Decision **PROPOSED DECISION OF ALJ SMITH** **(Mailed 5/24/2013)**

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of the California Energy Commission for Approval of Electric Program Investment Charge Proposed 2012 through 2014 Triennial Investment Plan.	Application 12-11-001 (Filed November 1, 2012)
And Related Matters.	Application 12-11-002 Application 12-11-003 Application 12-11-004

DECISION ADDRESSING APPLICATIONS OF THE CALIFORNIA ENERGY COMMISSION, PACIFIC GAS AND ELECTRIC COMPANY, SAN DIEGO GAS & ELECTRIC COMPANY AND SOUTHERN CALIFORNIA EDISON COMPANY FOR APPROVAL OF THEIR TRIENNIAL INVESTMENT PLANS FOR THE ELECTRIC PROGRAM INVESTMENT CHARGE PROGRAM FOR THE YEARS 2012 THROUGH 2014

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DECISION ADDRESSING APPLICATIONS OF THE CALIFORNIA ENERGY COMMISSION, PACIFIC GAS AND ELECTRIC COMPANY, SAN DIEGO GAS & ELECTRIC COMPANY AND SOUTHERN CALIFORNIA EDISON COMPANY FOR APPROVAL OF THEIR TRIENNIAL INVESTMENT PLANS FOR THE ELECTRIC PROGRAM INVESTMENT CHARGE PROGRAM FOR THE YEARS 2012 THROUGH 2014

Summary

Decision (D.) 12-05-037 requires the Commission to conduct a public proceeding every three years to consider investment plans for coordinated public interest investment in clean energy technologies and approaches. These investments are funded by the Electric Program Investment Charge (EPIC) authorized by D.11-12-035. D.12-05-037 directed the California Energy Commission (CEC), San Diego Gas & Electric Company (SDG&E), Pacific Gas and Electric Company (PG&E), and Southern California Edison Company (SCE), as Administrators of the program, to present their investment plans for the period 2012 through 2014 for joint consideration by the Commission. This proceeding reviewed the Administrators' 2012-2014 investment plans for compliance with D.12-05-037 and this decision approves the investment plans, as modified.

D.12-05-037 adopted an interim annual EPIC Program budget $162.0 million per year beginning January 1, 2013 and ending December 31, 2020. This decision increases by $25 million per year in 2013 and 2014 the CEC budget adopted by D.12-05-037 for Section 2851(e)(3) funding for solar on new construction.

In addition, this decision modifies the Administrators' investment plans by adopting a list of metrics and potential areas of measurement for evaluating the investment plans, and by establishing a annual report outline to facilitate

consistent reporting by the Administrators on their investment plans and project results. This decision also modifies the investor-owned utility (IOU) Administrators' investment plans by clarifying, modifying or rejecting particular proposals, and by adopting contract and grant solicitation guidelines for the IOU Administrators to follow when soliciting competitive bids for EPIC contract work and evaluating any bids received. As modified, the proposals in each Investment Plan offer a reasonable probability of providing electricity ratepayer benefits by promoting greater reliability, lowering costs, and increasing safety.

In addition to addressing the Administrators' 2012-2014 investment plans for compliance with D.12-05-037, this decision resolves issues in connection with the implementation of the investment plans, including:

- Shifting of funds between funding categories/program areas;
- Carryover of funds to subsequent investment plan cycles;
- Use of EPIC funds for in-house projects;
- Transmittal of funds from the (Investor Owned Utilities) IOUs to the CEC; and
- Intellectual property rights.

1. Background

Rulemaking (R.) 11-10-003 was instituted to address funding and program issues related to the research, development, and demonstration (RD&D) portions of the now-expired public goods charge (PGC) funding.[1] Decision (D.) 11-12-035, in Phase 1 of R.11-10-003, established the Electric Program Investment Charge (EPIC) to fund public interest investments in applied research and development, technology demonstration and deployment, market support, and market facilitation of clean energy technologies and approaches for the benefit of electricity ratepayers of Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), and Southern California Edison Company (SCE), the three large investor-owned utilities (IOUs). D.11-12-035 ordered that the EPIC program be funded by a surcharge beginning January 1, 2012 on an interim basis, subject to refund, until the Commission issued its final decision at the conclusion of Phase 2 of R.11-10-003 on policy, programmatic, governance, and allocation issues.

D.12-05-037, in Phase 2 of R.11-10-003, determined that the EPIC funding would continue from 2012 through 2020, and established the framework for Commission oversight of the EPIC program. Pursuant to D.12-05-037, the Commission maintains overall policy oversight of the EPIC program, and program funds are administered under the oversight and control of the

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[1] Funding authorized in Public Utilities Code § 399.8, which governed the system benefits charge (also known as the public goods charge, or "PGC"), expired as of January 1, 2012. Public benefits provided by the expired funding are in the areas of energy efficiency, renewables, and RD&D programs.

Commission. D.12-05-037 designated the California Energy Commission (CEC), PG&E, SCE, and SDG&E as Administrators of the EPIC program (Administrators) and authorized the Administrators to operate within parameters set by the Commission and further delineated in each investment plan approved by the Commission.

D.12-05-037 requires the Commission to 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. D.12-05-037 directed the Administrators to present their investment plans for the period 2012 through 2014 for joint consideration by the Commission.

On November 1, 2012, the CEC, SDG&E, PG&E, and SCE filed Applications (A.) 12-11-001, A.12-11-002, A.12-11-003, and A.12-11-004, respectively, for approval of their proposed EPIC triennial investment plans for the period 2012 through 2014, pursuant to D.12-05-037. Each Administrator served its application on parties in R.11-10-003 and on parties in each of the IOU Administrator's pending and/or most recent general rate case proceeding. Notice of the applications appeared in the Commission's November 7, 2012 Daily Calendar.

On December 7, 2012, the Alliance for Retail Energy Markets (AReM) and the Marin Energy Authority (MEA) filed joint protests to A.12-11-002,

A.12-11-003, and A.12-11-004;[2] the Division of Ratepayer Advocates (DRA) filed protests to A.12-11-001, A.12-11-002, A.12-11-003, and A.12-11-004;[3] SDG&E filed a protest to A.12-11-001;[4] and the California Energy Storage Alliance (CESA) filed a response in support of A.12-11-001.[5]

A prehearing conference (PHC) was held on December 21, 2012, at which time the applications were consolidated into a single proceeding for joint consideration of the applications by the Commission. The January 7, 2013 scoping memo and ruling of Assigned Commissioner and Administrative Law Judge (ALJ) established the scope and schedule for the proceeding (Scoping Memo).

On January 14, 2013, the National Asian American Coalition, Ecumenical Center for Black Church Studies, and the Chinese American Institute for Empowerment (Joint Parties) filed a joint motion for party status, and on

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[2] AReM/MEA protested that the IOU applications may not comply with the prohibition in D.12-05-037 against using EPIC funds for electricity generation-only demonstration or deployment projects.

[3] DRA protested that the applications (1) do not sufficiently describe policy justifications for each proposal; (2) do not sufficiently address metrics and quantifiable ratepayer benefits; (3) do not provide any cost-effectiveness evaluation; and (4) lack details about how the Administrators will avoid duplicative projects.

[4] SDG&E protested that the CEC proposal to include $25 million per year for 2013 and 2014 to fund the New Solar Homes Partnership (NSHP) constitutes a state-wide rate increase that the CEC is not authorized to make.

[5] CESA supports the CEC application but recommends that the Commission consider energy storage more broadly within each stated objective of the CEC's investment plan, and that the CEC's investment plan be required to explicitly identify energy storage as a strategic asset.

January 18, 2013, The Utility Reform Network (TURN) filed a motion for party status. The February 5, 2013 ALJ ruling granted party status to Joint Parties and TURN.

On January 17, 2013, the Commission's Energy Division facilitated a workshop and investment plan meeting for parties to further refine the metrics for reporting investment plan results, and to provide parties an opportunity to clarify the investment plans and to help narrow issues requiring EHs. On January 25, 2013, the Administrators filed and served a report of the workshop and meeting.

The January 28, 2013 ALJ ruling[6] directed the Administrators to clarify and elaborate on vague or incomplete portions of their proposed triennial investment plans (January 28 Ruling). In addition, the ruling amended the proceeding schedule to permit parties to comment on the Administrators' responses to the ruling and to comment on the January 17, 2013 workshop and investment plan meeting.

On February 4, 2013, the Administrators filed responses to the January 28 Ruling. Also on February 4, 2013, SDG&E filed a supplement to correct errors in Sections 6.2.5 and 6.2.6 of its investment plan brought to SDG&E's attention during the January 17, 2013 workshop and investment plan meeting.

On March 8, 2013, Toyota Motors Engineering and Manufacturing North America (Toyota) filed and served a motion for party status, and on

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[6] *Administrative Law Judge's Ruling Amending Proceeding Schedule and Directing Applicants to Clarify Investment Plans* (January 28, 2013).

March 13, 2013, Toyota filed and served comments. On March 19, 2013, the California Building Industry Association (CBIA) filed and served a motion for party status, and on March 22, 2013, the Solar Energy Industries Association (SEIA) and the Vote Solar Initiative (VSI) separately filed motions for party status. The May 3, 2013 ALJ ruling granted Toyota party status and denied the CBIA, SEIA, and VSI motions for party status as untimely.

On February 11, 2013, AReM/MEA, CEC, ChargePoint, Inc., (ChargePoint),[7] DRA, Joint Parties, Natural Resources Defense Council (NRDC), SCE, and SDG&E filed comments on the Administrators' responses to the January 28 Ruling and comments on the January 17, 2013 workshop and investment plan meeting. On February 19, 2013, parties filed reply comments on the Administrators' responses to the January 28 Ruling and reply comments on the January 17 workshop and investment plan meeting.

In their February 11, 2013 joint comments, AReM/MEA asserted that there were disputed factual issues requiring EHs, including which of the IOUs' proposed projects are related to providing generation functions or generation benefits, and whether these projects comply with D.12-05-037. The February 22, 2013 ALJ ruling (February 22 Ruling) cancelled EHs and amended the briefing schedule after determining that EHs were not needed to address whether certain IOU proposals were generation-only projects prohibited by

[7] The February 11, 2013 request for party status by ChargePoint was granted by the March 11, 2013 ALJ ruling.

D.12-05-037.[8] This decision affirms the February 22 Ruling that EHs are not necessary.

2. Review of Investment Plans

D.12-05-037 requires the Administrators' triennial investment plans to include the information specified in Ordering Paragraph Nos. 12 and 13 of that decision. This proceeding reviews each triennial investment plan for compliance with the requirements of D.12-05-037, and determines whether the investment plan proposals offer a reasonable probability of providing the electricity ratepayer benefits of the type and extent intended by the proposals.[9] After a careful review and revision of investment plans, the Commission finds that the expenditures of EPIC funds approved by this decision are just and reasonable.

The mandatory and primary guiding principle for our review of the proposed expenditure of EPIC funds – and the key to our determination of whether the proposed expenditures are just and reasonable – is the Administrators' demonstration of the potential to produce electricity ratepayer benefits, defined as promoting greater reliability, lower costs, and increased safety.[10] Certain complementary guiding principles include societal benefits, greenhouse gas emissions mitigation and adaptation in the electricity sector, and

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[8] AReM/MEA asserted that PG&E Project Nos. 1, 5 and 7; SCE Proposals 6.1.2 and 6.3.1; and SDG&E's proposed demonstration of grid support functions violate the prohibition of IOUs using EPIC funds for electricity generation-only projects and that evidentiary hearings were necessary. These matters are addressed below.

[9] The Scoping Memo determined that the issues raised in the protests of AReM/MEA, CESA, DRA and SDG&E were within the scope of our review of the investment plans.

[10] D.12-05-037, Ordering Paragraph No. 2.

economic development,[11] but electricity ratepayer benefits are indispensible and must be the primary driver justifying the expenditure of EPIC funds. As discussed at length in this decision below, we have verified that each investment plan meets all the required elements in Ordering Paragraph Nos. 12 and 13 of D.12-05-037.

We have carefully scrutinized the substance of each of the Administrators' investment plans to ensure that ratepayer benefits are likely to be achieved and solicited comments on the same substantive review. After our initial close and critical review of the investment plans, the January 28 Ruling sought detailed clarification and elaboration on vague or incomplete proposals, projects, initiatives, and strategic funding areas (variously, "projects") in each of the Administrators' investment plans.

In response to the January 28 Ruling, each of the Administrators filed and served responses for projects specifically identified in the ruling. The responses provided, among other things: more specificity where descriptions in investment plans were vague or incomplete; demonstrations that projects will not produce duplicative efforts; mappings of projects to the electric system value chain; articulation of need for RD&D for the project, or identification of gaps in RD&D funding and how the proposed EPIC expenditure would fill the funding gaps; detailed breakdowns of budgets and justifications for proposed funding levels (preliminarily considered to be too high or too low); explanations of why particular projects are ready for demonstration; explanations of why certain

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[11] Ibid.

projects are the best approach to addressing an identified need or problem, and a comparison with alternatives; explanations of how EPIC funds will leverage existing RD&D; explanations of need for additional funding through EPIC for projects already receiving RD&D funding; specific examples of projects that might be funded; explanations of interface with IOU and California Independent System Operator (CAISO) operational tools and alignment with existing electric system regulations; explanations of stages of development and methods of moving projects to full scale deployment; tailored metrics for specific projects; and whether proposals will be chosen through competitive solicitation.

All parties were invited to file comments and reply comments on the Administrators' responses to the January 28 Ruling. Parties identified only a few projects that did not meet the requirements of D.12-05-037,[12] and we have used our own judgment to critique of the Administrators' responses in limited instances. We have carefully reviewed each of the investment plans as clarified and augmented by responses to the January 28 Ruling, considered comments, are satisfied with the high level of specificity of each project, and find that the investment plans, as modified herein, meet all the requirements of D.12-05-037. We also find that – with the few exceptions discussed further in this decision – each of the projects, proposals, initiatives, and strategic funding areas in the investment plans offer a reasonable probability of providing benefits to

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[12] MEA and AReM jointly objected to PG&E's Project 7 and Energy Storage Project No. 1, SCE's Projects 6.1.2 and 6.3.1, and SDG&E's proposals pertaining to the CAISO ancillary services market; SDG&E objected to the need for EPIC funding for the New Solar Homes Partnership; and the Joint Parties urged the exclusion of funding for electric vehicles. Each of these comments is addressed in this decision below.

electricity ratepayer by promoting greater reliability, lowering costs, and increasing safety. As such, the expenditures approved in this decision are just and reasonable.

2.1. Mapping of the planned investments to the electricity system value chain (including grid operations/market design, generation, transmission, distribution, and demand-side management)

Each of the IOU investment plans includes an accurate and adequate mapping of the planned investments to the electricity system value chain. The CEC's Initiative S4.1 was incorrectly mapped to demand side management instead of transmission/distribution, and the CEC corrected this mapping error in its response to the January 28 Ruling.[13] The CEC has correctly mapped Initiative S4.1 primarily to generation and secondarily to transmission/distribution. As modified by the CEC, the CEC Investment Plan includes an accurate and adequate mapping of the planned investments to the electricity system value chain.

2.2. Funds to be Devoted to Particular Program Areas

Each investment plan identifies the amount of funds to be devoted to particular funding categories/program areas (i.e., applied research and development, technology demonstration and deployment (TD&D), and market facilitation), as required by D.12-05-037.[14]

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[14] D.12-05-037, Ordering Paragraph No. 12.b.i.

Table E-1 of the CEC Investment Plan, reproduced below, summarizes proposed funding by year for applied research and development, technology demonstration and deployment, market facilitation, and the CEC's proposed funding for solar energy systems on new construction (§ 2851(e)(3) funding for solar on new construction) and to program administration.[15]

CEC Investment Plan Proposed Funding by Year ($ Millions)				
Funding Element	**2012**	**2013**	**2014**	**Total**
Applied Research and Development	48.7	55.0	55.0	158.7
Technology Demonstration and Deployment	39.8	45.0	45.0	129.8
Market Facilitation	13.3	15.0	15.0	43.3
Program Administration	11.3	12.8	12.8	36.9
Sub Total	**113.1**	**127.8**	**127.8**	**368.7**
Section 2851(e)(3) funding for solar on new construction [16]	0.0	25.0	25.0	50.0
Grand Total	**113.1**	**152.8**	**152.8**	**418.7**

D.12-05-037 authorizes the IOUs to administer proposals only in the single funding category/program area of TD&D, and allocates 20 percent of EPIC funds to the IOUs for this purpose.[17]

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[15] In addition, the CEC Investment Plan further breaks down its proposed funding by the strategic objectives within each funding category/program area. CEC Investment Plan at 35, 137, and 165.

[16] The CEC states that up to 10% ($2.5 million per year) of these funds may be used for administration of Section 2851(e)(3) funding for solar on new construction.

[17] Finding of Fact No. 8.

The PG&E 2012-2014 Investment Plan budget of $49.3 million includes approximately $43.2 million for TD&D activities and $4.9 million for program administration.[18] The SCE budget of approximately $37 million includes approximately $33.3 million for TD&D projects and $3.7 million for program administration.[19] The SDG&E budget of approximately $2.9 million per year includes approximately $2.64 million per year for TD&D projects and $299,200 per year for program administration.[20]

Our review of the Applications, Administrators' responses to the January 28 Ruling, and parties' comments has resulted in modifications to the Investment Plans. To maintain Investment Plan budgets as authorized, Administrators should re-allocate funds to authorized investment plan proposals that are in the same funding category/program area.[21]

D.12-05-037 adopted an interim annual EPIC program budget, allocated the budget among the Administrators, and required Administrators' investment plans to identify the amount of funds to be devoted to particular funding categories/program areas.[22] Upon review of the Investment Plans, we find it reasonable to adopt here the funding category (or program area) budgets

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[18] A.12-11-003, Attachment 1 at 101.

[19] A.12-11-004, Exhibit 1 at 11.

[20] A.12-11-002, Attachment A at 3.

[21] The CEC, SCE and SDG&E recommend that the existing authorized budget be maintained and the Administrators be permitted to reallocate funding within a funding area. No other party commented on this issue.

[22] Ordering Paragraph Nos. 7 and 12(b)(i).

approved on an interim basis in D.12-05-037, as modified to include in the CEC budget $25 million per year in 2013 and 2014 for Section 2851(e)(3) funding for solar on new construction. Our finding applies even if particular investment plan proposals are rejected, so as to permit the Administrators to reallocate funding for rejected proposals to other proposals within a funding area.

2.3. Investment Plan Funding Proposals and Modifications

As discussed, parties commented on the Administrators' responses to the January 28 Ruling, and we in our own judgment have assessed the Investment Plans and Administrators' responses. We have already found that, with a limited number of exceptions, all proposals, projects, initiatives, and strategic funding areas will benefit ratepayers and expenditures of EPIC funds on those projects are just and reasonable. A limited number of proposed projects and initiatives, however, require further discussion and consequent modification to Investment Plans. The following briefly addresses issues concerning the adequacy of particular funding proposals in the investment plans.

2.3.1. CEC EPIC Investment Plan

The following briefly addresses issues concerning the adequacy of particular funding proposals in the CEC Investment Plan.

2.3.1.1. CEC Initiative S2.2 - Develop Demand Response Technologies and Strategies to Allow Customers to Participate in Ancillary Service Markets and/or in Dynamic Price and Reliability-Based DR Programs and Market Transactions in Retail and Wholesale Markets

The January 28 Ruling questioned whether the CEC Initiative S2.2 inappropriately overlapped with or duplicated ongoing Demand Response (DR) efforts that are funded via general rate case proceedings, or IOU efforts to develop pilot projects to use DR to address renewable intermittency. In addition,

the January 28 Ruling asked how the proposed effort would be coordinated with the IOU efforts in the same areas. The CEC clarified that it intends to address technology areas that are "future" and do not involve existing product offerings, and will not overlap TD&D efforts by the IOUs. The Commission is satisfied with the CEC's provision of additional information and finds that Strategic Initiative S2.2 meets the requirements of D.12-05-037, will benefit ratepayers, and is just and reasonable.

2.3.1.2. Should the CEC's Investment Plan Explicitly Identify Energy Storage as a Strategic Asset That Can Further Each Stated Objective?

The CEC Investment Plan should not be modified to explicitly identify energy storage as a strategic asset or to more broadly consider energy storage within each stated objective of the CEC's Investment Plan. The CEC Investment Plan already adequately addresses energy storage technologies, applications, and deployment scenarios. Requiring explicit mention of energy storage in the CEC's proposed initiatives would inappropriately emphasize one potential solution over other promising solutions.[23]

2.3.1.3. Electric Vehicle Related Projects

The CEC's Investment Plan proposes applied research and development funding of advance technologies and strategies that optimize the benefits of plug-in electric vehicles to the electricity system (Strategic Objective S9). Toyota

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[23] In its response to A.12-11-001, CESA requests that the CEC's Investment Plan be required to explicitly identify energy storage as a strategic asset and that energy storage be more broadly considered within each stated objective of the CEC's Investment Plan. The CEC opposes CESA's request as unnecessary.

Motors Engineering and Manufacturing North America's (Toyota's) request that funding be used to support Plug-in Electric Vehicles (PEV) charging is a reasonable way to accomplish this goal. The CEC should use part of its budget for this activity to support this research. The CEC should work with the California Air Resources Board (CARB) to determine how they can collaborate on this topic, and the CARB may participate in the CEC's competitive solicitation process to potentially receive EPIC funds for the CARB's PEV household usage and charging research project. Toyota requests that the Commission support the CARB's PEV research project. Toyota states that the CARB's PEV research project will study the usage and charging behavior of different types of PEVs, and that this research may provide valuable information on how charging these vehicles impacts the grid, how pricing effects charging behavior, and how to accommodate future growth of the Plug-in Hybrid Electric Vehicle and Battery Electric Vehicle market in the most cost-effective manner.

Toyota's arguments are compelling. Better information on vehicle charging behavior can help the Commission design rates in general rate cases that encourage charging behavior that minimizes costs and supports the State's PEV adoption goals. The CARB's PEV project aligns with the goals of CEC's Strategic Objective S9: Advance technologies and strategies that optimize the benefits of PEVs to the electric system, and should be included as a project in this Strategic Objective.

SCE opposes Toyota's request to direct EPIC funds to the CARB. SCE argues that using EPIC funds to fund another state agency's activities is an unlawful tax and improper delegation of Commission authority. SCE states that the CARB should participate in the CEC's competitive solicitation process in order to receive EPIC funds.

