

Decision 20-08-042 August 27, 2020

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking on the
Commission's Own Motion to
consider renewal of the Electric
Program Investment Charge Program.

Rulemaking 19-10-005

**DECISION RENEWING THE ELECTRIC
PROGRAM INVESTMENT CHARGE**

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DECISION RENEWING THE ELECTRIC PROGRAM INVESTMENT CHARGE

Summary

This Decision renews the Electric Program Investment Charge (EPIC) for ten years, through December 31, 2030, and authorizes two five-year investment plan cycles (referred to, respectively, as EPIC 4 and EPIC 5). The EPIC program is on track in achieving its program objectives of providing electric utility ratepayer benefits, producing energy innovations, and helping California meet its energy policy goals. We find that EPIC investments also have benefited California in general, including attracting over two billion dollars in additional investment.

We authorize the California Energy Commission to continue as administrator, with an annual budget of \$147.26 million for the first five-year investment plan cycle (2021-2025, or EPIC 4) and grant it the ability to adjust for inflation during the second five-year investment plan cycle (2026-2030, or EPIC 5), but not the first.

This proceeding remains open. Phase 2 of this proceeding will focus on the role of the three utilities (Pacific Gas and Electric, Southern California Edison Company and San Diego Gas & Electric) going forward, as well as considering other administrative and program improvements.

1. Program History

The Electric Program Investment Charge Program (EPIC) was first authorized by the Commission in Decision (D.) 11-12-035. In brief, D.11-12-035 instituted a new surcharge, but essentially maintained that surcharge at the same levels as had been previously authorized for public interest energy innovation.

Decision 11-12-035 went on to identify and discuss the expectations for EPIC's potential to advance, for public benefit, research, development, and demonstration (RD&D) programs. That Decision ordered Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) (collectively, the investor-owned utilities (IOUs)) to institute ratepayer surcharges for the year 2012 to pay for EPIC.

Following D.11-12-035, D.12-05-037 expressly established the EPIC funding mechanism and set out a more detailed framework for the program. That funding mechanism was for three, three-year investment periods from 2012 through 2020, the investment plans for which have come to be known as EPIC I (investing funds collected from 2012-2014), EPIC II (2015-2017), and EPIC III (2018-2020).

In D.12-05-037, the Commission further articulated EPIC's purpose and guiding principles. The primary purpose of EPIC is to provide electricity ratepayer benefits, defined as promoting greater reliability, lower costs, and increased safety. Complementary guiding principles established in that Decision include:

- Societal benefits;
- Greenhouse gas emissions mitigation and adaptation in the electricity sector at the lowest possible cost;
- The loading order;
- Low-emission vehicles/transportation;
- Economic development; and
- Efficient use of ratepayer monies.

The Commission also identified in D.12-05-037 the three program areas EPIC would invest in: applied research and development, technology demonstration and deployment, and market facilitation. Applied research and development investments include activities supporting pre-commercial technologies and approaches that are designed to solve specific problems in the electricity sector. Technology demonstration and deployment (TD&D) investments include the installation and operation of pre-commercial technologies or strategies at a scale sufficiently large and in conditions sufficiently reflective of anticipated actual operating environments to enable appraisal of the operational and performance characteristics and the financial risks. Market facilitation investments fund a range of activities including program tracking, market research, education and outreach, regulatory assistance and streamlining, and workforce development to support clean energy technology and strategy deployment.

In D.12-05-037, the Commission also determined that EPIC would not fund investments in market support activities, including projects that seek to enhance the competitive position of certain preferred, commercially-proven technologies or approaches relative to incumbent technologies or approaches.¹

¹ See D.12 05 037 at Ordering Paragraphs 2-4.

D.12-05-037 designated the California Energy Commission (CEC), PG&E, SCE, and SDG&E as the administrators of the EPIC program. The CEC was authorized to make investments in all three program investment areas, whereas the IOU administrators were only authorized to administer TD&D investments. It also provided that the Commission would conduct a public proceeding every three years to review and approve the triennial investment plan applications of each EPIC administrator to ensure coordinated public interest investment in clean energy technologies. Decision 12-05-037 specified an annual total for each year of the program (\$162 million, plus an annual Consumer Price Index increase); the breakdown for each IOU's collection allocation (PG&E: 50.1%; SCE: 41.1%; SDG&E: 8.8%); the administrator budget allotments (CEC: 80%, IOUs: 20%); a maximum for administrative expenses (10%) and a budget for Commission oversight (0.5%); and, various additional administrative, budgetary, and investment element requirements.

Subsequently, in D.13-11-025, and then in companions D.15-09-005 and D.15-04-020, and then again in companions D.18-01-008 and D.18-10-052, the Commission approved and modified the administrators' triennial EPIC I, II, and III investment plan applications. To date, EPIC has funded over 550 projects across the four administrators. By the time the three triennial investment cycles conclude, over \$1.5 billion in ratepayer funding will have financed the Commission's energy innovation goals, including administration and oversight (excluding matching funds).

