

**Before the Energy Resources Conservation and Development Commission of
the State of California**

Development of the California Energy)	Docket No. 12-EPIC-01
Commission Investment Plan for the Electric)	Electric Program
Program Investment Charge Program)	Investment Charge
_____)	

**ERRATA TO THE STAFF FINAL REPORT ELECTRIC PROGRAM
INVESTMENT CHARGE: PROPOSED 2012-14 TRIENNIAL
INVESTMENT PLAN**

The following list of errata is proposed for adoption as part of the *Electric Program Investment Charge: Proposed 2012-14 Triennial Investment Plan* at the Energy Commission’s October 31, 2012, Business Meeting. This list contains only changes that are substantive in nature which were not included in the text of the report that was released on October 23, 2012. The list does not identify non-substantive changes made to the report since its release.

Executive Summary

Page 1: First paragraph was edited to clarify that the EPIC phase 1 was authorized in 2011, and phase 2 was authorized in 2012.

~~The Electric Program Investment Charge program was established by the California Public Utilities Commission in May 2012 to provide~~ The California Public Utilities Commission adopted the Electric Program Investment Charge in December 2011, authorizing the collection of system benefits charges for renewables and research, development, and demonstration purposes. In May 2012, the Public Utilities Commission adopted Decision 12-05-037, which provides the framework for Public Utilities Commission oversight of the administration of the Electric Program Investment Charge. The decisions also set the framework for providing funding for investments in applied research and development, technology demonstration and deployment, and market facilitation of clean energy technologies and approaches.

On page 2, Table E-1 was edited to clarify that the administration for NSHP would be up to \$2.5 million “per year.”

Page 2:

~~The *Electric Program Investment Charge Proposed 2012-14 Triennial Investment Plan* includes a variety of strategic objectives for the three funding areas discussed above, under which proposed research initiatives are grouped~~ is organized by funding area. Proposed initiatives are grouped under strategic objectives. Through this plan, the Energy Commission intends to issue solicitations in all strategic objectives. Proposed initiatives identified in this plan represent the full scope of possible awards. The Energy Commission may not issue solicitations or make awards in every initiative area if funding is inadequate, there is a lack

of qualified applicants, or further analysis of market conditions indicates that an initiative is not currently a high priority or it is already adequately funded by other entities.

Other conforming changes were made to the Executive Summary to reflect changes in the individual chapters. Please see specific changes below.

Chapter 2: Program Directives

Page 21:

The proposed plan selects high priority issues that need to be addressed within the next few years. However, the plan does not propose initiatives in order of importance. In developing and ~~prioritizing~~ selecting the proposed funding initiatives, Energy Commission staff leveraged numerous resources including:

Page 25, an error was corrected in the following sentence:

For example, a study by ICF (CEC-500-2009-094-F) estimates California has more than 15,000 MW of additional CHP capacity, but under base case conditions, only about 3,000 MW will penetrate the market over the next 20 years.

Chapter 3: Applied Research and Development

The following edits were made to the strategic objectives:

S3 Strategic Objective: Develop Innovative Technologies, Tools, and Strategies to ~~Improve the Affordability of~~ Make Distributed Generation More Affordable.

S4 Strategic Objective: Develop Emerging Utility-Scale Renewable Energy Generation Technologies and Strategies to Improve ~~Increase~~ Power Plant Performance, Reduce Costs, and Expand the Resource Base.

S7 Strategic Objective: Develop Operational Tools, Models, and Simulations to Improve Grid Resource Planning. ~~for Improved Planning of Grid Resources.~~

S8 Strategic Objective: Integrate Grid-Level Energy Storage Technologies and Determine the Best-Use Applications ~~to~~ That Provide Locational Benefits.

Page 36: The following edits were made to clarify that the plan represents proposed initiatives.