Joint Parties recommend that EPIC funds not be used for electric vehicle (EV) related projects such as those proposed in the PG&E Investment Plan because, according to Joint Parties, these programs primarily benefit affluent homeowners. PG&E responds that EV projects are intended to make EVs more available to all income levels, and will advance State policies to increase the use of EVs to take advantage of their environmental and economic benefits.

We agree with PG&E and find this to be a reasonable outcome. Although many emerging technologies are initially available only to the affluent, technological advances and reduced costs resulting from economies of scale often cause those technologies to become available across a wide socioeconomic spectrum. Because better information can increase EV adoption and bring down costs – thus making EV technology available to more users – and because widespread EV adoption supports the state's environmental policy goals, we thus find that use of EPIC funds for EV-related projects is appropriate.

ChargePoint recommends that funding be made available to develop and demonstrate energy management capabilities for electric vehicle services equipment (EVSE) independent of utility Advanced Metering Infrastructure (AMI) networks and Smart Energy Profile 2 (SEP2).[24] ChargePoint recommends

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[24] Examples of projects recommended by Chargepoint include (1) support for EVSE capabilities to provide ancillary grid services such as grid frequency regulation using electric vehicle charging, by developing and demonstrating a prototype electric vehicle charging system that will perform grid frequency regulation, and (2) support EV "Customer-Side Electricity Storage Projects" such as energy storage for peak load reduction, energy storage for load management or demand response and energy storage for integration of renewable generation.

that CEC Objective S9.1 permit demonstration and deployment "around the AMI meter" to accelerate consumer benefits. According to ChargePoint, SEP2 should not be the only way of signaling demand response, frequency regulation, and time-of-use control to EVSE and, if SEP2 is not required, Smart Grid capabilities will move to market faster. The CEC Investment Plan does not preclude consideration of proposals such as those suggested by ChargePoint.

2.3.2. PG&E Investment Plan Funding Proposals

It is not necessary to complete R.10-12-007 before conducting Energy Storage (ES) technology TD&D projects because the issues raised by MEA are not part of the proceeding going forward.[25] The Energy Storage Rulemaking (R.) 10-12-007 has broadly defined energy storage systems as providing services that could be categorized as transmission, distribution, generation or demand-

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[25] MEA opposes the funding of PG&E proposals to demonstrate ES technology (Projects 1 through 4 in the PG&E Investment Plan). MEA asserts that it is not appropriate to fund ES projects until R.10-12-007 determines whether ES technology should be categorized as generation, distribution/transmission, or some hybrid, and develops a cost allocation methodology. According to MEA, depending upon the siting and functionality of an ES installation, the installation may enhance distribution services to the benefit of both bundled customers of load-serving entities (LSEs) such as PG&E and unbundled customers of LSEs like MEA, or the installation may only benefit bundled customers. MEA asserts that funding an ES installation that primarily benefits PG&E's generation customers would inappropriately benefit PG&E generation customers to the detriment of Community Choice Aggregator customers. MEA recommends that, if the R.10-12-007 finds a need for ES procurement targets for all LSEs, the IOUs should be prohibited from counting EPIC-funded ES projects toward their targets. PG&E responds that R.10-12-007 is addressing energy storage commercial deployment issues, not RD&D issues, and RD&D projects are not affected by R.10-12-007.

side. This reflects the definition of energy storage systems in § 2835(a)(3) that clearly go beyond generation-only:

> An "energy storage system" shall be cost effective and either reduce emissions of greenhouse gases, reduce demand for peak electrical generation, defer or substitute for an investment in generation, transmission, or distribution assets, or improve the reliable operation of the electrical transmission or distribution grid.

This definition was also adopted in D.12-08-016 at 28 (the Storage Phase 1 decision):

> "[T]his definition is technology-neutral and focuses on the attributes of energy storage and potential applications throughout the electric system."

A detailed listing of the variety of "end-uses" that storage provides is found in Table 1, page 23 of D.12-08-016, which shows that of 20 end uses for storage, only three are specific to generation.

2.3.2.1. PG&E Energy Storage Project No. 1

PG&E Project No. 1 is an energy storage demonstration project to test end-use applications. D.12-08-016 in proceeding R.10-12-007 adopted a definition of "energy storage systems" that is consistent with Public Utilities Code § 2835(a). The definition, among other things, provides that an energy storage system must "…either reduce emissions of greenhouse gases, reduce demand for peak electrical generation, defer or substitute for an investment in generation, transmission, or distribution assets, or improve the reliable operation of the electrical transmission or distribution grid."[26]

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[26] D.12-08-016 at 27-28.

Table 1 of D.12-08-016 shows that energy storage may be used in transmission, distribution, and applications other than generation. Projects which test end use applications in connection with energy storage are not "generation-only."

The January 28 Ruling questioned whether the proposed funding for Project No. 1 would be sufficient and asked PG&E to explain why the proposed level of funding is necessary. PG&E provided additional budget information demonstrating that the estimated funding should be sufficient to conduct the work described in the PG&E Investment Plan for this project.

PG&E provided further detail on Project No. 1 indicating that new technologies and approaches will be a part of this effort. According to PG&E, while the overall budget is low for deployment of new technologies, the actual final budgets for the projects will reflect the results obtained through the solicitation process and opportunities to collaborate with other program administrators and/or other funding sources in order to leverage available EPIC technology demonstration and deployment funds. PG&E has adequately responded to the questions raised in the January 28 Ruling, and the Commission finds that Project No. 1 will likely provide benefits to ratepayers. PG&E Project No. 1 should be approved.

MEA recommends that all load-serving entities (LSEs) should have the opportunity to test the storage use cases with EPIC funds to ensure competitive neutrality but MEA does not explain how this would be accomplished.

We agree that EPIC funds should not be used to allow PG&E to gain a competitive advantage over other LSEs and find this to be a reasonable outcome. Therefore, PG&E must make available any results, findings, data or computer

models that result from its EPIC projects, as discussed in Section 2.4.3 (Availability of EPIC Results).

2.3.2.2. Project No. 2: Demonstrate Use of Distributed Energy Storage for Transmission and Distribution Cost Reduction

MEA is concerned that PG&E will bid Project No. 2 resources into the CAISO to the benefit of PG&E's bundled customers, and recommends that all information related to improving storage bids to CAISO should be broadly disseminated and shared with all LSEs and other stakeholders. MEA further recommends that Project No. 2 not count towards any LSE targets that may be established. We agree that PG&E should not be permitted to use EPIC funds to meet any targets set by statute or Commission Decision that must be met by all LSEs.

If successful, PG&E Project No. 2 will demonstrate, among other things, the ability to use energy storage more broadly to delay capacity expansions while maintaining or improving reliability, reducing pressures on customer rates, and while providing services into new or expanded CAISO and utility markets. We find it reasonable to require that any information gained through such activities should be broadly shared with interested parties. To ensure that the potential for PG&E Project No. 2 to provide greater reliability and lower costs benefits all electricity ratepayers, all information related to improving storage bids to CAISO, including any results, findings, data or computer models, must be made available to all LSEs and other stakeholders, as discussed in Section 2.4.3 below.

It may be necessary to bid resources into CAISO markets in order to demonstrate PG&E Project No. 2. Any revenues gained through such activities must be reported in the EPIC annual reports.

2.3.2.3. Project No. 3: Demonstrate Priority Scenarios from the Energy Storage Framework

The January 28 Ruling questioned whether the proposed funding for Project No. 3 would be sufficient and asked PG&E to explain why the proposed level of funding is necessary. PG&E provided additional budget information demonstrating that the estimated funding should be sufficient to conduct the work described in PG&E's Investment Plan for this project.

PG&E provided further detail on Project No. 3 indicating that new technologies and approaches will be a part of this effort, and that collaboration with other program administrators and/or funding sources might allow the utility to leverage available funding.

Although there remains some uncertainty about the exact nature of PG&E Project No. 3 (which would be responsive to outcomes in the Energy Storage rulemaking (R.10-12-007)), it is prudent to fund this project. D.12-08-016 in the Energy Storage rulemaking adopted an Energy Storage Framework. However, the rulemaking remains open and a current phase is analyzing priority scenarios contained within the framework. PG&E envisions that Project No. 3 would test those scenarios once they are finalized. If Project No. 3 becomes unnecessary as a result of decisions in the R.10-12-007, any earmarked funds may be applied to other storage-related efforts. Conversely, if the Rulemaking orders additional storage deployment, PG&E would have an opportunity to seek sufficient funding to meet the requirements via an application or a competitive solicitation that would require Commission approval.

The issue of whether or not the Commission will establish any energy storage procurement target in R.10-12-007 is not a valid reason for disallowing EPIC funding for storage research projects. The Storage Rulemaking is not

contemplating authorizing specific levels of funding for utility storage projects, whether demonstration, commercial, or otherwise.

In addition, future procurement decisions made by the Commission, whether in the Storage Rulemaking or another procurement-related proceeding will benefit greatly from having more experience with a variety of storage technologies and applications, which PG&E's EPIC proposals will provide. Therefore, it is reasonable to allow PG&E to pursue energy storage research and demonstrations with the goal of providing valuable experience for specific applications prior to a more widespread deployment in the future.

MEA asserts that PG&E Project No. 3 is so vague that the Commission cannot determine whether PG&E Project 3 is generation-related. MEA recommends that, if approved, all LSEs be given the opportunity to implement similar projects. Although the EPIC program was not designed to provide research funding to all LSEs, we will ensure that research results from projects conducted by the utilities will benefit all LSEs. If successful, PG&E Project No. 3 will demonstrate, among other things, ways to remove existing barriers to deployment of energy storage systems with the potential to maintain or improve reliability and reduce pressures on customer rates. To ensure that the potential for PG&E Project No. 3 to improve reliability and lower costs benefits all electricity ratepayers, PG&E must make available any results, findings, data or computer models that result from PG&E Project No. 3.

2.3.2.4. Project No. 4: Expand Lab to Test and Pilot Facilities for New Energy Storage Systems

PG&E has withdrawn Project No. 4 from its Investment Plan.

DRA recommends that PG&E's Project No. 4 be denied because it does not propose funds for a specific project but instead provides a general funding source for future, unknown needs. MEA recommends that all information from

Project No. 4 related to improving storage bids to CAISO be broadly disseminated and shared with all LSEs and other stakeholders.

PG&E contends that Project No. 4 accurately identifies the type of laboratory testing, hardware and work that will be required to demonstrate energy storage technologies but has withdrawn Project No. 4 as a separate project. PG&E will instead integrate its scope and costs into other specific EPIC energy storage projects, either in this investment plan cycle or in subsequent cycles. Therefore, it is reasonable to accept PG&E's modification to remove Project No. 4 because other projects will be undertaken to demonstrate energy storage technologies.

2.3.2.5. Project No. 5: Demonstrate New Resource Forecast Methods to Better Predict Variable Output

PG&E Project No. 5 is a demonstration project to develop, deploy, and operate a mesoscale meteorological modeling system that would improve the accuracy of wind and solar forecasts for forward energy markets (hour-ahead, day-ahead, and earlier).[27] A project that demonstrates energy resource forecasting modeling is not a generation project.[28] Therefore, PG&E Project No. 5 is appropriate for EPIC funding and should be approved.

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[27] AReM/MEA argue that these functions are solely generation-related and therefore should not be eligible for EPIC funds.

[28] For example, PG&E Project No. 5 does not propose to add any new capacity or energy onto the grid nor does it propose to physically alter any generation specific elements of the grid.

The January 28 Ruling asked PG&E to describe the eligibility and selection criteria to be used to score bids for these projects. PG&E states that proposed Project No. 5 would use the National Oceanic and Atmospheric Administration's Meteorological Assimilation Data Ingest System database to drive a mesoscale Weather Research and Forecasting model with a much smaller and more accurate starting grid size for the short term (84-hour) time period than is currently available.

According to PG&E, the more accurate, smaller starting grid size will yield a more accurate short term forecast than the current CAISO forecast or the Clean Power Research forecast and more confidence in the forecast should result in lower overall costs. PG&E's states that the model also will provide detailed precipitation, pressure gradient, and wind forecasts that PG&E will use to improve hydroelectric, wind, and load forecasts.

PG&E describes some selection criteria. However, PG&E's description of the scoring criteria is merely a checklist of qualifications, and cost is not included as a criterion for Project No. 5. PG&E's response states that its cost estimate of $500,000 for Project No. 5 is based on a vendor proposal of approximately $200,000 in fixed costs and $100,000 per year in annual operating costs for three years. Although PG&E has based its cost estimate for this project on a proposal from a specific vendor, PG&E is still required to put this project out for

competitive bid pursuant to D. 12-05-037, unless it documents to the Commission its reasons for relying on a sole-source solicitation.[29]

It is not clear whether PG&E intends to make the outputs from proposed modeling system available to others. However, in order to ensure fairness and to prevent PG&E from gaining a competitive advantage, PG&E should make the meteorological modeling system available to other LSEs and to the public. Therefore, the information regarding weather forecasting and modeling to predict variable resource output in PG&E Project No. 5 must be made available to all LSEs so that all LSEs can adjust their load-forecasting accordingly.[30]

2.3.2.6. Project No. 6: Demonstrate Communication Systems Allowing the CAISO to Utilize Available Renewable Generation Flexibility

Project No. 6 would demonstrate the use of accepted communications protocols to allow the CAISO to send an operating signal to reduce output under specified conditions, as allowed by contracts. If successful the benefits from this project would be preventing future reliability issues and reducing costs of over - generation events. Project No. 6 is not a generation specific project, as it pertains to grid operation and market design elements of research. Therefore, PG&E Project No. 6 is appropriate for EPIC funding and should be approved.

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[29] Finding of Fact 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."

[30] MEA recommends that the information acquired via PG&E Project No. 5 regarding weather forecasting and modeling to predict variable resource output be shared with all other LSEs in a way that provides actionable data so that all LSEs can adjust their load-forecasting accordingly.

MEA requests that the Commission explicitly require that Project No. 6 be for the benefit of the CAISO and that all LSEs be treated equally and equitably. We agree that all LSEs should be treated equally and equitably. To the extent that Project No. 6 provides information that benefits PG&E, we find it reasonable that the information should be shared with LSEs.

2.3.2.7. Project No. 7: Demonstrate Systems to Ramp Existing Gas-Fired Generation More Quickly to Adapt to Changes in Variable Energy Resources Output

PG&E has withdrawn Project No. 7 from its Investment Plan, and it is reasonable to accept PG&E's modification to remove Project No. 7. AReM/MEA assert that PG&E Project No. 7 is a generation-only project prohibited by D.12-05-037.

PG&E responds that D.12-05-037 does not prohibit IOU projects that demonstrate or pilot new technologies that would reduce the need for new generation or otherwise reduce the procurement of energy or capacity, but only prohibits IOU projects that demonstrate or pilot technologies for the generation of electricity. However, PG&E agrees to withdraw Project No. 7 without prejudice to the CEC's sponsorship of a similar project (the CEC's Initiative S13.3). PG&E will be a potential applicant to competitive solicitations for CEC Initiative S13.3.

2.3.2.8. Project No. 14: Demonstrate Next Generation Smart Meter Telecommunications Network Functionalities

The PG&E Investment Plan should be modified to remove Project No. 14. PG&E does not adequately demonstrate that this project will promote greater reliability, lower costs or increased safety, and the proposal does not present a compelling need. The proposal describes a problem that may emerge, but does

not present a likely scenario where the capabilities of the AMI network currently being deployed are inadequate.[31]

2.3.3. SCE EPIC Investment Plan Funding Proposals

2.3.3.1. SCE Project 6.1.2 and Project 6.3.1

AReM/MEA assert that SCE's Proposal 6.1.2 (Demonstrate Grid-Scale Storage Strategies and Technologies) and Proposal 6.3.1 (Leveraging the Smart Meter Platform to Drive Customer Service Excellence) include prohibited generation-related projects.[32] IOU administrators are prohibited from conducting generation-only demonstration projects.[33]

SCE Proposal 6.1.2 is an energy storage project and, as discussed above, energy storage-related projects are not "generation-only." Therefore, SCE Proposal 6.1.2 is appropriate for EPIC funding and should be approved.

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[31] The proposed budget of $7 million is for two projects in this program objective (an average of $3.53 million per project). The January 28 Ruling questioned the amount of proposed funding, given that the proposal does not directly address a current problem.

[32] According to AReM/MEA, SCE Project 6.1.2 provides the potential for "generation benefits" and should not be eligible for EPIC funds. AReM/MEA also assert that SCE Project 6.3.1 includes $124,000 to evaluate telemetry to bid ancillary services into the CAISO market and should not be eligible for EPIC funds. SCE states that these projects meet the objective to develop or further new supply side resources by demonstrating novel strategies and technologies that facilitate their safe and reliable integration into the grid. SCE responds that these are not generation projects because, according to SCE, Proposal 6.1.2 evaluates energy storage on the electric grid and Proposal 6.3.1 is a demand response project.

[33] D.12-05-037, Ordering Paragraph No. 13.

SCE Proposal 6.3.1 includes a project to evaluate telemetry equipment for ancillary services at residential endpoints.[34] Ancillary services are a transmission reliability function, and are considered non-energy-commodity products. As initially defined in D.02-10-062 and later in the Commission's Procurement Rulebook (2010), ancillary services are classified as services needed to assure system reliability, including regulation service, spinning reserve, non-spinning reserve, and replacement reserve and are procured through daily markets. Therefore, SCE Proposal 6.3.1 is appropriate for EPIC funding and should be approved.

2.3.4. SDG&E EPIC Investment Plan Funding Proposals

The SDG&E Investment Plan should be modified to reflect the changes to Sections 6.2.5 and 6.2.6 shown in SDG&E's February 4, 2013 supplement.

On February 4, 2013, SDG&E filed a supplement to correct errors in Sections 6.2.5 and 6.2.6 of its Investment Plan brought to SDG&E's attention during the January 17, 2013 workshop and investment plan meeting. According to SDG&E, Section 6.2.5 incorrectly stated that SDG&E would primarily conduct the project in-house but has now been corrected to discuss the use of a contractor and the contractor solicitation process. SDG&E states that Section 6.2.6 failed to discuss how SDG&E would handle intellectual property (IP) issues for IP created jointly by SDG&E and a contractor. The February 4, 2013 revisions to Sections 6.2.5 and 6.2.6 of the SDG&E Investment Plan are reasonable and should be adopted.

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[34] February 4, 2013 SCE Response to the Administrative Law Judge's Ruling of January 28, 2013 at 7.

2.3.4.1. SDG&E Project 6.4.1

AReM/MEA assert that SDG&E's proposed demonstration of grid support functions are ancillary services and generation functions that are prohibited from receiving EPIC funding. SDG&E responds that the distributed energy resources (DER) grid support functions that it proposes are specifically designed to demonstrate the non-generation functions of DER. As discussed above, ancillary services are a transmission reliability function. Therefore, SDG&E Project 6.4.1 is appropriate for EPIC funding and should be approved.

2.4. Policy Justification for the Proposed Funding Allocation

As augmented by the Administrators' responses to the January 28 Ruling, each Investment Plan sufficiently identifies the policy justification for the proposed funding allocation because D.12-05-037 permits the IOU Administrators to only use EPIC funds for TD&D programs and for the administration of those programs, and the IOU Administrator Investment Plans allocate funds only to TD&D programs and the administration of those programs.

However, the IOUs assert that the CEC's proposal for Section 2851(e)(3) funding of solar on new construction lacks sufficient policy justification. This issue is addressed below.

2.4.1. Funding for Section 2851(e)(3) Solar Energy Systems on New Construction

The CEC's proposal to allocate $25.0 million per year in 2013 and 2014 for funding for Section 2851(e)(3) solar on new construction should be approved because it is sufficiently justified, and is consistent with D.12-05-037 and statute.

The CEC Investment Plan states that funding for the New Solar Homes Partnership (NSHP) is justified because it decreases demand for electricity by

requiring projects to exceed energy efficiency requirements by at least 15 percent, and thereby supports the State's loading order for meeting electricity needs. The CEC Investment Plan further states that the NSHP also (1) supports the State's goal of overcoming barriers to the use of plug-in hybrid electric vehicles and the goal to reduce greenhouse gas emissions, and (2) advances the principles articulated in § 740.1 and § 8360 by providing market support and promoting the purchase and installation of solar energy systems, and encouraging the development and improvement of new and existing solar technologies. According to the CEC Investment Plan, the NSHP is the only program in IOU service territories that provides incentives for installing solar photovoltaic systems on new residential construction that partially offset solar energy system costs, making solar energy systems cost competitive with conventional forms of electricity and affordable for more consumers. Thus, the CEC Investment Plan provides sufficient policy justification for the CEC's NSHP proposal.

In addition to the policy justification set forth in the CEC Investment Plan, D.12-05-037 acknowledged the importance of the NSHP to the California Solar Initiative (CSI) and expressed the Commission's desire to see the NSHP continued.[35]

The IOUs assert that the NSHP is sufficiently funded. In particular, PG&E and SDG&E assert that Governor Brown's budget bill includes the repayment by the end of 2014 of the approximately $96.5 million in loans to the Renewable Resource Trust Fund (RRTF), and that this repayment (plus the NSHP's current

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[35] *Id.* at 56–57.

cash on hand) is sufficient to address the NSHP's financial needs through fiscal year 2014 and possibly through the first triennial EPIC budget cycle.

According to SCE, there is sufficient NSHP funding for at least this year because the Legislature has already repaid some of the previously diverted funds, and it would be unjust and unreasonable to collect additional revenues from customers for programs that are sufficiently funded. PG&E recommends that the CEC's NSHP funding proposal be deferred, without prejudice, until after the 2014 State budget has been enacted and the anticipated funding needs of the NSHP are more certain.

The CEC responds that even with the return of approximately $96.5 million that the Legislature borrowed from the RRTF, the NSHP will still lack approximately $130-150 million of its $400 million budget.

The IOUs characterize the CEC's proposed allocation of funds to the NSHP as a "rate increase." However, as explained in D.11-12-035 and D.13-04-030,[36] EPIC is not a rate but a surcharge, and an increase in the EPIC budget is not a "rate increase." Moreover, as D.12-05-037 explained:

> "The EPIC annual budget authorized in this decision is expressly designed to represent neither an increase nor a decrease compared to prior expenditure levels. […] 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

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[36] *See* D.11-12-035 at OP 2; and D.13-04-030 (*Order Modifying Decision (D.) 12-05-037, and Denying Rehearing of Decision, As Modified*), at 5, n. 3.

