



Electric Program Investment Charge

*Checking in on the Implementation of the
First-Triennial Investment Plan*

Staff Workshop
February 24, 2015
Art Rosenfeld Hearing Room



Agenda

- **Introduction and Overview: Laurie ten Hope**
- **EPIC Processes and Outreach**
 - Overview: Virginia Lew and Lorraine Gonzalez
 - Discussion Topic #1 EPIC Implementation and Processes: Moderated by Laurie ten Hope
- **--Break--**
- **EPIC Technology Investments and Research Centers**
 - Overview: Pam Doughman and Eli Harland
 - Discussion Topic #2 EPIC Investments and Research Centers: Moderated by Laurie ten Hope



Workshop Purpose and Objectives

Purpose: Overview of the Energy Commission's implementation of the 2012-2014 EPIC Investment Plan to date.

Objective: Receive feedback from participants on opportunities for improving the Energy Commission's implementation of its EPIC activities.



Areas for EPIC Investments

EPIC makes investments to advance clean energy technologies and approaches for the benefit of investor-owned utility electricity ratepayers through the **energy innovation pipeline**:

Energy Innovation Pipeline





Current Program Status

- 13 solicitations released with planned and recommended awards totaling over \$192.8 million
- 8 Notice of Proposed Awards totaling almost \$153 million
- 3 additional Notices of Proposed Awards are imminent

Over \$600 million requested from over 300
Applicants



Examples of Solicitations and Results

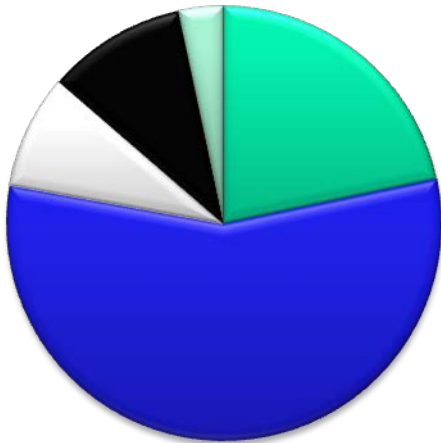
PON	Solicitation Title	Recommended Award Amount (1) (millions)	Recommended Number of Awards	Funds Requested (millions)	Total Applications
13-301	Developing A Portfolio of Advanced Efficiency Solutions	\$30.4	13	\$253	120
13-302	Developing Advanced Energy Storage Technology Solutions	\$7.3	4	\$61.3	37
13-303	Advancing Utility-Scale Clean Energy Generation	\$10	7	\$21	18
14-301	Demonstrating Secure, Reliable Microgrids and Grid-Linked Electric Vehicles	\$27.2	10	\$125.9	38
14-303	Advancing Cleaner, less Costly, More Reliable Distributed Generation	\$18.5	12	\$38.8	27
14-304	Bringing Energy Efficiency Solutions to California's IAW Sectors	\$27	8	\$102	46
14-305	Demonstrating Bioenergy Solutions	\$29	9	\$78.3	23
14-306	Analysis of Social, Cultural, and behavioral Aspects of Achieving Energy Efficiency Potential	\$2.1	5	\$5.7	12
14-308	Federal Cost Share	\$1.1	3	\$1.1	3
Total Number		\$152.6	71	\$687.1	324

(1) Recommended awards subject to meeting all solicitation and Energy Commission requirements.



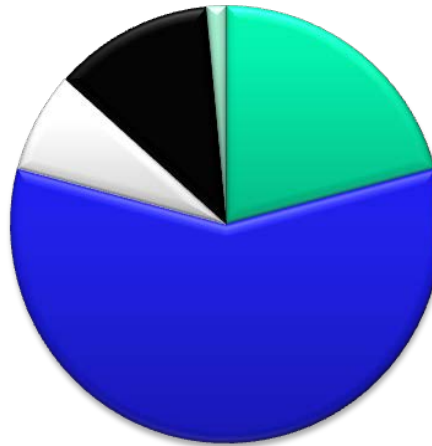
Prime Applicants by Type

Applied (324)