Through this plan, the Energy Commission intends to issue solicitations in all strategic objectives. Proposed initiatives identified in this plan represent the full scope of possible awards. The Energy Commission may not issue solicitations or make awards in every initiative area if funding is inadequate, there is a lack of qualified applicants, or further analysis of market conditions indicates an initiative is not currently a high priority or it is already adequately funded by other entities.

The following section describes each strategic objective under applied R&D and its associated ~~planned~~ proposed research initiatives.

The following edits were made to initiative *S4.4 Investigate the Economic, Environmental, and Technical Barriers to Offshore Wind in California*:

Page 85:

~~The U.S. military may have concerns with locations of offshore wind plants and their interference with defense testing. Issues such as these may limit deployment along the California coast.~~

The U.S. Department of Defense urges that offshore wind should be located and developed in a manner that does not put future constraints on military testing and training. Interagency coordination with U.S. DOD and other stakeholder groups will be an important aspect of this initiative.

Page 86:

Stakeholders: Utilities, ratepayers, coastal communities, U.S. Bureau of Ocean Management, Regulation and Enforcement Ocean Protection Council, offshore wind developers, U.S. DOD, and the U.S. DOE.

The following edits were made to initiative *S4.5 Proposed Funding Initiative: Investigate the Economic, Environmental, and Technical Barriers to Wave Energy Conversion Technologies in California*.

Page 87:

The potential environmental impacts of marine renewable energy include dangers to marine life from working fluid leakage, electromagnetic fields, sounds and vibrations produced during electricity generation, and the impacts of erosion and sediment flows on natural coastal processes. Potential interference with Department of Defense training and testing activities, commercial and recreational fishing activities and marine sanctuaries are all possible siting constraints for wave energy development. These environmental compliance and siting issues will require significant attention and interagency coordination before a demonstration project is possible in California.

Stakeholders: IOUs, ratepayers, coastal communities, U.S. Bureau of Ocean Management, Regulation and Enforcement Ocean Protection Council, offshore wind developers, U.S. DOD, and the U.S. DOE.

Pages 118: Table was corrected to reflect actual initiative title for S9.4.

S9.4 Develop Advanced Technologies and Processes for Recycling Batteries Used in Distributed Storage and Plug-In Electric Vehicles. ~~Develop Advanced Recycling Technologies and Processes for Recycling Plug-In Electric Vehicle Batteries.~~

Page 132-133, Initiative 11.1: Modified the purpose, background, and funding strategy to clarify that (a) funding opportunities for federal cost share must be aligned with the strategic objectives listed in the applied research and development program area of the investment plan; and (b) up

to 10 percent of the applied research and development program area funds can be used for federal match. Specific changes are as follows:

Purpose: This initiative will provide EPIC funds as cost share to leverage federal investments for projects that (a) meet the guiding principles of the decision; and (b) are aligned with the strategic objectives listed in the applied research and development program area of this investment plan. ~~cannot use funding from other proposed initiatives in the investment plan as cost share due to timing or scope constraints.~~ Examples of federal cost share opportunities include:

- Co-funding projects in IOU territories with federal agencies including the U.S. DOE, U.S. DOD and others as appropriate.
- Providing cost-share funding for California entities that receive funding from the U.S. DOE, the U.S. DOD, and others as appropriate.
- Continuing to provide match funding for the WESTCARB program that is funded by the U.S. DOE and has been managed by the Energy Commission since 2003.

Background: Over the past few years, the Energy Commission has been able to leverage significant federal funding for California. For example, the Energy Commission provided cost share to California entities that received ARRA awards. As a result of this cost share, California was able to leverage more than \$500 million in ARRA funds with a contribution of only around \$20 million of state funds. Without this state cost share, many of the projects would not have been selected by the U.S. DOE for funding and California would have lost the benefits of the tax revenues, jobs, and California-based manufacturing capabilities that these ARRA projects provided.