> reauthorize additional expenditures on the NSHP as part of EPIC." [37]

D.12-05-037 provides that (1) the amounts collected through surcharges for EPIC program funding are the preliminary budgets for the investment plans; (2) the program administrators may propose to adjust these amounts in each investment plan; and (3) the Commission may modify the exact budgets for each year with the adoption of the investment plans.[38] D.12-05-037 ordered PG&E, SDG&E, and SCE to collect $162.0 million annually in EPIC funding beginning January 1, 2013 and continuing through December 31, 2020, unless otherwise ordered or adjusted in the future by the Commission.[39]

In addition, D.12-05-037 discussed constraints to funding the NSHP imposed by the then-effective § 2851(e), and recommended changes to § 2851(e) to allow EPIC funds to be used for the NSHP.[40] The Legislature acted shortly after D.12-05-037 issued, and, in June 2012, amended § 2851(e) to remove barriers to funding the NSHP.[41] Thus, approval of the CEC's proposal to include $25.0 million in 2013 and 2014 for funding for § 2851(e)(3) solar on new construction is consistent with D.12-05-037 and statute.

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[37] D.12-05-037 at 87.

[38] D.12-05-037 (Finding of Fact Nos. 31 and 32).

[39] Ordering Paragraph No. 7.

[40] *Id.* at 56-58.

[41] Senate Bill (SB) 1018 (2011-2012 Reg. Sess.) (SB 1018).

The 2012 modifications to § 2851(e)(3) were intended to allow the use of EPIC monies to fund § 2851(e)(3) solar on new construction.[42] All EPIC monies must be deposited in the Electric Program Investment Charge Fund established by Pub. Resources Code § 25711. As noted, the CEC's New Solar Homes Program was funded through the RRTF. SB 1018, however, also provides for the elimination of all accounts in the RRTF with the exception of the Emerging Renewable Resources Account, which would itself be subject to wind down in order to satisfy commitments made prior to the enactment of SB 1018.[43] It

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[42] *See* SB 1018, Legislative Counsel's Digest, ¶ 34.

[43] SB 1018 revised Pub. Resources Code § 25751, which now provides:

> (a) The Renewable Resource Trust Fund is hereby created in the State Treasury.
>
> (b) The Emerging Renewable Resources Account is hereby established within the Renewable Resources Trust Fund. Notwithstanding Section 13340 of the Government Code, the moneys in the account are hereby continuously appropriated to the commission without regard to fiscal years for the following purposes:
>
> (1) To close out the award of incentives for emerging technologies in accordance with former Section 25744, as this law existed prior to the enactment of the Budget Act of 2012, for which applications had been approved before the enactment of the Budget Act of 2012.
>
> (2) To close out consumer education activities in accordance with former Section 25746, as this law existed prior to the enactment of the Budget Act of 2012.
>
> (c) The Controller shall provide to the commission funds pursuant to the continuous appropriation in, and for purposes specified in, subdivision (b).

Footnote continued on next page

appears, therefore, that, while the Legislature clearly intended to allow, if the Commission so approves, for EPIC monies to fund § 2851(e)(3)'s programs supporting solar on new construction, such EPIC monies cannot be deposited in the RRTF. We see no statutory requirement that the NSHP be funded through the RRTF, nor do we find a statutory prohibition on funding the program formally entitled the "New Solar Homes Partnership" through the EPIC Fund. We find it both reasonable and in clear furtherance of Legislative intent to approve the CEC's request for an additional $25 million in EPIC charges per year for program years 2013 and 2014 in order to fund § 2851(e)(3) solar on new construction, whether such § 2851(e)(3) program be called the NSHP or another name.

D.12-05-037 provides that the Commission may modify the exact budgets for each year with the adoption of the investment plans. Pursuant to D.12-05-037 and pursuant to the 2012 modifications to § 2851(e)(3) and modifications to the Public Resources Code, this decision modifies the EPIC budget to reflect approval of the CEC's § 2851(e)(3) solar on new construction funding (or NSHP) proposal. The budget is set at $187.0 million annually for the years 2013 and 2014. Beginning January 1, 2015 and continuing through December 31, 2020, the

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(d) The Controller shall provide to the commission moneys from the fund sufficient to satisfy all contract and grant awards that were made by the commission pursuant to former Sections 25744 and 25746, and Chapter 8.8 (commencing with Section 25780), as these laws existed prior to the enactment of the Budget Act of 2012.

EPIC budget will be $162.0 million unless otherwise ordered or adjusted in the future by the Commission.

2.4.2. Other Issues

2.4.2.1. Electric Vehicle Pilot Projects

ChargePoint requests that EPIC funding be made available for pilot projects related to the Electric Vehicle proceeding (R.09-08-009). ChargePoint recommends three types of projects for EPIC funding: ancillary services from electric vehicle charging, customer side storage projects that utilize PEVs, and submetering pilot projects. The ancillary services pilot and PEV storage pilot are already represented in the proposed pilots, for instance in PG&E's Program Objective 3. These PEV-related projects are appropriate for EPIC funding.

ChargePoint asserts EPIC funds should be used to support the sub-metering pilot that has been proposed in R.09-08-009. The March 25, 2013 ruling in that proceeding proposed a two phase pilot of sub-metering. PG&E already includes this project in its Investment Plan under Program Objective 2, and PG&E requested funding to demonstrate subtractive billing for electric vehicles. This project has merit and should be supported by EPIC funds.

The proposed pilot in R.09-08-009 calls for each of the IOUs to do a sub-metering pilot. The IOUs should work together on a single sub-metering pilot that could test different sub-metering scenarios in different IOU territories. The scope of this pilot and Commission oversight will be determined in R.09-08-009, and each of the IOUs should apply a portion of their EPIC funding to support this collaborative sub-metering pilot.

2.4.2.2. IOUs May Not Use EPIC Funds for Energy Efficiency Projects or Market Facilitation Activities

This decision determines that the IOU Administrators should not use EPIC funds for the energy efficiency projects or market facilitation activities recommended by the Joint Parties.

Joint Parties recommend that the IOU Administrators' Investment Plans support light-emitting diode technology, energy efficiency retrofitting of multifamily housing and other energy efficient technologies that benefit ratepayers, regardless of income. Joint Parties further recommend that Administrators develop "green" jobs in economically distressed areas by providing technical and other assistance to small minority-owned, women-owned, and disabled veteran-owned businesses so they may successfully bid for contracts. In addition, Joint Parties recommend that the IOU Administrators fund distributed generation projects that benefit renters in addition to homeowners, and coordinate with the CEC's market facilitation efforts.

SDG&E opposes Joint Parties recommendations, stating that the IOU Administrators may use EPIC only for TD&D programs and may not use EPIC funds for the energy efficiency and market facilitation projects recommended by Joint Parties. SDG&E states that many of the Joint Parties' proposed projects are already underway through energy efficiency program efforts and it would be inappropriately duplicative to use EPIC funds to support such projects. We agree with SDG&E and find this to be a reasonable outcome.

2.4.3. Availability of EPIC Results

Research undertaken as part of the EPIC program is intended to benefit not only the customers of the three IOUs but all ratepayers who fund the

program. As such, the Administrators should make available all data, findings, results, computer models and other products developed through the EPIC program, consistent with the treatment of IP discussed below. If there are valid reasons why data, findings, results, computer models and other products should not be made publicly available, the Administrators should make them available to other LSEs under non-disclosure agreements.

Web links are an acceptable method for the Administrators to make available raw data or models developed as part of the project. The Administrators may jointly establish a secure encrypted website where project data, results, findings and models are available to LSEs and other stakeholders via passcode.

In addition, each Administrator must include with its EPIC annual report a final report on every project completed during the previous year. The final project report must provide a comprehensive description of the project, present detailed findings and results, including a summary of all data collected and how the data may be accessed.

2.5. The Type of Funding Mechanisms to be Used

Each Investment Plan adequately identifies the type of funding mechanism to be used for each investment area. The CEC Investment Plan states that the CEC will use either grant agreements or contracts that will be awarded through a competitive process. The SCE and SDG&E Investment Plans state that they will use a combination of pay-for-performance contracts and/or in-house labor to

execute their proposed TD&D programs.[44] The PG&E Investment Plan states that PG&E generally will use standard time-and-materials contracts like those used in the past for similar RD&D projects and does not plan to utilize loans or "pay-for-performance" contracts for EPIC projects.[45] This decision finds these funding mechanisms reasonable.

2.6. Competitive Bidding and Sole Source Contracts

D.12-05-037 found that 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. As D.12-05-037 states, competitive bidding is the preferred selection process of choice in all areas. However, D.12-05-037 permits the Administrators to propose in their investment plans a limited authorization for non-competitive bidding for particular purposes.

The Administrators have identified circumstances where competitive bidding is not possible or desirable, and the Investment Plans adequately address the use of sole source contracts. However, as discussed below, this decision requires the Administrators to report the use of non-competitive awards in their annual reports to the Commission.

The CEC Investment Plan provides that non-competitive awards may be made in selective circumstances where interagency agreements or sole source

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[44] SCE Investment Plan at 7, 54. SDG&E Investment Plan at 23, 28, 32, 40, 45, and SDG&E February 4, 2013 Supplemental Filing at 1.

[45] PG&E Investment Plan at 104-105.

agreements can be justified and where such agreements comply with the State Contracting Manual, the State Contracts Code, and the Public Resources Code.[46]

The PG&E Investment Plan states that PG&E may employ sole source procurement procedures where a unique or specific expertise or capability is required for an individual project, and PG&E will document and make available to the Commission its reasons for doing so.[47]

The SCE Investment Plan states that SCE will follow its established procurement policies which allow sole-source contracting in certain limited situations. SCE states that its pay-for-performance contracts may be for relatively minor items, such as equipment necessary to perform tests, and a

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[46] The CEC Investment Plan states that the State Contracting Manual allows contracts with the University of California, California State University, national laboratories, and other public agencies without competition. The CEC may also enter into an interagency agreement with another state agency to implement a specific program or project, or match funding to a federal grant. As a result, the CEC anticipates but cannot identify at this time the limited circumstances where interagency agreements or sole source agreements would be justified. In addition, the CEC states that a competitive process may not be conducive to a follow on agreement to a successful project. There may also be situations where the CEC can enter into an interagency/sole source agreement with a research center or other entity if the competitive solicitation process produces no winning bidders.

[47] PG&E states that the IOUs need the flexibility to sole source in situations where the new technologies being demonstrated are unique and available only from a single vendor or supplier. PG&E further states that the IOUs need flexibility to use preferred vendors and contractors for the specific piloting and demonstration of new technologies that may later be scaled up for system-wide use because the IOUs have long-standing relationships with certain vendors familiar with the IOUs' systems and provide discounted services. PG&E Investment Plan at 104 - 105.

regulatory approval process for pay-for-performance contracts would impede the IOUs' ability to successfully complete EPIC projects.[48]

SDG&E states that it will conduct competitive solicitations in accordance with its corporate procurement policies and practices, which, among other things, permits sole sourcing only for economic or pragmatic reasons.[49]

DRA recommends that the Commission require sole-source contracts to be properly justified and used on a very limited basis, and that the Commission provide guidance or require the Administrators to propose standards for pursuing sole-source contracts. PG&E responds that the IOU Administrators need the flexibility to sole-source where the new technologies are unique and available only from a single vendor or supplier in order to effectively pilot and demonstrate new technologies.

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[48] SCE recommends that sole sourcing be permitted when (1) material or services required are available from only one responsible source and no other supplier will satisfy utility requirements; (2) bidding is cost prohibitive relative to the cost of materials or services needed; (3) an opportunity exists (under an established ceiling amount) to develop Diverse Business Enterprise suppliers; (4) equipment, materials, or services are obtained for trial testing, research, or experimental work; or (5) the procurement provides special discounts, rates, or terms and condition (e.g., cost share) that are not available in the market under normal competitive conditions.

[49] The SDG&E Investment Plan states that, consistent with its existing corporate procurement practices SDG&E plans on sole sourcing for its EPIC programs only in rare situations such as when there is only one provider in the industry capable of performing the required work or when the work to be completed is of such a small scale that the cost of a competitive solicitation would outweigh the cost of the contract, and will provide a detailed and justification when doing so. SDG&E states that contracts for less than $75,000, for example, may be sole sourced because the cost of a competitive bid process would outweigh the contract cost.

According to PG&E, the IOU Administrators have long-standing relationships with preferred vendors that are intimately familiar with the utilities' systems and that provide discounted services, and need the flexibility to use such vendors for piloting and demonstrating new technologies that may later be scaled up to system use.

The Administrators' Investment Plans adequately describe situations where non-competitive contracts may be justified. However, as discussed below, the project-specific information included with Administrators' annual reports should be modified to include the justification for each EPIC-funded non-competitively awarded contract.

2.7. Competitive Solicitations Scoring Criteria/Minimum Scores

The IOU Administrators collaboratively developed proposed guidelines and principles for EPIC contract and grant solicitations, metrics, and reporting.[50]

We adopt the IOUs' proposed contract and grant solicitation guidelines and contracting process with modifications, and the IOU Administrators must follow these guidelines as modified when soliciting competitive bids for EPIC contract work and evaluating any bids received. The adopted guidelines for IOU

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[50] The IOU Administrators agree to follow the contract and grant solicitations guidelines and contracting process when soliciting competitive bids for EPIC contract work, and evaluating any bids received. The EPIC contract and grant solicitations guidelines state that each IOU will continue to follow its individual corporate procurement, supply management and affiliate compliance rules, regulations, policies and initiatives. See Appendices A, B, and C to comments filed on February 11, 2013 by each IOU Administrator.

EPIC contract and grant solicitations – with our modifications - are attached to this decision as Attachment 3.

The IOU Administrators are not required to establish a minimum score threshold but must include in the IOU EPIC annual reports project-level information on the number of bidders passing the initial pass/fail screening for that project and, of those, the ordinal rank of the selected bidder.[51] If the selected bidder was not the highest scoring bidder, the IOU EPIC annual reports project template must explain why a lower scoring bidder was selected.

The CEC Investment Plan provides that proposals that pass an initial screening will be evaluated by a technical scoring committee and must typically score a minimum of 70 percent of all points awarded.

DRA recommends that Administrators be required to institute scoring criteria for project selections with a minimum score threshold similar to that used by the CEC.

SDG&E states that the initial pass/fail step of the IOU's proposed draft solicitation process serves as a "minimum threshold" because it eliminates unresponsive potential contractors. SCE contends that establishing a minimum score threshold would be inconsistent with § 740.1.

This decision adopts the proposed competitive solicitation process as reasonable because it will eliminate unresponsive bidders while permitting consideration of otherwise worthy projects. This decision also concludes that a separate approval process should not be required for contracts or grants that are

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[51] See sample template in Attachment 6.

not awarded through a competitive bidding process. However, as discussed above, Administrators must justify any contracts or grants exempted from competitive bidding in their annual reports. The Administrators' use of non-competitive awards should be reviewed in the next triennial investment plan cycle.

This decision modifies the Administrators' jointly prepared "IOU EPIC Administrator Contractor Solicitation Process and Evaluation Guidelines" as shown in Attachment 3 in order to ensure that the ratepayer benefits mandated by the Commission's EPIC decisions and this decision are realized through the solicitation process. The "Factors Specific to the Project Work Needed" in Round Two of the solicitation process include benefits to ratepayers and the State. Benefits must accrue to ratepayers, and if benefits extend more broadly to the State, then the proposal remains acceptable. If, however, benefits are not targeted toward ratepayers but instead provide broad benefits to the State, then the proposal is not consistent with the fundamental and mandatory EPIC principle that projects provide benefits targeted toward ratepayers. Accordingly, item II.b.viii of Attachment 3 is modified as follows:

> viii. Benefits to Ratepayers and the State: the bidder describes benefits for IOU ratepayers ~~or~~and, if applicable, for the State expected from the completed contracted work including, but not limited to, GHG emission reductions, additional jobs, and improved worker or public safety.

In addition, the confidentiality provisions contained in last paragraph of the IOU EPIC Administrator Contractor Solicitation Process and Evaluation Guidelines are modified to ensure the Commission and its staff have access to confidential bidder information, if necessary, and to remove confidential

protection of bidder information at the conclusion of the EPIC Program on December 31, 2020.

2.8. In-House Projects

There may be instances where utility employees must work in collaboration with outside contractors and vendors to implement TD&D projects on the utilities' operating systems (i.e., "in-house" work). The IOU Administrators may use EPIC funds for costs in connection with utility personnel working in-house in collaboration with an EPIC funded contractor.

Limits should not be set at this time on how much funding may be used for in-house work. However, the IOU Administrators must track EPIC funds spent for in-house activities and separately report in their EPIC annual reports the dollars spent for in-house activities from amounts paid for contract work and administrative activities. This information will provide a basis for determining in the next triennial investment plan cycle whether limitations on EPIC fund expenditures for in-house work should be established.

We clarify the difference between "program administration" and "in-house" activities. D.12-05-037 at 66 specifies that "administrative costs" include,

> "[S]taffing 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."

Administrative costs do not include in-house costs that may be incurred as a result of an IOU's direct involvement and participation in authorized TD&D projects. Utility personnel must necessarily be involved in coordinating the interface between this contract work and utility systems and processes to implement TD&D projects on the utilities' operating systems. This coordination would normally be performed by technical personnel and not managerial or administrative staff. Direct and necessary involvement and participation of utility personnel in authorized EPIC TD&D projects go beyond "program administration" described above, and the costs for this in-house activity should not be included in the administrative costs authorized by D.12-05-037. However, EPIC funds may not be used for in-house activities where the utility is conducting all of the work using its own staff and facilities.

DRA contends that, except for administrative costs capped at ten percent, D.12-05-037 does not allow the Administrators to use EPIC funds for internal uses. According to DRA, permitting Administrators to use EPIC funds for internal uses is inconsistent with their roles as program Administrators. DRA recommends that the Commission deny any request for an Administrator's internal use that is beyond the ten percent administrative cap provided for in D.12-05-037.

The IOU Administrators argue that they should not be prohibited from using EPIC funds for collaborating between in-house employees and outside contractors. According to the IOU Administrators, utility personnel must work with outside contractors and vendors to implement TD&D projects on the utilities' operating systems, and these activities go beyond "program administration" covered by the ten percent administrative costs.

SCE states that a prohibition on in-house work would force Administrators to issue all funds as grants and would nullify the Commission's approval of pay-for-performance contracts. PG&E and SDG&E state that staff involvement in demonstration projects is necessary to ensure that the tested integration is done properly and safely. SDG&E contends that it would be inefficient and expensive to use only outside contractors to conduct demonstrations that do not have a working knowledge of SDG&E's smart grid.

This decision concludes that EPIC funds may be used for in-house work because there may be instances where utility employees must work in collaboration with outside contractors and vendors to implement TD&D projects on the utilities' operating systems.

2.9. Funding Research Institutes

This decision finds that, if the competitive solicitation process produces no winning bidders, EPIC funds may be used to fund external research institutes on a non-competitive basis.

DRA is concerned that the CEC will scope projects so that it may sole-source contract those projects with a preselected research institution or other entity. DRA recommends that the Commission prohibit EPIC Administrators from colluding with potential providers to scope a project specifically for that provider. DRA also recommends that the Commission prohibit EPIC Administrators from using EPIC funds to establish or fund new research or other institutes.

The CEC states any research center, along with other eligible entities, can submit proposals and compete for funds in response to a competitive solicitation. The CEC Investment Plan states that, after a solicitation has been posted, CEC staff will hold a publicly noticed workshop to review the solicitation purpose,

requirements, eligibility, and research topics with interested parties to (1) ensure that each solicitation is informed by the most recent advances in clean energy technologies or strategies to maximize benefits to ratepayers, (2) increase awareness of the solicitation and minimize the potential of receiving no bids.

If the competitive solicitation process produces no winning bidders, the CEC may enter into an interagency/sole source agreement with a research center or other entity to do the research work. In addition, the CEC may conduct a competitive solicitation among research centers to select those that provide unique research to address specific research projects for initiatives identified in the CEC Investment Plan. The resulting contracts will have fixed work scope with specific tasks, deliverables, and a maximum term. The CEC anticipates that an existing research center or group of research centers would be funded through this process because it is unlikely that a new research center will meet these criteria.

2.10. Eligibility Criteria for Award of Funds in Particular Areas

Each Investment Plan sufficiently identifies the eligibility criteria for award of funds in particular areas.

The CEC Investment Plan provides that competitive solicitations will be open to all public and private entities and individuals interested in electricity-related applied research and development, technology demonstration and deployment, and market facilitation; and that eligibility for receiving EPIC funding is based on the specific screening and scoring criteria set forth in the solicitation application manual.

PG&E's Investment Plan states that it will employ a public and transparent competitive solicitation process, when appropriate, that will have clearly defined work scope, schedule and budget requirements established, and any eligibility

criteria and qualifications. SCE's and SDG&E's Investment Plans do not specify any eligibility requirements that would limit the participation of any bidders for EPIC funding.

SCE asserts that the requirement to include eligibility criteria for award of funds in particular areas is intended to apply to grant-based programs and does not apply to the SCE Investment Plan because SCE will award EPIC funds through pay-for-performance contracts.

As discussed above, the IOU Administrators' proposed contract and grant solicitations guidelines include examples of the criteria that the IOU Administrators will use to evaluate proposals for EPIC funding. The IOU Administrators must follow these guidelines when soliciting competitive bids for EPIC contract work and evaluating any bids received.

2.11. Suggested Limitations for Funding

Each Investment Plan sufficiently identifies any limitations for funding. This decision concludes that the IOU investment plans should not be required to include a matching fund requirement.

D.12-05-037 requires each investment plan to identify any suggested limitations for funding (e.g., per-project, per awardee, matching funding requirements, etc.). The CEC Investment Plan does not require matching funds for applied R&D or market facilitation projects but will give higher scores during proposal evaluation to those who do. However, the CEC Investment Plan requires 20 percent in matching funds for TD&D projects and will give higher scores during proposal evaluation to those who provide more than 20 percent in matching funds.

DRA recommends that the IOU Administrators be required to incorporate a 20 percent matching fund requirement for TD&D projects, similar to that of the

CEC's Investment Plan. DRA states that an applicant should be able to provide in-kind products or services such as personnel, equipment, facilities, or other products or services to satisfy the matching fund requirement. According to DRA, ratepayers should not take all of the risk while EPIC fund recipients reap the rewards.

