

Decision 21-07-006 July 15, 2021

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 APPROVING CALIFORNIA ENERGY COMMISSION'S INTERIM EPIC INVESTMENT PLAN

Summary

This decision approves the California Energy Commission's proposed interim Electric Program Investment Charge (EPIC) investment plan. In total, the plan would fund \$147.26 million on nine initiatives, as well as administrative expenses over 12 months, ensuring continued investments in energy innovation while this proceeding continues to consider changes to the EPIC program in advance of the next full investment cycle applications.

This proceeding remains open.

1. Procedural Background

On October 10, 2019, the California Public Utilities Commission (CPUC or Commission), on its own motion, opened Rulemaking (R.) 19-10-005 to consider the renewal of the Electric Program Investment Charge (EPIC) Program. 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.

Decision (D.) 20-08-042, issued on September 2, 2020, addresses the question of continuing program funding by renewing EPIC for ten years, through December 31, 2030 and authorizing two five-year investment plan cycles (referred to, respectively, as EPIC 4 and EPIC 5). The decision authorizes the California Energy Commission (CEC) to continue as an administrator, with an annual budget of \$147.26 million for the EPIC 4 investment cycle (2021-2025).

While D.20-08-042 authorizes funds collection for EPIC 4 beginning on January 1, 2021, it does not approve investment plans for this period. EPIC 4 investment plan applications are due in October 2021. In consideration of timing aspects and to ensure program continuity, D.20-08-042 amended the scope of issues for Phase 2 of this proceeding to include consideration of an interim investment plan for the CEC, “in the event it needs advance Commission authorization of EPIC 4 funding while Phase 2 progresses,” as a means of avoiding a gap in funding that would impact program administration.

On February 16, 2021, the CEC filed a Motion for Approval of its EPIC Interim Investment Plan. This motion and the interim investment plan are the subjects of this decision.

2. 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, stating that:

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.

3. The California Energy Commission (CEC) Interim Investment Plan

The CEC proposes a budget of \$147.6 million (M) for program investments, broken down as follows:

- \$41.2M for applied research and development;
- \$75M for technology demonstration and deployment;
- \$16.3M for market facilitation; and
- \$14.7M for administration.¹

The CEC's proposed interim investment plan is for twelve months, to ensure continued funding of its EPIC work while it develops, and the Commission considers, its full EPIC 4 Investment Plan. The CEC requests the CPUC continue to allow it to reallocate up to five percent of funds within the three research categories listed above.

The CEC's proposed interim EPIC investment plan would fund nine research initiatives focused on decarbonization, resilience and reliability, and entrepreneurship, all of which fall into the existing EPIC program areas of applied research and development, technology demonstration and deployment, and market facilitation. The nine proposed initiatives are summarized in Table 1.

¹ The program level budget may not add up to the authorized budget due to rounding.

Table 1. CEC Interim Investment Plan Initiatives

Initiative	Goal
Advanced Prefabricated Zero-Carbon Homes	Increase the efficiency, affordability, and resiliency of prefabricated homes, with a focus on demonstration projects located in under-resourced communities.
Energy Efficiency and Demand Response in Industrial and Commercial Cold Storage	Develop and deploy innovative energy-efficiency technologies for cost-effective decarbonization and demand reduction (DR) participation of cold-storage facilities.
Energy Efficiency and Load Shifting in Indoor Farms	Demonstrate advancements in pre-commercial technologies, hardware systems, control systems, and operational procedures of a digitized indoor farm that would increase energy efficiency and develop the potential to shift load.
Optimizing Long-Duration Energy Storage to Improve Grid Resiliency and Reliability in Under-resourced Communities	Demonstrate the increased resilience that clean, long-duration energy-storage systems can provide to critical facilities in under-resourced communities, taking into consideration wildfire mitigation plans and potential power outages from extreme weather conditions.
The Role of Green Hydrogen in a Decarbonized California – A Roadmap and Strategic Plan	Analyze the potential of hydrogen produced using renewable resources (green hydrogen), and make recommendations on its role in meeting the zero-carbon goals of SB 100 by 2045.
Valuation of Investments in Electricity Sector Resilience	Develop methods for valuation of societal benefits of customer and grid-resilience investments, such as microgrids, distributed generation, and storage.
Vehicle-to-Building for Resilient Back-up Power	Accelerate development, deployment, and commercialization of plug-in electric vehicles and charging equipment capable of powering critical loads in homes and buildings during electric grid outages

Offshore Wind Energy Technologies	Manufacturing, testing and monitoring of floating offshore wind components that reduce installation, operation and management costs and increase commercial readiness, including a pilot demonstration to identify unique hurdles and solutions for floating offshore wind in California.
Entrepreneurial Ecosystem	Direct funding to three entrepreneurial initiatives targeting key stages of clean energy technology development – California Sustainable Energy Entrepreneur Development, Bringing Rapid Innovation Development to Green Energy, and Realizing Accelerated Manufacturing and Production.