In another example, the Energy Commission is the overall project leader for the multistate WESTCARB program that is funded by the U.S. DOE. In addition to directly supporting California's emission reduction policies, the WESTCARB grant has leveraged substantial federal and industrial cost-share funding directly into the California economy. To date, the WESTCARB research effort includes more than \$20 million in federal funds and more than \$5 million in industry match funds — all leveraged at a cost of less than \$6 million in California's research funds. Although six other states also participate in the WESTCARB partnership, more than 75 percent of the federal funds and industrial funds have been utilized in California to generate jobs and create future opportunities for California businesses.

~~The Commission envisions continuing this partnership in the future and requesting additional U.S. DOE funds. For the three-year period, it is expected that the WESTCARB grant will require \$3 million to \$6 million in EPIC funds to match \$10 million to \$30 million in federal U.S. DOE and industry cost share funding. The funding will be used to help California utilities meet future emission reduction goals. One area of specific interest is the demonstration of carbon dioxide (CO₂) capture, transmission, utilization and storage from an IOU operated natural gas combined cycle power plant. Phase one of this effort is currently underway and the next phase is expected to start in the next one to three years.~~

~~One unique element of this WESTCARB grant team is that to obtain the grant from U.S. DOE, the Energy Commission must select a team of partners including industry partners when submitting the grant. This grant is competitively reviewed and scored by U.S. DOE and if awarded, normally some of the contracts that are used to execute the grant are sole source contracts with commercial contractors.~~

Funding Strategy: Rather than set aside a specific amount of funding for federal cost share, the EPIC program will allow ~~applied research strategic objectives to apply up to 10%~~ of the applied research and development funds ~~ing~~ to support federal cost share opportunities that are aligned with the strategic objectives listed in this chapter.

Chapter 4: Technology Demonstration and Deployment

Page 136: The following edits were made to clarify that the plan represents proposed initiatives.

The demonstration and deployment strategic objectives discussed below outline a set of proposed initiatives focused on a particular proposal area. ~~The strategic objectives are:~~

Through this plan, the Energy Commission intends to issue solicitations in all strategic objectives. Proposed initiatives identified in this plan represent the full scope of possible awards. The Energy Commission may not issue solicitations or make awards in every initiative area if funding is inadequate, there is a lack of qualified applicants, or further analysis of market conditions indicates that an initiative is not currently a high priority or it is already adequately funded by other entities.

The following edits were made to the strategic objectives:

S12 Strategic Objective: Demonstrate and Evaluate the Technical and Economic Performance of Emerging Energy Efficiency and Demand-Side Management Technologies and Strategies ~~in Major End-Use Sectors.~~

Page 136: The following corrections were made to Table 20:

S13 Strategic Objective: Demonstrate and Evaluate Emerging Clean Energy Generation Technologies and Deployment Strategies.

Correct funding amount for S14: ~~\$44.5~~ \$44.4

Page 138: Corrected an error in Table 21.

S12.2 Demonstrate Integrated Demand Side Management Programs – Using Emerging Efficiency, Demand Response, Distributed Generation, Metering and Other Grid-Related Technologies – For the Residential, Commercial, Industrial and Agriculture Sectors.

Page 162-163, Initiative 15.1: Modified the purpose and funding strategy to clarify that (a) federal cost share opportunities must be consistent with the strategic objectives listed in the applied research and development program area of the investment plan; and (b) up to 10

percent of the technology demonstration and deployment program area funds can be used for federal match.

Purpose: This initiative will provide EPIC funds as cost share to leverage federal investments for projects that (a) meet the guiding principles of the decision; and (b) ~~cannot use funding from other proposed initiatives in the investment plan as cost share due to timing or scope constraints~~ are aligned with the strategic objectives listed in the technology demonstration and deployment program area of this investment plan. Examples of federal cost share opportunities include:

Page 163, Initiative 15.1:

Funding Strategy: Rather than set aside a specific amount of funding for federal cost share, the EPIC program will allow ~~specific Technology Demonstration and Deployment projects to apply up to 10% of the technology demonstration and deployment funds their approved funding to support federal cost share opportunities that aligned with the strategic objectives listed in this chapter.~~ This allows the separate elements of the program to specifically address unique opportunities when they occur while at the same time not holding valuable funds in reserve for an opportunity that may not occur.

