

**CALIFORNIA ENERGY COMMISSION**

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## **Request for Comments on Draft Solicitation The EPIC Challenge: Accelerating the Deployment of Advanced Energy Communities**

California Energy Commission staff is developing a competitive Grant Funding Opportunity (GFO) through the Electric Program Investment Charge (EPIC) Program<sup>1</sup> to fund a competition that will challenge project teams to develop innovative and replicable approaches for accelerating the deployment of Advanced Energy Communities (AEC). AECs are community-scale developments based on systems integration in which energy efficiency, renewable energy, and storage technologies meet the energy supply and demand needs of its residents and supports local grid reliability and safety. Energy Commission staff plans to release the GFO in the fourth quarter of 2015.

Funding for this GFO will be divided into two phases. Phase I projects will demonstrate the feasibility of innovative planning, permitting and financing approaches at the local and regional levels to incentivize the development of AECs. Phase II projects will fund the build-out of the best projects resulting from Phase I. Projects for both phases will be divided between projects located in disadvantaged communities,<sup>2</sup> infill developments, and greenfield developments. Project teams must include one or more local city or county governments located in the same geographic region. Other recommended team members include, but are not limited to: building developers, property managers, real estate agents, technology vendors, utilities and financiers.

Energy Commission staff is seeking input from interested stakeholders on the attached sections of the draft GFO (Attachment A). Specifically, staff seeks responses and comments on the following questions:

1. How can the planning and permitting efforts identified in the draft GFO best complement existing efforts on these topics? What specific changes would you suggest to the GFO to best accomplish this?
2. Are the funding amounts and timelines identified in the draft GFO appropriate? If not, please provide specific suggestions for changes and explain.
3. In addition to the case study and real world conceptual design, what other deliverables should be required of Phase I recipients applying for Phase II?

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<sup>1</sup> The Electric Program Investment Charge: Proposed 2012-2014 Triennial Investment Plan: [http://www.energy.ca.gov/research/epic/documents/final\\_documents\\_submitted\\_to\\_CPUC/2012-11-01\\_EPIC\\_Application\\_to\\_CPUC.pdf](http://www.energy.ca.gov/research/epic/documents/final_documents_submitted_to_CPUC/2012-11-01_EPIC_Application_to_CPUC.pdf).

<sup>2</sup> A disadvantaged community is one located entirely within a 2010 census tract with the poorest environmental quality as defined by a CalEnviroScreen 2.0 in the 81 or greater percentile range. Please refer to the following for more information: <http://www.calepa.ca.gov/EnvJustice/GHGInvest/>.

4. What are specific recommendations for improving this Grant Funding Opportunity? Please explain the rationale behind the recommendations.
5. Are there changes needed to the solicitation to further encourage the development of Advanced Energy Communities in disadvantaged communities? If so, please provide specific changes.

### **EPIC Program Background**

EPIC is a ratepayer surcharge authorized by the California Public Utilities Commission (CPUC). In December 2011, the CPUC adopted Decisions 11-12-035, as modified by Decision 13-01-016, authorizing the collection of EPIC funds for the benefit of electricity ratepayers of Pacific Gas and Electric (PG&E), San Diego Gas and Electric (SDG&E), and Southern California Edison (SCE). In May 2012, the CPUC adopted Decision 12-05-037, as modified by Decision 13-04-030, establishing the purposes and governance for the EPIC Program and designating the Energy Commission as one of its administrators. On November 14, 2013, the CPUC adopted Decision 13-11-025, which modified and approved the Energy Commission's Proposed 2012-2014 EPIC Investment Plan. The plan sets the framework for providing investments in applied research and development, technology demonstration and deployment, and market facilitation of clean energy technologies and approaches. Additionally, Senate Bill 96 (Committee on Budget and Fiscal Review, Chapter 356, Statutes of 2013) provides that in administering the EPIC Program, the Energy Commission will fund research, development, and demonstration programs and projects that lead to technological advancement and breakthroughs to overcome barriers that prevent the achievement of the state's statutory energy goals, and result in advancements on the most significant technological challenges.

The Energy Commission is committed to supporting the inclusion of a diverse group of participants in the EPIC program including women, minorities, and disabled veterans.

To learn how to apply for EPIC solicitations please see:  
[http://www.energy.ca.gov/research/notices/2014-06-17\\_workshop/2014-06-17\\_EPIC\\_solicitations\\_presentation.pdf](http://www.energy.ca.gov/research/notices/2014-06-17_workshop/2014-06-17_EPIC_solicitations_presentation.pdf).

For additional information on the EPIC Program, please see:  
[www.energy.ca.gov/research/epic/index.html](http://www.energy.ca.gov/research/epic/index.html).