The Commission also has conducted reviews of EPIC. Decision 12-05-037 directed the hiring of a consultant under contract to the Commission to conduct a

comprehensive evaluation of EPIC in 2016 and 2017, with the task of identifying opportunities to improve program management and effectiveness. The resulting Evaluation Report was published in September 2017 and considered in the EPIC III investment plan proceeding. Two key high-level takeaways from the Evaluation Report² include the following:

1. The EPIC program appears to be on track in achieving its program objectives of providing electric IOU ratepayer benefits, producing energy innovations, and helping California meet its energy policy goals; and
2. While they are in compliance with EPIC program requirements, IOU administrative practices are inconsistent with best practices of peer RD&D programs.

In D.18-10-052 the Commission expressly stated that it was “pleased with the progress and achievements of the EPIC program to date, particularly in light of the fact that most investments only began several years ago,” extremely recent in R&D terms. The Commission concluded that “while more can and will be done to improve program administration and investment planning, a solid foundation has been created upon which we can build further.”

Decision 18-10-052 discussed the Evaluation Report and directed the implementation of several of its suggested program improvements. As a result, improvements are underway. One key example is the Policy + Innovation Coordination Group (PICG). The PICG, which began operation in early 2020,

² Available online at: <https://www.cpuc.ca.gov/energyrdd/>. We note that when the Evaluation Report examined EPIC’s program practices and processes, only 11% of active projects had been completed, making infeasible a project-level evaluation of program benefits.

will support greater policy coordination between the Commission and EPIC investments. The evaluation also proposed metrics for assessing the performance of EPIC moving forward.³ Decision 18-10-052 also directed the utilities to file an additional joint application implementing more improvements to their administrative processes, which the Commission approved when it adopted D.20-02-003. That Decision concluded by noting that although improvements had been made, the utilities' "performance as administrators under the past and current EPIC program administrative rules keeps falling short" and that "something needs to change." Consideration of "alternative structures that may better suit utility involvement" was deferred to the instant proceeding, along with additional forward-looking potential program changes.⁴

Decision 18-10-052 envisioned a future rulemaking for consideration of funding beyond 2020 and further program design improvement. This is that proceeding.

2. Procedural Background for this Proceeding

On October 10, 2019, the Commission, on its own motion, opened an Order Instituting Rulemaking (OIR) to consider the renewal of EPIC.

³ "For a complex program such as EPIC, our evaluation team developed performance metrics for each activity, output and outcome to assess the extent to which major activities of EPIC have been successfully implemented and whether these activities led to or are likely to lead eventually to the expected short-, mid-, and long-term outcomes." (Evergreen Economics, 2017, at 1-3 – 1-4; also *see* Evergreen recommendation 7a.)

⁴ *See* D.20-02-003 at 33.

The purpose of this proceeding is to review the EPIC program, consider whether and how to continue funding the program, and to consider appropriate administrative and programmatic changes to improve the program.

A prehearing conference (PHC) was held on January 14, 2020, to discuss the issues of law and fact and determine the need for hearing and schedule for resolving the matter.

On March 6, 2020, the Assigned Commissioner issued a Scoping Memorandum and Ruling.

The following parties filed and served briefings or other documents in this proceeding:

- California Energy Commission (CEC);
- Pacific Gas & Electric Company (PG&E);
- Southern California Edison (SCE);
- San Diego Gas & Electric Company (SDG&E);
- Bay Area Science and Innovation Consortium (BASIC);
- The Public Advocates Office (Cal Advocates);
- Natural Resources Defense Council;
- Wisewood Energy;
- Bioenergy Association of California (BAC); and
- Public Interest Research Advocates.

3. Jurisdiction

The Commission's authority to initiate this rulemaking is pursuant to Public Utilities (Pub. Util.) Code § 399.8, which reads in pertinent part as follows:

- (a) In order to ensure that the citizens of this state continue to receive safe, reliable, affordable, and environmentally sustainable electric service, it is the policy of this state and the intent of the Legislature that prudent investments in energy efficiency, renewable energy, and research, development and demonstration shall continue to be made.
- (b)(1) Every customer of an electrical corporation shall pay a nonbypassable system benefits charge authorized pursuant to this article. The system benefits charge shall fund energy efficiency, renewable energy, and research, development and demonstration.
- (2) Local publicly owned electric utilities shall continue to collect and administer system benefits charges pursuant to Section 385.
- (c)(1) The commission shall require each electrical corporation to identify a separate rate component to collect revenues to fund energy efficiency, renewable energy, and research, development and demonstration programs authorized pursuant to this section...

Pub. Util. Code Section 740.1 provides additional guidance:

The commission shall consider the following guidelines in evaluating the research, development, and demonstration programs proposed by electrical and gas corporations:

- (a) Projects should offer a reasonable probability of providing benefits to ratepayers.
- (b) Expenditures on projects which have a low probability for success should be minimized.
- (c) Projects should be consistent with the corporation's resource plan.
- (d) Projects should not unnecessarily duplicate research currently, previously, or imminently undertaken by

other electrical or gas corporations or research organizations.

