Decision 12-05-037 May 24, 2012

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking on the Commission's own motion to determine the impact on public benefits associated with the expiration of ratepayer charges pursuant to Public Utilities Code Section 399.8.	Rulemaking 11-10-003 (Filed October 6, 2011)

PHASE 2 DECISION ESTABLISHING PURPOSES AND GOVERNANCE FOR ELECTRIC PROGRAM INVESTMENT CHARGE AND ESTABLISHING FUNDING COLLECTIONS FOR 2013-2020

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PHASE 2 DECISION ESTABLISHING PURPOSES AND GOVERNANCE FOR ELECTRIC PROGRAM INVESTMENT CHARGE AND ESTABLISHING FUNDING COLLECTIONS FOR 2013-2020

1. Summary

This decision sets up a framework for Commission oversight of the Electric Program Investment Charge (EPIC) established by Decision (D.) 11-12-035 in Phase 1 of this proceeding. The purpose of the funding is to provide public interest investments in applied research and development, technology demonstration and deployment, market support, and market facilitation, of clean energy technologies and approaches for the benefit of electricity ratepayers of Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), and Southern California Edison (SCE), the three large investor-owned utilities (IOUs).

EPIC funding is initially authorized in the areas of applied research and development, technology demonstration and deployment, and market facilitation, as further defined in this decision.

This decision establishes electricity ratepayer benefits as a mandatory guiding principle and adopts several other related and complementary principles designed to guide investment decisions.

The EPIC funds will be administered 80% by the California Energy Commission (CEC) and 20% by the three IOUs, with the IOU role limited to the area of technology demonstration and deployment. All funds will be administered under the oversight and control of the Commission, which will conduct a public proceeding every three years to consider investment plans presented by the administrators for coordinated public interest investment in

clean energy technologies and approaches, including both the supply side and the demand side of electricity use.

All administrators of EPIC funds will be subject to the same requirements, including an administrative expenditure cap of 10%, annual reporting requirements, and at least one independent review conducted by a consultant hired by Commission staff in 2016.

This decision authorizes continued funding collections at the level of $162.0 million per year beginning January 1, 2013 and ending December 31, 2020, to be divided as follows among the three IOUs: PG&E 50.1%; SDG&E 8.8%; and SCE 41.1%. Collections amounts shall rise on January 1, 2015 and again on January 1, 2018, at the rate of the consumer price index change over the previous three-year period. When considering the investment plans, the Commission may choose to alter these collection amounts for a specific three-year period based on the contents of those plans.

Funding already authorized in D.11-12-035 for the year 2012 shall be included in the budget for the first triennial investment plans for the administrators in the same proportion as the budget authorized in this decision.

This decision also sets limits on fund shifting and requires the utilities to remit funding to the CEC for its portion of the administrative budget on a quarterly basis beginning July 1, 2012 and at the time funding is encumbered for programmatic funding.

2. Background

The funding provisions of the system benefits charge (commonly known as the public goods charge or PGC) under Pub. Util. Code § 399.8[1] sunset by law on January 1, 2012.[2] Several proposals were considered by the Legislature in 2011 to extend funding collections and make various modifications to the program oversight structure. However, by the end of the legislative session on September 9, 2011, no new law was passed to renew collection and disbursement of the system benefits charges for energy efficiency, renewables, or research development, and demonstration (RD&D) under § 399.8.

On September 23, 2011, Governor Jerry Brown sent a letter to Commission President Michael Peevey requesting that we "take action under the Commission's authority to ensure that programs like those supported by the Public Goods Charge are instituted – and hopefully at their current levels. As the Commission goes forward, please take into account the constructive ideas for program reform that were identified during the legislative process as well as ways to create jobs swiftly through investment in energy savings retrofits. We cannot afford to let any of these job-creating programs lapse."

In response, the Commission opened this Rulemaking on October 6, 2011, to determine whether and how the Commission should act to preserve funding for the public and ratepayer benefits associated with renewables and RD&D activities provided by the electric PGC that expired on January 1, 2012.

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[1] All references to Code are to the Public Utilities Code unless otherwise noted.

[2] While authorization in § 399.8 to collect the PGC ended on January 1, 2012, the statute did not sunset, and all of its provisions remain law.

A Scoping Memo was issued by the assigned Commissioner on November 8, 2011. The Scoping Memo determined that Phase 1 of this proceeding would address the Commission's authority for the continued collection of system benefits charges for the renewables and RD&D purposes, and provide limited guidance as to programmatic objectives and details about how the funds should be used. Decision (D.) 11-12-035 addressing these issues and continuing funding through the end of 2012, pending addressing more detailed program and governance issues in Phase 2, was adopted by the Commission on December 15, 2011. D.11-12-035 adopted the new Electric Program Investment Charge (EPIC).

Rulemaking (R.) 11-10-003 posited a number of questions to parties regarding funding levels, programmatic issues and governance structures for renewables and RD&D programs previously funded by the PGC. The Scoping Memo assigned these issues to be handled in Phase 2. On February 10, 2012, a Phase 2 Scoping Memo was issued by the assigned Commissioner, along with a staff proposal outlining a potential approach to EPIC governance and programmatic activities. Comments and reply comments from parties were requested on any and all elements of the staff proposal.

3. Summary of February 10, 2012 Staff Proposal

The staff proposal issued February 10, 2012 included a policy rationale for continuing public interest funding in the energy area where private capital is unlikely to provide adequate support. The staff proposal noted that public funding at the federal level has been in decline since the 1980s, and that continued ratepayer funding in California for development and deployment of clean energy technologies, specifically for electricity, can help:

- Meet greenhouse gas (GHG) emissions reductions goals under Assembly Bill (AB) 32;[3]
- Support the move toward a cleaner energy economy overall;
- Continue California's leadership position as a clean technology innovator;
- Provide energy security and independence;
- Leverage private and federal funding for California;
- Continue to bring state and local environmental benefits;
- Promote job development and economic growth; and
- Ensure that investment results are transparent, open, and publicly available to promote public purposes.

The staff proposal cited to a number of studies and reports that support continued and augmented public interest energy funding, including the California Legislative Analyst's Office (LAO), the American Energy Innovation Council, and several others. In general, studies show that energy RD&D funding has fallen steadily since 1978 up until the American Recovery and Reinvestment Act in 2008. Many other countries also have much higher RD&D expenditure levels than the United States.

The staff proposal recommended continuing ratepayer funding for activities with a clear nexus in ratepayer benefits for the electricity industry. Staff recommended that the investments should support:

- Ratepayer and societal benefits;
- AB 32 and Executive Order S-3-05 goals;

[3] AB 32 (Nunez, Stats. 2006, Ch. 488), signed into law in 2006, established the California Global Warming Solutions Act of 2006. Pursuant to this Act, the state must reduce its greenhouse gas emissions to 1990 levels statewide by 2020.

- The "loading order" from the Energy Action Plans;
- Low-emission vehicles/transportation;
- Safe, reliable, and affordable energy services;
- Economic development; and
- Efficient use of ratepayer funds.

The staff proposal divided recommended activities into the following areas, designed to correspond with the product development cycle:

- Applied research and development. This area supports investment in applied science and technology that provides public benefits but for which there is no current clear business case for deployment of private capital. Staff recommended funding at $55 million per year;
- Technology demonstration. This area supports assisting technology development through the "valley of death" and toward commercialization. Staff recommended funding at $50 million per year;
- Market support. This area involves supporting technologies that are commercially viable but still need public support to achieve economies of scale and be competitive with other more established technologies. No funding was recommended by staff in this area because some activities can be funded by other programs and/or because of legal constraints in the solar area;
- Market facilitation. This area involves activities to address non-price barriers to adoption of clean technologies, such as regulatory barriers and lack of information, as well as supporting market research and tracking of results. Staff recommended funding at $15 million per year in this area; and
- Administrative costs. The staff proposal included allowing the EPIC administrator to charge up to 15% of the funding for administering the program, with an additional 0.5% reserved for Commission policy oversight and direction.

The total annual budget recommended in the staff proposal was $142 million, to be funded in the following percentages by the three large investor-owned utilities (IOUs):

- Pacific Gas and Electric Company (PG&E): 50.1%;
- San Diego Gas & Electric Company (SDG&E): 8.8%; and
- Southern California Edison Company (SCE): 41.1%.

The staff proposal included a recommendation that the administrator for the EPIC program be required to submit an investment plan to the Commission for approval every three years, covering the succeeding three-year program time frame, through 2020. Utilities would also be asked to submit triennial funding requests for technology demonstration and deployment activities, within an annual budget of $40 million, to ensure coordination with the EPIC program. Each investment plan would be required to include targeted areas for investment, screening and scoring criteria for evaluating funding proposals, as well as metrics against which the program's success will be evaluated.

The administrator would also be required to submit an annual report detailing program activities. In 2016, staff recommended that Commission staff hire an independent evaluator to assess program success and identify areas for improvement prior to approval of the final investment plan through 2020.

Under the staff proposal, the Commission maintains overall policy oversight for the EPIC program, consistent with its general authority over collection and disbursement of ratepayer funds. The administrator of the EPIC funds would be authorized to operate within parameters set by the Commission, and further delineated in each investment plan approved by the Commission.

Staff recommended that the California Energy Commission (CEC) be chosen as the administrator for the EPIC funds. The CEC, in coordination with

Commission staff, would convene scoping workshops and stakeholder consultation and seek a wide variety of input and expertise.

Finally, staff recommended two options for transferring funds from the utilities to the CEC periodically, in order to minimize the potential for funding diversion to other purposes as part of the state budget process.

4. Summary of Parties' General Comments on Staff Proposal

Comments on the Staff Proposal were filed on March 7, 2012 by 27 sets of parties. They are: Advanced Energy Economy (AEE); Agricultural Energy Consumers Association (AECA) and Sustainable Conservation; Altergy Systems (Altergy); Bay Area Biosolids to Energy Coalition (BAB2E); California Building Industry Association (CBIA); California Clean Distributed Generation Coalition (CCDC); California Farm Bureau Federation (CFBF); California Energy Efficiency Industry Council (Efficiency Council); California Large Energy Consumers Association (CLECA); Californians for Clean Energy and Jobs (CCEJ); Coalition of Energy Users (CEU); CALSTART; Center for Biological Diversity (CBD); Consumer Federation of California (CFC); Division of Ratepayer Advocates (DRA); Joint comments of the Black Economic Council, National Asian American Coalition, and the Latin Business Chamber of Greater Los Angeles; Joint comments of the Green Power Institute, the California Biomass Energy Alliance, the California Forestry Association, and Wheelabrator Technologies (Joint Biomass Parties); Joint comments of the Natural Resources Defense Council, the Union of Concerned Scientists, the Vote Solar Initiative, Sierra Club California, The Nature Conservancy, and the Ella Baker Center for Human Rights (Joint Environmental Groups); Joint comments of the Pacific Forest Trust and Watershed Research & Training Center (PFT/WRTC); Marin Energy Authority

(MEA); PG&E; SDG&E; Solar Energy Industries Association (SEIA); SCE; The Utility Reform Network (TURN); University of California; and Waste Management.

Reply comments were filed on March 16, 2012 by 16 sets of parties. They are: Joint reply comments of AECA and Sustainable Conservation; Altergy; Joint reply comments of the Black Economic Council, National Asian American Coalition, and the Latino Business Chamber of Greater Los Angeles; CBD; Center for Energy Efficiency and Renewable Technologies (CEERT); CFC; Joint reply comments of the Joint Biomass Parties; MEA; Joint reply comments of the Joint Environmental Groups; PFT; PG&E; Republic Solar Highways LLC (Solar Highways); SCE; SDG&E; SEIA; and TURN.

Many parties support the basic policy rationale for funding and supporting public purpose activities in the electricity industry. AEE, the Joint Environmental Groups, Efficiency Council, PFT/WRTC, TURN, University of California, and Waste Management all generally support the policy case for ratepayer support and the guiding principles laid out in the staff proposal. CALSTART commented that the Public Interest Energy Research (PIER) program has led to technological breakthroughs in the past and has had direct benefits to ratepayers, and thus similar work should be continued. CCEJ generally supports the staff proposal's treatment of early stage technology development, but suggests additional emphasis on later stages.

A number of other parties oppose the basic rationale for continuing to support public interest electricity investment. CEU opposes the proposed EPIC program in its entirety. They argue that support for renewable technology development is a poor use of funds as demonstrated by the high-profile failure of the U.S. Department of Energy (DOE) loan guarantee program, including funds that went to Solyndra. CEU also characterizes a 2011 letter to Senator Alex Padilla from the LAO[4] as criticizing the overall value of the PIER program. Further, CEU argues that the high electricity costs in California, to which programs like EPIC contribute, create a drag on the California economy, prevent businesses from opening, and have led to the loss of manufacturing jobs. Finally, CEU argues that while the renewables portfolio standard (RPS) program creates demand in a technology-agnostic manner, EPIC runs the risk of picking winners, which is at odds with technology neutrality.

CLECA opposes collecting EPIC funds and argues that programs like the RPS make EPIC "superfluous." They advocate funding be discontinued entirely or limited to 2012 only.

All of the electric utilities whose customers would fund the EPIC program also oppose aspects of the staff proposal to varying degrees. PG&E generally supports additional RD&D funding in California but disagrees with the policy construct offered in the staff proposal. Instead, PG&E believes that RD&D should be utility-specific and vary across utility territories, creating utility-specific customer benefits.

SCE goes further, arguing that the Commission may only allow utility-administered RD&D, at a funding level not exceeding the revenue requirement for the RD&D portion of the expired PGC. SCE argues the Commission should reject the staff proposal and refund the EPIC funds already collected.

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[4] *See* http://www.lao.ca.gov/reports/2011/rsrc/cec_pier/cec_pier_011811.pdf.

SDG&E cites the 2011 LAO letter to Senator Padilla as a basis that the CEC programs were not effective. Thus, SDG&E argues that the expiration of the PGC funds does not constitute a gap in successful RD&D activities that needs to be backfilled by EPIC.

5. Guiding Principles

This decision addresses the overall programmatic framework for the EPIC program, beginning with guiding principles. The staff proposal included a suggested set of guiding principles that would govern investment of EPIC funds. Those were as follows:

Ratepayer and Societal Benefits – Consistent with the Commission's legal authority to establish the EPIC, as further discussed in D.11-12-035, a key overarching principle governing the use of EPIC monies is that any supported activities must provide clear electricity ratepayer benefits and societal benefits, where we define benefits in terms of the extent to which the funded activities promote greater reliability, lower costs, increased safety, and/or enhanced environmental sustainability in the specific context of the provision of energy services. In general, staff suggested that activities should be able to be mapped to the different elements of the electricity system "value chain" which was characterized as consisting of:

- Grid operations/market design
- Generation
- Transmission
- Distribution
- Demand side management.

AB 32[5] and Executive Order S-3-05 – Supported activities should advance the objectives of AB 32 and/or also address medium- and longer-term emission reduction objectives as identified in Executive Order S-3-05, which established a goal of reducing emissions to 80% below 1990 levels by 2050. Pursuant to AB 32, the California Global Warming Solutions Act of 2006, the state is required to achieve emissions reductions such that total GHG emissions are at or below 1990 levels by the year 2020. In December 2008, California Air Resources Board adopted a scoping plan which identified a suite of measures that taken together would result in achievement of the 2020 emission reduction goal. Whereas AB 32 establishes goals through 2020, this goal represents only the initial set of steps down the path toward long-term sustainability, which involves the near complete de-carbonization of the energy system by 2050, as articulated in Executive Order S-3-05.

The Loading Order – Supported activities must be consistent with the state's "loading order." Adopted in the 2003 Energy Action Plan by the state energy agencies, the loading order establishes the preferred or priority set of resources and technologies on which the state should rely in the provision of energy services. The loading order identifies energy efficiency and demand response as the resources of first choice, followed by renewable energy, both distributed generation and utility scale, followed by clean fossil generation, if necessary. A number of state laws have codified or otherwise specified the loading order investments. For example, § 454.5(b)(9)(C) requires utilities prioritize demand-side resources in meeting unmet resource needs, and the

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5 AB 32 (Nunez, Stats. 2006, Ch. 488).

recent Senate Bill (SB) 2 (1x) (Simitian, Stats. 2011, Ch. 1) required 33% of energy need be met by renewable resources by 2020.