### **Written Comments**

Comments should be submitted to Marija Krapceovich by **5 p.m. on Friday August 14, 2015**. The Energy Commission encourages comments by e-mail. Please include your name and the name of the organization you represent. Comments should be in a downloadable, searchable format such as Microsoft® Word (.doc). Adobe® Acrobat® (.pdf). Please include the title of the EPIC Draft Solicitation: The EPIC Challenge Accelerating the Deployment of Advanced Energy Communities in the subject line. Send comments to: [marija.krapceovich@energy.ca.gov](mailto:marija.krapceovich@energy.ca.gov).

If you prefer, you may send a paper copy of your comments to:  
Marija Krapceovich  
California Energy Commission  
Energy Research and Development Division  
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Sacramento, CA 95814-5512

**Public Adviser and Other Commission Contacts**

The Energy Commission's Public Adviser's Office provides the public assistance in participating in Energy Commission proceedings. If you want information on how to participate in this forum, please contact the Public Adviser, Alana Mathews, at [PublicAdviser@energy.ca.gov](mailto:PublicAdviser@energy.ca.gov) or (916) 654-4489, toll free at (800) 822-6228.

If you have a disability and require assistance to participate, please contact Lou Quiroz at [lquiroz@energy.ca.gov](mailto:lquiroz@energy.ca.gov) or (916) 654-5146 at least five days in advance.

Media inquiries should be sent to the Media and Public Communications Office at [mediaoffice@energy.ca.gov](mailto:mediaoffice@energy.ca.gov) or (916) 654-4989.

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# DRAFT GRANT FUNDING OPPORTUNITY

## The EPIC Challenge: Accelerating the Deployment of Advanced Energy Communities



<http://www.energy.ca.gov/contracts/index.html>

**State of California**  
**California Energy Commission**

August 2015

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# I. Introduction

## A. PURPOSE OF SOLICITATION

The purpose of this solicitation is to fund a competition that will challenge project teams comprised of building developers, local governments, technology developers, utilities and other project partners to develop innovative and replicable approaches for accelerating the deployment of Advanced Energy Communities in Pacific Gas and Electric (PG&E), Southern California Edison (SCE) and San Diego Gas and Electric (SDG&E) service territories.

For purposes of this solicitation, Advanced Energy Communities are communities that:

- Minimize the need for new energy infrastructure costs such as transmission and distribution upgrades.
- Provide energy savings by achieving and maintaining zero net energy community status (accounting for behavior and increasing loads from vehicle and appliance electrification).
- Support grid reliability and resiliency by incorporating technologies such as energy storage.
- Provide easier grid integration and alignment with the California Public Utilities Commissions (CPUC) Long-Term Procurement Plan, and the California Independent System Operator's local capacity requirements process.
- Can be replicated and scaled-up to further drive down costs.
- Are financially attractive from a market standpoint (developers, home buyers, renters).
- Provide affordable access to renewable generation and energy efficiency upgrades for all electric ratepayers within the community.
- Align with other state energy and environmental policy goals at the community level such as the Sustainable Communities and Environmental Protection Act (Senate Bill 375) and Governor Brown's Executive Order B-29-15 for the drought.

Projects will be funded in the following two phases:

**Phase I: Planning and Permitting Advanced Energy Communities.** Projects will demonstrate the feasibility of innovative planning, permitting and financing approaches at the local and regional levels to incentivize the development of Advanced Energy Communities. Projects must combine regulatory streamlining strategies with a real-world development example to produce a shovel-ready Advanced Energy Community, and a case study that describes the actions, challenges and lessons learned from the project. Receiving an award from Phase I is a prerequisite for applying for and receiving an award from Phase II.

Projects for Phase I must fall within one of the following project groups:

- **Group 1: Disadvantaged Communities Planning and Permitting**
- **Group 2: Infill Development Planning and Permitting**
- **Group 3: Greenfield Development Planning and Permitting**

**Phase II: Advanced Energy Community Build-out.** Applicants selected for funding from Phase I will be eligible to apply for additional funding from Phase II of this solicitation for the construction, commissioning, and evaluation of their Advanced Energy Community.

Projects for Phase II must fall within one of the following project groups:

- **Group 4: Disadvantaged Communities Build-out**
- **Group 5: Infill Development Build-out**
- **Group 6: Greenfield Development Build-out**

See Part II of this solicitation for project eligibility requirements. Applications will be evaluated as follows: Stage One proposal screening and Stage Two proposal scoring. Applicants may submit multiple applications, though each application must be for a distinct project (i.e., no overlap with respect to the tasks described in the Scope of Work, Attachment 6).