The SCE Investment Plan does not require matching funding or other limitations on funding. SCE states that requiring a supplier or service provider to provide matching funds for discrete elements of a project would be particularly difficult for small or diverse business enterprises. According to SCE, a matching fund requirement would limit SCE's ability to conduct its work and potentially limit future opportunities for leveraging.

The SDG&E Investment Plan does not require matching funding or other limitations on funding but states that cost sharing will be sought.[52] SDG&E states that it will not require matching funds because pay-for-performance contractors may be unable to provide matching funds and likely make it cost-prohibitive for small or minority-owned businesses. According to SDG&E, if contractors with adequate matching funds do not respond to a competitive solicitation, the program would have to be delayed or cancelled.

The PG&E Investment Plan does not require matching funding or other limitations on funding. PG&E states that a matching fund requirement could prevent potentially viable applicants from participating in the solicitation process. According to PG&E, EPIC projects are privately funded projects

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[52] At 23.

intended to fulfill the goals of § 740.1, and should not require matching funds if a project has merit under § 740.1.

D.12-05-037 encourages the use and leveraging of matching funds whenever possible but does not require them. This decision declines to change this approach. In particular, this decision rejects DRA's matching fund proposal because the proposal could exclude small or minority-owned businesses from participating in the solicitation process and may inappropriately projects which otherwise advance the goals § 740.1.

2.12. Other Eligibility Requirements

The Administrators' Investment Plans adequately address other eligibility requirements.

The CEC Investment Plan provides that EPIC solicitations will be open to all public and private entities and individuals interested in electricity related applied RD&D, TD&D, and market facilitation, and eligibility for receiving EPIC funding through the competitive process is based on the specific screening and scoring criteria set forth in the solicitation application manual.[53]

PG&E's Investment Plan states that it will employ a public and transparent competitive solicitation process, when appropriate, that will have clearly defined work scope, schedule and budget requirements established, and any eligibility criteria and qualifications.[54] SCE's and SDG&E's Investment Plans do not specify

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[53] CEC Investment Plan at 218.

[54] PG&E Investment Plan at 104.

any other eligibility requirements that would limit the participation of any bidders for EPIC funding.

This decision finds that the Administrators' Investment Plans adequately address other eligibility requirements.

2.13. Stakeholder Comments Received During the Development of the Investment Plan and the Administrator's Response to the Comments

D.12-05-037 requires each investment plan to include a summary of stakeholder comments received during the development of its EPIC plan and the Administrator's response to the comments. Each Investment Plan contains a summary of stakeholder comments received and the responses to those comments. Each Investment Plan sufficiently summarizes stakeholder comments received during the development of the Investment Plan and the Administrator's response to the comments.

2.13.1. Proposal to Modify List of Stakeholders

D.12-05-037 requires the Administrators to consult with interested stakeholders at least twice a year during the development and execution of each investment plan.[55] D.12-05-037 directs the Administrators to seek input from a wide variety of perspectives, and lists "community groups" among the types of stakeholders that must be consulted. The Joint Parties recommend that investment plans explicitly identify community based organizations representing communities of color and low income consumers as stakeholders that must be consulted.

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[55] Ordering Paragraph No. 15.

This decision rejects Joint Parties' recommendation. It is not necessary to explicitly list community based organizations representing communities of color and low income consumers as stakeholders to be consulted during the development and execution of each investment plan because community groups are already included among those to be consulted. Because D.12-05-037 requires Administrators to provide notice of biannual meetings to the parties on the service list of R.11-10-003 and any subsequent related proceedings, including this proceeding, Joint Parties will be notified of and may participate in required consultations in connection with the development and execution of each investment plan.

2.14. Proposals to Modify EPIC Governance

2.14.1. Project Reviews during Biannual Consultation Meetings

DRA recommends that the Commission require the Administrators to present impending projects during their biannual consultation meetings required by D.12-05-037 to inform the Commission and stakeholders and allow participants to examine and question upcoming and ongoing projects. According to DRA, the investment plans lack details about specific projects, and the biannual consultation meetings should be used to monitor projects before the Administrators solicit bids.

The February 2010 Staff Report (Staff Report) recommended that Administrators be required to conduct biannual scoping workshops and consult with key stakeholders to provide strategic and technical advice and feedback on the triennial investment plan and its implementation and any other aspects of the

program, including allowing stakeholders to give input and the benefit of their expertise to the Administrator about the various areas of investment.[56] In adopting the Staff Report recommendation, D.12-05-037 states that it was requiring the Administrators to establish formal or informal processes for seeking stakeholder input and expertise at least twice a year, during the process of developing the investment plans and while the plans are in operation.[57] In addition, the Administrator may, if it wishes, informally meet with stakeholders.

Thus, discussion of impending projects is within the scope of the biannual consultation meetings, and the Administrators and stakeholders are encouraged to do this. Because D.12-05-037 requires triennial investment plans to include a summary of stakeholder comments received during consultation meetings and the Administrators' responses to the comments, stakeholder concerns about particular projects or other Administrator activities will be brought to the Commission's attention. Therefore, it is not necessary to explicitly require the Administrators to present impending projects during their biannual consultation meetings required by D.12-05-037.

2.14.2. Proposal to Establish Technical Working Groups

DRA's proposal to establish technical working groups should not be adopted because the proposal is untimely, unnecessary, duplicative and overly

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[56] Staff Report at 44-45.

[57] D.12-05-037 at 75-77 made clear, however, that it was not establishing 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.

vague.[58] D.12-05-037 previously determined that the Commission should not establish a formal advisory committee structure for EPIC such as that DRA recommends because it risks inappropriately delegating Commission authority. DRA's proposal is overly vague as to the authority the technical working groups may have over EPIC projects and how any technical working groups would be funded.

The CEC states that technical working groups are not necessary because the CEC will select projects through a competitive solicitation process that will include experts to conduct technical reviews of project proposals. SCE and SDG&E state that DRA's proposal duplicates the purpose of this proceeding, the consultation and collaboration required by D.12-05-037, and the biannual meetings.

We reject DRA's proposal to establish technical working groups because he proposal duplicates the purpose of this proceeding, the consultation and collaboration required by D.12-05-037, and the biannual meetings.

2.14.3. Proposal to Authorize the Energy Division to Stop Work

The Commission should not adopt DRA's proposal to authorize the Energy Division to temporarily suspend or terminate any EPIC project that the Energy Division deems inappropriate as a way to address project-specific

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[58] DRA recommends that the Commission establish technical working groups comprised of knowledgeable industry experts, researchers, and other stakeholders to develop evaluation criteria, and use those criteria to review future proposed EPIC projects. DRA recommends that the technical working groups meet quarterly and report their findings during the biannual meetings.

concerns after approval of an investment plan. DRA's proposal does not provide due process, and would unlawfully delegate discretionary power to the Energy Division Director to suspend or terminate a project which the State has a legally binding agreement with the project recipient. In addition, DRA's proposal is ambiguous as to what constitutes an "inappropriate" project, and would potentially disrupt EPIC programs.

Parties or EPIC stakeholders with concerns that EPIC funds are being used inappropriately or contrary to the approved investment plans should bring their concerns to the attention of the Energy Division. The Energy Division should present recommendations in a resolution for Commission consideration, if appropriate.

2.15. Annual Reports

Administrators must follow the outline contained in Attachment 5 to this decision when preparing the EPIC annual reports required by D.12-05-037.[59] The outline contained in Attachment 5 was developed through a collaborative effort of the Administrators and DRA.[60] The common outline will facilitate consistent reporting by the Administrators on their Investment Plans and project results.

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[59] Ordering Paragraph No. 16 of D.12-05-037 requires each Administrator to annually file and serve a report detailing program activities.

[60] SCE states that the annual report outline and project template will provide all the information needed to enable a comprehensive review of the EPIC program. However, SDG&E and SCE state that they do not believe it is necessary for the Commission to order the exact form of the annual report. DRA recommends that the Administrators be required to use a standardized template for the EPIC annual report that includes the required investment plan elements outlined in Ordering Paragraph No. 12 of D.12-05-037 to ensure that activities comply with the guidelines of the EPIC program.

This will help the Commission ensure that public funds are spent wisely and that the State and ratepayers are accruing benefits.

In addition, Administrators must provide the information identified in the project template shown in Attachment 6 to report on projects described in Section 4.b of the EPIC annual report outline adopted by this decision. The project template shown in Attachment 6 was primarily developed through a collaborative effort of the Administrators and DRA but has been modified to identify "committed" as well as "encumbered" funds, and additional project bidder/contractor information. In addition, as discussed above, each administrator must include with its EPIC annual report a final report on every project completed during the previous year.

2.15.1. Disclosure of Contract Bidder Identities on EPIC Annual Report Service Lists

If a bidder for an IOU-administered EPIC contract is willing to forgo the right to be served an EPIC annual report in accordance with D.12-05-037, we will not interfere with that voluntary election and do not require inclusion of such bidders on the list of those served with the EPIC annual reports. However, the IOU Administrators must obtain from bidders a voluntary and informed waiver of the right to be served an EPIC annual report.

In any case, the IOU Administrators must disclose the identity, scope of work, and deliverables of winning bidders in their EPIC annual reports. If contract negotiations are active at the time of publication of EPIC annual reports, the IOU Administrators must disclose such information within 90 days of executing the contract, and must describe in their EPIC annual reports any intellectual property (IP) produced by winning bidders.

D.12-05-037 requires the Administrators to serve their EPIC annual reports on, among others, each successful and unsuccessful applicant for an EPIC

funding award during the previous calendar year.[61] SDG&E is concerned that the disclosure of the identities of contractors bidding for IOU contracts, whether successfully or unsuccessfully, could compromise the competitive positions of those contractors or disrupt active negotiations.[62]

We acknowledge the risk attendant with revealing the identity of winning and losing bidders in the EPIC program. The requirements of Ordering Paragraph No. 16 of D.12-05-037 were driven by our interest in promoting transparency and ensuring bidders' due process rights. If a bidder is willing to forgo the right to be served an EPIC annual report in accordance with D.12-05-037, we will not interfere with that voluntary election and do not require inclusion of such bidders on the list of those served with the EPIC annual reports. However, the IOU Administrators must obtain from bidders a voluntary and informed waiver of the right to be served an EPIC annual report. It should not be administratively difficult to include this option and to obtain this waiver in the IOUs' RFP packages and in submitted bids, respectively.

However, as discussed above, the identity of winning bidders must be disclosed in the IOUs' EPIC annual reports. EPIC funds are ratepayer funds, and ratepayers and the public are entitled to know the identity of entities contracting

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[61] Ordering Paragraph No. 16.

[62] SDG&E claims there is no public benefit to publicly revealing the identity of winning and losing contract bidders, and points to D.07-12-057 as an example where the Commission recognized the risk of compromising sensitive commercial contract negotiations by revealing the identity of winning bidders. The Commission in that case ultimately required IOUs to reveal the names of winning bidders within 90 days of filing an application for approval of procurement contracts.

with IOUs for those funds, as well as the scope of work, deliverables and IP produced, to the extent commercial proprietary information is validly protected. Therefore, consistent with our decision in D.07-12-057, the IOU Administrators must disclose the identity, scope of work, and deliverables of winning bidders, and describe any IP produced by winning bidders in their EPIC annual reports. If contract negotiations are active at the time of publication of EPIC annual reports, then the IOU Administrators must disclose such information within 90 days of executing the contract.

2.16. Adequacy of Informational Summaries of the RD&D Activities the IOUs are Undertaking as Part of Their Approved Energy Efficiency and Demand Response Portfolios

The IOUs provide brief but adequate informational summaries of the RD&D activities undertaken as part of their approved Energy Efficiency (EE) and DR portfolios. PG&E's Investment Plan includes a table summarizing information on the RD&D activities undertaken in the EE and DR portfolios but does not include information on funding, purpose, deliverables, etc. SCE's Investment Plan provides a summary of the funding and a description of project areas but does not summarize individual projects. SDG&E's Investment Plan describes the broad research areas and summarizes each individual project in detail but does not summarize project funding.

The IOU Administrators should provide a more thorough informational summary of these activities as part of their future EPIC investment plan applications. Each application should include an appendix summarizing the RD&D activities undertaken as part of their approved Energy Efficiency and Demand Response portfolios. This appendix should describe each RD&D project, including the purpose, funding, deliverables and progress to date.

2.17. Reasonableness and Adequacy of Metrics

As modified, each Investment Plan includes reasonable and adequate metrics against which the Investment Plan's success may be judged.[63] The January 17 Workshop provided parties an opportunity to further consider metrics to assess the Investment Plans.[64]

The Administrators subsequently developed a list of proposed metrics and potential areas of measurement that Administrators could choose based on the scope and objectives for an investment area. The list of proposed metrics includes metrics for public and worker safety, as recommended by Energy Division staff at the January 17 Workshop.[65] We adopt this list as a supplement to each Investment Plan, and include it as Attachment 4 to this decision.

The Commission should allow the Administrators the flexibility to choose metrics on a project-by-project basis. Therefore, the list of proposed metrics and potential areas of measurement is not exhaustive and additional metrics may be used where appropriate. However, the Administrators must identify those metrics in the annual report for each project.

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[63] *See* CEC Investment Plan at 227 - 230; PG&E Investment Plan at 107 - 110; SCE Investment Plan at 55-56; and SDG&E Investment Plan at 58-60.

[64] January 25, 2013 EPIC Workshop Report at 3-7.

[65] Section 963(b)(3) requires the Commission and each gas corporation to make the safety of the public and gas corporation employees their top priority.

2.18. Intellectual Property (IP) Rights

D.12-05-037 recognized that IP policy, where RD&D is funded by ratepayers, must address complex legal and practical implications. Some of those implications include retaining ratepayer value and effectively promoting research in areas where utility and ratepayer needs and investment gaps have been identified in investment plans. The Commission in past proceedings has taken different approaches to the treatment of IP developed by, or assisted in its development by, ratepayer funds. For instance, as referenced in the January 28 Ruling,[66] RD&D funded through grants under the CSI RD&D program might have:

- Deliverables and reports owned exclusively by the Commission;
- The grantee would own technical, generated, and deliverable data, the Commission would receive a copy of such data and have access to proprietary data; and the Commission would have a no-cost, nonexclusive, nontransferable, irrevocable, royalty-free, worldwide, perpetual license to use, publish, translate, produce, and authorize others to so act under this license;
- The grantee would own patent rights and, with respect to "work first produced under the Agreement," copyrights; and the Commission would hold a no-cost, nonexclusive, nontransferable, irrevocable, royalty-free, worldwide perpetual license to use or have practiced for or on behalf of the State of California the IP for governmental purposes; and

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[66] January 28 ALJ Ruling, Attachment E (excerpt from the CSI sample grant agreement form).

- The Commission would hold march-in rights[67] for IP developed under the ratepayer-funded efforts but not being, or expected to be, patented or realized for practical application.

In another context, the three large electric IOUs requested Commission approval of a Cooperative Research and Development Agreement (CRADA) between them and the Lawrence Livermore National Laboratory (LLNL) for the 21st Century Energy Systems (CES-21) project. In the decision approving the CRADA, the Commission required the IOUs to own the IP developed with ratepayer funds for the benefit of ratepayers.[68]

In accordance with D.12-05-037, each EPIC Administrator has recommended various approaches for the treatment of IP realized or that may be realized from efforts supported by EPIC funds. As an initial matter, the administrators distinguish between the types of projects funded (by the CEC, applied research and development projects that are generally pre-commercial; and by both the CEC and the IOUs, technology demonstration and deployment projects that are also generally pre-commercial but sufficiently advanced to reflect anticipated actual operating environments) and the types of vehicles used to disburse EPIC funds (by the CEC, mostly grants and some service contracts (i.e., work-for-hire); by the IOUs, exclusively service contracts).

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[67] March-in right is a right granted to the government to issue a new license or to revoke an existing license of a patented property. This is usually applied in cases where a governmentally funded invention has not adequately developed or applied to inventions within a reasonable time required by the government.

[68] D.12-12-031 at 73.

2.18.1. Parties' Positions Concerning CEC Administration of Grants and Contracts

The CEC proposes to use the CSI RD&D terms with certain modifications for the treatment of IP. Specifically, the CEC proposes for grants that (1) deliverables will be owned by the CEC, with the Commission retaining a license to deliverables; (2) underlying data, copyrights, and patent rights will be owned by the grant recipients, with the CEC and the Commission retaining a license; and (3) the CEC and Commission holding march-in rights for patentable technology that the recipient does not utilize. For every license held by the Commission, the CEC proposes that the Commission would be able to grant its license with the IOUs. The CEC further proposes for service contracts that the CEC would fully own the IP with similar rights to license the IP to the Commission or IOUs. The CEC would, however, avoid applying these modified CSI RD&D agreement provisions to "market facilitation-related activities or general energy research geared toward new knowledge."

PG&E claims that the CEC's proposal prevents ratepayers from benefitting from the IP developed by CEC grant recipients because the grant recipients would retain all profits, royalties, and other benefits from licensing the IP to other third parties. PG&E also argues that § 306(d) limits the Commission's authority to procure property and prevents ownership of IP.

SDG&E argues that, at a minimum, the IOUs should have a perpetual, non-exclusive unrestricted license directly from the grantee to "practice the invention at issue for or on behalf of the electric IOU ratepayers to the extent permissible under applicable laws." PG&E and SCE urge similar positions.

PG&E, SCE, and SDG&E would also have all four Administrators negotiate the IP terms on a project-by-project basis. MEA opposes limiting the IP benefits to IOUs and ratepayers, but proposes instead that all stakeholders

benefit, including Community Choice Aggregators (CCAs) and electric service providers (ESPs), CAISO, and researchers.

The CEC responds that it is impractical for it to individually negotiate IP terms with every single grant recipient and thus requests a consistent approach in the CEC's administration of EPIC projects. The approach the CEC advocates would have the grantees give a blanket license to the CEC and Commission, who could then give or share the license with the IOUs. However, the CEC's approach would not have grantees give a blanket license to use the IP directly to the IOUs. DRA generally supports the CEC's request except that it would also apply the same IP provisions toward the CEC's market facilitation-related activities or general energy research geared toward new knowledge.

2.18.2. Parties' Positions Concerning IOU Contracts

D.12-05-037 expressed the expectation that the IOUs would fund more deployment-related activities. Such activities appear appropriate for service (work-for-hire) contracts. PG&E urges that IP that it brings to EPIC projects remain the property of PG&E, and IP developed using ratepayer funds also remain a utility asset to be used for the benefit of the ratepayers who funded the project. PG&E elaborates that, where IP is jointly developed using both an IOU's and grantee's underlying IP, the IOU and grantee should be allowed to negotiate the IP terms.

As a general matter, however, PG&E, SCE, and SDG&E would allow the Administrators to negotiate the IP terms on a project-by-project basis. SCE states it may also use an "open innovation" approach which would make IP freely available for broad industry adoption and utilization.

2.18.3. Discussion

The Commission instituted the EPIC program in order to address funding gaps in the areas of RD&D and renewables support resulting from the expiration of the Public Goods Charge funding and to thus prevent jeopardizing the continuance of ratepayer and public benefits in these areas. D.11-12-035 states that one important goal of public interest RD&D is to ensure that California ratepayers benefit from state-funded research, by advancing science and technology that is not being adequately funded by the private sector.

More specifically, RD&D funding should lead to technology advancement and breakthroughs necessary to overcome the barriers that prevent the achievement of state energy policy goals. EPIC funding must therefore translate into ratepayer benefits: technological and other improvements to the electricity system value chain, including greater reliability, lower costs to serve customers, increased safety, and enhanced environmental sustainability. For the purposes of the proper treatment of IP developed by EPIC funds, as we noted above, we must balance the multiple goals of promoting utility ratepayer-targeted RD&D, commercialization of promising IP, and retaining the value of investments that ratepayers make.

2.18.3.1. Promoting Commercialization of Promising RD&D

Although our decision approving the CRADA for the CES-21 project with LLNL required that the IOUs own the IP for the benefit of ratepayers, we do not believe such a model is appropriate here. In D.12-12-031, there was a single R&D agreement, which was directly between the IOUs jointly and a single research entity, LLNL. The EPIC Investment Plans, on the other hand, contemplate multitudes of grants and services contracts, in dozens of program categories, awarded largely through a competitive solicitation process, where all applied

research and development grants would be awarded by a state agency (CEC) and technology demonstration and deployment contracts would be awarded separately by the CEC and the three IOUs.

The facts and circumstances that might make one entity (e.g., LLNL) agree to give ownership of the IP to the IOUs do not necessarily apply to the EPIC program. We must accord due weight to all of the Administrators' acknowledgement that there may be any number of valid reasons that prospective contractors would not want to grant the IOUs an ownership interest in the IP realized from EPIC funded efforts. SDG&E admits there is a "plethora of different situations" involving possible existing IP (whether owned by the IOUs or contractor or grantee) and IP developed with EPIC funds. SCE touches upon some factors that complicate a uniform policy on the treatment of IP rights that promotes commercialization of IP: the scope of work to be performed by a contractor, the preexisting IP rights of the IOU and of the contractor, whether the contractor is partly financing the project or otherwise participating in a cost-sharing arrangement, whether the contractor is a public or publicly-funded entity, and whether the contract is a grant or pay-for-performance arrangement.

SCE and SDG&E generally advocate CEC grant recipients directly giving the IOUs a blanket license to use the IP developed with EPIC funds, whereas PG&E believes that the IOUs should own the IP as a utility asset, to prevent their ratepayers from "paying twice" for the IP: paying first to develop and commercialize it, and paying again to actually use it. The CEC disagrees with the IOU proposal because there may be any number of reasons why grantees would not want to give a blanket license directly to IOUs. The CEC does not, however, provide specific examples. The CEC instead proposes that the Commission and the CEC hold licenses to the IP and have the right to grant its

license to the IOUs. The CEC suggests that the "double payment" issue can be avoided by either its or the Commission's sharing of its license rights with any of the IOUs.

If one of the main goals under the EPIC program is to promote the commercialization of promising IP, we do not believe prospective grantees would pursue EPIC funding through CEC grants if they were required to cede or share ownership of IP to or with IOUs. As several parties, including SCE and SDG&E, note, grantees may bring pre-existing IP, that may be further developed using EPIC funds, and that EPIC-funded IP may be further developed, tested, or deployed using non-EPIC funds. The practical difficulties associated with tracking IOU ownership of, and royalties and license fees derived from, a portion of IP have cannot be underestimated. Moreover, we do not have enough information in the record concerning possible IOU liabilities associated with owning IP and, by extension, ratepayer liabilities. Without such information, we are disinclined toward IOU ownership of EPIC-funded IP developed with EPIC grants administered by the CEC.