Low-Emission Vehicles/Transportation – Supported activities should be consistent with and/or advance the objectives codified by SB 626 (Kehoe, Stats. 2009, Ch. 355) as § 740.2 which directs the Commission to adopt rules to "evaluate policies and develop infrastructure sufficient to overcome any barriers to the widespread deployment and use of plug-in hybrid and electric vehicles."[6]

Safe, Reliable, and Affordable Energy Services – Supported activities must be consistent with the objective of providing safe and reliable energy services at reasonable cost.

Economic Development – Supported activities should benefit the California economy to the greatest extent practicable. Given the profound economic challenges the state currently faces, it is incumbent upon the Commission to seek to maximize the economic benefits that accrue to California as a result of any ratepayer-funded activities.

Efficient Use of Ratepayer Monies – In addition to the above guiding principles, funding should not be used to support activities or efforts that are duplicative of efforts that are being undertaken elsewhere or that are more expensive than necessary to achieve the goals. Furthermore, administrative costs need to be minimized to the greatest extent practicable without compromising programmatic oversight functions and efficacy.

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[6] SB 626, Kehoe, 2009. http://www.leginfo.ca.gov/pub/09-10/bill/sen/sb_0601-0650/sb_626_bill_20091011_chaptered.pdf

5.1. Parties' Comments

A small number of parties provided comments on the above guiding principles proposed by staff. PFT/WRTC, as well as Waste Management, generally support the guiding principles laid out in the staff proposal. The Joint Environmental Groups also support the principles, with the linkage to providing ratepayer benefits, which they suggest should be broadly defined.

SDG&E also generally supports the "ratepayer nexus" principle and believes that it should be the primary goal of the EPIC program. Specifically, SDG&E states, "because IOU electric utility customers provide all EPIC funding, any benefits resulting from EPIC programs should directly benefit the IOUs' electric utility customers." SDG&E believes that AB 32 goals should only be part of EPIC's principles if EPIC activities directly benefit IOU customers by reducing the costs of GHG compliance obligations. For the principle related to the "loading order," SDG&E points out that § 454.5(b)(9)(C) requires that activities are "cost-effective, reliable, and feasible" and that the principle should be refined to include this requirement. Finally, SDG&E disagrees that economic and/or workforce development should be a key principle for EPIC, stating that "workforce and economic development will happen organically as part of RD&D and renewable programs…which should not take the focus away from the prime directive of ensuring direct benefits to our electric consumers."[7]

PG&E argues that the Commission should adopt the statutory criteria in § 740.1 and § 8360, which govern utility expenditures in the areas of RD&D and smart grid.[8]

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[7] SDG&E comments, March 7, 2012, at 11.

[8] § 740.1 states:

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The commission shall consider the following guidelines in evaluating the research, development, and demonstration projects 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 renewables resources and processes which further supply technologies.
5. Improve operating efficiency and reliability or otherwise reduce operating costs.

§ 8360 states:

It is the policy of the state to modernize the state's electrical transmission and distribution system to maintain safe, reliable, efficient, and secure electrical service, with infrastructure that can meet future growth in demand and achieve all of the following, which together characterize a smart grid:

(a) Increased use of cost-effective digital information and control technology to improve reliability, security, and efficiency of the electric grid.

Footnote continued on next page

Both CFC and SDG&E suggest that the principles need further refinements and mapping between activities and electricity ratepayer benefits, as well as auditing to ensure that the principles are being adhered to.

MEA suggests one additional principle of "fair and equitable allocation of benefits" to ensure that use of EPIC monies does not benefit IOU customers exclusively or tilt the playing field toward the IOUs in competition for retail customers.

SCE generally argues that these principles do not substitute for Commission authority to establish the EPIC program. Further, SCE argues that

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(b) Dynamic optimization of grid operations and resources, including appropriate consideration for asset management and utilization of related grid operations and resources, with cost-effective full cyber security.

(c) Deployment and integration of cost-effective distributed resources and generation, including renewable resources.

(d) Development and incorporation of cost-effective demand response, demand-side resources, and energy-efficient resources.

(e) Deployment of cost-effective smart technologies, including real time, automated, interactive technologies that optimize the physical operation of appliances and consumer devices for metering, communications concerning grid operations and status, and distribution automation.

(f) Integration of cost-effective smart appliances and consumer devices.

(g) Deployment and integration of cost-effective advanced electricity storage and peak-shaving technologies, including plug-in electric and hybrid electric vehicles, and thermal-storage air-conditioning.

(h) Provide consumers with timely information and control options.

(i) Develop standards for communication and interoperability of appliances and equipment connected to the electric grid, including the infrastructure serving the grid.

(j) Identification and lowering of unreasonable or unnecessary barriers to adoption of smart grid technologies, practices, and services.

AB 1338, a budget bill signed into law by the Governor on September 30, 2008, prohibits the Commission from authorizing funding for EPIC. The exact language of AB 1338 reads as follows:

> The Commission shall not execute an order, or collect any rate revenues, in Rulemaking 07-09-008 (Order Instituting Rulemaking to establish the California Institute for Climate Solutions), and shall not adopt or execute any similar order or decision establishing a research program for climate change unless expressly authorized to do so by statute.[9]

AB 1338, § 27(b) goes on to state that passage of AB 1338 was not necessary because it did not "constitute a change in, but is declaratory of, existing law."

As a result of this language, SCE argues that EPIC would include research related to climate change (as evidenced by the staff proposal to include AB 32 as a guiding principle) and that the Commission cannot establish such a research program unless expressly authorized to do so by statute.

5.2. Discussion

The guiding principles recommended by staff are consistent with Commission policy in general. As pointed out by several parties, providing electricity ratepayer benefits must be mandatory and the most important guiding principle of the EPIC program overall. We also agree with PG&E that § 740.1 and § 8360 provide useful guidance on expending ratepayer funding for RD&D. We will not formally adopt these criteria to apply to EPIC, but we will require that the administrators address the applicability of this statutory guidance in each investment plan. Consideration of specific investment plans in the future is the best time for further refinements to these principles as suggested by CFC and

[9] AB 1338, § 27(a).

SDG&E. We will require that the administrator(s) map planned investments to the electricity system value chain described above, including the following categories:

- Grid operations/market design
- Generation
- Transmission
- Distribution
- Demand side management.

We will address MEA's concern about a level playing field among retail providers further below, but do not find that this issue rises to the level of creating an additional guiding principle for the EPIC program overall.

In summary, we will operate the EPIC program under the mandatory principle of providing electricity ratepayer benefits. In comments on the proposed decision, CFC points out that it could be useful for the Commission to define what we mean by electricity ratepayer benefits, and suggests the following: "Promote greater reliability, lower costs, [and] increased safety."[10] This is a useful clarification and we will adopt it. In addition, CFC and the Joint Environmental Groups, in comments on the proposed decision, point out that the additional principles articulated below, rather than being subordinate to electricity ratepayer benefits, are actually components of those benefits. We agree with this clarification as well.

The following guiding principles are adopted as complements to the key principle of electricity ratepayer benefits:

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[10] CFC opening comments on proposed decision, May 14, 2012, at 5.

- Societal benefits;
- GHG 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 mandatory guiding principle of ratepayer benefits and the complementary principles will guide the EPIC program to ensure that it is just and reasonable to ratepayers

We disagree with SCE's argument that the 2008 budget bill, AB 1338, prohibits the EPIC program altogether. The plain language of AB 1338, as well as its legislative history, indicates that it was intended to apply only to Commission decisions or orders approving the California Institute for Climate Solutions (CICS) or a similar climate change program. The CICS, as approved by the Commission, was structured as a standalone institute with RD&D focused solely on solutions to address climate change and without a requirement for energy-ratepayer-specific benefits in all circumstances.

EPIC, on the other hand, was established by D.11-12-035, as a Commission program under long-standing Commission authority which is not being delegated. It is also not a standalone entity. Further, as we have already stated, providing electricity ratepayer benefits is a mandatory principle under which the EPIC program will operate.

In addition, a comparison between the EPIC program's ratepayer-focused RD&D and clean technology investment and the CICS is logically flawed. AB 1338 does not prohibit Commission programs for RD&D in the electricity sector, nor does it prevent the Commission authorizing funding for projects that provide a ratepayer benefit that is also related to electricity sector climate change mandates. AB 32's mandate for GHG emissions limits and reduction measures includes requirements that directly affect the provision of electricity services to IOU ratepayers and consequently the cost responsibility of ratepayers for GHG emissions caused by electricity consumption.[11]

One key consideration is that the EPIC activities provide a benefit to help the Commission-regulated electricity sector meet its compliance obligations for AB 32 in the form of reduced GHG at the lowest possible cost. This is consistent with the argument made by SDG&E that "any EPIC funds provided in support of AB 32 must fund technologies that help utility customers meet GHG obligations at a lower cost than other available options."[12]

The Commission has always had authority, and continues to have authority, to fund RD&D activities, unless expressly limited in particular areas by the Legislature. In the case of the CICS, in the order vacating the CICS decision,[13] the Commission stated that AB 1338 "represents a new and explicit constraint on our authority"[14] which was entirely related to the establishment of the CICS or a similar entity designed expressly and only to conduct climate change research. EPIC is not such a program or entity.

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11 *See* Health and Safety Code §28562(b), as well as Pub. Util. Code §8341(a), which require the establishment of GHG emissions performance standards for all baseload generation of load serving entities.

12 SDG&E comments, March 7, 2012, at 10-11.

13 D.08-11-060, which vacated D.08-04-039 and was corrected by D.08-04-054.

14 D.08-11-060 at 5.

6. Program Governance and Process

The staff proposal included a recommended governance structure for EPIC funds where the Commission would retain the policy and funding oversight role, consistent with our customary regulatory role where utility ratepayer funds are involved. The staff proposal suggested that the CEC be designated as the administrator for all of the EPIC funding, subject to Commission oversight.

The rationale suggested for selection of the CEC included:

- The CEC's status as a state agency created to develop and support state energy policy;
- The importance of continuity with similar existing efforts;
- Preference for public agency administration over a private entity; and
- Numerous continuing statutory obligations beyond the expired PGC for the CEC to provide analysis, support, and programs to support state clean energy goals.

The staff proposal recommended a triennial investment plan approval process by the Commission and submission of annual reports. The approved investment plan would, for all intents and purposes, be a grant to the CEC of ratepayer funds by the Commission, with rules adopted governing sub-grants by the CEC to other entities. Thus, the investment plans would be very detailed. In addition, the staff proposal recommended an independent evaluation by a third party hired by Commission staff during 2016, after completion of the first three-year investment plan period, to assess the effectiveness of the program and provide recommendations for improvement.

The staff proposal proposed that the administrator be required to address at least the following elements in each investment plan:

- The amount of funds to be devoted to particular program areas (applied research and development, technology demonstration and deployment, market support and market facilitation);
- Policy justification for the funding allocation proposed;
- The type of funding mechanisms (grant, loan, pay-for-output, etc.) to be used for each program area;
- Eligibility criteria for award of funds in particular areas;
- Any suggested limitations for funding (per-project, per-awardee, matching funding requirements, etc.);
- Other eligibility requirements (technology, program area, etc.); and
- Summary of stakeholder comments received during the development of the investment plan and the administrator's response to them.

The staff proposal also suggested that the administrator propose specific objectives for the program and metrics against which program success will be evaluating. Staff suggested that the metrics should include at least the following:

- Quantification of estimated benefits to ratepayers and to the state, such as:
  - Potential energy and cost savings
  - Job creation
  - Economic benefits
  - Environmental benefits
  - Other benefits
- Identification of barriers or issues resolved that prevented widespread deployment of technology or strategy. Examples include collecting baseline data, developing tools and methods, and research to overcome or address energy-related environmental barriers that could impact meeting state energy policy goals, and streamline permitting processes;

- Effectiveness of information dissemination. To determine whether information about a technology or strategy has reached target audiences, by tracking quantity of research outputs and the extent to which research is cited in other publications;
- Adoption of technology, strategy, and research data by others including utility rebate programs, codes and standards, and other entities in the marketplace (e.g., residential, commercial, industrial, government sectors); and
- Funding support from venture capitalists or others for EPIC-funded research on technology or strategies.

The staff proposal also included the suggestion that a parallel three-year investment plan process be used to evaluate future utility RD&D funding plans alongside EPIC efforts administered by the CEC, to ensure coordination among the various programs and projects being funded by IOU ratepayers. The staff proposal suggested that this triennial process be the primary, and preferably only, venue for utility RD&D proposals, such that they would no longer be included in general rate case (GRC) applications in the future.

6.1. Parties' Comments

CBIA generally supports the staff proposal and the designation of the CEC as overall EPIC administrator, given its institutional knowledge and existing relationships. The Joint Environmental Groups and TURN agree that the Commission should retain policy oversight with the CEC as administrator. CFC and the University of California specifically commented in support of the concept of an independent evaluation of the program after the first three-year period.

The utilities, on the other hand, universally oppose the designation of the CEC as the sole program administrator for EPIC funds, at least at this time. PG&E suggests that the Commission should consider alternative program or governance structures and allow other interested entities to come forward to propose investment plans, prior to the Commission selecting any administrator, in the spirit of competitive selection. PG&E also cites the 2011 LAO letter to Senator Padilla, which recommends a larger role for utilities and consideration of alternative structures for RD&D funding.

SCE argues that the staff proposal grants considerable discretionary power to the CEC, limits the Commission's regulatory oversight, requires infrequent evaluation, and fails to institute an authoritative governing advisory board.

SDG&E, similar to SCE, believes that the proposal gives too much discretion to the CEC to set EPIC policy, and suggests that the triennial investment plan process will be little more than a rubber stamp of the CEC's proposals. SDG&E therefore recommends that the tasks given to the CEC be strictly administrative, such as executing contracts.

Finally SDG&E argues that the one-time independent evaluation in 2016 proposed by staff is too infrequent and the budget is unjustifiably large. SDG&E feels that the evaluation will come too late to influence any changes before 2020. SDG&E recommends that evaluations be conducted every two years until the program is fully established, and should be considered for termination each time an evaluation is conducted.

In terms of the staff proposal elements devoted to coordination of utility RD&D with EPIC and suggesting a similar triennial application process by utilities for RD&D expenditures, several parties support these ideas. The Efficiency Council and CFBF generally support the notion of greater coordination of IOU RD&D activities with those of the CEC. CFBF also objects to the staff report's segregation of utility RD&D efforts from the rest of the EPIC program, and suggests that there may be no need for utility RD&D outside of

EPIC. CFBF argues that only in considering both CEC and utility efforts "jointly in some manner will ratepayer interests be protected and programs delivered most effectively."[15] The Joint Environmental Groups suggest that the CEC EPIC program should not supplant all utility RD&D, but support staff's proposals to consider the review and approval of all utility RD&D activities into one proceeding. CFC also supports having one procedural vehicle to evaluate all utility RD&D.

TURN takes it a step further, supporting a consolidated review process and suggesting that the Commission should "explicitly prohibit IOUs from submitting stand-alone applications for R&D funding outside of the process outlined in the staff proposal … When individual proposals are considered in a vacuum, there is little hope that the outcomes will be rational, consistent and unbiased."[16] TURN recommends that we adopt a presumption against utility-specific programs and focus all stakeholders on refinements to independently administered statewide programs.

The utilities all argue that consolidating utility RD&D activities is outside the scope of Phase 2 of this proceeding. PG&E, however, supports the general intent of coordination, though they oppose the creation of a separate application process for utility RD&D, and suggest that this issue be taken up in this proceeding after Phase 2. SCE argues that the staff proposal for a consolidated triennial review of utility RD&D departs from existing processes and could lead to duplicative work. SDG&E suggests that conducting some type of RD&D

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15 CFBF comments, March 7, 2012, at 4.

16 TURN comments, March 7, 2012, at 3.

informational exchange along with a regular reporting process would alleviate concerns about coordination.

Several parties including the utilities also raise concerns about the impact of the staff proposal on pending proceedings before the Commission or projects already approved for funding during GRC proceedings or via other proceedings already completed.

Parties did not comment specifically on the program metrics suggested by staff or on what elements should be included in each investment plan.