## B. KEY WORDS/TERMS

<b>Word/Term</b>	<b>Definition</b>
Applicant	The respondent to this solicitation
Application	An applicant's formal written response to this solicitation
CAM	<i>Commission Agreement Manager</i> , the person designated by the Energy Commission to oversee the performance of an agreement resulting from this solicitation and to serve as the main point of contact for the Recipient
Advanced Energy Community	An Advanced Energy Community is a community based on systems integration in which energy efficiency, renewable energy, and smart-grid technologies meet the energy supply and demand needs of its residents and supports local grid reliability and safety.
Case Study	An up-close, in-depth, and detailed examination of a subject of study (the case), i.e. regulatory streamlining for emerging clean energy technologies, as well as its related contextual conditions.
Community Design	A design that includes: a proposed site map and the design of site improvements; conceptual drawings representing the scope, scale, and relationships of advanced energy equipment design elements to each other and to a proposed development site and buildings; the number, type, and design of units to be built, including size and massing; utility connections; and traffic circulation patterns.
Disadvantaged Community	A disadvantaged community is one located entirely within a 2010 census tract with the poorest environmental quality as defined by a CalEnviroScreen 2.0 in the 81 or greater percentile range. Please refer to the following for more information: <a href="http://www.calepa.ca.gov/EnvJustice/GHGInvest/">http://www.calepa.ca.gov/EnvJustice/GHGInvest/</a>
EPIC	<i>Electric Program Investment Charge</i> , the source of funding for the projects awarded under this solicitation
Energy Commission	California Energy Commission
Greenfield Development	A residential construction development located on undeveloped land.
Infill Development	A residential construction development that is located on land that was previously developed for urban uses.
NOPA	<i>Notice of Proposed Award</i> , a public notice that identifies award

Word/Term	Definition
	recipients
Principal Investigator	The lead scientist or engineer for the applicant's project, who is responsible for overseeing the project; in some instances, the Principal Investigator and Project Manager may be the same person
Project Manager	The person designated by the applicant to oversee the project and to serve as the main point of contact for the Energy Commission
Project Partner	An entity or individual that contributes financially or otherwise to the project (e.g., match funding, provision of a demonstration site), and does not receive Energy Commission funds
Recipient	The recipient of an award under this solicitation
Solicitation	This entire document, including all attachments and exhibits ("solicitation" may be used interchangeably with "grant funding opportunity")
State	State of California
Zero-Net Energy	A Zero-Net Energy Code Building is one where the net amount of energy produced by on-site renewable energy resources is equal to the value of the energy consumed annually by the building, at the level of a single "project" seeking development entitlements and building code permits, measured using the California Energy Commission's Time Dependent Valuation metric. <sup>1</sup>

### C. APPLICANTS' ADMONISHMENT

This solicitation contains application requirements and instructions. Applicants are responsible for **carefully reading** the solicitation, asking appropriate questions in a timely manner, ensuring that all solicitation requirements are met, submitting all required responses in a complete manner by the required date and time, and **carefully rereading** the solicitation before submitting an application. In particular, please carefully read the **Screening/Scoring Criteria and Grounds for Rejection** in Part IV, and the terms and conditions located at: <http://www.energy.ca.gov/research/contractors.html>.

Applicants are responsible for the cost of developing applications. This cost cannot be charged to the State. All submitted documents will become public records upon the posting of the Notice of Proposed Award.

### D. BACKGROUND

#### 1. Electric Program Investment Charge (EPIC) Program

This solicitation will award projects funded by the EPIC, an electricity ratepayer surcharge established by the California Public Utilities Commission (CPUC) in December 2011.<sup>2</sup> The purpose of the EPIC program is to benefit the ratepayers of three investor-owned utilities (IOUs), including Pacific Gas and Electric Co., San Diego Gas and Electric Co., and Southern

<sup>1</sup> California Energy Commission. 2013. **2013 Integrated Energy Policy Report**. Publication Number: CEC-100-2013-001-CMF, page 5.

<sup>2</sup> See CPUC "Phase 1" Decision 11-12-035, December 15, 2011, [http://docs.cpuc.ca.gov/PublishedDocs/WORD\\_PDF/FINAL\\_DECISION/156050.PDF](http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/156050.PDF).

California Edison Co. The EPIC program funds clean energy technology projects that promote greater electricity reliability, lower costs, and increased safety.<sup>3</sup> In addition to providing IOU ratepayer benefits, funded projects must lead to technological advancement and breakthroughs to overcome the barriers that prevent the achievement of the state's statutory energy goals.<sup>4</sup> The EPIC program is administered by the California Energy Commission and the IOUs.