- (e) Each project should also support one or more of the following objectives:
 - (1) Environmental improvement.
 - (2) Public and employee safety.
 - (3) Conservation by efficient resource use or by reducing or shifting system load.
 - (4) Development of new resources and processes, particularly renewable resources and processes which further supply technologies.
 - (5) Improve operating efficiency and reliability or otherwise reduce operating costs.

4. Issues Before the Commission

The Assigned Commissioner's Scoping Ruling (Scoping Memo) determined that this proceeding will be conducted in two phases. Phase 1 has been considering whether EPIC should be renewed, and, if renewed, for how long, at what funding level, and how that funding should be apportioned among the four program administrators. In reaching these determinations, we set out to examine if EPIC has yielded, or can reasonably be expected to yield, quantifiable benefits, and other results or impacts, including if EPIC investments have benefitted low-income and disadvantaged communities. The scope of issues also includes whether the Commission should continue to apply inflation adjustments in the future and if the current limit of ten percent on administrative expenses should change. The Scoping Memo also sought comment on whether the Commission should provide bridge funding to prevent gaps in project

funding given the time that will be required to consider forthcoming investment plan applications.

The Scoping Memo determined that Phase 2 would focus on potential structural and administrative improvements, as well as program evaluative criteria going forward.

5. EPIC is Renewed

We believe the record clearly demonstrates that EPIC has benefited California, including low-income and disadvantaged communities. Completed and ongoing EPIC projects have yielded tangible benefits, including additional private and public investment. The record also indicates the potential for substantial additional future benefits from continued EPIC investments. Going forward, these projects have the potential to help California meet its energy savings and carbon reduction commitments, as well as address wildfire and other safety issues.

All parties support continuing the program, although some parties assert that the role of the utility administrators should change, or that the program should be restructured. While some parties raise compelling critiques of the utility administrators that are consistent with previous concerns raised in independent evaluations of the program and by this Commission, none criticize the CEC; multiple parties extol its job as an administrator. In consideration of both the compelling arguments in favor of renewing EPIC, the equally valid criticisms of the utility administrators, as well the current economic recession, we authorize the renewal of EPIC for an additional ten years at a nominally reduced overall budget, with the CEC continuing on its role as an EPIC administrator,

with a budget amount matching its current budget. We defer more developed consideration of the role of the utilities to Phase 2 of this proceeding.

5.1 EPIC Investments Are Yielding Benefits

One of the most significant arguments in favor of renewing EPIC is the results we find from current and previous investments, roughly \$1.3 billion through 2019,⁵ making EPIC the largest state-level public interest energy research program in the country. Here we consider both the benefits defined in D.12-05-037 — greater reliability, lower costs, and increased safety — and broader benefits such as attracting additional investment and fostering innovation.

The EPIC Administrators assert EPIC funds have resulted in — and that experience to date indicates will continue to result in — numerous benefits, including technology advancement and commercialization (CEC);⁶ advancements in renewable integration that lead to a cleaner, modernized grid and make it more adaptable to emerging challenges like electric vehicles (SCE); furthering distributed energy resources integration and enhanced distribution planning (PG&E), and boosted wildfire risk mitigation and resiliency (PG&E).⁷

⁵ We make this finding while also conceding that research and development projects in general have long lifespans and that our review is one in midstream. For example, the CEC took care to note that only 145 of its 332 EPIC-funded projects have concluded, including 83 that were completed in 2019. *See* California Energy Commission Opening Briefs at 10.

⁶ CEC states that more than 34 technologies and related services companies have been successfully commercialized and dozens more are moving towards commercialization. *See* California Energy Commission Opening Briefs at 11.

⁷ PG&E also notes, however, that not all benefits can be quantified, and benefits metrics should not be used as a substitute for the information in projects' final reports on the administrator's

Cal Advocates asserts overall that EPIC-funded projects have benefited ratepayers and will continue to, in compliance with Pub. Util. Code Section 740.1, noting that the evaluation by Evergreen Economics found that every EPIC project will likely provide ratepayer benefits. However, Cal Advocates also notes that the Evergreen Economics evaluation found that while the CEC is meeting its obligation to quantify ratepayer benefits, the utilities are not effectively tracking and reporting on benefits metrics.⁸

BAC asserts that EPIC has been critical to launch the forest biomass projects required by Senate Bill (SB) 1122 and the Governor's Emergency Order on Tree Mortality by demonstrating solutions to improve bioenergy facilities needed to meet the organic waste diversion requirements in SB 1383.

Three quantified benefits of particular importance to our Decision to renew EPIC funding are the additional investment EPIC projects have attracted, the potential for energy savings, and the projects likely to improve electricity reliability and public safety.

EPIC funds have led to substantial additional investment from other sources, totaling at least \$2 billion.⁹ The CEC notes that its EPIC projects have

websites, as those reports will provide the best holistic assessment of the value that has been delivered through the EPIC program.

⁸ Cal Advocates Opening Brief at 5-8.