6.2. Discussion

As written, the staff proposal conceived of the entire EPIC program as a set of activities to be administered by the CEC, under Commission oversight, for the benefit of electric ratepayers. IOU RD&D projects and expenditures were proposed to be considered in parallel, with the objective of close coordination.

After consideration of comments from parties, we believe it makes more sense to conceive of the EPIC program as a set of coordinated public interest activities with two sets of administrators: the CEC and the utilities.

For activities that are completely pre-commercial in nature, including applied research and technology development, a state agency with public interest objectives is ideally suited to administer those activities. For activities that are more related to technology demonstration and deployment on the grid, as technologies and approaches move toward commercialization, utilities may be better suited to administer the funding, as they point out, since they own the infrastructure on which or through which the technologies are being tested. They also may ultimately become the consumers of technologies or processes that are designed to improve utility systems, so it will behoove them to invest in and test some new ideas.

Other technology demonstration and deployment activities may be best suited to a state agency that does not have a business interest in any particular company or solution.

Depending on the type of process or technology, during the early stages of technology demonstration and deployment activities, there is still also a role for public interest investment and administration by the CEC. The precise definitions of the various areas for investment are discussed in more detail later in this decision.

Therefore, instead of considering the EPIC program in parallel with utility RD&D investments, we will instead consider utility RD&D investments as part of the EPIC program, and designate the utilities to administer 20% of the EPIC budget in the areas related to technology demonstration and deployment, which constitutes about 40% of the budget devoted to this activity area. The remainder of the activity areas approved for funding should be administered by the CEC for the reasons set forth by staff.

The result will be a process similar to the one proposed in the staff proposal, except that instead of having the utilities propose RD&D investments in parallel with the EPIC process, we will have both the CEC and utilities present their investment plans as part of EPIC at the same time, for joint consideration by the Commission. Once adopted, the CEC's investment plan must be sufficiently detailed to constitute a grant to the CEC by this Commission of ratepayer funds, and must lay out all of the rules under which the CEC will make further grants and awards of funds.

All of the requirements the CEC recommended in the staff proposal, such as annual reports, a triennial investment plan, administrative budget limits, and an independent evaluation, will also now apply to the utilities' administration of the demonstration and deployment funds.

We also clarify that this EPIC triennial application process is intended to supplant the GRC RD&D proposals in the future, but does not affect any utility RD&D funding decisions already made by the Commission. In addition, it does not affect any investments for which there is already a pre-existing Commission proceeding considering whether to approve those investments, even if a decision in that proceeding has not yet been rendered.

Going forward, however, this approach will ensure a better process for RD&D investments, as described by TURN, that allows for consideration of trade-offs among investments in a comprehensive manner by the Commission. The utilities shall no longer make RD&D proposals in their GRCs, and should make every effort to detail all of their planned RD&D investments in each triennial EPIC investment plan.

We will not go so far as to prohibit any separate RD&D applications by utilities, since it is impossible to completely anticipate future opportunities, but we put the utilities on notice that they will face a burden to show why a proposal outside of the EPIC process should be considered immediately and not simply included in the next cycle for EPIC funding consideration by the Commission. Should the utilities make any requests for RD&D funding outside of the EPIC process, we will require them to serve any such request on the service list for the relevant EPIC proceeding, whether an open docket or the most recent docket. In addition, as suggested by DRA in its reply comments on the proposed decision,[17]

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[17] DRA reply comments on proposed decision, May 21, 2012, at 5.

we will require that any RD&D proposals outside of the EPIC triennial investment plan process address how it meets the objectives and metrics of the EPIC program.

We also find that the staff proposal for an independent evaluation of the EPIC program to be conducted in 2016 is reasonable. As discussed later in this decision, it is unlikely that any project investments will happen before mid-2013. Thus, 2016 seems to be a reasonable timeframe in which to assess how well the program is working. We leave open the possibility that more independent evaluations may be conducted after 2016 but prior to 2020.

We also find the requirements in the staff proposal for the elements that the administrators should propose in each investment plan, as well as the metrics to be included, are reasonable and we will adopt them. In addition, as detailed in the staff proposal previously, the administrators are required to propose in detail, in each investment plan, the criteria that they will use to evaluate individual proposals for EPIC funding.

Table 1 below summarizes the investment plan process and schedule we anticipate. In comments on the proposed decision, PG&E recommended that it would be preferable to modify the schedule so that any rate changes in the context of EPIC could be consolidated annually with any other electricity annual rate adjustments. This is logical and we have adjusted the table below accordingly, where possible. In addition, they request to delay the filing of annual reports to March 31 of each year. We compromise at February 28, since it would be preferable to have the annual reports available for consideration when the administrators are meeting with stakeholders in March of the years where investment plans will be considered. We also clarify that implicit in this schedule is review and evaluation of previous annual reports and accomplishments during the consideration of each subsequent investment plan.

Table 1: Anticipated Schedule for EPIC Program Approval Activities

Activity	First Triennial Investment Plan (covering 2012-2014)	Second Triennial Investment Plan (covering 2015-2017)	Third Triennial Investment Plan (covering 2018-2020)
Administrators hold scoping workshops	July 2012	January 2014	January 2017
Administrators propose Investment Plans to stakeholders	September 2012	March 2014	March 2017
Administrators submit Investment Plans to Commission	November 1, 2012	May 1, 2014	May 1, 2017
Commission proceeding	December - April 2013	May 2014-November 2014	May 2017-November 2017
Decision adopting or modifying Investment Plans	May 2013	December 2014	December 2017
Annual Reports due	February 28, 2014; February 28, 2015	February 28, 2016; February 28, 2017	February 28, 2018; February 28, 2019

As we have discussed here, the investment plans will require a high level of detail sufficient to support a grant to the CEC overseen by the Commission; the CEC's and IOUs' investment plans are to be coordinated to ensure effective comparisons of the numerous programs for RD&D and clean technology support; and the record supports the 80%/20% general division of EPIC-related activities between the CEC and IOUs based on institutional objectives and operational responsibilities. For these reasons, the EPIC program's structure and governance are just and reasonable in light of the whole record.

7. Areas for Investment

In this section, we address the definitions of each of the areas approved, or not approved, for investment of EPIC funds, as well as the authorized budget levels. The staff proposal described four different areas suggested as appropriate for EPIC funding that correspond roughly to the product development cycle. Those are:

- **Applied research and development.** This area supports investment in applied science and technology that provides public benefits but for which there is no current clear business case for deployment of private capital. Staff proposed to fund this area at $55 million per year.
- **Technology demonstration.** This area supports assisting technology development through the "valley of death" and toward commercialization. This area was proposed for $50 million per year of funding in the staff proposal.
- **Market support.** This area involves supporting technologies that are commercially viable but still need public support to achieve economies of scale and be competitive with other more established technologies. This area was not proposed to be funded in the staff proposal.
- **Market facilitation.** This area involves activities to address non-price barriers to adoption of clean technologies, such as regulatory barriers and lack of information, as well as supporting market research and tracking of results. Staff proposed to fund this area at $15 million per year.

7.1. Applied Research and Development

As summarized above, staff proposed applied research and development activities that provide electricity sector benefits for pre-commercial activities and technologies. Examples from past investments include:

- Appliance and building standards;
- Efficiency of energy use from industrial, agricultural, and water end users;
- Efforts to understand the implications of, and approaches to, integrating ever-increasing amounts of intermittent renewable generation;
- Evaluating the implications of electric vehicle (EV) adoption on the grid;
- Pioneering efforts to increase the visibility of transmission system operations through the use of advanced information technologies; and
- Reducing environmental barriers to energy deployment.

Staff did not propose to specify the exact areas of applied research and development, but expected that the administrator would propose those in each investment plan for consideration. Also in the investment plan, the criteria for evaluating proposals would be detailed. Staff also proposed that research projects should generally be selected on a competitive basis with an allowance for some exceptions and that there should be a pre-project funding limit, to be proposed in the investment plan.

7.1.1. Parties' Comments

A number of parties are generally supportive of the staff proposal. AEE agrees with the definitions and supports the funding level suggested. CFC supports the definition of applied research, as distinguished from basic research, and agrees that basic research should not be funded through this mechanism. The Black Economic Council et al. supports the funding allocation, but recommends specific attention be given to Light Emitting Diodes (LEDs) as they believe this technology can provide significant benefits to the low income community if its initial costs can be reduced. The Efficiency Council is also generally supportive, but requests that it be made clear that all types of energy efficiency innovations be eligible for funding, including technologies, but also strategies and "methods of approach."

Several parties commented that the definitions in the staff proposal are vague and should be further clarified. PG&E suggests that the Commission adopt the definitions of RD&D terms used by the federal Office of Management and Budget, such as basic research, applied research, and deployment. CALSTART recommends that the research types be specifically defined and identified as an acceptable usage of EPIC funds. The Joint Environmental Groups also believe that the scope of applied research should be expanded to include research on the impact of electricity sector on the environment and public health. CEU argues that research should be expanded to include improving the affordability and achieving environmental benefits using conventional energy technologies.

CBD believes funding should be set aside for research into relative carbon emissions and potential forest impacts of bioenergy facilities over policy-relevant time scales to ensure that ratepayers and the environment achieve real benefits from the EPIC program.

CCEJ believes the intent of the staff proposal was and should be to support the next generation "clean energy technologies," which CCEJ defines as zero- and low-emission technologies, not just renewables. They also argue that clean transportation technologies should be included. PG&E argues that renewables-related research should be focused on integration of renewables and not new technologies per se. For transportation-related expenditures, PG&E recommends that those be limited to utility services "up to the meter" and not "beyond the meter" to maintain consistency with established Commission policy in the EV proceeding per D.11-07-029 and D.10-07-044.

The utilities also all generally argue that applied research and development activities should be more precisely defined to avoid overlap and duplication with existing utility-administered RD&D efforts. SDG&E and SCE also argue that vague definitions of research areas would give too much discretion to the CEC to set policy in the EPIC program.

All three utilities also argue that the funding level for applied research is too high. SDG&E proposes that the CEC should use 50% of the funds for longer-term, applied research and early product development. Finally SDG&E disagrees with the staff proposal's suggestion to allow noncompetitive bids in some circumstances, such as "when contracting with universities." SDG&E believes that this would allow a loophole for universities to siphon EPIC money for overhead expenses. SDG&E also clarified in comments on the proposed decision that their objection on the staff proposal was about the lack of transparency of CEC PGC RD&D program administration and non-competitive bids in general, not necessarily aimed specifically at universities.

7.1.2. Discussion

To demonstrate the reasonableness of the funding level of $55 million proposed in this area, the staff proposal presented a comparison of applied research funding at the federal level and historically. No party presented any compelling argument or contrary evidence that this level is unreasonable. It is very similar to applied research and development funding levels authorized in the past and is smaller than the budget levels prior to electricity restructuring. Therefore, we will approve this budget amount beginning in 2013.

Many parties offered thoughtful comments on more precisely defining applied research and development and/or specific areas that should be funded with EPIC. We do not wish to be too precise at this stage with defining potential funding areas because of the risk that we will unintentionally exclude a worthy investment area. Therefore, we adopt a definition of applied research and development that includes activities that are intended to address specific practical problems in the electricity industry. Applied research and development includes activities that are generally before the commercial stages of technology development. It does not include basic research that is seeking to expand scientific knowledge for its own sake.

We also specifically include in this definition several areas suggested by parties. Consistent with the suggestion of CCEJ, technologies included in this area are any clean energy technologies, not just renewables and not just supply-side options, as requested by the Efficiency Council. Demand-side technologies, as well as non-technology elements such as strategies and methods to enhance adoption of clean energy technologies, are also included. In addition, applied research and development that addresses the environmental and public health impacts of electricity-related activities is also included. Clean transportation is also an acceptable funding area, as long as there is a linkage to the electricity sector and ratepayer benefits. Building codes and appliance standards are also potential areas for investment, as suggested by the Efficiency Council in their comments on the proposed decision.

Finally, on the issue of competitive bidding, this is generally our selection process of choice in all areas. However, there may be limited and unique circumstances where it is not possible or desirable. In each investment plan, the administrators may propose a limited authorization for non-competitive bidding for particular purposes. An example, as suggested by the Efficiency Council in their comments on the proposed decision, could be continuation of funding for successful projects. These exceptions to competitive bidding should be justified separately and clearly for a specific purpose. During consideration of the first set of investment plans, we will also consider whether there should be a separate approval process required for any contract or grant not awarded through a competitive bidding process, to set a higher standard for the use of a non-competitive process.

In addition, in each investment plan, the administrators should include a detailed set of criteria upon which competitive bids will be evaluated.

7.2. Technology Demonstration and Deployment

7.2.1. General Definitions

The staff proposal generally defined technology demonstration as the installation and operation of pre-commercial technologies at a scale sufficiently large and in conditions sufficiently reflective of anticipated actual operating environments, to enable the financial community to effectively appraise the operational and performance characteristics of a given technology and the financial risks it presents. Staff proposed that $50 million in annual funding be directed towards these types of activities.

In addition, the staff proposal suggested that 20% of the technology demonstration funding be set aside for funding bioenergy projects. Staff also recommended that half of the funding be committed through grants, while the other half be deployed through pay-for-performance contracts designed to encourage actual energy production from the installations with compensation based on that energy output. Conceptually, the pay-for-performance approach was designed to help bridge the gap between demonstration and deployment by demonstrating the viability of technologies in the real world.

Finally, the staff proposal suggested that the investment plans propose an approach to requiring some amount of matching funds from other funding sources.

7.2.1.1. Parties' Comments

Parties' comments in the area of the definition of technology demonstration were not extensive. The Black Economic Council et al. repeats their emphasis on LEDs summarized above, suggesting funding for start-ups and manufacturing of LEDs. The Joint Environmental Groups generally support using EPIC funds to support pre-commercial clean energy technologies and emphasize that "information about the funded demonstration projects should be made public to the greatest extent possible, to ensure market participants are able to learn from the experiences of previously-funded projects."[18]

CFC suggests continuing the emphasis on ratepayer benefits by requiring a selection criterion that there be a "reasonable probability the demonstration project will produce direct ratepayer benefits as defined in the Staff Proposal."

SDG&E recommends that the IOUs should retain control over 50% of the demonstration funding because only they can integrate new research to determine if new emerging products are compatible with existing power system infrastructure. In addition, SDG&E does not believe that EPIC funding should be used for RD&D efforts of independent power producers (IPPs), because this would create a possible double-payment by ratepayers: once through EPIC and

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[18] Comments of Joint Environmental Groups, March 7, 2012, at 7-8.

a second time through a power purchase agreement for an IPP's unregulated profit.

Solar Highways suggests that the definition of technology demonstration should be broadened to capture not only technology, in the strictest sense, but also innovative strategies for deploying technology.

MEA argues that the use of EPIC funds to support IOU-run renewable energy programs would violate statutory requirements related to equitable treatment of community choice aggregator (CCA) customers in that they would be subsidizing bundled customer procurement and would also potentially violate the requirements of Code Sections 380(h)(5) and 366.2(a)(5) which require that funding be administered on a non-discriminatory basis for the benefit of all customers. MEA suggests that to avoid these issues, the IOUs should remit EPIC collections from CCA customers to the CCA for investment.

Finally, CCEJ suggests that the Commission develop a cost-share program with DOE and offer matching grants.

7.2.1.2. Discussion

It does not appear that parties have any disagreement with the general definition of technology demonstration offered by the staff proposal. The staff proposal defines technology demonstration as the installation and operation of pre-commercial technologies at a scale sufficiently large and in conditions sufficiently reflective of anticipated actual operating environments, to enable the financial community to effectively appraise the operational and performance characteristics of a given technology and the financial risks it presents. This is a reasonable definition and we will adopt it. We also agree with Solar Highways that this definition can extend to innovative deployment strategies as well as the technologies themselves.

As in the previous section addressing the definition of applied research and development, we do not offer specific funding areas in order to avoid being too prescriptive. Instead, the administrators should propose more specific funding areas in the investment plans.

As already discussed earlier in this decision, we are modifying the staff proposal which recommended designating the CEC as the sole EPIC administrator in favor of adding an explicit role for the utilities as administrators for some technology demonstration activities. More specifically, we find that there is an important role for utilities both in technology demonstration as well as deployment. By deployment, we mean installations that are directly interconnected or located on the electricity grid of the IOUs. Deployment may also include strategies and other activities that are not specifically about the deployment of a technology itself, but are designed to test successful ways of encouraging customer adoption of clean energy technologies, such as electric vehicles, energy efficiency, or renewable generation, for example.