Based on the record, we are not persuaded that an unrestricted license to use the IP developed with EPIC grants for governmental purposes or on behalf of ratepayers will dampen efforts to develop and commercialize promising RD&D. The CEC itself recommended that the Commission and CEC hold the unrestricted licenses, which can be granted to or shared with the IOUs. The CEC has extensive experience with RD&D grant programs and motivations of RD&D grantees. We feel confident, based on the CEC's experience, that requiring grant recipients to give the Commission and CEC unrestricted licenses, which can be granted to or shared with the IOUs for the benefit of ratepayers, will not

dissuade otherwise interested prospective grantees from participating in the EPIC program.

Based on the terms of the CSI RD&D grant agreement and on the agruments of the CEC, DRA, SCE, and SDG&E in this proceeding, it appears that requiring an unrestricted license to the Commission and CEC, which could be shared with IOUs for the benefit of ratepayers, would not dampen the efforts to develop and commercialize RD&D. The CEC's recommendation persuades us that such a framework for the treatment of IP developed by EPIC grants would effectively promote the development and commercialization of IP deemed promising to deliver benefits to ratepayers.

2.18.3.2. Retaining Value of Ratepayer Investments in RD&D

Despite the differences between the EPIC and CES-21 programs, as discussed above, there is a consistent driver that must guide our decision here. All investments of ratepayer funds under the EPIC program must be done for the benefit of ratepayers, and those benefits must be maximized to the fullest extent reasonable, legal, and practicable. The EPIC Phase 2 decision requires that investment plans promote ratepayer-targeted RD&D as follows: investment proposals must undergo an initial vetting for ratepayer benefit, before they can be included in the investment plans. Specifically, investment proposals must demonstrate ratepayer benefits including quantified ratepayer benefits, be mapped to the electricity system value chain, have a policy justification, not be duplicative of other RD&D efforts, and have a reasonable probability of

providing benefits to ratepayers.[69] The investment proposals must also undergo a stakeholder vetting.[70] The investment plans must be filed as applications and subject to a full public review and comment process. Now, as we consider whether to approve the 2012-2014 Investment Plans, we must consider retaining ratepayer value in the form of rights to the IP for as long as such IP may benefit ratepayers.

The IOUs believe that they can maximize the value of EPIC investments by ensuring that ratepayers retain either an ownership interest in, or a direct unrestricted license to use, the IP developed with EPIC funds. Such IP rights would avoid having ratepayers "paying twice" for the IP realized from EPIC funds, as well as enable ratepayers to enjoy the royalties paid by other third-party licensees of the IP. The CEC proposes an alternative arrangement for ensuring that ratepayers do not "pay twice" by requesting that the Commission and CEC hold unrestricted and no-cost licenses that could be granted to or shared with, at no cost, the IOUs to use on behalf of ratepayers.

We call attention to the fact that the language of the CSI RD&D agreement indicates that the license rights are "non-transferable," which, if adopted here, would prevent the Commission and CEC from granting or sharing the license to or with the IOUs for the benefit of ratepayers. Moreover, the CSI RD&D agreement expressly limits the Commission's license to copyrights and patent rights to uses "for governmental purposes." Under such terms, the Commission

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[69] D.12-05-037, OPs 2 and 12; see also OP 12(e), referencing principles in §§ 740.1 and 8360.

[70] *Id.* at OP 15.

and CEC would not be able to grant its license to the IOUs for utility operation purposes, and IOU access to the IP would be limited to the IOUs contracting directly with the grantee or IP owner and paying for the use of the license. While these limitations might be appropriate under the CSI RD&D program, we do not believe such limitations on the enjoyment of IP are appropriate under the EPIC program, where we seek to maximize ratepayer benefits. It would instead be more appropriate to require that EPIC grant recipients give to the State of California no-cost, nonexclusive, transferable, irrevocable, royalty-free, worldwide perpetual license, as administered by the Commission or CEC, to use or have practiced for or on behalf of the State of California the IP for governmental purposes, where the license can be granted to or shared with any of the IOUs for the benefit of ratepayers and in the provision of utility services.

Therefore, we require EPIC grant recipients to give the State of California no-cost, nonexclusive, transferable, irrevocable, royalty-free, worldwide perpetual license, as administered by the Commission or CEC, to use or have practiced for or on behalf of the State of California the IP for governmental purposes, where the license can be granted to or shared with any of the IOUs for the benefit of ratepayers and in the provision of utility services.

We now turn to the appropriate treatment of IP developed under the service contracts that the IOUs and, to a limited extent, the CEC will execute under the EPIC program. Service contracts will be for discrete, task-oriented, and deliverables-driven scopes of work, typically at the demonstration and deployment stages of the RD&D sequence. For these reasons, we find it reasonable for the IOUs and the State (with administration by the CEC) to be permitted to negotiate the IP ownership on a contract-by-contract basis, whether the IP is owned by or only licensed to the IOUs or State. However, in all

circumstances, the Commission and (where applicable) the CEC must be entitled to an unrestricted, no-cost license which may be shared without cost with other LSEs, government agencies, or other entities, consistent with the requirements for extending licenses to LSEs, as described in Section 2.18.3.5 below.

MEA would have "all stakeholders," including CCAs and ESPs, the CAISO and researchers, share in the IP rights to EPIC-funded RD&D. It is possible that EPIC may fund the development of IP that unfairly gives the IOUs a competitive advantage over competitor LSEs, and pursuant to the State Action Doctrine, we must prevent such anticompetitive non-sharing of IP with LSEs who serve the very ratepayers that support EPIC-funded IP development. However, we do not believe that the record supports similarly extending a license to "all stakeholders." The prospect that some proprietary IP may be improperly shared with ESPs or other potential competitors of grantees would itself have a dampening effect on promoting development and commercialization of RD&D.

Insofar as the Commission and CEC hold the licenses and the Commission has jurisdiction to regulate the IOUs, the Commission can control the sharing of IP and thus prevent any improper sharing of proprietary IP with potential competitors of the EPIC grantees. Balancing these various factors inclines us toward allowing the CEC, after consultation with the Commission's Energy Division Director or designee, to negotiate and share its license in EPIC grantees' IP with ESPs, CCAs, or other stakeholders where appropriate and fair, on a cost-free basis, insofar as the competitive, proprietary interests of the EPIC grantees are not compromised. This process is described in Section 2.18.3.5 (Treatment of IP).

2.18.3.3. Applicability of § 851

The IOUs argue that the requirements of § 851 apply to the IOUs' disposition of all EPIC-funded IP. Section 851 requires Commission approval prior to disposition of utility property. IP owned by the utility is one such property subject to § 851. However, the applicability of § 851 here depends on two factors: (1) who owns or has rights in the IP, and (2) whether it is an IOU that owns the IP. If, in accordance with a Commission order, the EPIC grantee alone owns and holds rights to the IP, then § 851 does not apply. If the CEC alone owns or holds rights in the IP, then § 851 does not apply.

PG&E's cites to our recent CES-21 decision approving CRADA between the IOUs and LLNL.[71] In that decision, we required that the IP developed should be owned by the IOUs and that the IOUs may only dispose of such IP pursuant to § 851. However, where the IOUs neither own nor have license rights to IP, then our treatment of IP under the LLNL CRADA is not applicable.

It goes without saying that property interests – including ownership interests or licenses – held by an IOU on behalf of ratepayers is subject to § 851. Both PG&E and SCE suggest that IP developed through RD&D funded in whole or in part by ratepayers necessarily becomes utility-owned IP and is therefore a utility asset. Neither PG&E nor SCE cites to authority for this proposition. There is no basis in law that RD&D developed under the EPIC program, solely because it is developed in whole or in part by grants funded by ratepayers, necessarily requires that IOUs hold an ownership interest in or license to the IP. Rather,

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[71] D.12-12-031.

ownership or license rights are perfected only through operation of law and contract.

The IOUs' general reference to § 851 is therefore overbroad. Section 851 applies only to utility ownership of IP (in the case of IP developed under IOU contracts) of or property interest in IP (as in the case of IP developed under CEC grants which the CEC licenses to the IOU). Section 851 does not apply to the Commission's or CEC's ownership of or other rights in IP.

2.18.3.4. Market Facilitation-Related Activities and General Energy Research

The CEC has requested that its proposed treatment of IP (modified CSI RD&D terms) not extend to "market facilitation-related activities or general energy research geared toward new knowledge." We have previously described market facilitation activities under the EPIC program as encompassing market research, program tracking, education and outreach, regulatory assistance/streamlining, and workforce development that are consistent with EPIC goals and that provide ratepayer benefits by ensuring that other activities are successful.[72] We agree with DRA that the CEC has not sufficiently explained what "activities" might be market facilitation-related or what determines "general energy research" as distinguished from "EPIC-funded R&D projects." However, if good reason exists to treat "market facilitation-related activities and general energy research geared toward new knowledge" different from other IP developed with EPIC funds, the CEC may propose alternative treatment in the its next triennial investment plan.

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[72] D.12-05-037, at 61.

For the CEC's 2012-2014 Investment Plan, at least, the adopted treatment of IP developed with EPIC funds from the CEC, as discussed in the section below, should similarly apply without modification to the CEC's market facilitation-related activities and general energy research geared toward new knowledge.

2.18.3.5. Treatment of IP

The treatment of IP developed by ratepayer-funded EPIC grants and contracts must both promote the development and commercialization of promising RD&D and maximize the benefits to ratepayers who are funding the EPIC program. It is not practicable for IOUs to hold an ownership interest in IP developed with EPIC funds. At the same time, we do not agree with SCE's suggestion that our requiring that IP be owned by the Commission or grantees could have the unintended consequence of limiting important paths to market for new technologies and ratepayer opportunities to share in potential revenues.

We find merit in the suggestion that IOU ownership of EPIC-funded IP, without automatically providing in some way for IOU access to such IP, could limit IOU deployments if grantees can in some way refuse to license the IP to the IOUs. Therefore, we must ensure IOU access to EPIC-funded IP. We have considered all reasonable, legal, and practical implications associated with the treatment of IP developed with EPIC funds and determine that such IP should be subject to the following conditions:

<u>For EPIC-funded CEC grants:</u> Grantees will own the IP developed with EPIC-funds; the State will hold unrestricted, no-cost licenses to data, copyrights, and deliverables for governmental purposes only (e.g., auditing and reporting purposes), subject to appropriate confidentiality protections for commercially sensitive information, where such licenses will be administered by the

Commission and/or the CEC. The State will hold unrestricted, no-cost licenses to patented IP on a no-cost basis, which license the CEC may grant to or share with the IOUs for the sole benefit of ratepayers on a no-cost basis, subject to appropriate confidentiality protections for commercially sensitive information; and the State through the Commission or CEC will hold march-in rights to assume all IP rights if the grantee does not undertake to patent the IP.

For EPIC-funded CEC and IOU contracts: We find as reasonable the IOU proposal to allow the CEC and IOUs to negotiate the IP terms on a project-by-project basis, whether the IP is owned by or only licensed to the IOUs or State. However, in all circumstances, the Commission and (where applicable) the CEC shall be entitled to an unrestricted, no-cost license which may be shared without cost with other LSEs, government agencies, or other entities, consistent with the requirements for extending licenses to LSEs, as described below. To the extent that any IOU retains ownership over the IP, such property will be a utility asset held for the benefit of ratepayers, and shall be subject to the requirements of § 851 if the IOU seeks to sell, license, or otherwise encumber the IP or any value derived therefrom.

Mindful of the competitive relationship between IOUs and other LSEs, we also require that any LSE, government agency, or other entity may petition the CEC to license EPIC-funded IP on a cost-free or discounted basis. Factors governing the propriety of the CEC's granting or sharing a license include: ensuring that IOUs do not have an unfair competitive advantage over competitor LSEs in holding licenses to EPIC-funded IP; ensuring that the proprietary nature of the IP is not compromised; and ensuring that LSEs or other entities do not unfairly profit from a cost-free license where fairness and the policy of

promotion of RD&D would require such LSE or other entity to pay to use the IP or else contract directly with the EPIC award recipient.

We also require that, for all EPIC-funded IP that the IOUs or LSEs license, the IOUs and LSEs shall hold the Commission, the CEC, and their employees free from liability for the use of such IP. All EPIC awarded grants and contracts shall contain a Hold Harmless Clause, so that EPIC grantees and contractors hold the Commission, the CEC, and their employees from liability.

2.19. Does Each Investment Plan Adequately Address the Principles Articulated in Pub. Util. Code §§ 740.1 and 8360?

Each Investment Plan adequately addresses the principles articulated in § 740.1 and § 8360. Our review of each plan begins with a consideration of the requirements of § 740.1 and § 8360.

Section 740.1 requires the Commission to consider the following guidelines in evaluating the research, development, and demonstration projects proposed by electrical and gas corporations:

- Projects should offer a reasonable probability of providing benefits to ratepayers.
- Expenditures on projects which have a low probability for success should be minimized.
- Projects should be consistent with the corporation's resource plan.
- Projects should not unnecessarily duplicate research currently, previously, or imminently undertaken by other electrical or gas corporations or research organizations.
- 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; and
5. Improve operating efficiency and reliability or otherwise reduce operating costs.

Section 8360 articulates the state's "smart grid" policy to modernize the 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:

- Increased use of cost-effective digital information and control technology to improve reliability, security, and efficiency of the electric grid;
- 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;
- Deployment and integration of cost-effective distributed resources and generation, including renewable resources;
- Development and incorporation of cost-effective demand response, demand-side resources, and energy-efficient resources;
- 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;
- Integration of cost-effective smart appliances and consumer devices;
- 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;

- Provide consumers with timely information and control options;
- Develop standards for communication and interoperability of appliances and equipment connected to the electric grid, including the infrastructure serving the grid; and
- Identification and lowering of unreasonable or unnecessary barriers to adoption of smart grid technologies, practices, and services.

We review each Investment Plan for compliance with these requirements.

2.19.1. The CEC Investment Plan

The CEC Investment Plan adequately addresses the requirements of § 740.1 and § 8360. In particular, Tables 9 through 19 summarize the components of the CEC's strategic objectives for applied research and development that satisfy § 740.1 or § 8360;[73] Tables 21 through 24 summarize the components of the CEC's strategic objectives for technology demonstration and deployment that satisfy § 740.1 or § 8360;[74] and Tables 26 through 28 summarize the components of the CEC's strategic objectives for market facilitation that satisfy § 740.1 or § 8360.[75]

The CEC Investment Plan states that its proposed end use survey and saturation study activities to be conducted as a part of its strategic objectives for market facilitation complies with § 8360 because it will further smart grid

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[73] *See* CEC Investment Plan at 37, 59, 67, 79, 98, 109, 115, 119, 126, and 132.

[74] *See* CEC Investment Plan at 138, 146, 155, and 161.

development by providing data and analyses useful for strategic deployment of appliances and technologies. The CEC Investment Plan states that the NSHP advances the principles articulated in § 740.1 and § 8360 by providing market support and promoting the purchase and installation of solar energy systems, and encouraging the development and improvement of new and existing solar technologies.

2.19.2. The PG&E Investment Plan

The PG&E Investment Plan complements PG&E's existing and planned RD&D programs, consistent with the goals for utility-funded RD&D and pilot projects in § 740.1 and § 8360.

Consistent with § 740.1, the PG&E Investment Plan incorporates the energy RD&D criteria and methodology used to solicit, develop and implement pilot TD&D projects in PG&E's energy efficiency and DR portfolio programs. The PG&E Investment Plan states that PG&E is collaborating and consulting with the other Administrators to leverage the benefits of projects and to coordinate the project scopes and administration.

The PG&E Investment Plan includes grid modernization and optimization TD&D projects intended to optimize existing grid assets, prepare for emerging technologies, demonstrate grid operations of the future, and to provide customers with Smart Meter enabled energy information. This is consistent with the state's "smart grid" policy to modernize the electrical transmission and

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[75] *See* CEC Investment Plan at 166, 178, and 181.

distribution system to maintain safe, reliable, efficient, and secure electrical service.

2.19.3. The SCE Investment Plan

The SCE Investment Plan states that proposed projects are consistent with SCE's resource plan, the loading order, and safety and reliability objectives, and will improve the environment and enhance public and employee safety. The SCE Investment Plan states that the IOUs will cooperate to avoid duplicative research, and that SCE will minimize funding of projects with a low probability of success. These provisions are consistent with § 740.1.

The SCE Investment Plan provides that, consistent with § 740.1: (1) SCE will select projects that offer the best probability of direct customer benefits, and will seek to minimize expenditures on projects with a low probability for success; (2) proposed projects will be consistent with the corporation's resource plan, including the established loading order, broader state energy policy objectives, and IOU safety, reliability and affordability objectives and; (3) SCE will consult with the other Administrators to avoid unnecessary duplication of efforts.[76] In addition, each of the proposed funding categories in the SCE Investment Plan supports one or more of the objectives of improving environmental improvement; improving public and employee safety; conserving resource use

[76] In response to stakeholder comments, SCE proposes to formalize certain aspects of the now-defunct California Utility Research Council to avoid duplication, including working with the Electric Power Research Institute as part of EPIC administration.

through efficiency or by reducing or shifting system load;[77] developing new resources and processes that further supply technologies; and improving operating efficiency and reliability or otherwise reducing operating costs.

The SCE Investment Plan's renewables & distributed energy resources integration category will fund demonstrations of novel strategies and technologies that facilitate their safe and reliable integration into the grid as a way to develop or further new supply side resources without conducting generation-only demonstration projects. According to the SCE Investment Plan, its advanced asset management & optimization funding category was designed to address the objective of improving operating efficiency and reliability or otherwise reduce operating costs. These provisions are consistent with § 740.1. The SCE Investment Plan is consistent with § 740.1.

Consistent with § 8360, the SCE Investment Plan proposes to further SCE's existing smart grid efforts with projects designed to address the state's smart grid policies articulated in § 8360. Section 6.1 of the SCE Investment Plan (renewable and distributed energy resource integration) supports the safe, reliable and affordable integration of renewable and distributed energy resources, the deployment and integration of cost-effective advanced electricity storage, and the identification and lowering of unreasonable or unnecessary barriers to adoption of smart grid technologies, practices and services, consistent

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[77] The SCE Investment Plan states that the conservation and load-shifting objectives are primarily addressed by existing IOU Energy Efficiency and Demand Response programs, and SCE will focus EPIC funding in this area toward system and operations integration technologies and strategies.

with § 8360(c), § 8360 (g) and § 8360(j), respectively. Section 6.2 of the SCE Investment Plan (grid modernization & optimization) is consistent with § 8360(a) and § 8360(b). Section 6.3 of the SCE Investment Plan (customer-focused products and services enablement and integration) is consistent with § 8360(d) through § 8360(h) and § 8360(j).

2.19.4. The SDG&E Investment Plan

In its Application, SDG&E states that its EPIC Investment Plan EPIC proposals have the potential to provide electric utility ratepayers benefits, including greater reliability, lower costs, and increased safety, and other complementary benefits, consistent with the requirements of § 740.1. SDG&E has selected five programs that demonstrate smart grid system integration solutions will be the cornerstones of advancing its smart grid infrastructure. The integration solutions are to be built up from existing components, standards, and software, wherever possible, ensuring that the probabilities of success in the selected SDG&E EPIC projects are reasonable. In addition, SDG&E has taken appropriate measures to ensure that its respective projects are consistent with the requirements of § 740.1 to avoid unnecessarily duplicating research being done by another entity, and SDG&E's EPIC proposals further the other objectives of § 740.1.

The SDG&E Investment Plan proposals to modernize SDG&E's smart grid by integrating smart devices into a controlled, networked system are consistent with § 8360. SDG&E's proposals are designed to modernize its smart grid by integrating smart devices into a controlled, networked system, consistent with the State to support smart grid development articulated in § 8360. No party objects to SDG&E's use of EPIC funding for this purpose. SDG&E's Investment Plan adequately addresses the principals articulated in § 740.1 and § 8360.

2.20. Unnecessary Duplication

Section 740.1(d) provides that projects should not unnecessarily duplicate research currently, previously, or imminently undertaken by other electrical or gas corporations or research organizations. In response to concerns that PG&E Project No. 4 may duplicate the efforts currently being conducted at the Applied Technology Services facility, PG&E demonstrated that Project No. 4 does not duplicate other efforts.[78] The Investment Plans are sufficiently diverse that duplicative efforts will be avoided. Staff has reviewed and parties have commented on the plans, and identified any projects that duplicate the efforts of projects undertaken by other administrators. The EPIC annual reports will allow stakeholders to further compare the Administrators' projects to ensure there is no duplication.

3. Implementation and Related Issues

3.1. Fund Shifting between Funding Categories/Program Areas

Ordering Paragraph No. 14 of D.12-05-037 permits the Administrators to shift up to five percent of funds in each authorized funding category/program area without Commission approval. Administrators must obtain Commission approval to shift more than five percent of funds in a funding category/program area to another funding category/program area. Ordering Paragraph No. 14 of D.12-05-037 only addresses fund shifting <u>between</u> funding categories/program

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[78] PG&E proposes Project No. 4 (Expand lab to test and pilot facilities for new energy storage systems) to identify ways to enhance the existing test lab facilities at PG&E's Applied Technology Services center to provide lab test and pilot facilities for new energy storage systems not previously lab tested.

areas (i.e., shifting funds from one funding category/program area to another funding category/program area).[79]

As discussed in D.12-05-037, the February 10, 2012 staff proposal (Staff Proposal) recommended that Administrators be given discretion to shift up to ten percent of program funds from one category to another category during each three-year investment plan cycle, after the initial investment plan is approved.[80] The example provided in the Staff Proposal makes clear that staff recommended shifting of funds between funding categories/program areas.[81] D.12-05-037 adopted a modified version of the Staff Proposal by limiting fund shifting between funding categories/program areas to five percent.[82]

Administrators must file a petition to modify to request authority to shift more than five percent of the adopted budget for each funding category/program area or to new categories of funding. This issue primarily affects the CEC because the CEC is the only Administrator with funding in multiple funding categories/program areas at this time. However, it may affect

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[79] Finding of Fact No. 33 states that, "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."

[80] At 67 - 68.

[81] February 10, 2012 Staff Proposal at 33, Footnote No. 33.

[82] SDG&E states that Ordering Paragraph No. 14 of D.12-05-037 is ambiguous as to whether Administrators may shift up to five percent only within a funding category/program area or between funding categories/program areas. (February 19, 2013 Reply Comments at 2.)

the IOU Administrators in the future if any of them propose an entirely new category of expenditures during investment plan cycles.