⁹ Note this is a conservative estimate, relying mostly on numbers provided by the California Energy Commission which tracks match funding and other investment by project. The utility administrators did not provide comprehensive investment data and it is not clear if the CEC calculations include the funding BASIC provided in its briefs or if that is an example of additional leveraged funding.

attracted more than \$1.8 billion in additional private investment,¹⁰ along with an additional \$180 million in state and federal funding.¹¹ One example, noted by BASIC, is the Joint Bioenergy Institute, a collaboration including Lawrence Livermore National Laboratory, Sandia National Laboratory, UC Davis, UC Berkeley, UC San Diego and UC Santa Barbara, which leveraged a \$3 million EPIC grant to win renewal of a \$125 million five-year U.S. Department of Energy research project aimed at converting agricultural and forestry wastes into commercially available biofuels that can displace fossil fuels.¹²

EPIC-funded projects also have the potential to yield significant energy savings. The CEC forecasts that five recently completed EPIC projects in the area of building or appliance efficiency could lead to over \$1 billion in annual energy cost savings if adopted in regulatory codes.¹³ BASIC notes the importance of research in this field, since buildings comprise nearly 70 percent of electricity usage. For example, EPIC and the Public Interest Energy Research (PIER) program, which predated EPIC and was administered by the CEC, accelerated development of high performance window coatings offering 40% lower energy loss compared to prior technologies, now with 70% market penetration, and the

¹⁰ California Energy Commission Opening Brief at 13.

¹¹ California Energy Commission Opening Briefs at 11.

¹² The Bioenergy Association of California Opening Brief at 5-6.

¹³ California Energy Commission Opening Briefs at 34-35. Projects include: Sealed and Insulated Attic Performance in New California Homes Using Vapor and Air Permeable Insulation; Low Cost, Large Diameter, Shallow Ground Loops for Ground-Coupled Heat Pumps.

development of super insulation that is two to four times more efficient offers a 63% reduction in insulation cost per square foot compared to conventional fiberglass.¹⁴ PG&E also identifies a project that improved demand forecasting it estimates will save \$3.5 million annually¹⁵ and a successfully developed automated analytical tool for determining meter phasing that, if deployed across PG&E's full service territory, would potentially provide over \$20 million in avoided cost savings and reduced customer bills compared to a PG&E-wide conventional "boots on the ground" phase identification effort.¹⁶ These quantified potential savings estimates for just a few EPIC investments nearly match the entire authorized program funding to date, demonstrating significant savings potential for the program overall. It is difficult to estimate reliably future benefits that will result from a R&D investment of any size, especially given the long time frames required for a technology to move from concept to widespread use, but these are reasonable indicators that this program will yield substantial results in the ratepayer interest.

Finally, EPIC funds also have financed promising projects that should improve electricity reliability and public safety, especially in the area of wildfire risk reduction or mitigation. The CEC reports that it has awarded 16 grants for microgrid projects, including the microgrid at the Blue Lake Rancheria, and that microgrid technology can respond quickly and reliably during a grid outage.

¹⁴ BASIC Opening Brief at 3.

¹⁵ PG&E Opening Briefs at 6

¹⁶ *Id* at 4-5.

Regarding the Blue Lake Rancheria microgrid, the CEC notes that 10,000 Californians still had power during a planned grid outage, thanks to EPIC investment.¹⁷ PG&E cites its Proactive Wire Down Mitigation project as another example that has the potential to reduce the number of ignitions from wire-down events on 12 kilovolt (kV) distribution circuits in PG&E's High Fire Threat Districts (HFTDs) by over 50 percent.¹⁸ PG&E also states that it is working to improve significantly on its ability to predict proactively imminent asset failure, thereby reducing the risk of wildfire ignition. BAC notes that EPIC grants have been especially critical to help meet the requirements of the Governor's Emergency Order on Tree Mortality, which calls for accelerated development of new, small-scale bioenergy facilities to reduce wildfire hazards. According to the California Forest Carbon Plan, these types of bioenergy projects can reduce black carbon, methane and carbon monoxide emissions by 98 percent compared to wildfire or controlled burns of forest waste and other vegetation removed for wildfire mitigation.¹⁹

In addition to the benefits we highlight above, we note that many EPIC projects have benefited low-income and disadvantaged communities. For example, the CEC states that 65 percent of its technology demonstration and deployment funds have gone to projects located in and benefitting low-income or disadvantaged communities. As of April 2020, CEC has issued 29 funding

¹⁷ CEC Opening Brief at 17.

¹⁸ PG&E Opening Briefs at 8.

¹⁹ BAC Opening Brief at 4.

opportunities with set-asides or preference points for projects located in and benefitting underrepresented (disadvantaged, low-income or tribal) communities through the EPIC program.²⁰

Based on this track record of quantifiable results, we conclude that EPIC has benefitted electricity IOU ratepayers and California in general, helping address wildfire risk, meeting climate goals, and creating job growth, among many other benefits. We have sufficient reason to conclude that these benefits will continue, particularly with the refinements to the program that are underway and given that much of the EPIC portfolio from the previously authorized funding has not even completed the project cycle. Therefore, we find it reasonable to renew EPIC funding to ensure that these broader and ratepayer-specific benefits may be realized in the future. Even—and perhaps especially—during times of economic recession we believe it is important to continue making targeted investments that keep California on track towards its energy and carbon reduction goals, help ensure the state remains an innovative leader, and attract private investment to California’s clean energy economy. EPIC is such an investment.