In general, we do not draw a bright line between the activities that should be undertaken by the CEC and those that utilities should fund. However, in general, we expect that the utilities will fund more deployment-related activities while the CEC will fund more demonstration activities. Close coordination will be important to ensure there is no duplication of effort.

In comments on the proposed decision, SDG&E states that it is unclear what amount of funding will be available to each utility in this area.[19] We clarify

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[19] SDG&E opening comments on proposed decision, May 14, 2012, at 9.

that each utility will administer the portion of the funding that is actually collected from its ratepayers.

In addition, with respect to the competitiveness concerns raised by MEA as well as by SDG&E with respect to IPPs, we clarify that EPIC funds should not be used by the utilities to fund electricity generation-only demonstration or deployment projects. This is because this type of activity would give the IOUs an advantage over other competitive retail providers, such as CCAs and electric service providers.

A number of parties addressed the issue of utility funding of generation-only projects in their comments on the proposed decision. MEA continues to support a prohibition on utility funding of generation-only projects for competitiveness reasons.[20] Several other parties, including TURN, PG&E, and the Joint Environmental Groups,[21] oppose this prohibition as too restrictive, potentially defeating the purpose of some technology demonstration and deployment funding.

The prohibition was designed to address two separate competitiveness concerns. The first is the one identified by MEA, where because EPIC funds are being collected from utility distribution rates paid by all customers regardless of electric retail provider, the funds should not be used to advantage only IOU development of generation options, without allowing similar opportunities for other retail providers on behalf of their customers, since all customers contribute

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20 MEA opening comments on proposed decision, May 14, 2012, at 2.

21 TURN opening comments on proposed decision, May 14, 2012, at 4; PG&E opening comments on proposed decision, May 14, 2012, at 4; and Joint Environmental Groups' opening comments on proposed decision, May 14, 2012, at 5.

to the funds. The second concern is related to competition in the development of new generation itself, which TURN points out could be alleviated by prohibiting only the investment of EPIC funds in utility-*owned* generation.

After considering parties' comments, we continue to find it appropriate to prohibit IOU investment in generation-only projects using EPIC funds. The EPIC utility funding is intended, as elaborated elsewhere in this decision, to address primarily utility electricity grid-related technology demonstration and deployment. However, there may be instances where utility investments in generation-only projects could be desirable and appropriate. We do not wish to create too many restrictions on the types of projects that the utilities may propose.

Thus, if the IOUs wish to propose generation-related projects, they may propose to do so utilizing other funding sources, not those collected from all distribution customers such as EPIC. Any such proposals should be included in the utilities' triennial investment plans ordered in this decision, but should propose to utilize another appropriate funding source other than EPIC, most likely generation revenues. Thus, any RD&D generation-related investments proposed by the utilities can be considered in the same venue alongside EPIC funding proposals by the CEC, but simply utilizing separate funding.

Since the CEC will be undertaking projects that should benefit electric ratepayers overall and is acting on behalf of all ratepayers as administrator of funds, the CEC does not have an inherent incentive to bias its investments to favor itself over competitors. Customers of MEA, as well as other competitive providers, will have access to and benefit from the results of the research and investments handled by the CEC, just as IOU customers will. Thus, the prohibition on funding generation-related demonstration and deployment projects with EPIC funds does not apply to the CEC.

The staff proposal included a budget of $50 million for technology demonstration activities. No party specifically objected to this amount, except those that generally oppose EPIC overall. Since we are adding utilities as administrators and further emphasizing deployment activities relative to the staff proposal, we will increase the budget for technology demonstration and deployment to $75 million annually, which reflects the historical level of public interest investment while also taking into consideration utility RD&D expenditures.

A budget of $30 million per year will be reserved for utility administration, with $45 million reserved for CEC administration. This achieves a reasonable balance between truly public interest investments that are more appropriate for the CEC to administer and those that are closer to commercialization and deployment stage and more appropriately handled by the utilities.

When combined with the other areas to be administered by the CEC, this equates to approximately 20% of the EPIC budget to be administered by the IOUs, with 80% to be administered on behalf of electricity ratepayers by the CEC.

We also eliminate the requirement in the staff proposal that at least half of the technology demonstration funding should be expended as grants with the other half devoted to pay-for-performance projects. Both mechanisms may be worthwhile, depending on the project, but we leave it to the discretion of the administrators to propose the payment mechanism best suited to the investments they propose in each investment plan.

Finally, we ask the administrators to propose in their investment plans any requirements to seek or obtain matching funds from other sources. In general, consistent with the comments on the proposed decision from several parties including Silicon Valley Leadership Group (SVLG) and the Efficiency Council, we encourage the use and leveraging of matching funds whenever possible.

Also in comments on the proposed decision, several parties, including PG&E and SVLG, raise the issue of how this category of EPIC investments does or does not include or impact the utilities' ongoing support for emerging technologies in the context of their energy efficiency and demand response programs. We clarify that it was not our intent to disturb ongoing programmatic support for demand-side technologies that occurs regularly in other contexts. Thus, this EPIC budget authorization for technology demonstration and deployment is in addition to the budgets authorized separately in the utilities' energy efficiency and demand response portfolios.

However, to ensure closer coordination in the future, we will require that the utilities include in their EPIC investment plans an informational discussion of the related demand-side emerging technology activities that are occurring outside of the EPIC funding process. We also clarify that the EPIC process should not become a venue for consideration of proposals for demand-side emerging technologies that were otherwise rejected in the energy efficiency or demand response proceedings.

7.2.2. Bioenergy Issues

As summarized above, the staff proposal recommended that 20% of the technology demonstration funding be set aside for bioenergy projects, without distinguishing between the various types of bioenergy technologies.

7.2.2.1. Parties' Comments

A number of parties support the staff proposal, some with modifications. TURN supports the 20% set-aside, and believes that the effort should be coordinated with utility renewable procurement mechanisms. PFT/WRTC are also supportive, and suggest that guidelines be established within this funding category, including incentives for distributed biomass facilities. The Joint Environmental Groups and the University of California conceptually support dedicating funding toward bioenergy projects, but suggest that 20% may be too high. Both suggest reevaluating the funding amount during each investment plan process. AECA and Sustainable Conservation also support emphasis on biomass but believe that the 20% budget may be too small and should be more specific about the various types of bioenergy technologies and their potential.

SDG&E believes that incentives for biogas and biomethane may be appropriate and offers some programmatic suggestions. However, they feel that the carve-out definition is too vague, and that EPIC funding should not be used to incentivize additional baseload power production which the state does not need.

SCE argues that setting aside funding for bioenergy interferes with the market and artificially picks winners. They argue that there is no record demonstrating that this technology should be favored over any other.

CBD also argues that the 20% carve-out for bioenergy is unjustified given serious scientific questions as to whether biomass energy projects actually deliver environmental, sustainability, or ratepayer benefits.

7.2.2.2. Discussion

There are many different types of bioenergy technologies and fuels, each with different electricity production, environmental protection, public safety, and other benefit profiles. While biomass, specifically at community-scale, has potential forestry and fire prevention benefits, dairy digesters and other anaerobic digesters offer other potential environmental benefits for cleaner water, decreased GHG emissions, and onsite electricity production. Biomethane production for pipeline injection and landfill gas electricity production also reduce GHG emissions.

Given these varied potential benefits, we believe that setting aside 20% of the technology demonstration and deployment funding, during the three-year period of the first investment plan, to fund bioenergy projects is just and reasonable. For subsequent investment plan cycles, we will reevaluate this set-aside, depending on the results during 2012-2014.

The proposed decision applied the 20% set-aside for bioenergy from both the utility and CEC budgets for technology demonstration and deployment. In comments on the proposed decision, both the Joint Environmental Groups[22] and PG&E[23] argue that a 20% set-aside only makes sense in the context of the CEC's portion of the EPIC program, especially when the utility funds are divided across utilities. We agree and clarify that the 20% set-aside for bioenergy for the first investment plan cycle should only apply to the CEC's funding for technology demonstration and deployment.

This does not mean, however, that utilities cannot propose bioenergy-related initiatives, should they wish to. For example, SDG&E suggests that a

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22 Joint Environmental Groups' opening comments on proposed decision, May 14, 2012, at 9-10.

23 PG&E opening comments on proposed decision, May 14, 2012, at 7-8.

CSI-like program should be developed for biogas.[24] While we do not adopt this proposal explicitly in this decision, SDG&E is free to propose this in its investment plan, to the extent that it complies with the other requirements we impose in this decision.

7.3. Market Support

7.3.1. General Definitions

The staff proposal generally described market support as those programs that seek to enhance the competitive position of certain preferred, commercially-proven technologies relative to the incumbent technologies. In California in the renewables area, these have largely consisted of targeted rebate programs or procurement mandates imposed on the IOUs, including the RPS, the California Solar Initiative (CSI), and the Self Generation Incentive Program (SGIP). In addition, the CEC has overseen the emerging renewables program (ERP), the Existing Renewables Facilities Program (ERFP), and the New Solar Homes Partnership (NSHP).

The staff proposal generally described support for these types of programs and activities, but declined to recommend additional funding from EPIC at this time. The reasons were various. In the case of the NSHP, funding would have been recommended on a policy basis, but legal constraints capping the CSI budget limit staff's ability to recommend additional funding without legislative change. Similarly, staff recommended consolidating the ERP into the SGIP since the technologies supported are similar, but additional funding is also problematic due to a statutory cap on the SGIP budget. In the case of the ERFP,

[24] SDG&E opening comments on proposed decision, May 15, 2012, at 20.

staff did not recommend continuing the program at all, since it would represent offering a continuing subsidy to a set of established and commercialized technologies with no strategy for ending the subsidy in the future or moving the technologies toward competitiveness.

7.3.1.1. Parties' Comments

Most parties' comments were devoted to a specific program under the market support category, as discussed further below. Only a few parties commented generally on the staff recommendation not to fund any market support activities at this time.

AEE would like to see attractive financial incentives for in-state manufacturing of clean energy technologies, though it is unclear whether this would merit a market support program or market facilitation activities.

AECA and Sustainable Conservation, BAB2E, the Joint Biomass Parties, and Waste Management all would support various types of market support programs for bioenergy. AECA and Sustainable Conservation propose a program for biogas funded at $20 million annually. BAB2E would like to see biosolids and biogas included as technologies worthy of market support funding. The Black Economic Council et al. continues to suggest an LED program.

All of the IOUs, along with CFC and CLECA, agree with the staff proposal not to fund additional market support activities at this time.

7.3.1.2. Discussion

We defer discussion of market support issues and funding in general to the more specific categories of programs discussed below. However, we decline to fund any of the specific areas suggested by parties' comments above, because they are either too technology-specific and/or not sufficiently well developed to be a program that we could easily adopt immediately. Some areas are worthy of further consideration, as further discussed below.

7.3.2. Emerging Renewables Program

The staff proposal suggested that technologies previously eligible for ERP funding could be transferred into the SGIP, since it is a similar program designed to address similar technologies. This would streamline programs and, in time, reduce market confusion by offering one program instead of two. The eligibility rules for project size in the SGIP would need to be reduced, which was already contemplated in D.11-09-015, a decision which made several modifications to the SGIP and allowed that ERP technologies could participate in SGIP if the PGC was not renewed. However, the staff proposal did note that the SGIP program budget is currently capped pursuant to § 379.6(a)(1). Finally, the staff proposal recommended that the SGIP continue the eligibility requirements recently adopted by the CEC.[25]

7.3.2.1. Parties' Comments

A number of parties support the logic of the staff proposal to consolidate programs. However, many are concerned about ensuring adequate funding in the SGIP to support the migrating ERP technologies. AEE and CCEJ both recommend allocating EPIC funds until the SGIP budget is augmented by the Legislature. CCEJ also expresses skepticism that the Legislature will augment the SGIP budget.

[25] http://www.energy.ca.gov/2011publications/CEC-300-2011-004/CEC-300-2011-004-ED12-CMF.pdf.

Altergy presents its own ERP experience as a case study for why additional SGIP funding and program changes should be done before transferring ERP technologies into the SGIP. Altergy states that it submitted approximately $60 million worth of rebate applications to the ERP in late 2011 for renewable fuel cells, but the program ran out of funding reservations around the same time, potentially jeopardizing a large order which Altergy had already secured with its customers. Altergy also argues that discontinuing funding for the ERP would effectively end market support for deployment of commercial technologies such as theirs.

CCDC supports the staff proposal in concept and would like to see an increase in the SGIP budget to ensure that all eligible technologies, including combined heat and power (CHP), are adequately funded. CCDC also suggests that any funds used to support technologies formerly eligible for the ERP should come out of the SGIP budget for renewables and not for clean CHP.

CEERT comments that merely reconsidering funding levels and eligibility rules for SGIP is not sufficient to support this program area.

PG&E, SDG&E, and TURN all support moving the ERP into the SGIP. SDG&E also points out that the venue for any changes to the SGIP should be the CSI/SGIP rulemaking and not this proceeding. TURN argues that the budget cap situation for the SGIP may not be as dire as some parties' comments suggest, and that there may be adequate funding to support ERP projects already within SGIP.

7.3.2.2. Discussion

The staff proposal for consolidating the technologies funded by the ERP into the SGIP is logical and should serve to streamline programs and reduce program duplication and confusion over time. Program consolidation was already contemplated by the Commission in D.11-09-015, which modified the SGIP program to comply with SB 412 (Kehoe, Stats. 2009, Ch. 182).

The proposal by AEE, Altergy, and CCEJ to fund additional ERP projects via EPIC until such time as the SGIP changes are made by the Legislature or the Commission, while superficially appealing, may actually perpetuate the continuing problem of lack of funding for these types of programs. While the SGIP now includes a declining rebate schedule similar to the CSI program that aims toward market transformation for participating technologies, the ERP did not include such provisions. Because the ERP and SGIP had different rebate levels and rules, continuing both programs would perpetuate inconsistent program support for similar technologies of different sizes and would not necessarily be positive for the long-term sustainability of these programs or technologies. Contrary to Altergy's assertions, ending the ERP will not end support for commercial technologies such as fuel cells; instead, the projects will still be eligible under the SGIP.

In addition, we agree with TURN that the SGIP budget situation may not be as insufficient as some parties suggest. Thus, we encourage entities with eligible technologies to explore applying for SGIP funding right away. We also clarify that the venue for Commission consideration of any additional SGIP changes will be R.10-05-004 or its successor proceeding and not the EPIC rulemaking. We will not be making any SGIP rule or budget modifications in this docket.

Longer term, the Commission would also support further augmenting the SGIP budget to allow additional opportunities for former ERP-eligible technologies to receive funding. We strongly encourage the Legislature to consider this issue, approve additional funding during 2012, and return any funds borrowed for other purposes.

7.3.3. Existing Renewables Facilities Program

As mentioned above, the staff proposal recommended discontinuing funding for this program since it represents an ongoing subsidy to existing and commercialized generation technologies.

7.3.3.1. Parties' Comments

CBD specifically supports the staff proposal to eliminate the ERFP and suggests that any biomass activities funded under EPIC should be consistent with AB 32 and Executive Order S-3-05. The Joint Environmental Groups also support discontinuing funding for the ERFP, arguing that mature renewable technologies, including existing biomass facilities, can compete for contracts in the RPS solicitations. TURN also agrees with this reasoning. PG&E believes that the RPS and AB 32 policies already provide adequate support for existing renewables facilities. SDG&E suggests that current contracts under the ERFP should be phased out at the end of those contracts.

The Joint Biomass Parties disagree that funding for existing biomass facilities should be discontinued, arguing that the loss of the PGC creates a gap for those facilities and the biomass industry in general, given the high cost of transporting and processing biomass fuels. Waste Management agrees. The Joint Biomass Parties therefore propose a targeted fuel support program to address the challenges associated with biomass fuel, and argue that the ancillary benefits of waste diversion, cleaner air, healthier forests, and reduced GHG emissions need to be considered and viewed as electricity ratepayer benefits.

BAB2E supports creating new programs similar to the ERFP, particularly to support commercialization of biosolids from wastewater treatment processes as a renewable energy resource.