D.12-05-037 does not specify the procedure that Administrators must use to obtain any necessary authorization to shift more than five percent of funds between funding categories/program areas. The Administrators request guidance on the procedure that should be used to request authority to shift more than five percent of the budget for a funding category/program area to another a funding category/program area.[83]

Pursuant to GO 96-B, an advice letter is "an informal request by a utility for Commission approval, authorization, or other relief, including an informal request for approval to furnish service under rates, charges, terms or conditions other than those contained in the utility's tariffs then in effect, or a compliance filing by a load-serving entity pursuant to § 380.[84] The advice letter process is not available to the CEC because the CEC is not a utility or a load-serving entity as defined by § 380(j). However, anyone may file a petition for modification to ask the Commission to make changes to an issued decision.

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[83] SDG&E proposes that the IOU Administrators request Commission approval for any change in scope or approved budget through the advice letter process and the CEC should file a petition to modify to ensure that stakeholders have an opportunity to review and comment on proposed changes. According to SDG&E, it is not clear that the CEC can use the advice letter process because the CEC is not subject to the Commission's jurisdiction and General Order (GO) 96-B does not contempt the use of advice letters by non-utilities such as the CEC. The CEC does not propose a procedure for requesting fund shifting authority but requests the most expedient method that complies with legal requirements and allows public and ratepayer input.

[84] General Rule 3.1.

Although the IOU Administrators are eligible to use the advice letter process because they are utilities subject to the Commission's jurisdiction, the advice letter process is not appropriate for requesting authority to establish a new funding category/program area during investment plan cycles or for requesting authority to shift more than five percent of the adopted budget from a funding category/program area to another. The advice letter process provides a quick and simplified review of the types of utility requests that are expected neither to be controversial nor to raise important policy questions.[85]

However, as stated in D.12-05-037, proposing an entirely new category of expenditures between adopted investment plans would constitute a material change to the plan and requires further Commission review and consideration. Such requests could be controversial or raise important policy questions. Therefore, the IOU Administrators should file a petition for modification to propose an entirely new category of expenditures between adopted investment plans or to request authority to shift more than five percent of the adopted budget for each funding category/program area to another funding category/program area.

As discussed above, D.12-05-037 does not address the shifting of funds <u>within</u> a funding category/program area.[86] Administrators may shift funds

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[85] General Rule 5.1 (Matters Appropriate to Advice Letters).

[86] The January 28 Ruling asked Administrators how they would approach fund shifting within a funding category/program area when funds allocated to a program area and/or strategic objective are not committed to a project or when a funded project is withdrawn or does not meet a critical mile stone.

within a funding category/program area without limitation because Administrators need the flexibility to efficiently administer authorized proposals within a funding category/program area.[87]

3.2. Unencumbered/Uncommitted Funds

Funds that remain unspent at the end of investment plan cycles will be moved forward (i.e., rolled over) into the next investment plan cycle for inclusion in subsequent investment plan budgets. Moving unspent funds to the next investment plan cycle will permit the Administrators to more carefully execute their EPIC programs and will allow for a smoother transition from one investment plan cycle to the next cycle without wasting resources resulting from disrupting ongoing project solicitation processes. However, Administrators must explain in their triennial investment plans what caused any unspent funds in the prior investment plan cycle, and how the unspent funds would affect the program area(s) and projects. In addition, unspent amounts remaining at the end of a triennial investment funding period should be used to offset future program funding requirements.

The budget adopted for a subsequent investment plan cycle should be reduced by the amount of interest accumulated during the preceding investment

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[87] The Administrators state they require the flexibility to shift funds within a funding category/program area, and that D.12-05-037 provides them the flexibility to freely shift funds within a funding category/program area without requesting further approval after the Commission has approved the Administrator's plan. DRA asserts that D.12-05-037 permits the Administrators to shift up to five percent of funds within a funding category/program area without Commission authorization.

plan cycle. Funds that are committed or encumbered for projects in one investment cycle will not reduce future investment cycle funds.

Any funds that have not been committed or encumbered by the end of the third triennial investment plan cycle, including accumulated interest, must be returned to ratepayers if legally permitted to do so. Any accumulated interest that has not been returned to ratepayers at the end of the third triennial investment plan cycle will be deducted from the budget adopted for a subsequent investment plan cycle.

We adopt the following definitions of "committed" and "encumbered" funds:

> "Committed funds" are funds identified during the planning of a solicitation for a specific project that will be needed to fund a contract or grant for that project at the conclusion of a planned or released solicitation. Such funds are considered "committed" and thus are not considered "unspent" funds.
>
> "Encumbered funds" are monies that are specified within contracts signed during a previous triennial investment plan cycle and associated with specific activities under the contract. All activities carried out under a contract during a specific triennial investment plan cycle need not be completed and funds need not be spent during that particular program cycle if the activities undertaken pursuant to the contract are expected to be completed. Such funds are considered "encumbered" and thus are not considered "unspent" funds. Only funds that are committed or encumbered during the

> prior program cycle are eligible for being rolled into the following program cycle."[88]

The Administrators and DRA recommend moving unused funds from one investment cycle to another but disagree on the details of how this should be done. The CEC states that projects could take two or more years to complete and, given the short time remaining in the current investment plan cycle, millions of dollars could remain unspent and uncommitted at the end of the investment cycle. The CEC recommends that projects from solicitations planned or started in one investment cycle should be allowed to finish in the next without reducing future investment cycle funds.

The CEC recommends that "committed" funds should include funds that are committed in a planned or released solicitation and planned to be spent in accordance with the approved investment plan. The CEC states that funds are "encumbered" only when it approves a grant or contract at a publically noticed business meeting, and long after it prepares and issues a solicitation, holds a public pre-bid conference, provides applicants time to prepare their proposals, scores those proposals, issues a notice of proposed award, and prepares the agreements for approval. According to the CEC, if only "encumbered" funds are allowed to be rolled over into the next investment plan cycle, months of effort by the CEC and applicants would be wasted if funds are not encumbered in time. Alternatively, the CEC would have to stop planning and issuing solicitations many months before the end of investment cycle to avoid risking missing the

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[88] The definition of "encumbered funds" is similar to the definition used in D.12-11-105, which adopted 2013-2014 Energy Efficiency Programs and Budgets.

encumbrance deadline. The CEC contends that this inefficiency would ultimately harm ratepayers.

The IOU Administrators recommend that unencumbered funds remaining at the end of an investment plan cycle be moved into the next triennial investment plan cycle so that Administrators may plan projects over multiple investment plan cycles. SDG&E further recommends that any unencumbered funds at the end of the third triennial cycle (i.e., as of December 31, 2020) be returned to the ratepayers. According to SDG&E, it is not likely that all of the proposals in this triennial cycle will be completed by December 2014, and moving encumbered funds into the next investment plan cycle will allow Administrators to more carefully execute their EPIC programs, unhurried by an arbitrary deadline.

SDG&E opposes the CEC's proposal to roll over committed but unencumbered funds to the next investment plan cycle. According to SDG&E, this practice will result in unnecessary and confusing accounting irregularities because the amount of funds related to a "planned" solicitation will not necessarily be the same amount of funds eventually spent as a result of that solicitation, and there is no guarantee that all planned solicitations will result in a signed contract. As discussed above, we require Administrators to explain in their triennial investment plans what caused any unspent funds in the prior investment plan cycle, and how the unspent funds would affect the program area(s) and projects.

SCE recommends that unspent funds be either returned to ratepayers or moved into the next investment plan cycle. In particular, if funds are encumbered at the end of a triennial investment plan cycle, SCE recommends that an Administrator be permitted to include those funds in its subsequent

investment plan cycle, and if funds are not encumbered they should be returned to ratepayers.[89]

DRA agrees with SCE and recommends that unspent funds within a program area in a given investment period be moved forward into the next investment period budget in the original program area, subject to the fund-shifting limits specified in D.12-05-037, and any accumulated interest be returned to ratepayers. DRA further recommends that any unencumbered funds remaining at the end of the third investment period be returned to ratepayers. In addition, DRA recommends that Administrators be required to explain in their triennial investment plan, at a minimum, what caused any funds to remain uncommitted, how the additional uncommitted funds would affect the scope of relevant program area(s) and number of projects, and any impact a subsequent increase in scope and/or projects would have on administrative costs.

The CEC asserts that State practice is to not return accumulated interest, and the Energy Commission is not administratively set up to do it. The CEC states that it is seeking clarification from the State Controller's Office as to whether it has the legal authority to return accumulated interest. The CEC recommends that, instead, it report the accumulated interest in arrears from the previous three years, and the Commission order the IOUs to reduce the amount transferred to the CEC for the next triennial investment cycle and return an amount equal to the accumulated interest to the ratepayers.

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[89] February 11, 2013 SCE Opening Comments at 6-7.

Because the CEC cannot administratively return accumulated interest, the CEC must report the accumulated interest in arrears from the previous investment plan cycle, and the IOUs must reduce the amounts transferred to the CEC during the next triennial investment cycle by the reported accumulated interest amount and return an amount equal to the accumulated interest to ratepayers.

3.2.1. Transfer of Funds from IOUs to CEC

The IOU Administrators must transfer program funds to the CEC within 30 days of receiving the CEC's request for encumbered program funds. The CEC's request for program funds must be supported by documentation verifying that the CEC approved the project(s) for which funds are requested and include the amount approved for the project(s).

D.12-05-037 requires the IOUs to remit one-quarter of the CEC's annual administrative budget to the CEC quarterly beginning July 1, 2012, and to continue those payments quarterly thereafter until October 1, 2020. In addition, D.12-05-037 requires the IOUs to periodically transfer program funds to the CEC when funds are encumbered by the CEC.[90] This procedure was established to reflect he timing of fund accumulation.

D.12-05-037 encouraged the IOUs and CEC to collaborate as soon as possible to work out specific logistical agreements that they could mutually agree upon for transferring program funds. SDG&E states that the process by which the IOU Administrators will provide program funds to the CEC remains

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[90] Ordering Paragraph No. 9.

unresolved but does not explain why the Administrators did not reach a mutual agreement for transferring program funds to the CEC. SDG&E recommends that the CEC send its forecast of committed program costs for the upcoming quarter and its reconciliation for the prior quarter to the IOU Administrators. The SDG&E proposal would have the IOU Administrators review and approve the forecast before transferring program funds to the CEC.

SDG&E's recommendation does not comply with D.12-05-037 because it relies on a forecast of committed funds that would permit the transfer of program funds to the CEC before those funds have become encumbered. In addition, SDG&E does not explain why the IOU Administrators should be in a position to approve the CEC's forecast before transferring program funds to the CEC, what the IOUs' approval would entail, or what happens if an IOU Administrator fails to approve a CEC forecast.

PG&E recommends that it remit program funds to the CEC upon notification that the CEC has approved projects and the projects' budgets.[91] PG&E's proposal is consistent with the requirements of D.12-05-037 but does not establish a time table for the IOU Administrators' response to a CEC request for program funds.

SCE recommends that the IOU Administrators transfer program funds to the CEC on a quarterly basis for CEC-approved projects where funds have been

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[91] PG&E Opening Brief at 8.

encumbered.[92] The SCE proposal to transfer program funds to the CEC on a quarterly basis would unnecessarily delay the transfer of program funds that have been encumbered by the CEC.

The CEC states that D.12-05-037 adequately addressed this issue by requiring the IOUs to periodically transfer program funds to the CEC when funds are encumbered by the CEC. The CEC states that it can only request program funds for encumbered projects, which, according to the CEC, means when the CEC has already selected and approved the projects for funding.

Therefore, consistent with D.12-05-037, the IOU Administrators must transfer program funds to the CEC within 30 days of receiving the CEC's request for encumbered program funds. The CEC's request for program funds must be supported by documentation verifying that the CEC approved the project(s) for which funds are requested and include the amount approved for the project(s).

4. Compliance with General Order 156

GO 156 seeks to increase participation by women, minority and disabled veteran-owned business enterprises (WMDVBEs) in utility procurement. Specifically, GO 156 requires electrical, gas, water, and telephone corporations with gross annual revenues exceeding $25 million to submit annual plans for increasing WMDVBE participation in procurement and to submit annual reports on implementation of those plans. In addition, GO 156 requires the subject utilities to include in their annual reports the approximate amount of funds, to

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[92] SCE Opening Brief at 20. SCE recommends that the IOU Administrators transfer program funds to the CEC at the same time the IOU Administrators transfer quarterly payments for the CEC's administrative cost.

the extent available, directly expended on developing and distributing technical assistance to WMDVBEs and small businesses. All utility contracting undertaken as part of the EPIC program must comply with GO 156 and IOU Administrators must address EPIC-funded activities in their GO 156 annual plans and reports.

5. State Action Immunity

It is the Commission's intention that the three IOU Administrators, by virtue of entering into RD&D agreements, engaging in RD&D activities, and licensing EPIC-funded IP, whether separately, with third-parties, or with any one of the other IOU Administrators, will be doing so in furtherance of state policy and under the direction and continuing supervision by, and ultimate control of, this Commission, sufficient to confer immunity from antitrust liability under the State Action Doctrine.

As this Commission has explained in a prior decision authorizing these same IOUs to participate in a commercial negotiation over a joint power purchase agreement, the State Action Doctrine affords private entities protection from antitrust liability when they act pursuant to state policy and under the active supervision of an agency such as this Commission. (*See* D.10-06-009 at 8-9.) The Commission there explained:

> "Private party conduct is immune from antitrust liability only if the party claiming immunity shows that its conduct satisfies two requirements. First, it must be 'clearly articulated and affirmatively expressed as state policy.' [*California Retail Liquor Dealers Ass'n v. Midcal Aluminum*, 445 U.S. 97, 105, 100 S.Ct. 937, 63 L.Ed.2d 233 (1980)(*Midcal)*] (internal quotation marks omitted.) This may be satisfied if the conduct is a 'forseeable result' of the state's policy. *Town of Hallie v. City of Eau Claire*, 471 U.S. 34, 38-39, 42, 105 S.Ct. 1713, 1716-17, 1718, 85 L.Ed.2d 24 (1985). Second, the conduct must be 'actively supervised by the State itself.' *Midcal*, 445 U.S. at 105, 100

> S.Ct. at 943 (internal quotation marks omitted). This is satisfied only if 'state officials have and exercise power to review particular anticompetitive acts of private parties and disapprove those that fail to accord with state policy.' (remaining citations omitted.)" *Nugget Hydroelectric, Inc. v. Pacific Gas & Electric Co.*, 981 F.2d 429, 434 (9th Cir. 1992).

It is our intention that the authority we are granting the IOUs in this decision, both to enter into RD&D service contracts and to license IP developed by EPIC funds, is sufficient to confer antitrust immunity under the State Action Doctrine. In particular, it is our intention that the activities of the IOUs under and pursuant to the EPIC program, shall be pursuant to the express direction and continuing supervision of the Commission (reviewed annually and at the beginning of each investment plan cycle) in furtherance of an expressly articulated state policy, as articulated in D.11-12-035, D.12-05-037, and this decision.

Consistent with state law and our decision concerning the fair licensing of IP to LSEs or other utility competitors serving ratepayers, to the extent the grantees' proprietary and competitive interests are appropriately and adequately protected, the licensing of IP will be done on fair, reasonable, and non-discriminatory terms, including but not limited to a fair and reasonable licensing costs charged to LSEs or other utility competitors.

6. Comments on Proposed Decision

The proposed decision of ALJ Smith 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 _____ by _____ and reply comments were filed on _____ by _____.

7. Assignment of Proceeding

Michael R. Peevey is the assigned Commissioner and Richard Smith is the assigned ALJ in this proceeding.

Findings of Fact

1. On November 1, 2012, the CEC, SDG&E, PG&E, and SCE filed A.12-11-001, A.12-11-002, A.12-11-003, and A.12-11-004, respectively, for approval of their proposed EPIC triennial investment plans for the period 2012 through 2014, pursuant to D.12-05-037. Notice of the applications appeared in the Commission's November 7, 2012 Daily Calendar.

2. On December 7, 2012, AReM and MEA filed joint protests to A.12-11-002, A.12-11-003, and A.12-11-004; DRA filed protests to A.12-11-001, A.12-11-002, A.12-11-003, and A.12-11-004; SDG&E filed a protest to A.12-11-001; and CESA filed a response in support of A.12-11-001.

3. The applications were consolidated during the December 21, 2012 PHC.

4. On February 4, 2013, SDG&E filed a supplemental filing to correct errors in Sections 6.2.5 and 6.2.6 of its investment plan brought to SDG&E's attention during the January 17, 2013 workshop and investment plan meeting.

5. The CEC 2012-2014 Investment Plan budget is $418.7 million, or approximately 80% of total EPIC funds, including $25 million per year in 2013 and 2014 for Section 2851(e)(3) funding for solar on new construction.

6. The PG&E 2012-2014 Investment Plan budget is $49.3 million, including approximately $43.2 million for TD&D activities and $4.9 million for program administration.

7. The SCE budget is approximately $37 million for TD&D projects and program administration, with 10% of the budget for program administration.

8. The SDG&E budget is $2.64 million per year for TD&D projects and $299,200 for program administration.

9. Each Administrator's Investment Plan includes a mapping of the planned investments to the electricity system value chain that D.12-05-037 requires.

10. The CEC's Initiative S4.1 was incorrectly mapped to demand side management instead of transmission/distribution. The CEC corrected this mapping error in its response to the January 28 Ruling.

11. Each Investment Plan identifies the amount of funds to be devoted to particular funding categories/program areas (i.e., applied research and development, technology demonstration and deployment, and market facilitation), as required by D.12-05-037.

12. The CEC 2012-2014 Investment Plan budget is $418.7 million, or approximately 80% of total EPIC funds, including $158.7 million for applied research and development, $129.8 million for technology demonstration and deployment, $43.3 million for market facilitation, $25 million per year in 2013 and 2014 for funding the § 2851(e)(3) solar on new construction program and $36.9 million for program administration.

13. The PG&E 2012-2014 Investment Plan budget of $49.3 million includes approximately $43.2 million for TD&D activities and $4.9 million for program administration.

14. The SCE budget of approximately $37 million includes approximately $33.3 million for TD&D projects and $3.7 million for program administration.

15. The SDG&E budget of approximately $2.9 million per year includes approximately $2.64 million per year for TD&D projects and $299,200 per year for program administration.

16. PG&E has withdrawn Project No. 4 from its Investment Plan.

17. PG&E has withdrawn Project No. 7 from its Investment Plan.

18. SCE Proposal 6.1.2 is an energy storage project.

19. SCE Proposal 6.3.1 includes a project to evaluate telemetry equipment for ancillary services at residential endpoints.

20. The CEC's proposal to fund its § 2851(e)(3) solar on new construction program is the only program in IOU service territories that provides incentives for installing solar photovoltaic systems on new residential construction that partially offset solar energy system costs, making solar energy systems cost competitive with conventional forms of electricity and affordable for more consumers.

21. The Administrators have identified circumstances where competitive bidding is not possible or desirable.

22. The IOU Administrators collaboratively developed proposed guidelines and principles for EPIC contract and grant solicitations, metrics, and reporting.

23. There may be instances where utility employees must work in collaboration with outside contractors and vendors to implement TD&D projects on the utilities' operating systems (i.e., "in-house" work).

24. The Administrators' Investment Plans adequately address other eligibility requirements.

25. Each Investment Plan sufficiently summarizes stakeholder comments received during the development of the Investment Plan and the Administrator's response to the comments.

26. The EPIC annual reports outline contained in Attachment 5 to this decision was developed through a collaborative effort of the Administrators and DRA.

27. The project template shown in Attachment 6 to this decision was primarily developed through a collaborative effort of the Administrators and DRA but has

been modified to identify "committed" as well as "encumbered" funds, and additional project bidder/contractor information.

28. The Administrators developed a list of proposed metrics and potential areas of measurement that Administrators could choose based on the scope and objectives for an investment area. The list of proposed metrics includes metrics for public and worker safety, as recommended by Energy Division staff.

29. Each EPIC Administrator has recommended various approaches for the treatment of IP realized or that may be realized from efforts supported by EPIC funds.

Conclusions of Law

1. EHs are not necessary to address whether certain IOU proposals are generation-only projects prohibited by D.12-05-037.

2. The CEC Investment Plan should be modified to correctly map Initiative S4.1 primarily to generation and secondarily to transmission/distribution. As modified, the CEC Investment Plan includes an accurate and adequate mapping of the planned investments to the electricity system value chain.

3. Each of the IOU Investment Plans includes an accurate and adequate mapping of the planned investments to the electricity system value chain.

4. Upon review of the Investment Plans, the proposed budgets are reasonable, and with respect to funds that were originally allocated to proposals we reject here, Administrators should re-allocate those funds to authorized investment plans proposals that are in the same funding category/program area.

5. It reasonable to adopt the funding category (or program area) budgets approved on an interim basis in D.12-05-037, as modified to include in the CEC budget $25 million per year in 2013 and 2014 for Section 2851(e)(3) funding for solar on new construction.

6. Because the Investment Plans, as modified by this decision, are reasonable, the approved expenditures of EPIC funds are just and reasonable.

7. The CEC Investment Plan already adequately addresses energy storage technologies, applications, and deployment scenarios, and should not be modified to explicitly identify energy storage as a strategic asset or to more broadly consider energy storage within each stated objective of the CEC's Investment Plan.

8. Better information on vehicle charging behavior can help the Commission design rates in general rate cases that encourage charging behavior that minimizes costs and supports the State's PEV adoption goals and the funding of PEV charging under the CEC's Strategic Objective S9 is a reasonable way to accomplish this goal.

9. It is not necessary to complete R.10-12-007 before conducting Energy Storage technology TD&D projects because the issues raised by MEA are not part of the proceeding going forward.

10. Each Investment Plan, as modified, meets all the required elements in Ordering Paragraph Nos. 12 and 13 of D.12-05-037.

11. EPIC funds should not be used to allow PG&E to gain a competitive advantage over other LSEs. Therefore, PG&E should make available any results, findings, data or computer models that result from its EPIC projects.

12. It is reasonable to allow PG&E to pursue energy storage research and demonstrations with the goal of providing valuable experience for specific applications prior to a more widespread deployment in the future.

13. To ensure that research results from projects conducted by the utilities will benefit all LSEs, the IOUs should be required to make public any results, findings, data or computer models that result from EPIC projects.