It is particularly clear to us that the EPIC projects administered by the CEC have benefited both ratepayers, and California in general. Less clear, however, are the benefits of the projects administered by the utility administrators. As previously noted, the Evergreen Evaluation found the utilities need to improve

²⁰ CEC Opening Brief at 42.

in terms of demonstrating the benefits of their EPIC projects as well as other aspects of their administration. More recently, in D.20-02-003, the Commission noted that although improvements had been made subsequent to the evaluation, the utilities' "performance as administrators under the past and current EPIC program administrative rules keeps falling short" that "something needs to change" and that "alternative structures that may better suit utility involvement." Filings by the utility administrators in this proceeding add to our concerns, as SDG&E asserts that absent the changes it recommends, it "does not believe that ratepayers in its service territory are receiving enough value,"²¹ while the other utility administrators provided limited quantitative benefits. Finally, we note that while Cal Advocates has been highly critical of the utility administrators, it instead recognizes that there is evidence "indicating that the CEC's administration of the EPIC Program will likely result in quantifiable benefits to ratepayers and the State." Given these concerns, we defer consideration of the utilities' role as administrators until Phase 2. Given the concerns we have previously raised and discuss here about IOU administrative performance to date, we also intend to consider alternative structures for utility involvement in EPIC in Phase 2.

5.2. Funding Level and Duration

We renew the EPIC surcharge collection in an amount totaling \$148 million annually through December 31, 2030 (plus inflation, as discussed later). As explained in greater detail below, while we authorize the CEC's

²¹ SDG&E Opening Brief at 8.

budget, funded at its current level of \$147.26 million annually, we do not authorize funding for the utility administrators in this Decision. We grant the request of the EPIC Administrators that the investment plan cycle be changed from three years to five years and authorize an adjustment for inflation for the second five-year investment plan.

Decision 12-05-037 approved the collection of EPIC funds through December 31, 2020, with three-year investment plan cycles that allowed for budget increases based on the average change in the consumer price index for the previous three years.²² The total amounts for each respective cycle were \$467 million, \$510 million and \$555 million. The Assigned Commissioner's Scoping Memo requested comment on the length of the EPIC surcharge collection, the amount, if the administrators could still apply inflation, the length of the application and investment cycles, and if any changes to the relative shares of funding among administrators is warranted.

Parties in general either support continued funding at current levels or increased funding, though Cal Advocates argues that it is premature to finalize any decisions about changes to the EPIC Administrators' funding allocations, duration, and investment cycle lengths in Phase 1 given that the Commission is considering programmatic changes in Phase 2. However, if the Commission approves long-term funding in Phase 1, Cal Advocates supports funding at the

²² See D.12-05-037 at 63. In D.18-01-008, the Commission found it reasonable to use the California CPI-W, forecasted for 2018-2020 by the California Department of Finance, to escalate the EPIC funding level for 2018-2020 instead of the retrospective average of the previous three years as required by Decision 12-05-037.

current level. Although it asserts that funding levels should not be determined prior to completing Phase 1 because of its concerns with some current rules, SDG&E supports an increase in EPIC funding, arguing also that the utilities should be allowed to spend on more than just pre-commercial demonstrations and that SDG&E's allocation is not commensurate with the funding requirements of demonstration projects. SDG&E notes that the administrative tasks required by the program necessitates increased funding levels. PG&E, noting a need to be mindful of customer affordability, recommends funding at current levels, or at most increased to account for inflation only.

Most parties support extending the program by either nine or ten years (Cal Advocates and Wisewood Energy do not opine). Parties split over whether administrator investment plans should continue to be three years in length or instead be five years, with each administrator supporting two investment planning cycles of five years, in general asserting that five-year cycles will enable an expanded research planning horizon for technology development and new investment plans and retain flexibility in implementation to respond to evolving needs. Cal Advocates, in particular, opposes increasing investment plan cycles to five years, noting that nothing precludes the administrators from planning and requesting funding for long-term investments, that the Commission already allows the administrators to continue EPIC investments past the triennial cycles,

and asserting that the administrators do not explain how a five-year investment plan cycle will prevent the gaps they allege occur now.²³

In determining the EPIC surcharge collection going forward, we are persuaded by the need to be mindful of customer affordability, especially at a time when millions of Californians are filing for unemployment benefits due to losing their jobs because of the COVID-19 pandemic. The Commission already has begun its efforts to assist Californians struggling in this difficult time and will continue to do so, including efforts to increase access to its public purpose programs, as well as to explore ways to reduce utility bills. While we are concerned about any burdens placed on ratepayers during this time, we also are persuaded by the need to balance that concern with the likely ratepayer benefits and broader economic benefits of continuing investments that will outlast the current recession. Therefore, in an effort to balance both the positive impact EPIC investments will make with the current economic reality, we authorize funding for the CEC at its current annual amount of \$148 million (of which \$740,000 is allocated for this Commission's oversight and evaluation expenses) and do not authorize funding for the utility administrators at this time, a 20 percent reduction from the previously authorized annual amount of \$185 million. Additionally, we will not allow the CEC to factor inflation in its first investment plan cycle, a change from previous practice. While we will consider the role and potential funding for IOUs in Phase 2 as described below,

²³ Cal Advocates Reply Briefs at 5.

we intend to cut the overall program budget by at least ten percent, which would come from the IOUs' share of funding as the program is currently structured.