AECA and Sustainable Conservation also would like to see at least $20 million annually set aside for a biogas development program that falls into the market support category and not simply technology demonstration.

7.3.3.2. Discussion

In general, we agree with many of the parties representing bioenergy interests in this proceeding that the bioenergy technologies have the potential to create win-win projects for the state. As stated earlier, biomass offers the potential for forestry and fire prevention benefits, biodigesters may help protect water quality and reduce GHG, and landfill gas and other biomethane production may also help reduce GHG.

Many of these potential benefits may be important for the state as a whole, but in many cases, they are not direct benefits to electricity ratepayers. Thus, it is unclear why electricity ratepayers should be the sole funding source, via EPIC, for subsidizing commercialized technologies using these fuels for their potential non-energy benefits.

While the PGC may have been an important funding source to spur the development and/or support continued operation of biomass facilities as part of the ERFP in the past, it is unclear why the Commission should continue indefinitely to offer electricity ratepayer subsidies to a particular type of facility or fuel that appears to continue to be expensive relative to other options. The RPS program in California is, by definition, technology neutral. Thus, biomass and other bioenergy facilities are free to compete in RPS solicitations and other related programs such as the feed in tariff. In addition, PG&E has signed a number of power contracts that provide at least a temporary solution to allow continued production from existing biomass facilities.

If ongoing fuel or other subsidies are necessary, it may be wise for the state to consider a more diverse funding source beyond electricity ratepayers, such as the revenues anticipated from the cap and trade program of AB 32 or another source that more appropriately allocates costs and benefits beyond electricity ratepayer benefits. The Commission will continue to participate in and be supportive of multi-agency and/or multi-party discussions of bioenergy policy for the state, such as the Bioenergy Interagency Working Group. A coherent strategy and/or program for encouraging more bioenergy in the state, capturing not only the electricity benefits but also the non-energy benefits, should be a continuing priority. But EPIC funds alone are not the appropriate source for funding such a program.

We feel similarly about the introduction of any new market support programs for particular commercialized bioenergy (or any other commercialized) technologies or fuels.

7.3.4. New Solar Homes Partnership

The staff proposal suggested that the NSHP should be eligible to be continued, as a matter of policy, because it is a vital piece of the CSI program targeting builders of new homes. However, according to the analysis in the staff proposal, the Commission would only have the authority to augment NSHP funding via EPIC, or by any other means, by reducing the budget for another element of the CSI program, since that program budget overall is capped pursuant to § 2851(e).[26]

7.3.4.1. Parties' Comments

Most parties are in support of finding a way to continue funding for the NSHP. CBIA states that there are "other viable options for the continuation of NSHP that do not require taking funds from the general market program." CBIA suggests EPIC monies can be used for this purpose, but does not offer a statutory analysis or explain how this might be done.

SDG&E supports continuing the NSHP and disagrees with the staff analysis that the CSI cap prevents collecting additional funds to support the program. They also suggest that the program can continue until its statutory end date, as long as the IOUs continue to administer the program, the cash flow process is modified to protect the funds, and the NSHP incentives decline over time, consistent with the CSI. They argue that "the only difference would be that the CEC will not be a middleman, holding NSHP funds that may then be diverted to other uses."[27]

SEIA is also in support of continuing the NSHP, and argues that installation of distributed renewable generation on new homes is consistent with the guiding principles laid out in the staff proposal. In addition, SEIA requests

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[26] The operative language is in §2851(e) (1) which states: "Programs under the supervision of the commission…shall not exceed two billion one hundred sixty-six million eight hundred thousand dollars ($2,166,800,000) and includes moneys collected directly into a tracking account for support of the California Solar Initiative and moneys collected into other accounts that are *used to further the goals of the California Solar Initiative*." (Emphasis added.)

[27] SDG&E comments, March 7, 2012, at 21.

that the Commission allocate contingency funding to the NSHP should the Legislature resolve statutory constraints.

The Joint Environmental Groups also support continuing the NSHP, but agree it must be done statutorily. PG&E seems to agree as well, stating: "If the overall EPIC funding level were modestly decreased compared to current EPIC collections and the Legislature increased the CSI funding cap similarly, the NSHP funding shortfall effectively could be transferred to the CSI program in order to provide room for extended NSHP funding based on forecast need, without an increase in overall electric rates."[28]

CEU opposes funding the NSHP altogether, arguing that solar is an expensive technology that primarily benefits the rich. Still, CEU also suggests that the Commission should plan ahead in the event that the Legislature acts to remove barriers to NSHP funding by building in some "headroom" into the EPIC budget.

7.3.4.2. Discussion

We agree with the staff proposal that the NSHP is an important program as part of the CSI and we would like to see it continued. It encourages builders to help us move toward our goal of construction of all zero net energy new homes in California by 2020.[29]

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[28] PG&E comments, March 7, 2012, at 10.

[29] *See* the September 2008 California Long Term Energy Efficiency Strategic Plan, available at: http://www.cpuc.ca.gov/NR/rdonlyres/D4321448-208C-48F9-9F62-1BBB14A8D717/0/EEStrategicPlan.pdf and its 2011 update available at: http://www.cpuc.ca.gov/NR/rdonlyres/A54B59C2-D571-440D-9477-3363726F573A/0/CAEnergyEfficiencyStrategicPlan_Jan2011.pdf.

Unfortunately, under § 2851(e)(1), funds supporting the NSHP program would count under the overall CSI budget cap. Because the NSHP is a named program under the suite of programs that is part of the CSI, and if we were to utilize EPIC funds to support continuation of the NSHP, it would become a program supervised by this Commission. According to the terms of § 2851(e)(1), the funding would count toward the overall budget cap, since it clearly would be used to "further the goals of the California Solar Initiative." Thus, although conceptually we would be willing to allocate EPIC funds to help continue the NSHP, we would have to reduce the budget of the CSI general market program in order to do so.

Last year, SB 585 (Kehoe, Stats. 2011, Ch. 312) authorized the Commission to add funding to the CSI general market program in order to ensure that it has sufficient budget to reach its goals. Thus, we are not inclined to borrow money from that program to continue to fund NSHP, creating a new shortfall after the previous shortfall was just recently remedied.

We also note that some of the $400 million in funding allocated by statute to NSHP was already collected as part of the PGC funding before it expired last year. In addition, the additional funding collections necessary to reach the budget of $400 million would be smaller had the Legislature not borrowed additional PGC funding for budget purposes, leaving the program further under-funded.

We do not believe it is appropriate to collect funding a second time (once from PGC and another time from EPIC) to replace NSHP program funding. However, it could be appropriate for EPIC funds to be used to cover the NSHP program funding that has not yet been collected from ratepayers.

To resolve this situation, we urge the Legislature, in 2012, to return the PGC funds to the CEC for NSHP use, as well as modify both the total CSI funding cap and/or the funding source for the NSHP to allow the Commission to continue to fund the NSHP without reducing the budget for the CSI general market program.

The Legislature could accomplish this by modifying the current provisions of § 2851(e) to allow EPIC funds to be used for the NSHP. It could also authorize us to collect additional funding for NSHP directly in rates, similar to other CSI expenditures. Should the Legislature act to provide either option, we would authorize funding for no more than the remainder of the $400 million in NSHP funding that was not already collected as part of the PGC, which we understand to be approximately $250 million. This would not constitute an overall increase in rates, because it would replace the collections that were previously part of the PGC.

Finally, similar to the SGIP discussion, the venue at this Commission for any changes to the CSI program or the NSHP program as a result of further legislative action in 2012 or in the future, would be R.10-05-004 or its successor proceeding and not this proceeding.

7.4. Market Facilitation

The staff proposal defined market facilitation as a wide range of activities that includes program tracking, market research, education and outreach, regulatory assistance/streamlining, and workforce development to support clean energy technology deployment. Staff proposed that $15 million annually be budgeted to support these activities by the CEC on behalf of IOU electric ratepayers, with $5 million for program tracking and market research, $8 million for regulatory assistance and streamlining, and $2 million for workforce development.

Staff proposed to discontinue funding for generalized education and outreach activities in the area of renewables.

7.4.1. Parties' Comments

CEU made comments in support of efforts to streamline permitting and other regulatory barriers for both renewable and conventional technologies. Both AEE and CALSTART would like to see more emphasis on the manufacturing stage of technology development utilizing EPIC funding, specifically as part of the market facilitation area.

In the area of bioenergy, Waste Management recommends that the Commission expand the scope of the market facilitation category and/or include a new program to support biomass energy, while CBD argues that funding regulatory streamlining for biomass could obscure rather than help impacts on forests and climate. AECA and Sustainable Conservation believe that some funds should be used to support regulatory and permit streamlining efforts that impede deployment of biogas facilities.

The Efficiency Council comments that market facilitation efforts should include demand-side management activities and not just activities related to renewables.

CFBF suggests that the definition of market facilitation should be broadened to include facilitation of distributed generation, net metering, and local planning as it relates to the use of marginal agricultural lands, as well as electrification of remote irrigation pumps that currently rely on diesel motors. CFBF suggests that efforts should be made to address optimal deployment of distributed generation in local jurisdictions in a way that does not adversely impact or convert productive farmlands. EPIC funding could be used to support mapping efforts to identify unproductive lands for deployment. Regarding the diesel-fueled pumps, CFBF suggests that EPIC funds could be used to expand/continue a program to support conversion of diesel engines to electric.

CFC and SDG&E agree with the staff proposal not to provide funding toward generalized outreach and education on renewables. Meanwhile, the Black Economic Council et al. argues the opposite: that community outreach and education is essential to enable deployment of new technologies, especially in underserved communities. They also recommend that the workforce development funding amount be increased from $2 million annually to at least $14 million annually, citing a number of reports and articles highlighting the decline in funding and opportunities for low-income individuals to receive training to become qualified for green jobs.

PG&E opposes the use of $15 million in market facilitation funds for the purposes described, stating: "However worthy these programs may be on their own merits, they are *not* energy RD&D, and they are largely duplicative of other programs that utility ratepayers are already funding."[30] SDG&E agrees, arguing that market facilitation activities do not benefit utility customers.

In addition, SDG&E does not believe that EPIC funds should be used to fund such activities as the Desert Renewable Energy Conservation Plan or workforce development, arguing that there are other statutes, funding sources, or agencies that should govern these efforts. SDG&E also argues that use of EPIC funds to support AB x1 13 (M. Perez, Stats. 2011, Ch. 10, 1st Extraordinary

[30] PG&E comments, March 7, 2012, at 10.

Session) is specifically prohibited, because that statute specifically states that the CEC "shall only implement this section by the Legislature from the Renewable Resources Trust Fund or other funds from the Energy Resources Program Account."[31]

7.4.2. Discussion

In general, we agree with the staff proposal that there are activities in the areas of market research, program tracking, education and outreach, regulatory assistance/streamlining, and workforce development that are consistent with the goals of EPIC and provide benefits to electric ratepayers by ensuring that other activities are successful. These market facilitation activities help ensure that products or strategies make it all the way through the technology development cycle and are delivering benefits to consumers. For the reasons discussed here, these market facilitation activities under the EPIC program are therefore just and reasonable. Similar to other areas, we expect the investment plans will be much more specific in terms of the activities proposed to be funded in each three-year period. However, we provide the following guidance.

First, generalized outreach and education on the basic value of renewables should not be funded. However, if the outreach and education is targeted toward specific populations or benefits, it may be worthy of funding. If the CEC wishes to propose targeted funding in this area, its investment plan should include details on the purpose and strategies for conducting specific outreach.

We also decline to designate funding to specific programs out of market facilitation funding, such as the diesel pump conversion suggested by CFBF. If

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[31] SDG&E cites to Public Resources Code § 25619(d).

they so desire, the administrators may propose a program of this type for our consideration in the investment plan evaluation process. However, as of this decision, it is unclear to us how diesel pump conversion to electricity would be developing, demonstrating, deploying or facilitating new technology adoption, since this proposal appears to utilize established technologies. Thus, it may be more appropriate to address this issue through rates, line extension rules, or other means than EPIC funding.[32] The Commission is open to considering the benefits of this and other similar proposals either as part of EPIC, if appropriate, or in another proceeding.

We also agree with SDG&E that Public Resources Code section 25619(d) prevents us from authorizing EPIC funds specifically to implement AB x1 13. However, that does not mean that EPIC funds cannot be used for more general permit and regulatory streamlining purposes. The CEC should describe in its investment plan the more detailed purposes for which these funds will be used.

We generally support the other activities described in the comments or in the staff proposal and $15 million is a reasonable sum annually to fund these combined activities. Market facilitation includes renewables, but may also include many other clean energy technologies. Demand-side activities should certainly be eligible for funding, as should permitting and streamlining activities associated with deployment of various forms of bioenergy. It is less clear how market facilitation funds would interact with supporting clean technology manufacturing in California, but this is also a possibility if the CEC has specific proposals in the investment plans.

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[32] *See* D.05-06-016 for a previous program adopted by the Commission to facilitate conversion of diesel agricultural pumps to electricity.

8. Funding and Budget Issues

8.1. Funding Duration

The staff proposal suggested that funding collections should be continued through 2020 to coincide with the timing of the RPS and AB 32 legislative deadlines. In addition, staff recommended that the budget amounts be allowed to be adjusted for each three-year cycle based on the consumer price index change during the previous three years.

8.1.1. Parties' Comments

In this area, several parties simply repeat their overall objections to funding the EPIC program at all. The utilities all argue that the funding levels should not be set in advance, but rather should be set when each investment plan is adopted, if it is adopted at all.

8.1.2. Discussion

First, we address the issue of the appropriate amount of funding collections annually. Our purpose here is to ensure that EPIC collections continue in a regular manner unless the Commission changes the funding levels or the program. Consistent with earlier discussion, these collection amounts are default amounts that may be amended by the Commission with the adoption of each triennial investment plan. However, for ratemaking and planning purposes, it is useful to have a default expectation for annual funding levels.

Next, we agree with the rationale put forward in the staff proposal that collections of the EPIC funds should continue through 2020, and should be adjusted during each three-year investment plan cycle based on the average change in the consumer price index for the previous three years. In comments on the proposed decision, PG&E suggested using the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) for the third quarter specifically;[33] in reply comments, the Black Economic Council, Latino Business Chamber of Greater LA, and National Asian American Coalition concur.[34] This recommendation is reasonable and is adopted. Collections through 2020 will ensure that this effort will be coordinated with the deadlines, which are also in 2020, for fulfilling the mandates of the 33% RPS program and AB 32. The Commission can reassess at that time whether the EPIC program and surcharge should be continued, modified, or eliminated. We also note that D.11-12-035 already established the EPIC collection levels for 2012, so the collections authorized in this decision shall begin January 1, 2013 and end on December 31, 2020.

8.2. Administrative Costs

The staff proposal included a recommendation for a cap on administrative costs of no more than 15% of the total EPIC program budget. In addition, a 0.5% oversight budget for Commission staffing and oversight was recommended.

8.2.1. Parties' Comments

The University of California was the only party to support the 15% administrative cost cap recommendation in the staff proposal. They further support excluding administrative costs of grant recipients from the definition of administrative costs that would be capped, though also refer to standard administrative cost terms being developed between the state, the University of California, and the California State University system pursuant to AB 20 (Solorio, Stats. 2009, Ch. 402).

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33 PG&E opening comments on proposed decision, May 14, 2012, at 11.

34 Joint reply comments of the Black Economic Council, Latino Business Chamber of Greater LA, and National Asian American Coalition, May 21, 2012, at 2.

The Joint Environmental Groups believe the Commission should not impose a hard cost cap, but instead should direct the CEC program administrator to minimize and explain administrative expenses to the fullest extent possible. PG&E and CFBF similarly argue that an administrative cost cap is premature until the overall investment plan is actually reviewed and approved under the governance process.

SDG&E does not believe that the Commission should approve administrative costs for EPIC that are higher than for the CSI or energy efficiency programs overseen by the utilities (those limits are currently set at 10%). In addition, SDG&E suggests looking closely at University of California administrative expenses and believes there are "loopholes" that existed under the PIER program that should be restructured under EPIC. In addition, SDG&E argues that the administrative budget for applied research should be kept separate from administrative costs of technology demonstration projects.