Equity is, in addition, an overarching theme across the plan, implemented through a four-pronged strategy: (1) increase awareness of EPIC and the opportunities it provides under- resourced communities; (2) encourage technology/project developers to seek out projects in under-resourced communities; (3) scope many solicitations around specific issues facing ratepayers in under-resourced communities; and (4) embed equity in clean energy entrepreneurship.

4. Parties Positions on CEC’s Proposed Interim Plan

The following parties filed and served responses to the CEC’s motion:

- the Bioenergy Association of California (BAC);
- the Conservation Strategy Group (CSG);
- the Natural Resources Defense Council (NRDC);
- and the Public Advocates Office (Cal Advocates).

Additionally, the CEC filed and served a reply to these responses on March 12, 2021.

The Natural Resources Defense Council (NRDC) supports the CEC’s motion and recommends the Commission adopt it in a timely manner. NRDC found five of the nine initiatives particularly noteworthy, including the

initiatives focused on prefabricated zero carbon homes, offshore wind, and vehicle-to-building technologies for backup power, as well as the initiatives focused on energy efficiency and cold storage, optimizing long-duration energy storage to improve grid resiliency and reliability in under-resourced communities.

Cal Advocates neither supports nor opposes the motion, instead asserting that the Commission and parties need more time to analyze the CEC's proposed interim investment plan to ensure it complies with EPIC program investment plan requirements set forth in D.12-05-037, as well as previous and subsequent EPIC decisions, other statutory guidelines, and other Commission requirements.²

The CEC argues its proposed interim investment plan follows the Commission's direction in D.20-08-042, and that it conducted a robust public process upon which the CPUC may consider the reasonableness of the proposed interim investment plan. Further, the CEC notes that Cal Advocates' recommendation would significantly delay implementation of critical funding, defeating the Commission intent "to avoid any gap in funding that would impact program administration." With regard to Cal Advocates response that the CEC's interim investment plan must comply with EPIC program investment plan requirements set forth in D.12-05-037, the CEC replies that D.12-05-037 only applies to investment plans up to the 2020 collection period. The CEC recommends the CPUC decline Cal Advocates' recommendation to initiate a new and additional process to review its proposed interim investment plan.

² Parties were provided 15 days to response to the CEC's motion, in compliance with Rule 11(e) of the Commission's Rules of Practice and Procedure. No party filed a motion for an extension or requested leave to file a late response.

BAC supports the CEC's motion, with the clarification that funding for the proposed initiative focused on Green Hydrogen includes hydrogen generated from organic waste, as well as green electrolytic hydrogen. CSG also urges that the green hydrogen initiative include the possibility of derivation from eligible organic waste feedstocks via steam methane reforming, autothermal reforming, or methane pyrolysis of renewable gas, as well as the thermochemical conversion of biomass. In its response, the CEC states that it will use a broad definition of green hydrogen that includes both green electrolytic hydrogen and hydrogen from organic waste.

5. Approval of CEC's Interim Investment Plan

We conclude that the CEC's EPIC interim investment plan complies with the criteria established in D.12-05-037, D.13-11-025, and D.20-08-042, and should therefore be approved in this decision.

The CEC's proposed interim investment plan makes the requisite showings pursuant to D.12-05-037. Investments for each proposed initiative are mapped to the electricity system value chain and state priorities and policies. Each initiative includes a list of metrics against which the interim investment plan's success should be measured, including:

- key technical and market challenges to widespread deployment of technology or strategy are addressed for each initiative;
- statistics on knowledge generation and dissemination from the beginning of EPIC through 2019, including growth in symposium attendance, citations from publications, and use of EPIC developed tools;
- adoption of technology, strategy, and research data by others from the beginning of EPIC through 2019, including technology advancement and commercialization and technology diffusion; and

- information on future funding support from other entities for EPIC-funded research on technologies or strategies will be developed through the project solicitation process.³

The CEC also engaged in significant stakeholder outreach in developing its plan and included a summary of comments received during the development of the investment plan is included, as well as its response. D.20-08-042 directed the CEC to work with Energy Division staff to develop its plan for any needed bridge funding. The CEC did so, as documented by CEC's EPIC interim investment plan, Appendix C.