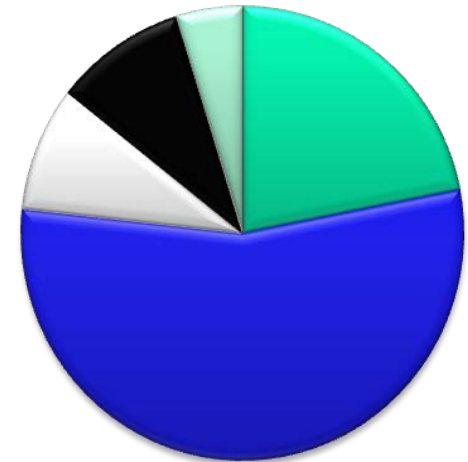
- UC
- Private
- Research Org
- National Lab
- Other

Funded (71)



- UC
- Private
- Research Org
- National Lab
- Other

Not Funded (253)



- UC
- Private
- Research Org
- National Lab
- Other



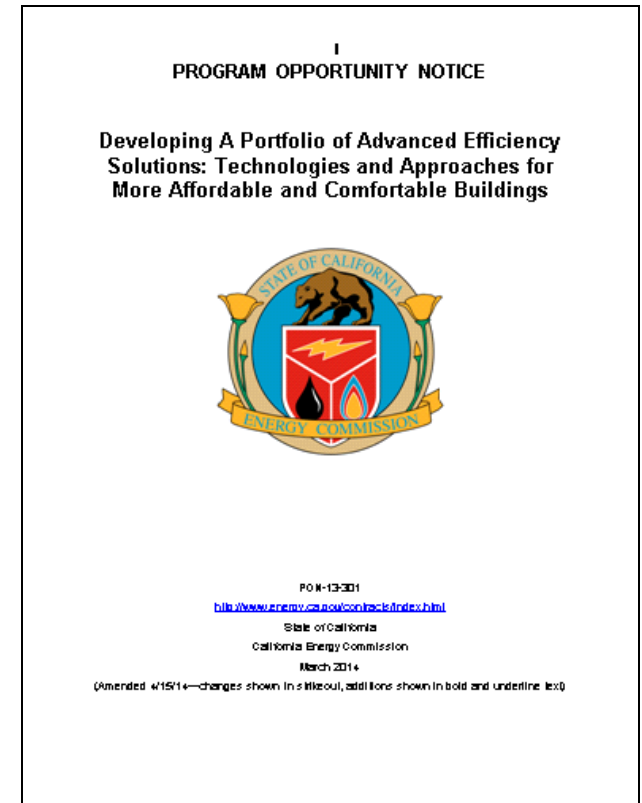
EPIC Process Improvements

Virginia Lew
Energy Research and Development Division



Background

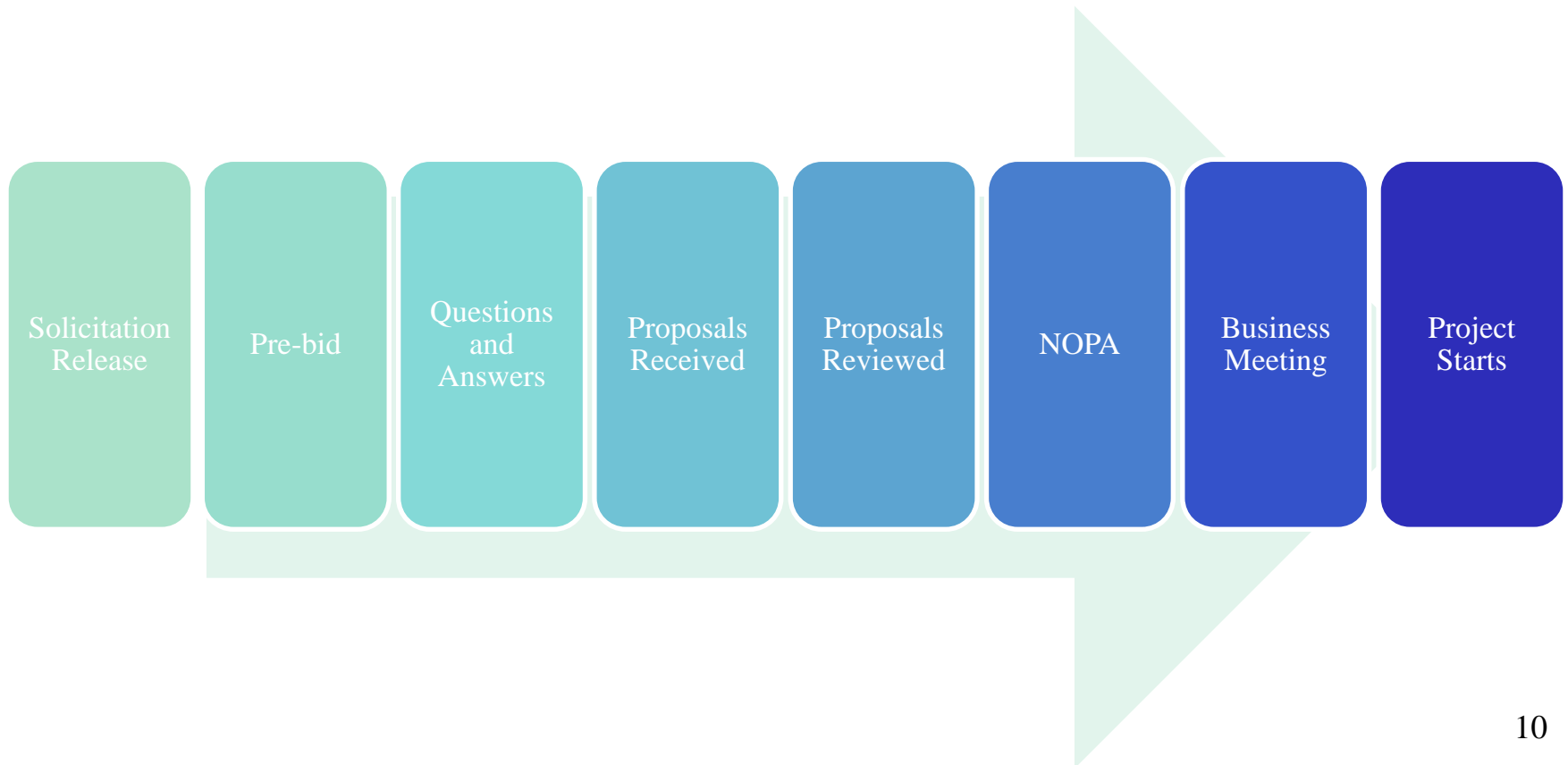
- To improve the solicitation process, created a standard template
 - Identified specific information needed and required format
 - Clarified how proposals would be evaluated
 - Detailed instructions for technical responses, budget and statement of work
 - Result: Created familiarity and consistency in each solicitation
- Continuous improvement
 - Periodic changes to the standard template to address public comments, improve the process and clarify solicitation requirements





Solicitation Timeline Improvements

- **Goal:** Time from solicitation release to having a signed agreement to occur in less than one year





Preliminary Results and Reasons for Delay

Solicitation Type	Average Days from Solicitation Release to Business Meeting
All Solicitations with NOPAs Released	253
Single Stage Solicitations	244
Two Stage Solicitations	280

- **Areas that can cause delays**

- Application Process

- Volume of questions from the pre-bid and the volume of applications

- Agreement Development

- Need timely response from applicants to statement of work, budget and schedule
- Terms and Conditions



Status Update: Outreach and Diversity Efforts

Lorraine Gonzalez

Energy Research and Development Division



Implementing Diverse and Inclusive Energy Innovation in California

- The Energy Commission is committed to ensuring that a diverse range of applicants has the opportunity to participate in EPIC projects, including small businesses, women, minorities, and disabled veteran owned businesses.
- Under the EPIC program, the Energy Commission also seeks to include the participation of businesses from a range of geographic regions.