SCE agrees with SDG&E that a 15% administrative budget is inconsistent with other policy proceedings at the Commission (including energy efficiency, CSI, and SGIP) where the limits are 10%. In addition, SCE is concerned that "the disproportionate budget for the Commission's and CEC's respective roles suggests that the CEC will likely be engaging in judgment and decision making with respect to customer funds that properly resides with the Commission."[35]

8.2.2. Discussion

First, the staff proposal was not specific about the definition of administrative costs. We clarify that for EPIC purposes, administrative costs

[35] SCE comments, March 7, 2012, at 13-14.

include staffing costs of the administrators, associated general and administrative expenses and overhead, and related contracting costs to: prepare the investment plans, conduct solicitations, select funding recipients, and monitor and oversee the progress of projects and investments. Administrative costs do not include costs for program evaluation, should the administrators wish to conduct their own program evaluations from time to time. Any evaluation costs would come from other program funds and not count towards the administrative cost cap.

Second, as a general matter, it is important to minimize administrative costs for overseeing the EPIC funds to ensure that the greatest possible amount of funding can be used to support the policy purposes identified herein. While several parties raise a valid point that the exact administrative costs will depend on the nature of the particular activities included in each investment plan, we want to send a clear signal about the need to minimize these costs by setting an administrative cost cap.

This cap will be, like the overall program budget, a soft cap. If the administrators, in each triennial investment plan, can justify the need for a larger amount of administrative funding based on the exact nature of the investments proposed, we will consider it at that time. On the other hand, if administrative costs can be less than the cost cap, we expect the administrators to put those extra funds to good use for program purposes.

As to the level of the cost cap, it is difficult to identify a rationale that would justify departing from our general practice and precedent of a 10% administrative cost cap for the energy efficiency, CSI, and SGIP programs. As stated above, the administrators may propose a higher budget in each triennial investment plan if they can show that it is necessary to support the projects proposed. Until then, for the reasons discussed here, the cap will be set at 10% and we find that this cap is just and reasonable.

Several parties brought up the 0.5% budget reserved for Commission oversight. This amount is necessary due to the ongoing oversight that will now regularly reside with the Commission and its staff, which is a new activity. We anticipate several ongoing proceedings to oversee the EPIC investments, analogous to Commission oversight of energy efficiency portfolios, the CSI, or the SGIP programs. This modest 0.5% budget amount should fund dedicated staff time to devote to EPIC oversight as well as the cost of the independent evaluator which will be hired in 2016. The 10% administrative cap for the EPIC administration should be compared to the 10% administrative costs that go to utilities for administering the energy efficiency, CSI, and SGIP programs.

8.3. Fund Shifting

The staff proposal recommended that the EPIC administrator(s) be given discretion to shift up to 10% of program funds from one category to another category during each three-year investment plan cycle, after the initial investment plan is approved.

8.3.1. Parties' Comments

The Efficiency Council supports the basic notion of flexibility and giving the administrator some discretion in case unexpected opportunities arise. SDG&E also supports some flexibility, but suggests that a 10% limit is too high. PG&E likewise believes some flexibility is warranted, but suggests that the fund shifting flexibility be reviewed as part of each investment plan approval process and determined at that time. CFC believes similarly, that there should be a formal review process of the program areas to be funded. SCE's view is the most restrictive, arguing that any flexibility for the CEC to shift funds constitutes unlawful delegation of judgment, discretion, and decision-making from the Commission to another governmental entity.

8.3.2. Discussion

With the potential size of each three-year investment plan portfolio budget under the EPIC program, we believe it is necessary to allow the administrators some flexibility in the event that events during the three-year period do not exactly match the plans adopted in the investment plans. This is not a delegation of the Commission's discretionary authority; it is purely for administrative practicality. This type of fund-shifting flexibility is given to utilities routinely within their energy efficiency portfolios, for example. The consequence of not allowing any flexibility in fund shifting will be either unspent/idle funding or regulatory delay while a Commission proceeding is completed, even for relatively small changes.

SDG&E's suggested limit of 5% strikes a reasonable balance and we will adopt it. For the sake of clarity, this limit is for 5% of the adopted budget for each category of expenditures approved in each investment plan. If the administrator wishes to propose an entirely new category of expenditures between adopted investment plans, that would constitute a material change to the plan and would require further Commission review and consideration.

8.4. Funding Flow

The staff proposal offered two options for flow of funding from the utilities to the CEC, with the objective of protecting the funds, as much as possible, from potential diversion to other purposes unrelated to EPIC by the state budget process. The first option was to transfer funds periodically, either monthly or quarterly, to minimize buildup of funds in state accounts. The second option was to transfer funds only when funds are encumbered through executed contracts or grants. Staff also noted that these two options are not mutually exclusive. For example, option 1 could be used for administrative costs with option 2 for grants or contract expenditures.

8.4.1. Parties' Comments

All parties who commented on this issue (Efficiency Council, all utilities, TURN, and the University of California) supported the goal of protecting the funds, as much as possible, from the potential for diversion to other purposes. PG&E suggests that neither option offered by staff completely protects the funds, and argues that the only way to protect the funds fully is to have the utilities administer all of the EPIC funds. SCE believes the second option put forward by staff provides the best available option for protecting the funds.

SDG&E states that they disagree with both funding flow options, but goes on constructively to describe an approach used between SDG&E and the California Center for Sustainable Energy for managing the CSI program, which sounds very similar to the combination of both approaches offered by staff here. Similarly, TURN supports funding transfer to the CEC on a quarterly basis to cover administrative and staffing costs, with transfer of funding for awards to third parties only once the funding has been encumbered by the CEC. Finally, SDG&E points out that the CEC should not be able to use the EPIC funds for purposes other than overseeing the EPIC program, such as publicly-owned utility (POU) RPS compliance determination.

8.4.2. Discussion

Utilizing IOU ratepayer funds from EPIC only for the purposes described herein is an important consideration. The best way to accomplish this protection is a hybrid of the two options presented by staff. That is, funds devoted to administration and staffing costs should be transferred by the IOUs to the CEC on a quarterly basis. So that the CEC may begin administrative activities in 2012 in advance of the submission of their first investment plan, the IOUs shall begin forwarding administrative funding from their EPIC balancing accounts on July 1, 2012, and shall continue those payments quarterly thereafter until October 1, 2020. The payment amounts for the administrative budget shall be calculated as one-quarter of the total administrative budget for each year in which the Commission has established a total EPIC budget.

Program funds to be used for grants or contracts with third parties should be transferred from the IOU EPIC balancing accounts to the CEC only after contract or grant execution. We encourage the utilities and CEC to collaborate as soon as possible to work out specific logistical agreements that they can mutually agree upon for transfer of funding.

Finally, considering the source of EPIC funds and consistent with the key guiding principle of producing IOU electricity ratepayer benefits, funds administered by the CEC may not be used for any purposes associated with POU activities, including POU RPS compliance determinations.

8.5. Allocation of Costs by Utility

The staff proposal included the following percentage allocation among the utilities for funding the EPIC program.

- PG&E: 50.1%
- SDG&E: 8.8%
- SCE: 41.1%.

8.5.1. Parties' Comments

Very few parties commented specifically on the question of allocation of EPIC costs among the IOUs. However, several parties commented on related issues of cost allocation and eligibility for receipt of funding.

PG&E and the Efficiency Council generally agreed that the cost responsibility for EPIC should be allocated in the same manner as the PGC in the past. PG&E suggests that the exact funding amounts by utility need not be determined until such time as each investment plan is approved.

CLECA, as in Phase 1, seeks clarification that the Commission is not contemplating changing the cost allocation for EPIC funds between or among customer classes.

With respect to eligibility in use of the funding, several parties raise issues about participation of POUs. TURN supports the staff proposal that EPIC funds should not be used by CEC staff for POU RPS compliance activities. TURN also proposes that EPIC funds should be prohibited from funding projects located in the service territory of POUs, reasoning that "there is no justification for allowing POUs to refrain from collecting R&D funds while POU customers are able to seek awards from IOU ratepayers."[36]

PG&E seems to agree, commenting that "POUs that wish to participate in a legislated statewide RD&D program should fund their participation in the program equitably."[37]

In reply comments, the Joint Environmental Groups agree that "ensuring that EPIC funds are not awarded to generation projects that plan to sign a power purchase agreement with a POU and serve POU electricity customers is appropriate and easy to implement. But categorically excluding major research institutions in POU service territories, including Stanford University and the

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[36] TURN comments, March 7, 2012, at 5.

[37] PG&E comments, March 7, 2012, at 6.

University of California at Los Angeles, does not serve the public interest or IOU customers."[38]

8.5.2. Discussion

No party disputed the reasonableness of the cost allocation among utilities suggested by the staff proposal. Thus, we adopt the cost allocation of 50.1% to PG&E, 8.8% to SDG&E, and 41.1% to SCE ratepayers.

To reassure and clarify for CLECA, nothing in the staff proposal was intended to modify the cost allocation among different classes of customers. D.11-12-035 already concluded that "this surcharge [EPIC] shall reflect the same allocation among classes as the rates for the system benefits charge..."[39] This decision does not change that determination in any way.

Turning to the question of eligibility to receive funding, TURN and PG&E raise the question of whether entities within POU territories should be able to receive funding from EPIC that was paid for by IOU ratepayers. We generally agree that it would be ideal if the POUs voluntarily, or by requirement of the Legislature, co-funded the portion of the EPIC activities that will be overseen by the CEC. However, we have no authority to require this.

Contrary to the arguments of TURN and consistent with those of the Joint Environmental Groups, there is no evidence that a research or demonstration project undertaken by an entity that happens to be located within the service territory of a POU would necessarily produce fewer ratepayer benefits than the same activity by an entity located anywhere else. Technology breakthroughs

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[38] Joint Environmental Groups reply comments, March 16, 2012, at 11.

[39] D.11-12-035, Ordering Paragraph 3 at 40.

and policy innovation that may benefit IOU ratepayers can occur anywhere, and funding should be awarded on a merit basis, not on the basis of geographic restrictions. For example, there are a number of world-class academic institutions in California that happen to be located within POU territories, and it seems potentially self-defeating to exclude them from the ability to compete for relevant research funds. Therefore, we decline to set any explicit limits on the geographic eligibility for funding, though still maintain delivering IOU electricity ratepayer benefits as the most important guiding principle. This should be taken into consideration by the administrators when awarding funding to individual projects proposed.

8.6. Summary of Budget and Collections Beginning in 2013

The purpose of this section is simply to summarize the funding decisions discussed above into an overall budget for the EPIC program. Table 2 below summarizes the collections we order starting January 1, 2013, the relevant entity, and the purpose to which the funds will be allocated, as ordered in this decision.

Table 2.
Annual EPIC Funding Collections and Allocation
Beginning January 1, 2013 (in $ Millions)

Funding Element	CEC	Utilities	CPUC	Total
Applied Research	$55.0	-	-	$55.0
Technology Demonstration and Deployment	$45.0	$30.0	-	$75.0
Market Facilitation	$15.0	-	-	$15.0
Program Administration	$12.8	$3.3	-	$16.2
Program Oversight	-	-	$0.8	$0.8
Total	**$127.8**	**$33.3**	**$0.8**	**$162.0**

We also clarify that the funding authorized already in D.11-12-035 for collection in 2012 should be included in the budget for the 2012-2014 investment plans and should be allocated in the same proportions as the amounts in Table 2 above.

9. Other Issues

9.1. Stakeholder Consultation

The staff proposal included a recommendation that the EPIC administrator(s) be required to conduct scoping workshops and consult with key stakeholders to provide strategic and technical advice and feedback on the investment plans and their implementation, and any other aspects of the program. More specifically, staff recommended that stakeholder consultation be convened by the administrator(s) periodically, no less than twice a year.

The staff proposal listed a number of key stakeholders, including:

- Members of the Legislature, to the extent their participation is not incompatible with their Legislative positions;
- Government, including state and local agency representatives;
- Utilities;
- Investors;
- California Independent System Operator;
- Consumer groups;
- Environmental organizations; and
- Academics

9.1.1. Parties' Comments

Many parties included additional suggestions, in their comments, for types of stakeholders who should be specifically consulted. AEE suggests consultation with the clean energy industry, university research institutions, industry associations, and the investor community. They also recommend the Commission designate a formal advisory committee.

The Efficiency Council supports formal and informal stakeholder consultation, and would like to have the energy efficiency industry included in the list of stakeholders. CEU suggests including members of the business community. CCEJ and CALSTART also suggest including clean energy businesses and/or associations.

The utilities all reiterate their desire to control the EPIC funds and emphasize that the IOUs and their customers need to have a strong voice in selecting and overseeing the program. SCE believes that any program administered by a third party should include an authoritative governing board. SDG&E, on the other hand, suggests a coordinating council made up of IOU members and CEC members. They also suggest technical program area committees.

CFBF and CBD are concerned that there is not enough emphasis on public involvement and transparency in the investment plan process and that it is not clear if there will be opportunities for stakeholders to make formal comments on the investment plans.

9.1.2. Discussion

Some parties' comments indicated confusion about the type of stakeholder consultation and structure suggested by the staff proposal. We clarify that we expect the investment plan consideration by the Commission will be conducted in an application process and will include all of the opportunities for stakeholder input that a normal Commission proceeding would entail. This may include workshops and comments, and any other options deemed necessary by the presiding commissioner and administrative law judge at the time the investment plans are under consideration.

The list of stakeholders to be consulted that was included in the staff proposal was intended as an illustrative list of input during the informal consultation process to be conducted by the administrators. We agree with many parties' comments that input should be sought from a wide variety of perspectives, including all of those listed in the staff proposal plus those suggested by commenters. In comments on the proposed decision, Sustainable Conservation requests that we add agricultural interests to the list; we agree.

To ensure that our intent is clear, we include here again the list of the types of stakeholders whom we expect to be consulted by the administrators:

a. Members of the Legislature, to the extent their participation is not incompatible with their legislative positions;
b. Government, including state and local agency representatives;
c. Utilities;
d. Investors;
e. The California Independent System Operator;
f. Consumer groups;
g. Environmental organizations;
h. Agricultural organizations;
i. Academics;
j. The business community;
k. The energy efficiency community;
l. The clean energy industry and/or associations; and
m. Other industry associations.

However, we are not ordering a formal stakeholder governance structure because to do so would risk delegating the Commission's authority over the EPIC funds and the investment plan process. Instead, that authority will be retained with the Commission, to seek input from stakeholders during a formal proceeding. However, we do require the administrators to establish processes, formal or informal, for seeking stakeholder input and expertise at least twice a year, during the process of developing the investment plans, as well as while the plans are in operation.

In joint comments on the proposed decision, the Black Economic Council, Latino Business Chamber of Greater LA, and the National Asian American Coalition suggested that biennial stakeholder consultation may not be enough. We note that this is a minimum requirement, and we encourage the administrators to consult with stakeholders meaningfully and as frequently as possible with emphasis on active two-way engagement and not simply email service of documents, as the commenters fear.

9.2. Intellectual Property Issues

The staff proposal recommended that intellectual property rights be held by the entities that develop the intellectual property, except in the case of research that is not related to product development. In that case, the intellectual property would be in the public domain. In addition, the staff proposal recommended that royalties not be required from technologies that are funded through EPIC that ultimately become commercialized.

9.2.1. Parties Comments

Only the University of California supported the recommendations in the staff proposal, agreeing that requiring royalties is extremely problematic and may discourage participation. They request clarification on the idea of publicly disclosing "new knowledge" and suggest that it could be legally problematic. They also recommend utilizing the current contract terms between the CEC and DOE for the EPIC program.

SCE argues that the approach in the staff proposal is inconsistent with the purpose of providing tangible electricity ratepayer benefits. They recommend that intellectual property rights be determined on a case-by-case basis.

PG&E and SDG&E argue that intellectual property developed with the support of ratepayer funds is a "utility asset" within the meaning of § 851, and that the Commission must approve transfer of any such assets. In any case, all utilities argue that the intellectual property rights should not be automatically granted to the funding recipients under EPIC.

TURN also opposes the staff recommendation and recommends that the Commission ensure that ratepayer-funded awards are tied to at least some upside financial potential.

The Joint Environmental Groups recommend that the Commission structure its intellectual property policies to ensure that important research funded by EPIC is shared in an open and transparent manner.

