteria to better guide the administrators in their investment planning.

2b) The administrators collaborate in categorizing and summarizing projects (such as by technology type and/or policy area) and review projects by topic areas to ensure that the portfolio of projects effectively supports key policy goals.

2c) The administrators' Investment Plans are closely reviewed to ensure they not only meet program requirements, but that they are also effective in advancing the energy policy priorities that the CPUC identifies.

II.2.3 Stakeholder Engagement

2d) The administrators engage more stakeholders earlier in the investment planning process, and

2e) The IOUs provide more comprehensive information, to allow time for more meaningful engagement.

11.3 Project Selection Process

11.3.1 Administrator Project Selection Processes

3a) The IOUs develop more transparent project selection criteria,

3b) The IOUs share project research plans and budgets with the CPUC and the public, at least one month prior to launch.

II.3.2 Administrator Coordination

3c) The CPUC review the IOUs' project research plans (which we have recommended that they make public as they are developed) to ensure that there is no unnecessary duplication in their EPIC 3 projects.

II.3.3 Match Funding

3d) The CEC should consider modifying the match funding requirement for TD&D projects and make it optional,

II.3.4 Intellectual Property Terms

3e) The CPUC review IP rules or guidance developed for the Department of Energy's Small Business Innovation Research (SBIR) Program to explore possible opportunities for easing IP requirements. Regardless of the outcome of any such efforts, the CPUC should ensure that IP requirements are communicated effectively.

II.3.5 Flexibility

3f) The administrators should use the Advice Letter process only for requesting substantive changes to projects or adding new projects that are not covered by one of the existing general descriptions in their Investment Plans.

3g) The CEC explore how and whether it could add more flexibility to its grant request forms and/or research planning process to be able to respond to market and technology changes that occur between the time the project is proposed and the project is launched.

11.4 Project Assessment Process

4a) The administrators share information while projects are in progress with the CPUC and the public on a more frequent basis, such as quarterly.

- The administrators collaborate in categorizing and summarizing projects, as previously recommended (2b), (such as by technology type and/or policy area) so that interested parties can more easily obtain pertinent information on a given topic area.

4b) The administrators collaborate and jointly convene a quarterly workshop to share results about project status and lessons to-date on a topical basis, with engagement from stakeholders on topics that are of interest.

II.4.2 Benefits Quantification

4c) The IOUs develop more detailed processes to quantify benefits associated with their projects, including what types of data would be necessary and how they will collect these data, as well as a reporting structure and process that would document and report those benefits to all relevant stakeholders.

4d) The administrators develop a process to jointly report on EPIC's short-, mid- and long-term project benefits across the portfolio on a routine basis (e.g., annually) to the CPUC, relevant stakeholders and the general public.

11.4.3 Results Dissemination

4e) The CEC's project benefits quantification processes be reviewed again once more projects are completed.

4f) SCE share its project results more widely with interested stakeholders, including delivering presentations at conferences and workshops.

4g) SDG&E's project closeout reports be reviewed once projects are completed to ensure results are being widely disseminated.

4h) The administrators jointly develop a single EPIC website and listserv to post and distribute project information

11.4.4 Project Networks

II.5 Project Impacts and Policy Alignment

5a) The CPUC consider using our characterization of the EPIC portfolio in terms of the types of technologies and studies and their commercialization status as baselines against which to compare future iterations of EPIC.

5b) The CPUC regularly evaluate EPIC to confirm that the CEC is ensuring the Market Facilitation projects are effectively connected to and serving the needs of the Applied R&D and TD&D projects.

5c) EPIC administrators establish a process to ensure that once Applied R&D projects are completed by the CEC, the results are considered and potential TD&D projects are identified.

II.6 Overarching Coordination and Collaboration

6a) The CPUC and/or the administrators fund and convene an independent body to coordinate, facilitate and lend technical expertise.

11.7 On-Going Program Evaluation

7a) Using the theory-driven framework developed for this evaluation, monitor and report key performance metrics on an on-going basis and conduct a comprehensive evaluation every three to four years. All of these evaluation activities should be conducted by an independent evaluator in close collaboration with the four administrators to avoid any duplication of efforts and to ensure that the results will be useful to all stakeholders (e.g., the CPUC, state legislators, and the four administrators and other stakeholders).

7b) The administrators create a single, centralized database containing all relevant information on active and completed EPIC projects along with monitoring and quarterly reporting of key performance metrics, in order to support the on-going evaluation of the Program.

Given this, we recommend that the CPUC work with the administrators with the support of the recommended coordination body (if created) to:

7c) Modify (and continually update as needed) the characterization of the Program to more accurately reflect its complexity.

7d) Modify (and continually update as needed) the EPIC program theory and logic models to better reflect the more complex character of the Program.

7e) Revisit the key performance metrics that should be tracked and the frequency with which they should be tracked and reported.

(END OF APPENDIX B)