14. It is reasonable to accept PG&E's modification to remove Project No. 4 from its Investment Plan.

15. A project that demonstrates energy resource forecasting modeling is not a generation project.

16. The information regarding weather forecasting and modeling to predict variable resource output in PG&E Project No. 5 should be made available to all LSEs so that all LSEs can adjust their load-forecasting accordingly.

17. To ensure fairness and to prevent PG&E from gaining a competitive advantage, PG&E should make the meteorological modeling system available to other LSEs and to the public.

18. PG&E Project No. 6 should be for the benefit of the CAISO, and all LSEs should be treated equally and equitably. To the extent that PG&E Project No. 6 provides information that benefits PG&E, that information should be shared with LSEs.

19. It is reasonable to accept PG&E's modification to remove Project No. 7 from its Investment Plan.

20. The PG&E Investment Plan should be modified to remove Project No. 14 because PG&E does not adequately demonstrate that the project will promote greater reliability, lower costs or increased safety, and the proposal does not present a compelling need. Energy storage-related projects are not "generation-only."

21. Ancillary services are a transmission reliability function, and are considered non-energy-commodity products.

22. The SDG&E Investment Plan should be modified to reflect the changes to Sections 6.2.5 and 6.2.6 shown in SDG&E's February 4, 2013 supplement.

23. As augmented by the Administrators' responses to the January 28 Ruling, each Investment Plan sufficiently identifies the policy justification for the proposed funding allocation.

24. The Administrators should make available all data, findings, results, computer models and other products developed through the EPIC Program.

25. The IOU Administrator Investment Plans allocate funds only to TD&D programs and to the administration of those programs as required by D.12-05-037.

26. Funding the CEC's proposed § 2851(e)(3) solar on new construction program is reasonable because it is the only program in IOU service territories that provides incentives for installing solar photovoltaic systems on new residential construction that partially offset solar energy system costs, making solar energy systems cost competitive with conventional forms of electricity and affordable for more consumers.

27. The CEC's proposal to allocate $25.0 million per year in 2013 and 2014 to fund its § 2851(e)(3) solar on new construction program should be approved because it is sufficiently justified, and is consistent with D.12-05-037 and statute.

28. The EPIC budget should be modified to reflect approval of the CEC's § 2851(e)(3) solar on new construction program and should be set at $187.0 million annually for the years 2013 and 2014. Beginning January 1, 2015 and continuing through December 31, 2020, the EPIC budget should be $162.0 million unless otherwise ordered or adjusted in the future by the Commission.

29. The IOU Administrators should not use EPIC funds for energy efficiency projects or market facilitation activities.

30. Each Investment Plan adequately identifies the type of funding mechanism to be used for each investment area.

31. The Investment Plans adequately address the use of sole source contracts. However, the Administrators must report the use of non-competitive awards in their annual reports to the Commission.

32. The Investment Plans adequately address the use of sole source contracts. However, the Administrators should be required to report the use of non-competitive awards in their annual reports to the Commission.

33. As modified, the IOUs' proposed contract and grant solicitation guidelines and contracting process should be adopted, and the IOU Administrators should be required to follow these guidelines when soliciting competitive bids for EPIC contract work and evaluating any bids received.

34. The IOU Administrators should not be required to establish a minimum score threshold but should include in the IOU EPIC annual reports project-level information on the number of bidders passing the initial pass/fail screening for that project and, of those, the ordinal rank of the selected bidder. If the selected bidder was not the highest scoring bidder, the IOU EPIC annual reports project template should explain why a lower scoring bidder was selected.

35. A separate approval process should not be required for contracts or grants that are not awarded through a competitive bidding process. However, Administrators should be required to justify any contracts or grants exempted from competitive bidding in their annual reports, and the Administrators' use of non-competitive awards should be reviewed in the next triennial investment plan cycle.

36. The IOU Administrators should be allowed to use EPIC funds for costs in connection with utility personnel working in-house in collaboration with an

EPIC funded contractor because there may be instances where utility employees must work in collaboration with outside contractors and vendors to implement TD&D projects on the utilities' operating systems.

37. Limits should not be set at this time on how much funding may be used for in-house work. However, the IOU Administrators should be required to track EPIC funds spent for in-house activities and separately report in their EPIC annual reports the dollars spent for in-house activities from amounts paid for contract work and administrative activities. This information should provide a basis for determining in the next triennial investment plan cycle whether limitations on EPIC fund expenditures for in-house work should be established.

38. Administrative costs do not include in-house costs that may be incurred as a result of an IOU's direct involvement and participation in authorized TD&D projects.

39. Utility technical personnel must necessarily be involved in coordinating the interface between this contract work and utility systems and processes to implement TD&D projects on the utilities' operating systems. Direct and necessary involvement and participation of utility technical personnel in authorized EPIC TD&D projects go beyond "program administration", and the costs for this in-house activity should not be included in the administrative costs authorized by D.12-05-037.

40. The funding of research institutes with EPIC funds should be permitted.

41. Each Investment Plan sufficiently identifies the eligibility criteria for award of funds in particular areas.

42. Each Investment Plan sufficiently identifies any limitations for funding.

43. D.12-05-037 encourages the use and leveraging of matching funds whenever possible but does not require matching funds.

44. The IOU Investment Plans should not be required to include a matching fund requirement.

45. It is not necessary to explicitly list community based organizations representing communities of color and low income consumers as stakeholders to be consulted during the development and execution of each investment plan because community groups are already included among those to be consulted.

46. Because D.12-05-037 requires Administrators to provide notice of biannual meetings to the parties on the service list of R.11-10-003 and any subsequent related proceedings, including this proceeding, Joint Parties will be notified of and may participate in required consultations in connection with the development and execution of each Investment Plan.

47. Because D.12-05-037 requires triennial investment plans to include a summary of stakeholder comments received during consultation meetings and the Administrators' responses to the comments, stakeholder concerns about particular projects or other Administrator activities will be brought to the Commission's attention.

48. DRA's proposal to establish technical working groups should not be adopted because the proposal is untimely, unnecessary, duplicative and overly vague.

49. The Commission should not adopt DRA's proposal to authorize the Energy Division to temporarily suspend or terminate any EPIC project that the Energy Division deems inappropriate because the proposal does not provide due process, would unlawfully delegate discretionary power to the Energy Division Director to suspend or terminate a project which the State has a legally binding agreement with the project recipient, and because the proposal is ambiguous as to what constitutes an "inappropriate" project.

50. Parties or EPIC stakeholders with concerns that EPIC funds are being used inappropriately or contrary to the approved Investment Plans should bring their concerns to the attention of the Energy Division, and the Energy Division should present recommendations in a resolution for Commission consideration, if appropriate.

51. Administrators should be required to follow the outline contained in Attachment 5 to this decision when preparing the EPIC annual reports required by D.12-05-037 because the common outline will facilitate consistent reporting by the Administrators on their Investment Plans and project results, and this will help the Commission ensure that public funds are spent wisely and that the State and ratepayers are accruing benefits.

52. The Administrators should be required to provide the information identified in the project template shown in Attachment 6 to this decision to report on projects described in Section 4.b of the EPIC annual report outline adopted by this decision.

53. The IOU Administrators should be required to obtain from bidders a voluntary and informed waiver of the right to be served an EPIC annual report, if bidders do not want to be served an EPIC annual report.

54. The IOU Administrators should be required to disclose the identity, scope of work, and deliverables of winning bidders in their EPIC annual reports. If contract negotiations are active at the time of publication of EPIC annual reports, the IOU Administrators should be required to disclose such information within 90 days of executing the contract, and should describe in their EPIC annual reports any IP produced by winning bidders.

55. Each Administrator should include with its EPIC annual report a final report on every project completed during the previous year. The final project

report should provide a comprehensive description of the project, present detailed findings and results, including a summary of all data collected and how the data may be accessed.

56. The IOUs provide brief but adequate informational summaries of the research, development and demonstration activities undertaken as part of their approved Energy Efficiency and Demand Response portfolios.

57. The IOUs Administrators should provide more thorough informational summaries of their RD&D activities undertaken as part of their approved Energy Efficiency and Demand Response portfolios in their future EPIC investment plan applications. Each IOU investment plan application should include an appendix summarizing the RD&D activities undertaken as part of their approved Energy Efficiency and Demand Response portfolios, and this appendix should describe each RD&D project, including the purpose, funding, deliverables and progress to date.

58. The list of proposed metrics included as Attachment 4 to this decision should be adopted as a supplement to each Investment Plan. As modified, each Investment Plan includes reasonable and adequate metrics against which the Investment Plan's success may be judged.

59. The Administrators should have the flexibility to choose metrics on a project-by-project basis, and because the list of proposed metrics and potential areas of measurement is not exhaustive, the Administrators should be able to use additional metrics where appropriate. However, the Administrators must identify those metrics in the EPIC annual report for each project.

60. The Commission in past proceedings has taken different approaches to the treatment of IP developed by, or assisted in its development by, ratepayer funds.

61. The Commission must balance the multiple goals of promoting utility ratepayer-targeted RD&D, commercialization of promising IP, and retaining the value of investments that ratepayers make.

62. One of the goals of the EPIC program is to promote the commercialization of promising IP, but prospective grantees might not pursue EPIC funding if they were required to cede or share ownership of IP to or with IOUs.

63. Requiring grant recipients to give the Commission and CEC an unrestricted licenses, which can be granted to or shared with the IOUs for the benefit of ratepayers, will not dissuade otherwise interested prospective grantees from participating in the EPIC program.

64. EPIC grant recipients should be required to give to the State of California: a no-cost, nonexclusive, transferable, irrevocable, royalty-free, worldwide perpetual license, as administered by the Commission or CEC, to use or have practiced for or on behalf of the State of California the IP for governmental purposes, where the license can be granted to or shared with any of the IOUs for the benefit of ratepayers and in the provision of utility services.

65. The prospect that some proprietary IP may be improperly shared with ESPs or other potential competitors of grantees would have a dampening effect on promoting development and commercialization of RD&D.

66. The CEC, after consultation with the Commission's Energy Division Director or designee, should be allowed to negotiate and share its license in EPIC grantees' IP with ESPs, CCAs, or other stakeholders where appropriate and fair, on a cost-free basis, insofar as the competitive, proprietary interests of the EPIC grantees are not compromised.

67. If, in accordance with a Commission order, the EPIC grantee alone owns and holds rights to the IP, then § 851 does not apply.

68. Section 851 does not apply to IP owned or held by the CEC.

69. Where the IOUs neither own nor have license rights to IP, then our treatment of IP under the LLNL CRADA is not applicable.

70. There is no basis in law that RD&D in the EPIC program, solely because it is funded in whole or in part by grants funded by ratepayers, necessarily requires that IOUs hold an ownership interest in or license to the IP. Rather, ownership or license rights are perfected only through operation of law and contract.

71. Section 851 applies only to utility ownership of or property interest in IP. Section 851 does not apply to the Commission's or CEC's ownership of or other rights in IP.

72. Grantees of EPIC-funded CEC grants should own the IP developed with EPIC-funds; the State should hold unrestricted, no-cost licenses to data, copyrights, and deliverables for governmental purposes only (e.g., auditing and reporting purposes), subject to appropriate confidentiality protections for commercially sensitive information, where such licenses will be administered by the Commission and/or the CEC. The State should hold unrestricted, no-cost licenses to patented IP on a no-cost basis, which the CEC may grant to or share with the IOUs for the sole benefit of ratepayers on a no-cost basis, subject to appropriate confidentiality protections for commercially sensitive information; and the State, through the Commission or CEC, should hold march-in rights to assume all IP rights if the grantee does not undertake to patent the IP.

73. Any LSE, government agency, or other entity should be allowed to petition the CEC to license EPIC-funded IP on a cost-free or discounted basis. Factors governing the propriety of the CEC's granting or sharing a license should include: ensuring that IOUs do not have an unfair competitive advantage over

competitor LSEs in holding licenses to EPIC-funded IP; ensuring that the proprietary nature of the IP is not compromised; and ensuring that LSEs or other entities do not unfairly profit from a cost-free license where fairness and the policy of promotion of RD&D would require such LSE or other entity to pay to use the IP or else contract directly with the EPIC award recipient.

74. For all EPIC-funded IP that the IOUs or LSEs license, the IOUs and LSEs should hold the Commission, the CEC, and their employees free from liability for the use of such IP.

75. All EPIC awarded grants and contracts should contain a Hold Harmless Clause, so that EPIC grantees and contractors hold the Commission, the CEC, and their employees from liability.

76. Each Investment Plan adequately addresses the principles articulated in Pub. Util. Code §§ 740.1 and 8360.

77. The CEC Investment Plan adequately addresses the requirements of § 740.1 and § 8360.

78. The PG&E Investment Plan complements PG&E's existing and planned RD&D programs, consistent with the goals for utility-funded RD&D and pilot projects in § 740.1 and § 8360.

79. As modified, each Investment Plan complies with D.12-05-037 and the proposals in each of the Investment Plans offer a reasonable probability of providing electricity ratepayer benefits by promoting greater reliability, lowering costs, and increasing safety.

80. Ordering Paragraph No. 14 of D.12-05-037 only addresses fund shifting between funding categories/program areas (i.e., shifting funds from one funding category/program area to another funding category/program area).

81. D.12-05-037 adopted a modified version of the Staff Proposal by limiting fund shifting between funding categories/program areas to five percent.

82. D.12-05-037 does not specify the procedure that Administrators must use to obtain any necessary authorization to shift more than five percent of funds between funding categories/program areas.

83. Administrators should file a petition to modify to request authority to shift more than five percent of the adopted budget for each funding category/program area or to new categories of funding.

84. The advice letter process is not available to the CEC because the CEC is not a utility or a load-serving entity as defined by § 380(j).

85. Anyone may file a petition for modification to ask the Commission to make changes to an issued decision. Therefore, the CEC should file a petition for modification to request authority to shift more than five percent of the adopted budget for each funding category/program area or to new categories of funding.

86. Proposing an entirely new category of expenditures between adopted investment plans would constitute a material change to the plan and requires further Commission review and consideration. Such requests could be controversial or raise important policy questions. Therefore, the IOU Administrators should file a petition for modification to propose an entirely new category of expenditures between adopted investment plans or to request authority to shift more than five percent of the adopted budget for each funding category/program area to another funding category/program area.

87. Administrators should be allowed to shift funds within a funding category/program area without limitation because Administrators need the flexibility to efficiently administer authorized proposals within a funding category/program area.

88. Funds that remain unspent at the end of investment plan cycles should be moved forward (i.e., rolled over) into the next investment plan cycle for inclusion in subsequent investment plan budgets.

89. Moving unspent funds to the next investment plan cycle will permit the Administrators to more carefully execute their EPIC programs and will allow for a smoother transition from one investment plan cycle to the next cycle without wasting resources resulting from disrupting ongoing project solicitation processes.

90. Administrators should explain in their triennial investment plans what caused any unspent funds in the prior investment plan cycle, and how the unspent funds would affect the program area(s) and projects.

91. Unspent funds remaining at the end of a triennial investment funding period should be used to offset future program funding requirements.

92. The budget adopted for a subsequent investment plan cycle should be reduced by the amount of interest accumulated during the preceding investment plan cycle. Funds that are committed or encumbered for projects in one investment cycle should not reduce future investment cycle funds.

93. Any funds that have not been committed or encumbered by the end of the third triennial investment plan cycle, including accumulated interest, should be returned to ratepayers if legally permitted to do so. Any accumulated interest that has not been returned to ratepayers at the end of the third triennial investment plan cycle should be deducted from the budget adopted for a subsequent investment plan cycle.

94. "Committed funds" should be defined as funds identified during the planning of a solicitation for a specific project that will be needed to fund a

contract or grant for that project at the conclusion of a planned or released solicitation. Such committed funds should not be considered "unspent" funds.

95. "Encumbered funds" should be defined as funds that are specified within contracts signed during a previous triennial investment plan cycle and associated with specific activities under the contract. All activities carried out under a contract during a specific triennial investment plan cycle need not be completed and funds need not be spent during that particular program cycle if the activities undertaken pursuant to the contract are expected to be completed. Such funds should be considered "encumbered" and should not be considered "unspent" funds. Only funds that are committed or encumbered during the prior program cycle should be eligible for being rolled into the following program cycle."

96. The IOU Administrators should transfer program funds to the CEC within 30 days of receiving the CEC's request for encumbered program funds. The CEC's request for program funds should be supported by documentation verifying that the CEC approved the project(s) for which funds are requested and include the amount approved for the project(s).

97. All utility contracting undertaken as part of the EPIC program should be required to comply with GO 156 and IOU Administrators should be required to address EPIC-funded activities in their GO 156 annual plans and reports.

98. The authority granted the IOUs in this decision to enter into RD&D service contracts and to license IP developed by EPIC funds is sufficient to confer antitrust immunity under the State Action Doctrine, and activities of the IOUs under and pursuant to the EPIC program, should be pursuant to the express direction and continuing supervision of the Commission in furtherance of an expressly articulated state policy, as articulated in D.11-12-035, D.12-05-037, and this decision.

O R D E R

IT IS ORDERED that:

1. Application 12-11-001 for approval of the California Energy Commission Electric Program Investment Charge Triennial Investment Plan for 2012 through 2014 is approved, as modified by Ordering Paragraph Nos. 12-14, 17, 21, 22, 25, 26, 28, and 29.

2. The California Energy Commission Electric Program Investment Charge program budget is modified to reflect approval of additional charges to fund the Section 2851(e)(3) solar on new construction proposal and is set at $187.0 million annually for the years 2013 and 2014. Beginning January 1, 2015 and continuing through December 31, 2020, the Electric Program Investment Charge budget will be $162.0 million unless otherwise ordered or adjusted in the future by the Commission.

3. Application 12-11-002 for approval of the San Diego Gas & Electric Company Electric Program Investment Charge Triennial Investment Plan for 2012 through 2014 is approved, as modified by Ordering Paragraph Nos. 6 and 11 through 27.

4. Application 12-11-003 for approval of the Pacific Gas and Electric Company Electric Program Investment Charge Triennial Investment Plan for 2012 through 2014 is approved, as modified by Ordering Paragraph Nos. 6 through 10 and 12 through 27.

5. Application 12-11-004 for approval of the Southern California Edison Company Electric Program Investment Charge Triennial Investment Plan for 2012 through 2014 is approved, as modified by Ordering Paragraph Nos. 6 and 12 through 27.

6. Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company must make available any results, findings, data or computer models that result from their Electric Program Investment Charge projects.

7. The Pacific Gas and Electric Company Investment Plan modification to remove Project No. 4 is approved.

8. The information regarding weather forecasting and modeling to predict variable resource output in Pacific Gas and Electric Company Project No. 5 must be made available to all load-serving entities (LSEs) so that all LSEs can adjust their load-forecasting accordingly.

9. The Pacific Gas and Electric Company Investment Plan modification to remove Project No. 7 is approved.

10. The Pacific Gas and Electric Company Investment Plan is modified to remove Project No. 14.

11. The San Diego Gas & Electric Company (SDG&E) Investment Plan modification to reflect the changes to Sections 6.2.5 and 6.2.6 shown in SDG&E's February 4, 2013 supplement is approved.

12. The California Energy Commission, Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company must make available all data, findings, results, computer models and other products developed through the Electric Program Investment Charge program.

13. The California Energy Commission, Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company must include with their Electric Program Investment Charge annual report a final report on every project completed during the previous year. The final project report must provide a comprehensive description of the project, present

detailed findings and results, including a summary of all data collected and how the data may be accessed.

14. The California Energy Commission, Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company must report the use of non-competitive awards in their annual reports to the Commission.

15. The Pacific Gas and Electric Company's, Southern California Edison Company's, and San Diego Gas & Electric Company's (investor-owned utility (IOU) Administrators') proposed contract and grant solicitation guidelines and contracting process attached to this decision as Attachment 3 are adopted as modified. The IOU Administrators must follow these guidelines when soliciting competitive bids for Electric Program Investment Charge contract work and evaluating any bids received.

16. Pacific Gas and Electric Company's, Southern California Edison Company's, and San Diego Gas & Electric Company's (investor-owned utility (IOU)Administrators') Electric Program Investment Charge (EPIC) annual reports must include project-level information on the number of bidders passing the initial pass/fail screening for that project and, of those, the ordinal rank of the selected bidder. If the selected bidder was not the highest scoring bidder, the IOU Administrators' EPIC annual reports project template must explain why a lower scoring bidder was selected.

17. California Energy Commission, Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company (Administrators) must justify any contracts or grants exempted from competitive bidding in their Electric Program Investment Charge annual reports. The

Administrators' use of non-competitive awards will be reviewed in the next triennial investment plan cycle.

18. Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company may use Electric Program Investment Charge (EPIC) funds for costs in connection with utility personnel working in-house in collaboration with an EPIC funded contractor.

19. Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company must track Electric Program Investment Charge (EPIC) funds spent for in-house activities and separately report in their EPIC annual reports the dollars spent for in-house activities from amounts paid for contract work and administrative activities. This information will provide a basis for determining in the next triennial investment plan cycle whether limitations on EPIC fund expenditures for in-house work should be established.

20. Electric Program Investment Charge funds may not be used for in-house activities where the utility is conducting all of the work using its own staff and facilities.

21. The California Energy Commission, Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company must follow the outline contained in Attachment 5 to this decision when preparing the Electric Program Investment Charge annual reports required by Decision 12-05-037.

22. The California Energy Commission, Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company must provide the information identified in the project template shown in Attachment 6 to this decision to report on projects described in Section 4.b of the

Electric Program Investment Charge annual report outline adopted by this decision.

23. Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company must obtain from bidders a voluntary and informed waiver of the right to be served an Electric Program Investment Charge annual report.

24. Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company (investor-owned utility (IOU) Administrators) must disclose the identity, scope of work, and deliverables of winning bidders in their Electric Program Investment Charge (EPIC) annual reports. If contract negotiations are active at the time of publication of EPIC annual reports, the IOU Administrators must disclose such information within 90 days of executing the contract, and must describe in their EPIC annual reports any intellectual property produced by winning bidders.

25. The list of proposed metrics included as Attachment 4 to this decision is adopted as a supplement to each Investment Plan.

26. The California Energy Commission, Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company (Administrators) may choose metrics on a project-by-project basis from those included as Attachment 4 or additional metrics where appropriate. However, the Administrators must identify in the Electric Program Investment Charge annual report the metrics used for each project.