9.2.2. Discussion

Intellectual property policy is a complex issue area with legal and practical implications. Retaining ownership of intellectual property by the administrators of EPIC, as well as requiring royalty payments from any technologies that are supported by EPIC funds and are ultimately commercialized, may serve to discourage private entities from participating in the EPIC program in the first place. On the other hand, the opposite policies may result in a loss of ratepayer value for contributions made to technology development or other research areas.

It is also the case that intellectual property policy may appropriately differ depending on whether the administrator of the funds is the CEC, conducting public interest RD&D, or whether it is a utility, investing in a technology to serve its customers' needs.

Rather than decide this policy for EPIC overall in this decision, we instead suggest that intellectual property rules are best designed when applied to particular areas of investment. Thus, we ask the administrators to propose, in each investment plan, the treatment of intellectual property rights either in the investment plan as a whole, or for particular areas of investment within the investment plan. The administrators should include a rationale for the intellectual property treatment they propose. They should also strive to be consistent with the current statutory requirements regarding intellectual property treatment for other state RD&D programs, as suggested by the Joint Environmental Groups.[40] Other parties will have an opportunity to comment on those proposals prior to the Commission adopting further policy in this area.

10. Other Process and Procedural Issues

10.1. Parties' Comments

Several parties' comments indicate that they would have preferred a longer process to evaluate Phase 2 options in this proceeding. CFC suggests that the time allowed for review and stakeholder feedback on the staff proposal was too short and more time is needed to develop specific approaches and to evaluate and review the program proposals.

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[40] Joint Environmental Groups' opening comments on proposed decision, May 14, 2012, at 14.

PG&E and SDG&E suggest holding at least one workshop, with SDG&E suggesting that workshops discuss "what do we want EPIC to accomplish and how can those goals best benefit customers who pay for it?"[41]

DRA requests a prehearing conference and a series of potential workshops related to: areas of investment; governance issues, specifically the method of actual project selection and funding; administrative costs; schedule of investment plan and coordination with IOU R&D efforts; intellectual property issues and ratepayer "payback;" and IOU R&D activities.

Finally SCE agrees that workshops would be useful and further argues that § 729 requires the Commission to hold a hearing to allow parties to vet the program proposal. However, SCE did not specifically request hearings in any documents or assert that there are any disputed issues of fact, stating in their reply comments that "the Commission should also set a schedule that allows parties to request hearings if disputed issues of fact remain after the workshops."[42]

10.2. Discussion

We appreciate that the timetable for decision making in this entire proceeding has been short. However, the staff proposal itself was extensive and 27 individual or joint parties submitted a lengthy set of comments and reply comments in response. Thus, we have a robust record in Phase 2.

The purpose of Phase 2 in general, and this decision in particular, is to set a framework for how the EPIC program will be overseen and designed. As

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41 SDG&E comments, March 7, 2012, at 4.

42 SCE reply comments, March 16, 2012, footnote 9 at 4.

described herein, there will be a separate process every three years, starting this year, to evaluate individual investment plans developed and submitted by the administrators for deployment of EPIC funds. Those investment plans will have much more detailed information about planned investments, as well as criteria for selecting and evaluating proposals. Thus, many of the types of workshops and processes requested above by parties will be conducted during the process of evaluating the investment plans, and need not be done in phase 2 of this proceeding.

In addition, in response to SCE's argument that we are required to conduct a hearing in Phase 2, we have met this requirement by allowing parties to file comments on the staff proposal. As stated above, SCE did not specifically assert in its comments in either Phase 1 or Phase 2 of this proceeding that there are disputed issues of fact that require hearings; rather they only commented that there may be. SCE also did not request hearings. Further comment opportunities and workshops are likely as we consider the investment plans required to be filed November 1, 2012.

11. Comments on Proposed Decision

The proposed decision of Administrative Law Judge (ALJ) Fitch in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed on May 14, 2012 by the following parties: Altergy; AECA; Joint comments of the Black Economic Council, National Asian American Coalition, and the Latin Business Chambers of Greater Los Angeles; CBIA; Efficiency Council; CFBF; CCEJ; CALSTART; CFC; Joint Biomass Parties; Joint Environmental Groups; MEA; PFT; PG&E;

SDG&E; SVLG; SCE; Sustainable Conservation; TURN; the University of California; and Waste Management.

Reply comments were filed on May 21, 2012 by the Black Economic Council, Latino Business Chamber of Greater LA, and National Asian American Coalition jointly; CEERT; CFC; DRA; Efficiency Council; Joint Biomass Parties; Joint Environmental Groups; MEA; PG&E; SDG&E; and SCE.

In response to these parties' comments and reply comments on the proposed decision, a number of changes and clarifications have been made throughout this decision. In addition, below we explain why we did not make certain changes to the decision in response to a number of the specific comments made by parties where the issues are not otherwise addressed herein.

The joint comments of the Black Economic Council, Latino Business Chamber of Greater LA, and the National Asian American Coalition, suggest that we should increase the amount of annual funding allocated for workforce training from an initial estimate of $2 million to $14 million.[43] While we do not make this change immediately, we note that the exact funding allocations to various activities will be proposed by the administrators in the triennial investment plans. Should the CEC develop additional activities and plans beyond the initial $2 million annual allocation, we can consider those proposals in the investment plan.

In addition, we note that although we do not specifically call out the importance of LED lighting technologies in this decision as distinct from the

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[43] Black Economic Council, Latino Business Chamber of Greater LA, and the National Asian American Coalition, opening comments on the proposed decision, May 14, 2012, at 4.

many other energy efficiency or clean energy technologies, LEDs remain eligible for funding both here and in the energy efficiency emerging technologies programs authorized in the energy efficiency portfolios of the utilities.

CBIA's comments reiterate the importance of the NSHP and dispute the analysis in the staff proposal, stating that "there are other viable options for continuation of NSHP that do not require taking money from the general market CSI program."[44] CBIA does not offer any ideas as to what those options might be, however. Thus, we leave this determination unchanged.

CFC, in its comments on the proposed decision and previously, has requested that the Commission conduct a financial audit "to determine not only if certain programs should continue to be funded but also whether the *amount* of funding is just and reasonable."[45] We understand this suggestion conceptually; however, it is unclear how it could be implemented. The previous PGC-funded programs were legislatively mandated (in statute) and not under the control of this Commission. New EPIC funds are being collected, but have yet to be allocated to particular purposes (until this decision). However, the spirit of CFC's suggestion could be met by the CEC sharing publicly an accounting of the costs and estimated benefits of the previous PGC-funded programs. Such reports of various programs should already exist and could be consolidated and shared with parties to this proceeding.

CFC also identifies what it characterizes as a conflict between § 740 and the language of the proposed decision stating that EPIC should be the "primary

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[44] CBIA opening comments on proposed decision, May 14, 2012, at 3.

[45] CFC opening comments on proposed decision, May 14, 2012, at 9.

vehicle" for utility RD&D proposals.[46] However, we see no conflict. Section 740 does not specify the procedural vehicle by which the Commission may "allow the inclusion of expenses for research and development" in rates. The EPIC proceedings are just as valid a venue for consideration of these expenses as GRCs or any other type of proceeding. PG&E comments that this decision should clarify that it does not impact the natural gas public purpose program RD&D expenditures and activities.[47] PG&E is correct; this decision does not impact natural gas public purpose program RD&D expenditures. However, it is possible that in the future the Commission may want to consolidate the electricity and natural gas RD&D activities into one venue for consideration.

PG&E also suggests that the proposed decision should be revised to have EPIC funding be disbursed via a contract between the IOUs and the CEC which they term a "utility-Energy Commission commercial partnership arrangement,"[48] asserting that this would prevent appropriation of the funds by the Legislature. However, it is unclear how this approach protects the funds any better that the approach adopted in the decision, unless PG&E proposes to the take the additional step suggested by SDG&E,[49] to allow EPIC funding transfer to the CEC only after costs have been incurred. While it is true that SDG&E's proposal would further protect funds, it is also administratively unworkable for the CEC. Thus, we continue to order the hybrid approach in this decision, where

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[46] *Ibid*. at 10.

[47] PG&E opening comments on proposed decision, May 14, 2012, at 4-5.

[48] PG&E opening comments on proposed decision, May 14, 2012, at 6-7.

[49] SDG&E opening comments on proposed decision, May 14, 2012, at 16.

administrative funds are transferred quarterly and programmatic funds are transferred once they have been encumbered.

Sustainable Conservation filed comments enthusiastically in support of biogas projects, and arguing that the proposed decision was logically inconsistent in singling out the NSHP program for policy support while not developing a similar market support program for biogas.[50] In response, we simply point out that the singling out of rooftop solar on new homes is not necessarily a statement of a Commission policy preference, but rather it is statutory; the Legislature previously expressed its preference for supporting solar on new homes when it adopted the CSI program in law.

AECA is similarly enthusiastic about developing market support programs for biogas, pointing out that biogas projects can provide substantial benefits to ratepayers through methane destruction.[51] We note that agricultural projects already have the ability to capture those benefits via the Livestock Project Offset Protocol adopted by the California Air Resources Board under AB 32.[52]

On the issue of assignment of intellectual property rights, TURN and SDG&E suggest that this decision include at least a presumption that projects funded by EPIC should create financial benefits for ratepayers.[53] We decline to create that presumption, however, because we are concerned about discouraging

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[50] Sustainable Conservation opening comments on proposed decision, May 14, 2012, at 5.

[51] AECA opening comments on proposed decision, May 14, 2012, at 2.

[52] *See* http://www.arb.ca.gov/cc/capandtrade/offsets/offsets.htm.

otherwise worthy projects from seeking EPIC funding. Creating such a presumption would seem to misunderstand the basic proposition of offering ratepayer (or other public) funding to early-stage projects. As pointed out by the Efficiency Council, "individual project failures are [a] normal and acceptable part of cutting-edge research."[54] In many cases, the reason projects are seeking public or ratepayer funding is because they cannot yet demonstrate enough experience to qualify for private financing. Creating a presumption that projects must deliver ratepayer financial benefits may thus be self-defeating. In addition to expecting some failures, we also do not want to create too high a burden for projects across the board to deliver ratepayer financial gains before they are ready. Ratepayer financial benefits may be feasible in some cases, and we encourage the administrators to pursue such opportunities. This is the reason for leaving open the determination of intellectual property treatment until more specifics are proposed as to the purposes and potential recipients of funding during the investment plan process.

Several parties commented on the size of the overall EPIC annual budgets authorized in the decision. Some parties complain that the budget constitutes a reduction in authorized expenditures compared to 2011 and earlier.[55] Others say that it constitutes a rate increase that is not justified.[56]

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53 SDG&E opening comments on proposed decision, May 14, 2012, at 19, and TURN opening comments on proposed decision, May 14, 2012, at 2.

54 Efficiency Council opening comments on proposed decision, May 14, 2012, at 2.

55 CCEJ opening comments on proposed decision, May 14, 2012, at 6, and Joint Environmental Groups' opening comments on proposed decision, May 14, 2012, at 8.

56 SDG&E opening comments on proposed decision, May 14, 2012, at 7, and CFC opening comments on proposed decision May 14, 2012, at 3.

Both of these interpretations are incorrect. The EPIC annual budget authorized in this decision is expressly designed to represent neither an increase nor a decrease compared to prior expenditure levels. It is intentionally revenue neutral and rate neutral. The appropriate comparison is between the annual budget authorized in this decision and the prior level of PGC expenditures plus utility RD&D expenditures, including allowing for the possibility that the Legislature may reauthorize additional expenditures on the NSHP as part of EPIC.

As discussed in the February 10, 2012 staff proposal, Commission staff estimate that prior annual PGC collections were approximately $146 million, with an additional approximately $40 million per year or more being authorized in various proceedings allowing utility cost recovery for RD&D projects. $162 million, plus an anticipated approximately $25 million for the NSHP program, achieves the same approximate total as in the past. Should the Legislature not authorize additional EPIC funding for NSHP, the Commission may choose to reevaluate whether to increase the EPIC total budget, and for what purposes, in the future.

We also note that the reevaluation of appropriate public interest investments of EPIC funds in this decision has resulted in some budget recalibration and, in particular, an increase in support for RD&D (including applied research and development, as well as technology demonstration and deployment) compared to prior levels.

SCE, in its comments on the proposed decision, reiterates most of its legal arguments about the Commission's underlying authority for EPIC. Most of SCE's arguments contained in its comments on the proposed decision were raised in its January 19, 2012, application for rehearing of the Phase 1 decision in this proceeding (D.11-12-035): the EPIC is fundamentally the PGC by another name (SCE Application for Rehearing at 11-14); the Commission lacks authority to collect funds from ratepayers to fund a "state-run" RD&D program (*id*. at 14-20); the EPIC framework and use of the CEC as administrator make the EPIC an unlawful tax (*id.* at 20-22); the Commission's implementation of the EPIC surcharge violates the requirements of Section 454 and the requirements for customer notice and opportunity to be heard (*id*. at 15-16); the Commission's implementation of the EPIC surcharge violates Section 451 because the Commission has not established that the EPIC program is just and reasonable (*id.* at 15-16); the Commission unlawfully has transformed a permissive statutory scheme into a mandatory one (substantively the same argument as that raised in *id.* at 11-15); and the Commission has unlawfully delegated its discretionary power over ratepayer funds to another agency (*id.* at 22-25).

Today's decision is not intended to address or prejudge the issues raised in SCE's pending application for rehearing of D.11-12-035, which will be disposed of in a subsequent Commission decision. For the present purposes of addressing SCE's comments, we note that most of SCE's arguments speak to the Commission's underlying authority for the EPIC program, which was the subject of the Phase 1 decision, and most of SCE's comments reiterate arguments made in its application for rehearing. For the arguments identified above, SCE provides no new or justifiable reason for revisiting those arguments here. Accordingly, these arguments previously raised by SCE in its application for rehearing of D.11-12-035 are not appropriately reargued in its comments on the Phase 2 proposed decision.

SCE makes additional arguments on the Phase 2 decision about the justness and reasonableness of the funding amounts, funding allocations, program administration, and ability of IOUs to engage in applied research and development. As discussed throughout this decision, we find that the funding activities, funding amounts, funding allocations, and program administration are just and reasonable in light of the record and are supported by evidence in the record of this proceeding. We do not absolutely foreclose the IOUs from pursuing activities outside of their investment plans, although we require the IOUs to explain why such expenditures should not be considered within the EPIC program.

The single new argument SCE raised in its comments is that the proposed decision violates Article IV, Section 12 of the California Constitution, which prevents the Legislature from sending and the Governor from signing a budget bill that appropriates from the General Fund an amount in excess of the General Fund revenues for the year. SCE's argument is misplaced and without merit. The EPIC program will be funded by ratepayers and as such is specially funded. There is nothing in the record to indicate that the EPIC program funds will be deposited in the General Fund Assignment of Proceeding.

12. Assignment of Proceeding

Michael R. Peevey is the assigned Commissioner and Julie A. Fitch is the assigned ALJ in this proceeding.

Findings of Fact

1. Demonstrating the potential to produce electricity ratepayer benefits, defined as promoting greater reliability, lower costs, and increased safety, should be a mandatory and primary guiding principle for expenditure of EPIC funds.

2. The following guiding principles for EPIC expenditures, while complements to the principle of electricity ratepayer benefits, are also reasonable:

societal benefits; GHG emissions reductions in the electricity sector at the lowest possible cost; the loading order; low-emission vehicles and transportation; economic development; and efficient use of ratepayer monies.

3. For purposes of the EPIC program, applied research and development should be defined as activities supporting pre-commercial technologies and approaches that are designed to solve specific problems in the electricity sector.

4. For purposes of the EPIC program, technology demonstration and deployment should be defined as the installation and operation of pre-commercial technologies or strategies at a scale sufficiently large and in conditions sufficiently reflective of anticipated actual operating environments to enable appraisal of the operational and performance characteristics and the financial risks.

5. For purposes of the EPIC program, market support should be defined as programs that seek to enhance the competitive position of certain preferred, commercially-proven technologies and approaches relative to incumbent technologies and approaches.

6. For purposes of the EPIC program, market facilitation should be defined as 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.

7. The EPIC program is not similar in scope or structure to the CICS, established in D.08-04-039 and subsequently vacated by D.08-11-060.