While we, like Cal Advocates, are not persuaded that the current structure of three-year investment plan cycles has caused harm, such as the loss of key staff and suboptimal knowledge retention, as one administrator alleges, we nonetheless do view increasing the cycle from three to five years as an improvement to the program, offering greater flexibility to the administrators, and offering the Commission a better opportunity to oversee the program. We also believe that at least the CEC's track record merits this adjustment.

In summary, we authorize the collection of \$148 million for the EPIC surcharge through December 31, 2030. The CEC shall file investment plan applications for the five-year investment cycle periods 2021-2025 and 2026-2030 on October 1, 2021 (EPIC 4) and October 1, 2025 (EPIC 5) respectively. In its EPIC 5 application, the CEC is allowed to request an adjustment for inflation for years 2026-2030.²⁴ Collection for the funding of EPIC shall continue to be allocated to the utilities in the following percentages: PG&E 50.1% SCE 41.1%, and SDG&E 8.8%.

Table 1, below, summarizes EPIC 4 annual funding approved in this Decision.

²⁴ The inflation adjustment should be calculated using the California Department of Finance California CPI-W method, which was approved in D.18-01-008.

Table 1. Approved EPIC 4 Annual Budget

Budget Item	Percent	Amount
CEC Projects	89.50%	\$132,460,000
CEC Admin	10.00%	\$14,800,000
CPUC Admin	0.50%	\$740,000
Total EPIC annual collection	100.00%	\$148,000,000

6. Bridge Funding May Be Necessary

While this Decision authorizes fund collection for EPIC 4 beginning on January 1, 2021, it does not approve any investment plans for this period.

In response to an Administrative Law Judge (ALJ) request at the January 14, 2020 PHC, on January 31, 2020 the four current EPIC administrators submitted a general bridge funding proposal consisting of two phases. In suggested Phase 1 of this proposal, the Commission would authorize funding levels and IOU collections in rates and approve a process to fund projects. In suggested phase 2, the administrators would propose initiatives/projects and seek Commission authorization.

Although we do not adopt that joint Administrators' plan, given the limited details, we in general, are open to funding CEC EPIC projects in the near-term, in the event the CEC needs that funding to begin work on new EPIC projects while we continue developing guidance for the next phase of EPIC. In the event it needs advance Commission authorization of EPIC 4 funding while Phase 2 progresses, the CEC may file this advanced investment plan as part of a

motion in this proceeding. This option would be used to avoid any gap in funding that would impact program administration. The CEC should work with Energy Division to develop its plan for any needed bridge funding.

7. Role of Utilities Deferred to Phase 2

In this Decision, we do not authorize the utilities' continuing on in their current role as EPIC administrators, but instead defer a determination on this topic to Phase 2 of this proceeding. No party opposes continuing EPIC and the record, in general, supports continuing it, though some parties propose modifications that may be addressed in Phase 2.

The role the utilities will play in EPIC going forward is a particularly important question, given our intent to reduce overall program funding. Additionally, while parties do not question the CEC continuing as an Administrator, they do offer criticisms of the IOU Administrators in general and raise specific questions about them continuing in that role. One Administrator, SDG&E, does not believe that ratepayers in its service territory are receiving enough value with the current structure,²⁵ arguing instead for an increased budget and increased investment flexibility. Cal Advocates reminds us that we have already concluded that Utility Administrators' "performance as administrators under the past and current EPIC program administrative rules keeps falling short."²⁶ BAC recommends making the CEC the sole EPIC administrator.

²⁵ SDG&E Opening Brief at 8.

²⁶ Cal Advocates Reply Brief at 2, quoting D.20-02-003 at 33.

As we recently found in D.20-02-003, “there is value in utility *participation* and *leadership* in energy RD&D” (emphasis added). However, we share the concerns raised about the utilities’ administrative performance. Because of our repeated concerns about identified shortcomings with utility administration, we do not authorize any utility administrative budget in this Decision. We continue to believe that utility participation in EPIC – particularly because of their ability to demonstrate technologies on the grid – is beneficial and we intend to consider ways to ensure this continues in Phase 2. However, we are not persuaded by SDG&E’s argument that increased funding is the solution to improving utility administration of EPIC, even though we acknowledge that there are limitations when an administrator’s overall budget is too small, as may have been the case with SDG&E. Energy Division staff may issue a staff proposal on this issue, and if we identify a reasonable structure suiting utility participation in EPIC we may authorize or direct this participation in our Phase 2 Decision.