## **2. Program Areas, Strategic Objectives, and Funding Initiatives**

EPIC projects must fall within the following **program areas** identified by the CPUC:

- Applied research and development;
- Technology demonstration and deployment; and
- Market facilitation

In addition, projects must fall within one of 18 general focus areas (“**strategic objectives**”) identified in the Energy Commission’s EPIC Investment Plan<sup>5</sup> and within one or more specific focus areas (“**funding initiatives**”) identified in the plan. This solicitation targets the following program area(s), strategic objective(s), and funding initiative(s):

- **Program Area: Market Facilitation**

**Strategic Objective S16 of the EPIC 2012-2014 Triennial Investment Plan:**

Collaborate with local jurisdictions and stakeholder groups in IOU territories to establish strategies for enhancing current regulatory assistance and permit streamlining efforts that facilitate coordinated investments and widespread deployment of clean energy infrastructure;

- **Funding Initiative S16.2:** Provide Planning Grants to Cities and Counties to Incorporate Clean Energy Technology Planning and Permitting Processes
- **Program Area: Technology Demonstration and Deployment**

**Strategic Objective S12 of the EPIC 2015-2017 Triennial Investment Plan:**

Overcome Barriers to Emerging Energy Efficiency and Demand-Side Management Solutions through Demonstrations in New and Existing Buildings.

- **Funding Initiative S12.2:** Demonstrate Large-Scale Deployment of Integrated Demand-Side Management and Demand Response Programs in Buildings.

## **3. Applicable Laws, Policies, and Background Documents**

This solicitation addresses the energy goals described in the following laws, policies, and background documents.

### Laws/Regulations

- **Assembly Bill (AB) 32 (“The Global Warming Solutions Act of 2006”)**

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<sup>3</sup> See CPUC “Phase 2” Decision 12-05-037, May 24, 2012, [http://docs.cpuc.ca.gov/PublishedDocs/WORD\\_PDF/FINAL\\_DECISION/167664.PDF](http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/167664.PDF).

<sup>4</sup> California Public Resources Code, Section 25711.5(a), <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=prc&group=25001-26000&file=25710-25712>.

<sup>5</sup> [http://www.energy.ca.gov/research/epic/documents/final\\_documents\\_submitted\\_to\\_CPUC/2012-11-01\\_EPIC\\_Application\\_to\\_CPUC.pdf](http://www.energy.ca.gov/research/epic/documents/final_documents_submitted_to_CPUC/2012-11-01_EPIC_Application_to_CPUC.pdf).

AB 32 created a comprehensive program to reduce greenhouse gas (GHG) emissions in California. GHG reduction strategies include a reduction mandate of 1990 levels by 2020 and a cap-and-trade program. AB 32 also required the California Air Resources Board (ARB) to develop a Scoping Plan that describes the approach California will take to reduce GHGs. ARB must update the plan every five years.

Additional information: <http://www.arb.ca.gov/cc/ab32/ab32.htm>

Applicable Law: California Health and Safety Code §§ 38500 et. seq.

- **Assembly Bill (AB) 327 (Distributed resource planning requirements - 2013)**

This legislation requires each IOU to prepare a distribution resources plan to identify optimal locations for distributed renewable generation resources, energy efficiency, energy storage, EVs, and demand response (DR) technologies consistent with the goal of yielding net benefits to ratepayers. These plans are due to the CPUC by June 1, 2015, and will inform local governments of anticipated needs so they can identify and include compliance safety standards when permitting next generation clean energy technologies, such as storage and microgrids.

- **Renewables Portfolio Standard (Senate Bill (SB) X1-2, Statutes of 2011-12, First Extraordinary Session)**

SB X1-2 requires that all California electricity retailers adopt the goals of 20 percent of retail sales from renewable energy sources by the end of 2013, 25 percent by the end of 2016, and 33 percent by the end of 2020.

- **AB 758, Building Efficiency (Statutes of 2009)**

AB 758 requires the Energy Commission to collaborate with the California Public Utilities Commission and stakeholders to develop a comprehensive program to achieve greater energy savings in existing residential and nonresidential buildings. The Energy Commission developed a *Comprehensive Energy Efficiency Program for Existing Buildings Scoping Report* in 2012, and plans to develop voluntary and mandatory strategies and approaches to achieve energy savings.

Additional information: <http://www.energy.ca.gov/ab758/>

Applicable Law: California Public Resources Code § 25943, California Public Utilities Code §§ 381.2 and 385.2

- **AB 1109 (“The California Lighting Efficiency and Toxics Reduction Act”, Statutes of 2007)**

AB 1109 places restrictions on the manufacture and sale of certain general purpose lights (i.e., lamps, bulbs, tubes, and other electric devices that provide functional illumination for indoor and outdoor use) that contain hazardous substances. It also requires the Energy Commission to adopt minimum energy efficiency standards for general purpose lights and to make recommendations to the Governor and Legislature regarding the continuation of reduced lighting consumption beyond 2018.

Additional Information: <http://www.energy.ca.gov/2008publications/CEC-400-2008-015/CEC-400-2008-015.PDF>

Applicable Law: California Health and Safety Code §§ 25210.9 et. seq., California Public Resources Code § 25402.5.4

- **Assembly Bill (AB) 2514 - Energy Storage Systems (Statutes of 2010)**

AB 2514 required the CPUC to determine targets for the procurement of viable, cost-effective energy storage systems by load-serving entities. The CPUC adopted the procurement targets in Decision 13-10-040, issued on October 17, 2013 (see the summary of Decision 13-10-040 in the “Policies/Plans” section below).