8. The EPIC program should be administered 80% by the CEC and 20% by the utilities, with utility administration authorized only in the area of technology demonstration and deployment.

9. The CEC and the utilities should offer a coordinated approach to clean energy RD&D through Commission consideration of triennial investment plans from each administrator for 2012-2014, 2015-2017, and 2018-2020.

10. The triennial investment plan by each utility should be the primary venue for consideration of utility electric RD&D expenditures other than RD&D proposed by the utilities as part of their budget applications for energy efficiency and demand response; proposals for electric RD&D in general rate cases and/or in separate proceedings should be discontinued once the Commission renders decisions in any proceedings involving RD&D expenditures currently pending.

11. The CEC's triennial investment plans must be very detailed to support the Commission's grant to the CEC to administer the Commission's EPIC program.

12. An independent evaluation of the EPIC program should be conducted by a consultant under contract to the Commission in 2016.

13. EPIC funding should be authorized to be expended in the areas of: applied research and development, technology demonstration and deployment, and market facilitation.

14. Applied research and development should include activities that address environmental and public health impacts of electricity-related activities, support building codes and appliance standards, as well as clean transportation with a linkage to electricity sector ratepayer benefits.

15. EPIC funding should not be authorized to be expended for market support activities.

16. All clean energy technologies and approaches/methods should be eligible for EPIC funding, on both the supply side and demand side.

17. Activities that include collaboration with and leverage of closely related RD&D projects should be eligible for EPIC funding.

18. Projects should be selected for award of EPIC funding on a competitive basis unless the administrators have specifically detailed and justified exceptions to this in their approved investment plans.

19. The administrators may propose in each investment plan to expend technology demonstration and deployment funds either on a grant basis or on a pay-for-performance basis, depending on the types of investments proposed.

20. It is reasonable to set aside 20% of the technology demonstration and deployment funds for 2012-2014 being administered by the CEC to fund bioenergy projects or activities. This percentage should be re-evaluated in the second triennial investment plans.

21. Technologies previously eligible for the ERP should be immediately eligible for the SGIP consistent with the determination in D.11-09-015.

22. Consolidating the ERP and SGIP programs now is preferable to perpetuating two competing programs that serve the same types of technologies and policy purposes.

23. EPIC funds should not be used to subsidize output from existing facilities indefinitely and thus the ERFP program should be discontinued.

24. Commercialized bioenergy technologies offer the potential for benefits to the state of California that are beyond of the scope of electricity ratepayer benefits. Electricity ratepayer funds alone should not be used to pay for those non-electricity benefits.

25. Bioenergy generating technologies are eligible to participate today in the RPS program, the Renewable Auction Mechanism, and the feed-in tariff.

26. There is a strong policy rationale for continuing to fund the NSHP because it supports the state's goals for zero net energy new housing by 2020 and solar on new homes.

27. EPIC funding should not be used to fund generalized outreach and education on the basic value of renewables.

28. Market facilitation activities should not necessarily be limited to renewables, but may also include any other clean energy technologies and/or approaches.

29. EPIC funding collections should be authorized for January 1, 2013 through December 31, 2020 to coincide with the timeframe for completion of RPS and AB 32 requirements.

30. Collection amounts should be adjusted on January 1, 2015 and January 1, 2018 by the amount of the change in the average consumer price index, specifically the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) for the third quarter, over the previous three-year period.

31. The Commission may modify the exact budgets for each year with the adoption of the investment plans.

32. The EPIC funding amounts collected in rates are the default budgets for the EPIC program in each investment plan. These are guidelines that may be proposed to be adjusted by the program administrators in each investment plan to be considered by the Commission. Amounts that are uncommitted at the end of a triennial investment funding period should be used to offset future program funding requirements.

33. It is reasonable to allow the administrators to shift up to 5% of the budget for each category of expenses approved in an investment plan to another authorized category.

34. The Commission should require the utilities to remit from their EPIC balancing accounts administrative funding to the CEC on a quarterly basis and oversight funding to the Commission on an annual basis beginning July 1, 2012.

35. The Commission should require the utilities to remit programmatic funding from their EPIC balancing accounts to the CEC at the time that the funding is encumbered by the CEC.

36. The CEC and utilities should collaborate as soon as possible to agree on the logistics for funding remittance from the utilities to the CEC.

37. The EPIC authorized budget should be funded by each IOU in the following percentages: PG&E 50.1%; SDG&E 8.8%; and SCE 41.1%.

38. Funding authorized in D.11-12-035 for calendar year 2012 should be allocated to the first investment plan for 2012-2014 in the same proportion as the funding authorized beginning January 1, 2013.

39. The Commission should require the administrators to consult with a wide variety of stakeholders no less than twice a year to seek input on EPIC direction and progress.

40. The administrators should be required to make specific proposals for intellectual property rights in each investment plan where the specific types of projects proposed will be provided in more detail.

Conclusions of Law

1. The principles articulated in law in § 740.1 and § 8360 offer useful guidance for the EPIC program. The administrators should be required to address in their investment plans how these statutory principles are applied.

2. The 2008 budget bill AB 1338 does not prohibit EPIC expenditures on a program of ratepayer-benefit-focused investments related to reductions of GHG

in the electricity sector and reducing costs to ratepayers of compliance with GHG emissions reduction regulations.

3. The Commission should retain policy oversight over all EPIC electric ratepayer funds.

4. Once approved, the CEC's triennial 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.

5. In each investment plan, the administrators should propose metrics and criteria for awarding EPIC funding in individual areas.

6. A budget of $55 million annually is just and reasonable to be allocated for applied research and development activities.

7. A budget of $75 million annually is just and reasonable to be allocated for technology demonstration and deployment activities, with 40% set aside for utility activities and the balance to be administered by the CEC.

8. The $75 million budget for technology demonstration and deployment activities is just and reasonable and should be in addition to budgets authorized separately for utilities to support energy efficiency and demand response emerging technologies.

9. A budget of $15 million annually is just and reasonable to be allocated for market facilitation activities.

10. The administrative budget for EPIC should be limited to a maximum of 10% of the funding, not including evaluation costs, unless the Commission approves a higher amount after considering the investment plans.

11. A budget amount of 0.5% should be reimbursed to the Commission by the utilities to fund program oversight, which represents a new activity for the Commission that is not currently budgeted.

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

13. EPIC funds should not be used by utility administrators to fund electricity-generation-only demonstration or deployment projects.

14. Utilities should be authorized to propose generation-only projects in their triennial investment plans utilizing non-EPIC funding.

15. The EPIC program should be the primary vehicle for utility electric RD&D proposals other than the proposals submitted by the utilities for demand response and energy efficiency RD&D projects, and such investments should be removed in the future from the GRC proceedings and requests, unless specifically authorized in an EPIC-related proceeding. If utilities propose any additional RD&D funding outside of EPIC, they will face a burden to show why a proposal outside of the EPIC process should be considered immediately and not simply included in the next cycle for EPIC funding consideration by the Commission. RD&D funding requests outside of the EPIC process should also be required to explain how they meet the objectives and metrics of EPIC as outlined in this decision.

16. The appropriate venue for changes to the program design of either the CSI or SGIP is R.10-05-004 or its successor and not this proceeding.

17. The Commission should support Legislative action in 2012 to augment the SGIP budget to accommodate additional projects that were previously eligible for the ERP.

18. Bioenergy technologies represent significant potential benefits to California that are not necessarily exclusively electricity-related. The Commission should support multi-agency action on bioenergy development and explore alternative funding sources beyond electricity rates.

19. Section 2851(e)(1) limits the Commission's ability to utilize EPIC funding, or any other electric ratepayer funding, to support continued investment in the NSHP because it caps the total budget available to the Commission to fund the CSI and activities related to furthering its goals.

20. The Commission should support Legislative action in 2012 to authorize funding for the NSHP or otherwise remove the CSI budget cap that currently limits general market program and NSHP funding.

21. The Legislature should return any funding borrowed from the CEC's PGC accounts to fund the NSHP and obviate the need for collection of additional ratepayer funding for this purpose.

22. If an administrator wishes to shift more than 5% of the budget for a given category of expenditure authorized in an investment plan, or to fund a new category of expenditure, the administrator should be required to apply to the Commission to approve such a change.

23. 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.

24. Eligibility to receive EPIC funding should not exclude entities located in POU service territories, so long as their activity can be demonstrated to provide the potential for IOU electricity ratepayer benefits.

25. The Commission should consider the investment plans by the administrators in a public proceeding.

26. The Commission should not set up a formal advisory committee structure for EPIC because it risks inappropriate delegation of authority that rests with the Commission itself.

27. The Commission should require the administrators of EPIC to consult with interested stakeholders no less than twice a year, both during the development of each investment plan and during its execution. The following types of stakeholders shall be consulted, at a minimum:

a. Members of the Legislature, to the extent their participation is not incompatible with their legislative positions;
b. Government, including state and local agency representatives;
c. Utilities;
d. Investors;
e. The California Independent System Operator;
f. Consumer groups;
g. Environmental organizations;
h. Agricultural organizations;
i. Academics;
j. The business community;
k. The energy efficiency community;
l. The clean energy industry and/or associations; and
m. Other industry associations.

28. Intellectual property rules should be tailored to the specific types of projects proposed.

29. The Commission should decline to adopt an overall policy on intellectual property rights at this time.

30. The staff proposal and parties' comments and reply comments on it constitute a "hearing" before the Commission with respect to the requirements of § 729.

O R D E R

IT IS ORDERED that:

1. Consistent with Decision 11-12-035 which established the Electric Program Investment Charge (EPIC) program on an interim basis in 2012, the Commission establishes the EPIC program to continue from 2013 through 2020, for the purpose of funding electric public interest investments in applied research and development, technology demonstration and deployment, market support, and market facilitation of clean energy technologies and approaches, for the benefit of electricity ratepayers of Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company.

2. The primary and mandatory guiding principle of the Electric Program Investment Charge shall be to provide electricity ratepayer benefits, defined as promoting greater reliability, lower costs, and increased safety, with the following complementary guiding principles:

   a. Societal benefits;

   b. Greenhouse gas emissions mitigation and adaptation in the electricity sector at the lowest possible cost;

   c. The loading order;

   d. Low-emission vehicles/transportation;

   e. Economic development; and

   f. Efficient use of ratepayer monies.

3. The Electric Program Investment Charge program shall fund investments in the following defined areas:

   a. <u>Applied research and development.</u> Activities supporting pre-commercial technologies and approaches that are designed to solve specific problems in the electricity sector.

b. Technology demonstration and deployment. 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.

c. Market facilitation. 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.

4. The Electric Program Investment Charge shall not fund investments in the following defined area, unless the Commission subsequently modifies this requirement during its consideration of an investment plan:

a. Market support. Programs that seek to enhance the competitive position of certain preferred, commercially-proven technologies or approaches relative to incumbent technologies or approaches.

5. The California Energy Commission (CEC) shall administer its portion of the Electric Program Investment Charge (EPIC) program as a grant from the Commission in accordance with Ordering Paragraph 2 through 8, 11, 12, and 14 through 16, and in accordance with Commission-approved investment plans. The CEC shall be designated as the administrator for 80% of the EPIC funds, with 20% of the program funding reserved for Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company, collectively, to administer on behalf of their customers in the area of technology demonstration and deployment. Administrative expenses shall be capped at no more than 10% of the total budget, not including evaluation expenses. Program oversight expenses for the Commission shall be capped at no more than 0.5% of the total budget.

6. Twenty percent of the total Electric Program Investment Charge funding authorized for technology demonstration and deployment to be administered by the California Energy Commission shall be set aside during the first investment plan period (2012-2014) to fund investments in pre-commercial bioenergy technologies and strategies.

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 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. 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.

8. Funding for the Electric Program Investment Charge (EPIC) collected in 2012 as required by Decision 11-12-035 shall be allocated to the 2012-2014 EPIC program cycle in the same proportion as funding for 2013-2020.

9. Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company shall remit one-quarter of the annual administrative budget for the California Energy Commission (CEC) to the CEC quarterly beginning July 1, 2012 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.

10. Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company shall remit the annual oversight budget to the Commission by July 1 each year, beginning July 1, 2012.

11. By no later than November 1, 2012, the administrators of the Electric Program Investment Charge program (the California Energy Commission, Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company) shall file coordinated triennial investment plans in applications covering 2012-2014 to the Commission for consideration. The 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.

12. In their applications for the triennial investment plan for the Electric Program Investment Charge, the administrators (the California Energy Commission, Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company) shall include the following elements:

a. A mapping of the planned investments to the electricity system value chain, which includes:

    i. Grid operations/market design;

    ii. Generation;

iii. Transmission;

iv. Distribution; and

v. Demand-side management.

b. Identification of at least the following elements:

i. The amount of funds to be devoted to particular program areas (applied research and development, technology demonstration and deployment, and market facilitation);

ii. Policy justification for the funding allocation proposed;

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

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

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

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

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

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

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

i. 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.

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

iii. Effectiveness of information dissemination.

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

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

d. A recommended approach to intellectual property rights depending on the specific types of projects and funding proposed.

e. How the investment plan addresses the principles articulated in Public Utilities Code Sections 740.1 and 8360.

13. Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company may include in their triennial investment plan applications for the Electric Program Investment Charge (EPIC), any proposals to fund electricity generation-only projects, including for bioenergy projects, that utilize another appropriate non-EPIC funding source that is not collected from all distribution customers. EPIC funds may not be used to fund generation-only projects, except by the California Energy Commission.

14. The administrators of the Electric Program Investment Charge (the California Energy Commission, Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company) shall be authorized to shift up to 5% of funds in each authorized funding category without additional Commission approval. Any additional fund shifting beyond 5% or to new categories of funding must be approved separately by the Commission.

15. The administrators of the Electric Program Investment Charge (the California Energy Commission, Pacific Gas and Electric Company, San Diego

Gas & Electric Company, and Southern California Edison Company) shall consult with interested stakeholders no less than twice a year, both during the development of each investment plan and during its execution. The following types of stakeholders shall be consulted, at a minimum, and a notice shall be provided to the parties on the service list of this proceeding and any subsequent related proceedings:

a. Members of the Legislature, to the extent their participation is not incompatible with their legislative positions;
b. Government, including state and local agency representatives;
c. Utilities;
d. Investors;
e. The California Independent System Operator;
f. Consumer groups;
g. Environmental organizations;
h. Agricultural organizations;
i. Academics;
j. The business community;
k. The energy efficiency community;
l. The clean energy industry and/or associations; and
m. Other industry associations.

16. The administrators of the Electric Program Investment Charge (EPIC) (the California Energy Commission, Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company) shall file annual reports annually on February 28, 2013 through February 28, 2020 with the Director of the Commission's Energy Division. Annual reports shall be served on all parties in the most recent EPIC proceeding, all parties to the most recent

general rate case of each electricity utility named above, and each successful and unsuccessful applicant for an EPIC funding award during the previous calendar year.

17. Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), and Southern California Edison Company (SCE) shall no longer include technology demonstration and deployment expenditures in their general rate cases (GRCs) unless specifically directed by the Commission to do so in a proceeding related to the Electric Program Investment Charge (EPIC). The investment plans for the EPIC program shall become the primary vehicle for considering utility proposals for electric research, development, and deployment (RD&D) purposes. PG&E, SDG&E, and SCE may continue to request separate funding for electric RD&D in their energy efficiency and demand response budget applications. If PG&E, SDG&E, or SCE propose other such expenditures outside of the EPIC investment plans, the utility will face a burden to explain why such expenditures could not have been considered within the EPIC program. Any such requests should explain how they meet objectives and metrics of the EPIC program. Any such applications shall be filed on the service list of the most recent EPIC proceeding and the most recent GRC proceeding of the relevant utility.

18. Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company shall record the authorized 2012-2014 Electric Program Investment Charge (EPIC) budget to their EPIC balancing accounts, which will track actual program expenditures to the authorized budget, as authorized in Decision 11-12-035 and by this decision.

19. Rulemaking 11-10-003 is closed.

This order is effective today.

Dated May 24, 2012, at San Francisco, California.

MICHAEL R. PEEVEY
President
TIMOTHY ALAN SIMON
MICHEL PETER FLORIO
CATHERINE J.K. SANDOVAL
MARK J. FERRON
Commissioners