Implementing Diverse and Inclusive Energy Innovation in California

In his letter to the CPUC on November 7, 2013, Energy Commission Chair Weisenmiller identified the following efforts:

- Initiate and implement an outreach plan to ensure a diverse range of potential applicants know about, and understand how to participate in, EPIC program activities, especially funding solicitations.
- Target particular geographic regions within the state for certain program activities (for example, job training or energy efficiency retrofits in economically depressed communities).
- Include initiatives addressing energy-related challenges and opportunities in economically depressed communities.
- Track, monitor, and report on the participation of California-based Entities; women-owned, minority-owned, and disabled-veteran-owned businesses; and small businesses for the recipients of EPIC awards, using the same definitions used by the IOUs via CPUC General Order 156.



Implementing Diverse and Inclusive Energy Innovation in California *Efforts in 2014*

In 2014, the Energy Commission conducted a number of outreach activities to inform stakeholders about:

- Funding opportunities provided by EPIC
- Guidance on preparing successful proposals
- Outreach to a broad and vast array of potential applicants



Implementing Diverse and Inclusive Energy Innovation in California: *Efforts in 2014*

- Four public outreach workshops were held over the summer to explain and demystify the application process and highlight the Commission's commitment to diversity in the EPIC program.
- More than 400 people attended these workshops, either in person or online. Archived presentations of these workshops are available online here: <http://www.energy.ca.gov/research/epic/documents/>.
- Staff reached out to women, minority, and disabled veteran groups, shared information from the EPIC webpage and encouraged the presence and participation in EPIC workshops.
- EPIC information was distributed at expositions and conferences in October and November of 2014.