Additional information: <http://www.cpuc.ca.gov/PUC/energy/electric/storage.htm>  
Applicable Law: California Public Utilities Code §§ 2835 et. seq., and § 9620  
([http://www.leginfo.ca.gov/pub/09-10/bill/asm/ab\\_2501-2550/ab\\_2514\\_bill\\_20100929\\_chaptered.pdf](http://www.leginfo.ca.gov/pub/09-10/bill/asm/ab_2501-2550/ab_2514_bill_20100929_chaptered.pdf))

- **Appliance Efficiency Regulations**

The Energy Commission promulgates appliance efficiency regulations that require manufacturers of various new appliances sold or offered for sale in California to test them using specified test methods. Covered appliances include refrigerators, air conditioners, heaters, plumbing fitting/fixtures, lighting, washers, dryers, cooking products, electric motors, transformers, power supplies, televisions, and battery charger systems.

Additional information: <http://www.bsc.ca.gov/>; <http://www.energy.ca.gov/appliances/>  
Applicable Law: California Code of Regulations, Title 20, Division 2, Chapter 4, Article 4, §§ 1601 et. seq.

- **California Energy Code**

The Energy Code is a component of the California Building Standards Code, and is published every three years through the collaborative efforts of state agencies including the California Building Standards Commission and the Energy Commission. The Code ensures that new and existing buildings achieve energy efficiency and preserve outdoor and indoor environmental quality through use of the most energy efficient technologies and construction.

Additional information: <http://www.energy.ca.gov/title24/>  
Applicable Law: California Code of Regulations, Title 24, Part 6 and associated administrative regulations in Part 1

- **Sustainable Community Planning in SB 375 (2008)**

SB 375 instructs the California Air Resources Board to set regional emission's reduction targets from passenger vehicles. The Metropolitan Planning Organization for each region must then develop a “Sustainable Communities Strategy” that integrates transportation, land-use and housing policies to plan for achievement of the emissions target for their region.

Additional information: <http://www.arb.ca.gov/cc/sb375/sb375.htm>

### Policies/Plans

- **CPUC’s Order Instituting Rulemaking Regarding Policies, Procedures and Rules for Development of Distribution Resources Plans Pursuant to Public Utilities Code Section 769. (R. 14-08-013) (2013)**

The purpose of this rulemaking is to establish policies, procedures, and rules to guide California IOUs in developing their Distributed Resource Plans. Under this rulemaking, “distributed resources” includes distributed renewable generation resources, energy efficiency, energy storage, electric vehicles, and demand response technologies.

Additional information:

[http://www.cpuc.ca.gov/PUC/energy/Distribution\\_Resources\\_Plan.htm](http://www.cpuc.ca.gov/PUC/energy/Distribution_Resources_Plan.htm)

- **CPUC’s Alternative-Fueled Vehicle Programs, Tariffs, and Policies Order Instituting Rulemaking (R.13-11-007) (2013)**

The AFV Rulemaking includes two policy focused tracks, including evaluation of the potential and value of vehicle-grid integration and the development of new alternative fuel vehicle tariffs in each of the three largest investor-owned utilities.

Additional information: <http://www.cpuc.ca.gov/PUC/energy/altvehicles/>

- **Governor’s Clean Energy Jobs Plan (2011)**

In June 2011, Governor Jerry Brown announced a plan to invest in clean energy and increase efficiency. The plan includes a goal of producing 20,000 megawatts (MW) of renewable electricity by 2020 by taking the following actions: addressing peak energy needs, developing energy storage, creating efficiency standards for buildings and appliances, and developing combined heat and power (CHP) projects. Specific goals include building 8,000 MW of large-scale renewable and transmission lines, 12,000 MW of localized energy, and 6,500 MW of CHP.

Additional information: [http://gov.ca.gov/docs/Clean\\_Energy\\_Plan.pdf](http://gov.ca.gov/docs/Clean_Energy_Plan.pdf)

- **Bioenergy Action Plan (2012)**

Various California state agencies developed the 2012 Bioenergy Action Plan to accelerate clean energy development, job creation, and protection of public health and safety. The plan recommends actions to increase the sustainable use of organic waste, expand research and development of bioenergy facilities, reduce permitting and regulatory challenges, and address economic barriers to bioenergy development.

Additional information:

[http://www.resources.ca.gov/docs/2012\\_Bioenergy\\_Action\\_Plan.pdf](http://www.resources.ca.gov/docs/2012_Bioenergy_Action_Plan.pdf)

- **Integrated Energy Policy Report (Biennial)**

California Public Resources Code Section 25302 requires the Energy Commission to release a biennial report that provides an overview of major energy trends and issues facing the state. The IEPR assesses and forecasts all aspects of energy industry supply, production, transportation, delivery, distribution, demand, and pricing. The Energy Commission uses these assessments and forecasts to develop energy policies.