27. For all Electric Program Investment Charge (EPIC)-funded intellectual property (IP) that the Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company or load-serving entities (LSEs) license, the investor-owned utilities and LSEs must hold the

Commission, the California Energy Commission (CEC), and their employees free from liability for the use of such IP. All EPIC awarded grants and contracts must contain a Hold Harmless Clause, so that EPIC grantees and contractors hold the Commission, the CEC, and their employees from liability.

28. The California Energy Commission, after consultation with the Commission's Energy Division Director or designee, may negotiate and share its license in Electric Program Investment Charge (EPIC) grantees' intellectual property with Electric Service Providers, Community Choice Aggregators, or other stakeholders where appropriate and fair, on a cost-free basis, insofar as the competitive, proprietary interests of the EPIC grantees are not compromised.

29. Grantees of Electric Program Investment Charge (EPIC)-funded California Energy Commission (CEC) grants will own the intellectual property (IP) developed with EPIC-funds; the State must hold unrestricted, no-cost licenses to data, copyrights, and deliverables for governmental purposes only (e.g., auditing and reporting purposes), subject to appropriate confidentiality protections for commercially sensitive information, where such licenses will be administered by the Commission and/or the CEC. The State must hold unrestricted, no-cost licenses to patented IP on a no-cost basis, which the CEC may grant to or share with the Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company for the sole benefit of ratepayers on a no-cost basis, subject to appropriate confidentiality protections for commercially sensitive information; and the State through the Commission or CEC must hold march-in rights to assume all IP rights if the grantee does not undertake to patent the IP.

30. Any load-serving entity (LSE), government agency, or other entity may petition the California Energy Commission (CEC) to license Electric Program

Investment Charge (EPIC)-funded intellectual property (IP) on a cost-free or discounted basis. Factors governing the propriety of the CEC's granting or sharing a license include: ensuring that Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company do not have an unfair competitive advantage over competitor LSEs in holding licenses to EPIC-funded IP; ensuring that the proprietary nature of the IP is not compromised; and ensuring that LSEs or other entities do not unfairly profit from a cost-free license where fairness and the policy of promotion of RD&D would require such LSE or other entity to pay to use the IP or else contract directly with the EPIC award recipient.

31. The funding of research institutes with Electric Program Investment Charge funds is permitted.

32. The California Energy Commission, Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company must file a petition to modify to request authority to shift more than five percent of the adopted budget for each funding category/program area or to new categories of funding.

33. The California Energy Commission, Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company may shift funds within a funding category/program area without limitation.

34. Funds that remain unspent at the end of investment plan cycles must be moved forward (i.e., rolled over) into the next investment plan cycle. Unspent funds remaining at the end of a triennial investment funding period will offset future program funding requirements.

35. Each future Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company Electric Program Investment

Charge investment plan application must include an appendix summarizing the research, development, and demonstration (RD&D) activities undertaken as part of their approved Energy Efficiency and Demand Response portfolios, and this appendix must describe each RD&D project, including the purpose, funding, deliverables and progress to date.

36. The California Energy Commission, Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company must explain in their triennial investment plans what caused any unspent funds in the prior investment plan cycle, and how the unspent funds would affect the program area(s) and projects.

37. The budget adopted for a subsequent investment plan cycle must be reduced by the amount of interest accumulated during the preceding investment plan cycle. Funds that are committed or encumbered for projects in one investment cycle will not reduce future investment cycle funds.

38. Any funds that have not been committed or encumbered by the end of the third triennial investment plan cycle, including accumulated interest, must be returned to ratepayers if legally permitted to do so. Any accumulated interest that has not been returned to ratepayers at the end of the third triennial investment plan cycle will be deducted from the budget adopted for a subsequent investment plan cycle.

39. "Committed funds" are funds identified during the planning of a solicitation for a specific project that will be needed to fund a contract or grant for that project at the conclusion of a planned or released solicitation.

40. "Encumbered funds" are funds that are specified within contracts signed during a previous triennial investment plan cycle and associated with specific activities under the contract. All activities carried out under a contract during a

specific triennial investment plan cycle need not be completed and funds need not be spent during that particular program cycle if the activities undertaken pursuant to the contract are expected to be completed. Only funds that are committed or encumbered during the prior program cycle are eligible for being rolled into the following program cycle."

41. The Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company must transfer program funds to the California Energy Commission (CEC) within 30 days of receiving the CEC's request for encumbered program funds. The CEC's request for program funds must be supported by documentation verifying that the CEC approved the project(s) for which funds are requested and include the amount approved for the project(s).

42. All utility contracting undertaken as part of the Electric Program Investment Charge (EPIC) program must comply with General Order (GO) 156 and Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas and Electric Company must address EPIC-funded activities in their GO 156 annual plans and reports.

43. The activities of the Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company under and pursuant to the Electric Program Investment Charge program are pursuant to the express direction and continuing supervision of the Commission in furtherance of an expressly articulated state policy, as articulated in Decision (D.) 11-12-035, D.12-05-037, and this decision.

44. Consistent with state law and our decision concerning the fair licensing of intellectual property (IP) to load-serving entities (LSEs) or other utility competitors serving ratepayers, to the extent the grantees proprietary and

competitive interests are appropriately and adequately protected, the licensing of IP must be done on fair, reasonable, and non-discriminatory terms, including but not limited to a fair and reasonable licensing costs charged to LSEs or other utility competitors.

45. Evidentiary hearings are not necessary.

46. Application (A.) 12-11-001, A.12-11-002, A.12-11-003, and A.12-11-004 are closed.

This order is effective today.

Dated _____, at San Francisco, California.

Attachment 1
Appearances

Attachment 2
Acronyms and Abbreviations

Attachment 2

Acronyms and Abbreviations

ALJ	Administrative Law Judge
AMI	Advanced Metering Infrastructure
AReM	Alliance for Retail Energy Markets
ATS	Applied Technology Services
CAISO	California Independent System Operator
CARB	California Air Resources Board
CCA	Community Choice Aggregator
CEC	California Energy Commission
CESA	California Energy Storage Alliance
CRADA	Cooperative Research and Development Agreement
CSI	California Solar Initiative
DBE	Diverse Business Enterprises
DOE	Department of Energy
DR	Demand Response
DR	Demand response
EPIC	Electric Program Investment Charge
ES	Energy Storage
ESP	electric service provider
EV	Electric vehicle
EVSE	Electric vehicle services equipment
IOU	Investor-owned utility
IP	Intellectual property
LLNL	Lawrence Livermore National Laboratory
LSE	Load-serving entity
M/WBE	Minority and Woman-owned Business Enterprise
MDU	Multi-Dwelling Unit
MEA	Marin Energy Authority
NRDC	Natural Resources Defense Council
NSHP	New Solar Homes Partnership
PEV	Plug-in Electric Vehicle
PG&E	Pacific Gas and Electric Company
PGC	Public goods charge
PHC	Prehearing conference
PLC	Power Line Carrier

PV	Photovoltaic
RD&D	Research, development, and demonstration
RETI	Renewable Energy Transmission Initiative
RFP	Request for proposal
RTTF	Renewable Resource Trust Fund
SCE	Southern California Edison Company
SDG&E	San Diego Gas and Electric Company
SEP2	Smart Energy Profile 2
TD&D	Technology demonstration and deployment
TD&D	Technology demonstration and deployment
TLM	Transformer Load Management
TURN	The Utility Reform Network
WMDVBEs	Women, minority and disabled veteran-owned business enterprises

(End of Attachment 2)

Attachment 3

Adopted IOU EPIC Administrator Contractor Solicitation Process and Evaluation Guidelines

Attachment 3

Adopted IOU EPIC Administrator
Contractor Solicitation Process and Evaluation Guidelines

The EPIC IOU Administrators have agreed to adhere to the following guidelines and general process when soliciting competitive bids for EPIC contract work, and evaluating any bids received. These guidelines and processes are not exhaustive; each IOU will continue to follow its individual corporate procurement, supply management and affiliate compliance rules, regulations, policies and initiatives. In addition, each Request for Proposal ("RFP") will be tailored to reflect the particular EPIC program it is designed to benefit.

I. Guidelines for Developing and Distributing an RFP for Competitive Bids

a. Potential suppliers may be pre-qualified through a Request for Information (RFI) or Request for Qualifications (RFQ) process that might be initiated prior to issuing the RFP. The RFI or RFQ may consider relevant factors such as (but not limited to):

   - Potential Suppliers' individual capabilities;
   - Product and/or service offerings;
   - Past performance;
   - Current work load (capacity to perform if awarded a contract);
   - Geographic location; and
   - Competitive market position.

b. Source selection criteria should be developed before the RFP is released to the marketplace.

c. The RFP will be sent to potential suppliers known in the industry, including certified (or certifiable) Diverse Business Enterprises (DBE) such as minority- and woman-owned business concerns (M/WBEs), Service Disabled Veterans' business concerns and local business associations, such as SCORE.

d. Where competitive bids are being used, utility communications, including bidder conferences and answers to RFP questions, and any activity associated with the RFP will be offered equally to all bidders under consideration.

e. The IOU will follow all applicable affiliate compliance rules and regulations in the event that one or more of the bidders or interested bidders is a corporate affiliate.

II. Scoring Process Guidelines

The Scoring Process of competitive bids will occur in two rounds. The first is a Pass/Fail round. A bidder will have to pass all of the criteria in the Pass/Fail round to advance to the second round, which will have specific weighed scoring criteria narrowly focused for the project at issue.

a. Round One: Pass/Fail

The EPIC IOU Administrators have agreed to use comparable scoring categories during the Pass/Fail round of a competitive EPIC solicitation. This would not preclude any of the EPIC IOUs from using additional Pass/Fail criteria.

i. Proposal Response: The bidder's proposal response ("proposal") included all the required sections as outlined by the RFP and the RFP Checklists. In addition, a quick determination of "sufficiency" will be performed on key elements of the proposal (e.g. Are work papers, plans, etc. complete?). For purposes of responsiveness reviews, "sufficiency" means completed enough to perform an adequate evaluation.

ii. Bidder's License and Insurance Information: The proposal includes a response to each license and insurance request, such as proof of up-to-date licenses and insurance coverage.

iii. Bidder Financial Information: The proposal includes a response to questions regarding the finances of the bidder, or states that it can make a good faith showing of particular financial information on request.

iv. Bidder Sustainability Efforts: The proposal includes information about the bidder’s sustainability efforts (i.e., company-wide recycling programs).

b. Round Two: Factors Specific to the Project Work Needed

Any proposals that meet all of the criteria of the Pass/Fail round would advance to the second round. In the second round, the proposal will be judged on a variety of factors, which the IOU would have specifically chosen to complement the EPIC program. The factors will be scored on a scale (i.e., 0-5 or 0-10) and will be given different emphasis depending on their importance to the specific EPIC program. Possible factors that will be

considered during the second round include, but are not limited to (and in no particular order of importance):

i. Proposal Feasibility/ Overall Technical Merits of the Proposed Approach/Meets the Intended Use: For example, the proposal demonstrates the individual components of the program design (e.g., staffing plan, research plan effectiveness, work plan, timeline, etc.) and how these parts contribute toward the potential success of the implementation of the program; the proposal demonstrates a clear understanding of what is required to accomplish the program deliverables and goals; the proposal provides evidence that the applicant is knowledgeable about the same or similar program concept, approach, and implementation; and the proposal identifies and provides strategies to overcome identified barriers.

ii. Comprehensiveness: For example, the proposal demonstrates a comprehensiveness approach in executing the required work and the program design includes a reasonable strategy to minimize lost opportunities.

iii. Innovation: The program design is innovative. For example, the program design seeks to take a systems approach by developing new combinations of existing and new technologies, control systems or software to increase the anticipated savings from each component of the system due to synergies between components.

iv. Cost: This may be evaluated several different ways, including but not limited to, total cost, cost efficiency, a cost-benefit methodology, levelized cost, or $/man labor for a particular skill.

v. Cost Management: The proposal demonstrates bidder's existing knowledge to drive process improvements; bidder is willing to participate in continuous improvement to drive down costs.

vi. Bidder Capability, Skills and Related Experience: The proposal demonstrates that the bidder has successfully (based on goals and budgets versus actual results) implemented a program with similar breadth and scope (same end-uses and technical skill set) or the bidder provides strong evidence of ability to perform.

vii. Diversity: The bidder is a registered M/WBE or a Service Disabled Veterans' business concern or the bidder has provided a DBE

Subcontracting Commitment as defined on a signed DBE Commitment Form.

viii. Benefits to Ratepayers and the State: the bidder describes benefits for IOU ratepayers and, if applicable, for the State expected from the completed contracted work including, but not limited to, GHG emission reductions, additional jobs, and improved worker or public safety.

ix. Acceptance of the Standard Terms and Conditions: The bidder accept the IOU's standard Terms and Conditions without modifications, or requests minor or substantial changes to the standard Terms and Conditions.

x. Quality Control: for example, the proposal demonstrates that the bidder has procedures in place to monitor work quality, track quality control incidents, and correct any issues. .

xi. Customer Service: for example, the proposal demonstrates that the bidder has an understanding of customer requirements, and the bidder has the resources and technology in place to handle and meet service level commitments.

xii. Supplier Responsibility Programs: for example, the proposal includes information about the bidder's supplier responsibility programs, such as an "Environment, Health and Safety" or "Ethics and Compliance" program.

xiii. Safety Record: for example, the proposal includes information about the bidder's safety record, such as a proven safety track record, a safety violation tracking system, and an established process to correct any safety issues.

Except as required by D.13-XX-XXX, all information received from bidders, including their identities, whether they are eventually selected or not, must be kept confidential until the conclusion of the EPIC Program on December 31, 2020. Proprietary information received from suppliers concerning prices, costs, delivery commitments, suppliers' unique and novel ideas, and similar data is to be revealed only to those company personnel who are authorized to receive and have a need to know such information, and to authorized Commission personnel. Exceptions to this policy can be made only with the written authorization of the bidder. The identity of the utility employees or consultants who review the bids will

also remain confidential in accordance with their reasonable expectation of privacy.

(END OF ATTACHMENT 3)

Attachment 4

List of Potential Evaluation Areas

Attachment 4

List of Potential Evaluation Areas

The California Energy Commission, Pacific Gas and Electric Company, Southern California Edison and San Diego Gas and Electric Company, as administrators of the Electric Program Investment Charge Program, propose the following Master List of candidate elements that may be evaluated and/or measured in preparing solicitation materials, performing project work, assessing project results, and preparing annual reports for the EPIC Investment Plans.

In developing a proposed project or investment area, the program administrator will determine the applicable elements to be measured and/or evaluated under the proposed investment area. The following items represent potential areas for consideration and evaluation consistent with the requirements set forth in D. 12-05-037.

Not all of the elements listed will apply to either a project/proposal or to each EPIC Administrator given their approved Investment Plan. These elements are representative of areas of potential impact for evaluating the success of a particular project. This list is not intended to be exhaustive, and new elements may be added to this list as appropriate.

In development of a project or proposal, each EPIC Administrator will establish a measurement plan to evaluate the effectiveness of the planned area of investment in its approved EPIC Investment Plan. Metrics selected for a specific program or proposal will be driven by the specific project scope and stated objectives. Metrics of success change over time as a program or project moves from concept to completion. For example:

- At project initiation: Quantify and describe knowledge to be advanced to overcome critical barriers (e.g., permit challenges, integration challenges).
- At project conclusion: Assess whether the program or project met applicable technical targets. Estimate the value of the project results, including benefits expected if the technology or strategy achieves a reasonable market penetration including how project results may be used.
- After commercialization, if applicable: For selected projects, conduct an in-depth assessment of benefits achieved.

List of Proposed Metrics and Potential Areas of Measurement (as applicable to a specific project or investment area in applied research, technology demonstration, and market facilitation)

1. Potential energy and cost savings.
   a. Number and total nameplate capacity of distributed generation facilities
   b. Total electricity deliveries from grid-connected distributed generation facilities
   c. Avoided procurement and generation costs
   d. Number and percentage of customers on time variant or dynamic pricing tariffs
   e. Peak load reduction (MW) from summer and winter programs
   f. Avoided customer energy use (kWh saved)
   g. Percentage of demand response enabled by automated demand response technology (e.g. Auto DR)
   h. Customer bill savings (dollars saved)
   i. Nameplate capacity (MW) of grid-connected energy storage.
2. Job creation.
   a. Hours worked in California and money spent in California for each project
3. Economic benefits.
   a. Maintain / Reduce operations and maintenance costs
   b. Maintain / Reduce capital costs
   c. Reduction in electrical losses in the transmission and distribution system
   d. Number of operations of various existing equipment types (such as voltage regulation) before and after adoption of a new smart grid component, as an indicator of possible equipment life extensions from reduced wear and tear.
   e. Non-energy economic benefits

f. Improvements in system operation efficiencies stemming from increased utility dispatchability of customer demand side management

g. Co-benefits and co-products (e.g. feed, soil amendment, lithium extraction)

h. Energy Security (reduced energy and energy-related material imports)

4. Environmental benefits.

a. GHG emissions reductions (MMTCO2e)

b. Criteria air pollution emission reductions.

c. Water savings

d. Water quality improvement

e. Waste reductions

f. Habitat area disturbance reductions

g. Wildlife fatality reductions (electrocutions, collisions)

5. Safety, Power Quality, and Reliability (Equipment, Electricity System)

a. Outage number, frequency and duration reductions

b. Electric system power flow congestion reduction

c. Forecast accuracy improvement

d. Public safety improvement and hazard exposure reduction

e. Utility worker safety improvement and hazard exposure reduction

f. Reduced flicker and other power quality differences

h. Reduction in system harmonics

i. Increase in the number of nodes in the power system at monitoring points

6. Other Metrics (to be developed based on specific projects through ongoing administrator coordination and development of competitive solicitations).

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

a. Description of the issues, project(s), and the results or outcomes

b. Increased use of cost-effective digital information and control technology to improve reliability, security, and efficiency of the electric grid (PU Code 8360);

c. 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 (PU Code 8360);

d. Deployment and integration of cost-effective distributed resources and generation, including renewable resources (PU Code 8360);

e. Development and incorporation of cost-effective demand response, demand-side resources, and energy-efficient resources (PU Code 8360);

f. 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 (PU Code 8360);

g. Integration of cost-effective smart appliances and consumer devices (PU Code 8360);

h. 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 (PU Code 8360);

j. Provide consumers with timely information and control options (PU Code 8360);

k. Develop standards for communication and interoperability of appliances and equipment connected to the electric grid, including the infrastructure serving the grid (PU Code 8360);

l. Identification and lowering of unreasonable or unnecessary barriers to adoption of smart grid technologies, practices, and services (PU Code 8360).

8. Effectiveness of information dissemination.

a. Web-based surveys of people viewing materials or participating in program reviews

b. Number of reports and fact sheets published online

c. Number of times reports are cited in scientific journals and trade publications for selected projects.

d. Number of information sharing forums held.

e. Stakeholders attendance at workshops

f. Technology transfer

9. Adoption of EPIC technology, strategy, and research data/results by others.

a. Description/documentation of projects that progress deployment, such as Commission approval of utility proposals for wide spread deployment or technologies included in adopted building standards.

b. Number of technologies eligible to participate in utility energy efficiency, demand response or distributed energy resource rebate programs

c. EPIC project results referenced in regulatory proceedings and policy reports.

d. Successful project outcomes ready for use in California IOU grid (Path to market).

e. Technologies available for sale in the market place (when known).

10. Reduced ratepayer project costs through external funding or contributions for EPIC-funded research on technologies or strategies.

a. Description or documentation of funding or contributions committed by others

b. Co-funding provided for solicitations.

c. Dollar value of funding or contributions committed by others.

(END OF ATTACHMENT 4)

Attachment 5

Adopted EPIC Administrator Annual Report Outline

Attachment 5

Adopted EPIC Administrator Annual Report Outline

1. Executive Summary
   a. Overview of Programs/Plan Highlights
   b. Status of Programs

2. Introduction and Overview
   a. Background on EPIC (General Description of EPIC)
   b. EPIC Program Components
   c. EPIC Program Regulatory Process
   d. Coordination
   e. Transparent and Public Process/CEC Solicitation Activities

3. Budget
   a. Authorized Budget (Table Format)
   b. Commitments/encumbrances
   c. Dollars spent on in-house activities
   d. Fund shifting above 5% between program areas (discuss pending fund shifting requests and /or approvals)
   e. Uncommitted/unencumbered funds

4. Projects
   a. High level summary [Table or bullet list by strategic objective/IOU categories): number of projects funded, total funding]
   b. Project Status (see template)
   c. Description of Projects:
      i. Investment Plan Period
      ii. Assignment to Value Chain
      iii. Objective
      iv. Scope
      v. Deliverables
      vi. Metrics
      vii. Schedule
      viii. EPIC Funds Encumbered
      ix. EPIC Funds Spent
      x. Partners (if applicable)
      xi. Match Funding (if applicable)

xii. Match Funding Split (if applicable)
xiii. Funding Mechanism (if applicable)
xiv. Treatment of Intellectual Property (if applicable)
xv. Status Update

5. Conclusion
   a. Key results for the year for (insert PA name here) EPIC programs
   b. Next Steps for EPIC Investment Plan (stakeholder workshops etc.)
   c. Issues that may have major impact on progress in projects, if any.

(END OF ATTACHMENT 5)

Attachment 6

EPIC Annual Report: Project Template, 4.b **Project Title:**		**Investment Plan Period**
Assignment to Value Chain □ Generation □ Transmission □ Distribution □ Grid Operation/Market Design □ Demand-Side Management	**Amounts Encumbered/Committed** Encumbered ($): Committed ($):	**Funds Expended to date** Contract/Grant Amount($): In-House Expenditures ($): Total spent to date ($):
Project Description: Project Type: 2-3 sentence general description (objective, scope, deliverables, schedule):		
Anticipated Ratepayer Benefits: Qualitative (& quantitative if applicable) description of applicable metrics:		
Contractor/Bidder Information: Was contractor competitively selected?: Yes □ No□ If contractor was not competitively selected, explain: If contractor was competitively selected: 1. Number of bidders passing the initial pass/fail screening for project:_____ 2. Name of selected bidder:_____ _____ 3. Rank of selected bidder (1st, 2nd, etc.):_____ 4. If selected bidder is not the highest scoring bidder, explain why a lower scoring bidder was selected:		
*__Leveraged Funds__ (if applicable):		
Partners (Identify):		
Match Funding	**Match Funding Split**	**Funding Mechanism**
$_____	$_____	(1-2 sentences describing any pay-for-performance contracts and/or grants)
*__Intellectual Property__ (if applicable):		
Update: 3-4 sentence update on work accomplished during the year:		

(END OF ATTACHMENT 6)