We also defer to Phase 2 the issue of whether to increase the cap on administrative expenses from 10 percent to 15 percent. Some administrators make the case that the administrative expenses related to this program have increased, and we are considering further administrative changes in Phase 2. We are persuaded more by PG&E’s suggestion that this issue should be determined while we consider structural changes to the program, not before, particularly because this issue does not affect the question of total funding continuance or amounts.

The scope of issues for Phase 2 of this proceeding is revised. The issues to be determined are:

1. In light of the current economic recession, is a 20 percent reduction in the current EPIC surcharge appropriate? Would a ten percent reduction in the total budget be more appropriate? Are any other budgetary changes necessary?
2. Other than the direct administrative role that PG&E, SCE, and SDG&E had in prior EPIC investment cycles, is there another manner in which the utilities can participate in EPIC research projects? For example, should a certain portion of the CEC's budget be allocated for the utilities, and/or should utility investment proposals be represented in CEC investment plans? How could the Commission ensure that the expertise and applied knowledge of the IOUs informs EPIC research without continuing the IOUs' direct administrative role as previously structured? If the existing structure, with the electric utilities continuing with direct administrative roles is deemed the preferred option, despite its documented flaws, how does the Commission ensure that the utilities comply with their obligations as administrators?
3. How should the Commission determine more specific guiding principles and policy priorities for EPIC?
 - a. Do the "complementary guiding principles" established in D.12-05-037 need refinement and/or updating?
 - b. How should the Commission establish additional policy priorities for the program? Should the Commission provide direction for areas, goals, and/or strategies that the Commission wants to ensure are highlighted or prioritized by EPIC, within the context of the mandatory guiding principles and other program rules?
 - c. What should be the process/cadence for revisiting these principles and priorities?
4. Administrative and Program structure improvements

- a. What other changes to the administrative structure of EPIC could benefit the program? Is the current administrative structure sufficient to balance responsiveness to emerging RD&D priorities with the need for oversight and transparency?
 - b. Should the Commission designate certain administrators or entities to certain administrative tasks or policy areas (*e.g.*, would cybersecurity RD&D be best suited to a particular administrator or type of administrator)?
 - c. Are any definition changes or clarifications to the three program areas (Applied Research and Development, Technology Demonstration and Deployment, and Market Facilitation) needed?
 - d. Should the 10 percent cap on administrative expenses remain or instead be increased, due to increased administrative tasks?
5. How should the Commission address recommendations from the Evergreen Evaluation that have not already been fully addressed? (Refer to Appendix B of D.18-10-052.)
6. Future program and administrator evaluations
- a. What metrics should be used in evaluating the program's success going forward?
 - b. What other items should an evaluation consider?
 - c. When should the evaluations take place?
 - d. Who should conduct the evaluation?
 - e. Should different metrics apply to different administrators?
 - f. What are the consequences for underperformance?
7. Consideration of an interim investment plan filed by the CEC, in the event the agency files one.

Parties are directed to file opening briefs 30 days after issuance of this Decision, with reply briefs due 15 days after. The assigned administrative law judge will issue a ruling revising the remainder of the schedule. In the event the CEC files an interim investment plan as part of a motion for consideration, parties will have an opportunity to respond to that motion, consistent with the Commission's Rules of Practice and Procedure.

8. Conclusion

In summary, we renew EPIC for ten years, through December 31, 2030, with two five-year investment plan cycles. EPIC is on track in achieving its program objectives of providing electric utility ratepayer benefits, producing energy innovations, and helping California meet its energy policy goals, as well as other broader benefits, including attracting over two billion dollars in additional investment. We authorize the CEC to continue as administrator, with an annual budget of \$147.26 million for its first five-year investment plan cycle (EPIC 4, 2021-2025), and allow it to adjust for inflation during the second five-year investment plan cycle (EPIC 5, 2026-2030). In the event it needs advance Commission authorization of EPIC 4 funding while Phase 2 progresses, the CEC may file this advanced investment plan as part of a motion in this proceeding.

The Scoping Memo included a Phase 2 for this proceeding to focus on administrative and project evaluation improvements. In addition to those issues, we defer to Phase 2 the role and budgets of the three utility administrators going forward.

9. Comments on Proposed Decision

The ALJ's Proposed Decision was mailed to the parties in accordance with Section 311 of the Public Utilities Code, and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed by California Energy Commission (CEC), Pacific Gas & Electric Company (PG&E), Southern California Edison (SCE), San Diego Gas & Electric Company (SDG&E), Bay Area Science and Innovation Consortium (BASIC), The Public Advocates Office (Cal Advocates), Natural Resources Defense Council, The Energy Coalition, Cleantech San Diego, Silicon Valley Leadership Group (SLVG), Schatz Energy Research Center, and University of California Irvine Advanced Power and Energy Program. Reply comments were filed by CEC, PG&E, SCE, SDG&E, Bioenergy Association of California (BAC), Cal Advocates and SLVG.

We have considered all comments and reply comments carefully. As discussed below, we revise this Decision in response to comments.