Chapter 5: Market Facilitation

The following changes were made to the proposed funding initiatives:

S16.5 Proposed Funding Initiative: Provide Funding to Assist in the ~~Development~~ Implementation of the OPR General Plan Guidelines.

S18.1 Proposed Funding Initiative: Create a Web Portal That Connects Innovators, Investors, Educators, Job Seekers, and Policy Makers to Facilitate Widespread Adoption of New Clean Energy Technologies to Benefit IOU Ratepayers ~~Within Communities Statewide.~~

S18.4 Proposed Funding Initiative: Conduct the IOU Portion of the California End-use Energy Consumption and Saturation Characterization Survey.

Page 165: The following edits were made to clarify that the plan represents proposed initiatives.

Through this plan, the Energy Commission intends to issue solicitations in all strategic objectives. Proposed initiatives identified in this plan represent the full scope of possible awards. The Energy Commission may not issue solicitations or make awards in every initiative area if funding is inadequate, there is a lack of qualified applicants, or further analysis of market conditions indicates that an initiative is not currently a high priority or it is already adequately funded by other entities.

Page 169:

Purpose: Pilot projects will ~~demonstrate~~ illustrate best practices for coordinated planning. These projects will improve coordination of IOU distribution infrastructure, land-use planning and policies, existing state policies, clean energy incentives, and procurement markets in

three locations, one in each IOU service territory. This initiative will demonstrate innovative strategies to achieve high penetrations of clean energy investment in locations that minimize system impacts and upgrade costs.

Page 176:

Purpose: For this initiative, the Energy Commission would hold a competitive request for proposal process to select a contractor to work with OPR. The contractor will work with OPR ~~to include clean energy technologies in the general plan guidelines and~~ ensure local governments have the tools to implement clean energy aspects of the guidelines in IOU territories.

Page 187:

Stakeholders: ~~Ratepayers who are measuring the direct benefits of the EPIC programs, u~~ Utilities, and developers of clean energy technologies, apprenticeship programs, and participating unions and employers.

Chapter 6: New Solar Homes Partnership

Page 193:

The current incentives level for Tier 1 and Tier 2 market rate housing are ~~\$1.75 \$2.00~~ and \$2.00 \$2.25 per watt respectively. The incentive level for affordable housing residential units is \$2.90 per watt. The incentive levels are scheduled to drop as specified capacity target are reached. Additional detail on the incentive levels and their decline schedule can be found in Chapter 3 of the New Solar Homes Partnership Guidebook.

To be eligible for NSHP prior to EPIC, an applicant must be an electric customer of Pacific Gas & Electric Company (PG&E), Southern California Edison Company (SCE), San Diego Gas and Electric Company (SDG&E), or Bear Valley Electric Service. The solar energy system must use new equipment, and major system components must be listed on the Senate Bill 1 Eligible Equipment Lists. The solar energy system must serve new residential construction projects. The buildings in the project must exceed the energy efficiency requirements of the current Title 24 Building Standards by at least 15 percent.

Page 195:

The EPIC Phase 2 decision does not require Bear Valley Electric to contribute to EPIC. As a result, EPIC-funded NSHP incentives will not be available for Bear Valley Electric customers.

Chapter 7: Program Administration

Page 218: The following “scoring criteria” was edited in Table 42

Clearly explain why the project is unique and describe the benefits for ~~to Californians~~
California IOU ratepayers.

Appendices A-E

Made grammatical corrections and conforming changes, in addition to the substantive revisions described below

Page D-5, table: added initiative S13.3

S13.3 Demonstrate Technologies and Strategies to Facilitate the Integration of Intermittent Renewable Energy.

Appendix F

Added new appendix to incorporate a summary of and staff responses to stakeholder comments received after the initial Staff Final Report was posted on October 23, 2012