Additional information: <http://www.energy.ca.gov/energypolicy>

Applicable Law: California Public Resources §§ 25300 et. seq.

- **CPUC Decision 13-10-040, “Decision Adopting Energy Storage Procurement Framework and Design Program” (2013)**

The Decision establishes policies and mechanisms for energy storage procurement, as required by AB 2514 (described above). The IOU procurement target is 1,325 megawatts of energy storage by 2020, with installations required no later than the end of 2024.

Additional information:

[http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M079/K5\\_33/79533378.PDF](http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M079/K5_33/79533378.PDF)

- **CPUC’s Energy Efficiency Strategic Plan (2008)**

The Energy Efficiency Strategic Plan creates a roadmap for achieving energy efficiency within the residential, commercial, industrial, and agricultural sectors. The plan was updated in January 2011 to include a lighting chapter.

Additional information: <http://www.cpuc.ca.gov/PUC/energy/Energy+Efficiency/eesp/>

- **AB 2188 – Streamlined Solar Permitting**

AB 2188 requires the state’s cities and counties to adopt streamlined solar permitting processes by September 30, 2015. Adopting a modernized and standardized permitting process for installations of small-scale solar distributed generation technology on residential rooftops will increase the deployment of solar distributed generation, help to expand access to lower income households, provide solar customers greater installation ease, improve the state’s ability to reach its clean energy goals, and generate much needed jobs in the state, all while maintaining safety standards.

Additional information: [http://www.opr.ca.gov/s\\_renewableenergy.php](http://www.opr.ca.gov/s_renewableenergy.php)

- **New Residential Zero Net Energy Action Plan 2015-2020**

The Residential New Construction Zero Net Energy Action Plan supports the California Energy Efficiency Strategic Plan’s goal to have 100 percent of new homes achieve zero net energy beginning in 2020. The action plan provides a foundation for the development of a robust and self-sustaining zero net energy market for new homes.

Additional information: <http://www.californiaznehomes.com/>

- **California’s Existing Buildings Energy Efficiency Action Plan Draft**

The Existing Buildings Energy Efficiency Action Plan provides a 10-year roadmap to activate market forces and transform California’s existing residential, commercial, and public building stock into high performing and energy efficient buildings. The Plan provides a comprehensive framework centered on five goals, each with an objective and a series of strategies to achieve it. Each strategy includes industry and/or government implementation partners.

Additional Information:

[http://docketpublic.energy.ca.gov/PublicDocuments/15-IEPR-05/TN203806\\_20150310T093903\\_California%E2%80%99s\\_Existing\\_Buildings\\_Energy\\_Efficiency\\_Action\\_Plan.pdf](http://docketpublic.energy.ca.gov/PublicDocuments/15-IEPR-05/TN203806_20150310T093903_California%E2%80%99s_Existing_Buildings_Energy_Efficiency_Action_Plan.pdf)

- **Executive Order B-29-15**

Governor Brown's Executive Order B-29-15 proclaims the severity of the drought conditions in California and directs the Energy Commission to invest in new technologies that will achieve water and energy savings and greenhouse gas reductions.

- **Executive Order B-30-15**

Governor Brown's Executive Order B-30-15 established a new interim state wide greenhouse gas emission reduction target to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030, to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050.

### Reference Documents

Refer to the link below for information about activities related to this solicitation:

- Draft Existing Buildings Energy Efficiency Action Plan  
<http://www.energy.ca.gov/ab758/documents/index.html>
- California Energy Efficiency Finance Pilots  
[http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M077/K1\\_82/77182202.pdf](http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M077/K1_82/77182202.pdf)

## **E. FUNDING**

### **1. Amount Available and Minimum/ Maximum Funding Amounts**

There is up to \$47,000,000 available for grants awarded under this solicitation. Applicants must indicate in their proposal which group they are applying for. The total, minimum, and maximum funding amounts for each group are listed below. Only successful projects from Groups 1, 2, and 3 will be eligible to apply for Groups 4, 5, and 6, respectively.

Project Group	Available Funding	Maximum award amount (one to two local governments participating)	Maximum award amount (three or more local governments participating)
<b>Phase I: 2016 Release</b>			
Group 1: Disadvantaged Communities	\$8 million	\$2 million	\$4 million
Group 2: Infill Development	\$6 million	\$1 million	\$3 million
Group 3: Greenfield Development	\$3 million	\$1 million	\$3 million
<b>Phase II: 2018 Release</b>			
Group 4: Disadvantage Communities Build-out	\$14 million	\$14 million	\$14 million
Group 5: Infill Development Build-out	\$10 million	\$10 million	\$10 million
Group 6: Greenfield Development Build-out	\$6 million	\$6 million	\$6 million

### 1. **Match Funding Requirement**

Match funding is not required for this solicitation. However, applications that include match funding will receive additional points during the scoring phase.