Implementing Diverse and Inclusive Energy Innovation in California: *Efforts in 2014*

- Commission staff enhanced the EPIC website, expanded use of social media platforms, and developed additional informational materials to facilitate participation in EPIC funding opportunities. Highlights include:
 - Updates to the Energy Commission website to make EPIC funding opportunities easier to find and more accessible to new, potential applicants to Commission research programs.
 - Updating the Research Homepage to include a statement about the Energy Commission's commitment to diversity.
 - Developing and posting Frequently Asked Questions about the EPIC program and its program administration.
 - Posting a presentation that explains the Energy Commission's solicitation process for EPIC funding opportunities.
 - Announcing EPIC funding opportunities and workshops on social media and the Energy Commission blog to reach a broader and more diverse audience.



Implementing Diverse and Inclusive Energy Innovation in California: *Moving Forward in 2015*

- To date, the Energy Commission has conducted the following activities in support of its diversity and equity efforts:
 - A voluntary survey for EPIC award recipients to better understand current participation of CBE; women-, minority-, and disabled-veteran-owned businesses; and small businesses.
 - This effort identified the first seven EPIC awardees - all awardees were certified California-owned entities. Additionally, one awardee was a small business, one subcontractor was a small business, and one subcontractor was a woman-owned business.
 - Up to \$9 million in funding was allocated for projects in communities with the poorest environmental quality in the solicitation -- “Demonstrating Clean Energy Solutions That Support California’s Industries, the Environment, and the Electrical Grid.”
 - A draft solicitation includes proposed funding to award grants to fund projects that will provide classroom and on-the-job training on the installation, maintenance, and operation of advanced energy efficiency technologies and measures in existing buildings, specifically in disadvantaged communities where electricity costs represent a higher percentage of living expenses.



Implementing Diverse and Inclusive Energy Innovation in California: *Moving Forward in 2015*

- Plans for 2015 include, but are not limited to:
 - Setting up a new LinkedIn group page --“Energy Commission’s R&D Networking Hub.” This group page will provide a user-driven platform to help potential applicants connect, collaborate and team up on proposals for solicitations funded through the EPIC Program.
 - Targeting geographic regions for a variety of program activities to further the Energy Commission’s outreach efforts and benefit the community, and the EPIC goals.
 - Continuing to meet with small businesses, minority, disabled-veteran-, woman-owned businesses, and other interested groups to provide materials on partnering for success.
 - Continuing to hold pre-application and pre-bid workshops to explain requirements for grant and RFP funding opportunities, answer questions, and encourage networking and partnering among potential applicants.
 - Ensuring certain materials are translated for non-English speakers.
 - Highlighted opportunities in other languages on social media (e.g. Twitter)



Open Discussion

- What more can the Energy Commission do to increase participation of women-owned, minority-owned, and disabled veteran owned businesses in EPIC?
- What is working well with the Energy Commission's implementation of EPIC and what opportunities are there to improve implementation?
- Please identify and describe ways that the Energy Commission can improve the solicitation process? Is the purpose of each Program Opportunity Notice clear? Are the instructions for completing the application templates (e.g. project narrative, scope of work, and budget) clear and easy to understand?



BREAK



Future Investments under the Energy Commission's 2012-2014 EPIC Investment Plan

Pam Doughman
Energy Research and Development Division



Key Documents for 2012-2014 EPIC Investment Plan Implementation

- 2012-2014 EPIC Investment Plan
 - Guides all investments
 - Note that 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.
- Anticipated NOPAs
- Current Solicitations: Active and Anticipated.
- Feedback Opportunities



Upcoming Proposed Awards

PON	Title	Funding Amount	Scheduled Date of NOPA
14-307	Demonstrating Clean Energy Solutions that Support California's Industries, the Environment, and the Electrical Grid (13)	\$21 million	February 27, 2015
14-309	Reduce the Environmental and Public Health Impacts of Electricity Generation and Make the Electricity System Less Vulnerable to Climate Impacts: Phase I (S5)	\$7.4 million	March 6, 2015
14-310	Driving the Integration of Electric Vehicles to Maximize Benefits to the Grid (S9)	\$4 million	March 20, 2015
14-308	Federal Cost Share (S11 and S15)	~\$9 million	ongoing