Furthermore, the vast majority of EPIC projects will be awarded through a competitive process. Each project includes eligibility criteria for award of funds through project-specific grant solicitations, typically open to all public and private entities and individuals interested in electricity-related applied research and development, technology demonstration and deployment, and market facilitation projects.

Finally, the interim investment plan provides the recommended approach to intellectual property rights, as derived from CEC's EPIC Standard Grant Terms and Conditions.⁴

In addition to the interim investment plan meeting requisite criteria, we note that this Commission previously found that EPIC funds have financed promising projects that may provide considerable energy savings and improve

³ The proposed interim investment plan does not quantify estimated future benefits to ratepayers and to the state at the initiative level. These are quantified at the project level during the solicitation process.

⁴ The interim investment plan includes a limited set of research initiatives that build on the previous EPIC 3 investment plan, which in Application 17-05-003 did explain how the investment plan addresses the principles set forth in Pub. Util. Code § 740.1 and § 8360. In its full EPIC 4 investment plan, the CEC will need to address these principles.

safety, as well as evidence indicating that the CEC's administration of the EPIC Program will likely result in quantifiable benefits to ratepayers.⁵ No party raised an objection to the substance of the interim investment plan or the proposed initiatives. Further, we note the practical reason for approving this bridge funding, as it ensures project continuity while we continue to revise EPIC program rules in this proceeding. Decision D.20-08-042 makes clear that the CEC is authorized to continue as an administrator through 2030, also authorizing its annual budget amount through 2030.

We conclude that the CEC's EPIC interim investment plan complies with the criteria established in D.12-05-037, D.13-11-025, and D.20-08-042, and should therefore be approved in this decision. Given that compliance, we believe the debate over whether or the CEC's interim investment plan needs to comply with D.12-05-037 is moot. However, we still clarify that D.12-05-037 remains in effect. While investment plans were only scheduled through the EPIC 3 funding period, D.12-05-037 provides no explicit sunset on investment plan requirements.

6. Comments on Proposed Decision

The proposed decision of Administrative Law Judge (ALJ) Glegola in this matter was mailed to the parties in accordance with Pub. Util. Code section 311 and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed on June 28, 2021, by Southern California Edison Company, Pacific Gas and Electric Company, Cal Advocates, and the California Energy Commission. The California Energy Commission filed reply comments on July 6, 2021.

No revisions were made to this decision.

⁵ See D.20-08-042, Findings 2 and 4.

Regarding Cal Advocates' allegation that parties were deprived of due process because they did not have a meaningful opportunity to respond to the CEC's Interim Investment Plan, we note that Cal Advocates is the only party making this claim. Rule 11.1(e) of this Commission's Rules of Practice and Procedure allows for responses to written motions to be filed and served within 15 days of the date that the motion was served, except as otherwise provided in the Rules or unless the assigned ALJ sets a different date. In this case, the assigned ALJ did not issue a ruling setting a different date. The CEC filed its Motion on February 18, 2021. Three parties, including Cal Advocates, filed responses on March 3, 2021. No party, including Cal Advocates, filed a motion for an extension of time, nor did any party, including Cal Advocates, request permission to late file comments. Given that this Commission followed its Rules of Practice and Procedure, parties received the opportunity to respond to the CEC's motion, and no party formally requested relief, we find that no party was deprived of due process.

7. 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. D.20-08-042 revised the scope of this proceeding to include consideration of an interim investment plan filed by the CEC.
2. This Commission has previously found that EPIC funds have financed promising projects that may provide considerable energy savings and improve safety, as well as evidence indicating that the CEC's administration of the EPIC Program will likely result in quantifiable benefits to ratepayers.

3. The CEC filed a Motion for Approval of its EPIC Interim Investment Plan on February 16, 2021.

4. There is a need to approve bridge funding for the CEC to ensure project continuity.

Conclusions of Law

1. The CEC's Motion and Interim Investment Plan complies with D.20-08-042, D.12-05-037, D.13-11-025, and the Commission's Rules of Practice and Procedure.

2. The CEC's Interim Investment Plan should be approved.

O R D E R

IT IS ORDERED that:

1. The California Energy Commission's motion is approved.
2. The California Energy Commission's Interim Investment Plan is approved.
3. The California Energy Commission may reallocate up to five percent of funds within the three research categories.
4. Rulemaking 19-10-005 remains open.

This order is effective today.

Dated July 15 2021, at San Francisco, California

MARYBEL BATJER

President

MARTHA GUZMAN ACEVES

CLIFFORD RECHTSCHAFFEN

GENEVIEVE SHIROMA

Commissioners

Commissioner Darcie L. Houck recused herself and did not participate in the discussion and vote of this item.