- **“Match funds”** include: (1) “cash in hand” funds; (2) equipment; (3) materials; (4) information technology services; (5) travel; (6) subcontractor costs; (7) contractor/project partner in-kind labor costs; and (8) “advanced practice” costs. Match funding sources include the prime contractor, subcontractors, and pilot testing/demonstration/deployment sites (e.g., test site staff services).

“Match funds” do not include: Energy Commission awards, EPIC funds received from other sources, future/contingent awards from other entities (public or private), the cost or value of the project work site, or the cost or value of structures or other improvements affixed to the project work site permanently or for an indefinite period of time (e.g., photovoltaic systems).

Definitions of “match funding” categories are listed below.

- **“Cash in hand” Funds** means funds that are in the recipient’s possession and are reserved for the proposed project, meaning that they have not been committed for use or pledged as match for any other project. “Cash in hand” funds include funding awards earned or received from other agencies for the proposed technologies or study (but not for the identical work). As applicable, proof that the funds exist as cash is required at the project kick-off meeting. Cash in hand funds will be considered more favorably than other types of match funding during the scoring phase.
- **“Equipment”** means an item with a unit cost of at least \$5,000 and a useful life of at least one year. **Purchasing equipment with match funding is encouraged** because there are no disposition requirements at the end of the agreement for such equipment. Typically, grant recipients may continue to use equipment purchased with Energy Commission funds if the use is consistent with the intent of the original agreement.
- **“Materials”** means tangible project items that cost less than \$5,000 and have a useful life of less than one year.
- **“Information Technology Services”** means the design, development, application, implementation, support, and management of computer-based information systems directly related to the tasks in the Scope of Work. All information technology services in this area must comply with the electronic file format requirements in Subtask 1.1 (Products) of the Scope of Work (Attachment 6).
- **“Travel”** means all travel required to complete the tasks identified in the Scope of Work. Travel includes in-state and out-of-state travel, and travel to conferences. Use of match funds for out-of-state travel and travel to conferences is encouraged.
- **“Subcontractor Costs”** means all costs incurred by subcontractors for the project, including labor and non-labor costs.
- **“Contractor/Project Partner In-Kind Labor Costs”** means contractor or project partner labor costs that are not charged to the Energy Commission.
- **“Advanced Practice Costs”** means costs not charged to the Energy Commission that represent the incremental cost difference between standard and advanced practices, measures, and products used to implement the proposed project. For example, if the cost of purchasing and/or installing insulation that meets the applicable building energy efficiency standard is \$1/square foot and the cost of more advanced, energy efficient insulation is \$3/square foot, the Recipient may count up to \$2/square foot as match funds.
- Match funds may be spent only during the agreement term, either before or concurrently with EPIC funds. Match funds also must be reported in invoices submitted to the Energy Commission.
- All applicants providing match funds must submit commitment letters that: (1) identify the source(s) of the funds; (2) justify the dollar value claimed; (3) provide an unqualified (i.e., without reservation or limitation) commitment that guarantees the availability of the funds for the project; and (4) provide a strategy for replacing the funds if they are significantly reduced or lost. Please see Attachment 11, Commitment and Support Letter Form.

## 2. Change in Funding Amount

The Energy Commission reserves the right to:

- Increase or decrease the available funding and the group minimum/maximum award amounts described in this section.
- Allocate any additional or unawarded funds to passing applications, in rank order.
- Reduce funding to an amount deemed appropriate if the budgeted funds do not provide full funding for agreements. In this event, the Recipient and Commission Agreement Manager will reach agreement on a reduced Scope of Work commensurate with available funding.

## F. KEY ACTIVITIES SCHEDULE

Key activities, dates, and times for this solicitation and for agreements resulting from this solicitation are presented below. An addendum will be released if the dates change for activities that appear in **bold**.

Planning and Permitting an Advanced Energy Community:

ACTIVITY	DATE	TIME <sup>6</sup>
Solicitation Release	Oct. 2015	
<b>Pre-Application Workshop</b>	<b>Nov. 2015</b>	
<b>Deadline for Written Questions<sup>7</sup> for Phase I and Phase II</b>	<b>Nov. 2015</b>	<b>5:00 p.m.</b>
Anticipated Distribution of Questions and Answers (Phase I and Phase II)	Dec. 2015	
<b>Deadline to Submit Applications for Phase I</b>	<b>Jan. 2016</b>	<b>3:00 p.m.</b>
Anticipated Notice of Proposed Award Posting Date (Phase I Projects)	Feb. 2016	
Anticipated Energy Commission Business Meeting Date (Phase I Projects)	Apr. 2016	
Anticipated Agreement Start Date (Phase I Projects)	April 2016	
Anticipated Agreement End Date (Phase I Projects)	April 2018	
<b>Deadline for Written Questions for Phase II</b>	<b>May 2018</b>	<b>5:00 p.m.</b>
Anticipated Distribution of Questions and Answers	June 2018	
<b>Deadline to Submit Applications for Phase II</b>	<b>June 2018</b>	<b>3:00 p.m.</b>
Anticipated Notice of Proposed Award Posting Date		
Anticipated Energy Commission Business Meeting		
Anticipated Agreement Start Date (Phase II Projects)		
Anticipated Agreement End Date (Phase II Projects)		

<sup>6</sup> Pacific Standard Time or Pacific Daylight Time, whichever is being observed.