Active and Anticipated EPIC Solicitations

- In 2015, the Energy Commission will release up to an additional \$139 million in committed solicitations, bringing the total committed funding to \$331.8 million.
- Solicitation status updates available online at:

The screenshot shows the California Energy Commission website. The main heading is "Funding Opportunities for the Electric Program Investment Charge (EPIC) Program". Below this, there is a "Quick Links" section with links to "EPIC Contractor Resources", "Main Funding Page", and "Research Home". A "More Information" section includes links to "Frequently Asked Questions about the EPIC Program", "EPIC Home Page", "2012-2014 Triennial Investment Plan", and "2015-2017 Triennial Investment Plan". An "Upcoming Events" section lists an event for February 24, 2015, titled "Electric Program Investment Charge (EPIC): Checking in on the Implementation of the...".

At the bottom of the screenshot, there is a table titled "Active Solicitations" with the following columns: Solicitation Title, Release Date, Program Area/Strategic Objective, and Funding Amount.

Solicitation Title	Release Date	Program Area/Strategic Objective	Funding Amount



Research Centers

Eli Harland
Energy Research and Development Division



Examples of Prior PIER Funded Research Centers

Transportation and Environmental Related Centers

Plug-In Hybrid Electric Vehicle Center	UC Davis
California Hybrid, Efficient and Advanced Truck Center (CalHEAT)	Pasadena
California Climate Change Center	Scripps, UC Berkeley and others
California Center For Sustainable Communities Research (CCSCR)	UC Los Angeles

Energy Efficiency Related Centers

California Lighting Technology Center (CLTC)	UC Davis
Western Cooling Efficiency Center (WCEC)	UC Davis
Center for the Built Environment (CBE)	UC Berkeley
Demand Response Research Center (DRRC)	Lawrence Berkeley National Lab
California Plug Load Research Center (CalPlug)	UC Irvine

Energy Systems and Generation Related Centers

Smart Grid Center	CSU Sacramento
Renewables Collaborative	UC Davis



Research Centers or Multi-Projects and EPIC

- EPIC allows for research centers to compete for funding.
- So far, EPIC solicitations are project based.
- Research centers are eligible to apply now and have been applying as primes and subs.
- We are evaluating the value of multi-project solicitations.
- Sample selection criteria from the 2012-14 Investment Plan:
 - Major area with evolving technologies
 - Proven track record of directly benefitting IOU customers
 - Ability to leverage other funding sources
 - Strong industry partnerships
 - Demonstrate path to market and inform policy



Considerations for Centers-Only/Multi-Project Solicitation

- Assessment of gaps research centers provide that are not possible with project based solicitations and awards.
- Maybe better poised for flexible response to current barriers/needs in fast-moving technology area or tackling interdisciplinary problems
- Requires accountability for deliverables that advance EPIC goals
- Geographic and applicant diversity
- Administrative/non-research costs are reasonable
- Requires reduction in funds/allocation from other competitive research awards.



Open Discussion

- In EPIC solicitations released so far, has the Energy Commission missed any important and high priority technologies, approaches, or opportunities described in the 2012-2014 EPIC Investment Plan? If yes, please explain how the topics fit within the investment plan and how they would lead to important technological advancements to overcome the barriers that prevent the achievement of the state's statutory energy goals.
- Is there a need to target EPIC funds to research centers or multi-project awards? If so, describe why research centers or multi-project awards are needed and identify which topic areas they are needed in.
- If the Energy Commission invests EPIC funds targeted to research centers or multi-project awards, what criteria (e.g. research complexity, successful commercialization, broad partnerships, and demonstrated need) should the Energy Commission use to competitively solicit applications that maximize benefits to IOU ratepayers?



Submitting Written Comments

- Written comments: Written comments can be submitted by 5:00 p.m. on March 4, 2015.
- The Energy Commission welcomes comments by e-mail. Please include your name and organization name. Comments should be in a downloadable, searchable format such as Microsoft® Word (.doc) or Adobe® Acrobat® (.pdf). Please indicate “EPIC Implementation Workshop” in the subject line. Send comments to: Eli.Harland@energy.ca.gov.
- Comments are posted at: http://www.energy.ca.gov/research/notices/2015-02-24_workshop/comments/
- Thank you for your participation.