Several parties' comments characterize the Proposed Decision as definitively terminating the role of the utilities in EPIC. The Proposed Decision does not end the utilities' involvement in EPIC. We value continued IOU *participation* in EPIC, but remain concerned about IOU *administration* of EPIC, especially in terms of demonstrating benefits, and thus defer the role of the utilities going forward Phase 2 of this proceeding. This approach is not arbitrary and capricious, as PG&E asserts, but the exact opposite, as we have identified concerns with IOU administrative performance and must consider them in further detail, along with solutions towards improving the identified problem, prior to issuing a final determination on the matter in Phase 2. We revise

discussion as well as the Scope of Issues for this proceeding to provide additional clarification. PG&E also asserts that EPIC is critical to the IOUs' ability to meet wildfire, safety and reliability goals and requirements; we will consider this issue carefully in Phase 2.

SDG&E asserts the Proposed Decision mischaracterizes its position over whether its customers receive value. SDG&E's opening brief states "Unless the Commission can improve the structure of the program, SDG&E does not believe that ratepayers in its service territory are receiving enough value." We revise the Decision to align more precisely with SDG&E's statement.

We revise the Scope of Issues for Phase 2 to include potential consideration of the CEC's advanced investment plan motion, as requested by Cal Advocates. We also clarify, at Cal Advocates' request, that the CEC's work with Energy Division staff in developing this advanced investment plan is to focus on the actual plan, not the motion.

The CEC requests clarification that the inflation adjustment method we allow for the EPIC 5 investment plan be based on the California Department of Finance's California CPI-W calculation, consistent with the practice previously approved in D.18-01-00. This is reasonable and we revise the Decision accordingly.

10. Assignment of Proceeding

Martha Guzman Aceves is the assigned Commissioner and Thomas J. Glegola is the assigned ALJ in this proceeding.

Findings of Fact

1. Through 2019, projects funded using EPIC have generated at least \$2 billion in additional investment from private and public sources.
2. EPIC funds have financed promising projects that may provide considerable energy savings and improve safety.
3. Increasing the EPIC investment plan cycle from three to five years will offer greater flexibility to the administrators, and a better opportunity for the Commission to oversee the program.
4. There is evidence indicating that the CEC's administration of the EPIC Program will likely result in quantifiable benefits to ratepayers.
5. There may be a need to approve bridge funding for the CEC to ensure project continuity.

Conclusions of Law

1. The Commission should extend the Electric Program Investment Charge.
2. The Commission should retain policy oversight over all EPIC electric ratepayer funds.
3. Consistent with existing practice, once approved, the CEC's investment plans will, for all intents and purposes, be a grant from the Commission to the CEC of ratepayer funds, with rules adopted governing sub-grants or awards by the CEC to other entities.
4. Consistent with previous Commission Decisions, a budget amount of 0.5 percent should be reimbursed to the Commission by the utilities to fund program oversight.

5. Overall, the framework adopted herein for EPIC oversight and funding is just and reasonable in light of the whole record.

6. The Commission should protect EPIC funding from potential diversion by having the utilities remit funding to the CEC on a quarterly basis for administrative funding and when the funding is encumbered for programmatic purposes.

O R D E R

IT IS ORDERED that:

1. The Electric Program Investment Charge program funding shall continue from 2021 through 2030.

2. The California Energy Commission shall continue to administer its portion of Electric Program Investment Charge as a grant, in accordance with Commission-approved investment plans.

3. The California Energy Commission shall have an annual Electric Program Investment Charge budget of \$147.26 million, with the ability to propose to adjust its budget for its 2026-2030 investment plan by the rate of inflation, as calculated using the California Department of Finance's California CPI-W method.

4. Unless revised by another Commission order, administrative expenses shall be capped at no more than 10 percent of the total budget, not including evaluation expenses. Program oversight expenses for the Commission shall be capped at no more than 0.5 percent of the total budget.

5. 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 \$148 million annually beginning January 1, 2021 and continuing through December 31, 2030, unless otherwise ordered or adjusted in the future by the Commission. The total collection amount shall be adjusted on January 1, 2026 commensurate with the average change in the California Consumer Price Index, specifically the Consumer Price Index for Urban Wage Earners and Clerical Workers, calculated by the California Department of Finance for the investment period. 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, 2030 or as otherwise authorized by the Commission.

6. Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company shall continue to remit one-quarter of the annual administrative budget for the California Energy Commission (CEC) to the CEC quarterly from their Electric Program Investment Charge (EPIC) balancing accounts. Programmatic funding shall be transferred periodically to the CEC from the EPIC balancing accounts when funds are encumbered by the CEC.

7. The California Energy Commission shall file its Electric Program Investment Charge (EPIC) 4 and EPIC 5 investment plans as applications for Commission consideration on October 1, 2021 and October 1, 2025, respectively.

Those applications shall be served on the service list for this proceeding and the service lists for each utility's pending or most recent general rate case.

8. This Rulemaking remains open.

This order is effective today.

Dated August 27, 2020, at San Francisco, California.

MARYBEL BATJER

President

LIANE M. RANDOLPH

MARTHA GUZMAN ACEVES

CLIFFORD RECHTSCHAFFEN

GENEVIEVE SHIROMA

Commissioners