<sup>7</sup> This deadline does not apply to non-technical questions (e.g., questions concerning application format requirements or attachment instructions) or to questions that address an ambiguity, conflict, discrepancy, omission, or other error in the solicitation. Such questions may be submitted to the Commission Agreement Officer listed in Section H at any time prior to the application deadline. Please see Section H for additional information.

## II. Eligibility Requirements

### A. APPLICANT REQUIREMENTS

#### 1. Eligibility

This solicitation is open to all public and private entities and individuals with the exception of publicly-owned utilities. In accordance with CPUC Decision 12-05-037, funds administered by the Energy Commission may not be used for any purposes associated with publicly-owned utility activities. Applicants must gather a multidisciplinary team which must include one or more local or regional government entity.

#### 2. Terms and Conditions

Each grant agreement resulting from this solicitation will include terms and conditions that set forth the recipient's rights and responsibilities. By signing the Application Form (Attachment 1), each applicant agrees to enter into an agreement with the Energy Commission to conduct the proposed project according to the terms and conditions that correspond to its organization, without negotiation: (1) University of California terms and conditions; (2) U.S. Department of Energy terms and conditions; or (3) standard terms and conditions. The standard terms and conditions are located at <http://www.energy.ca.gov/research/contractors.html>. The University of California and U.S. Department of Energy terms and conditions are under negotiation and will be posted once finalized.

Failure to agree to the terms and conditions by taking actions such as failing to sign the Application Form or indicating that acceptance is based on modification of the terms will result in **rejection** of the application. Applicants **must read** the terms and conditions carefully. The Energy Commission reserves the right to modify the terms and conditions prior to executing grant agreements.

#### 3. California Secretary of State Registration

California business entities and non-California business entities that conduct intrastate business in California and are required to register with the California Secretary of State must do so and be in good standing in order to enter into an agreement with the Energy Commission. If not currently registered with the California Secretary of State, applicants should contact the Secretary of State's Office as soon as possible. For more information, visit the Secretary of State's website at: [www.sos.ca.gov](http://www.sos.ca.gov).

### B. PROJECT REQUIREMENTS

#### 1. Technology Pipeline Stage

For Phase I, projects must fall within the "market facilitation" stage, which includes activities such as program tracking, market research, education and outreach, regulatory assistance and streamlining, and workforce development to support clean energy technology and strategy deployment.<sup>8</sup> All projects must be located in an IOU service territory.

For Phase II, projects must fall within the "technology demonstration and deployment" stage, which includes activities that involve the installation and operation of pre-commercial technologies or strategies at a **scale sufficiently large** and in conditions sufficiently reflective of

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<sup>8</sup> See CPUC "Phase 2" Decision 12-05-037 at pp. 61-62 and 90, [http://docs.cpuc.ca.gov/PublishedDocs/WORD\\_PDF/FINAL\\_DECISION/167664.PDF](http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/167664.PDF).

anticipated actual operating environments to enable appraisal of the operational and performance characteristics and the financial risks. All projects must be located in an IOU service territory.

## **2. Project Focus**

### Phase I

The Energy Commission is seeking to fund projects that demonstrate the feasibility of innovative planning, permitting and financing approaches at the local and regional levels to incentivize the development of Advanced Energy Communities. Funded projects will serve as models for local governments that want to encourage sustainable development. Replicability and the transfer of knowledge gained from these projects are a primary goal. For purposes of this solicitation, Advanced Energy Communities are communities that:

- Minimize the need for new energy infrastructure costs such as transmission and distribution upgrades.
- Provide energy savings by achieving and maintaining zero net energy community status (accounting for behavior and increasing loads from vehicle and appliance electrification).
- Support grid reliability and resiliency by incorporating technologies such as energy storage.
- Provide easier grid integration and alignment with the California Public Utilities Commissions (CPUC) Long-Term Procurement Plan, and the California Independent System Operator's local capacity requirements process.
- Can be replicated and scaled-up to further drive down costs.
- Are financially attractive from a market standpoint.
- Provide affordable access to renewable generation and energy efficiency upgrades for all electric ratepayers within the community.
- Align with other state energy and environmental policy goals at the community level such as the Sustainable Communities and Environmental Protecting Act (Senate Bill 375) and Governor Brown's Executive Order B-29-15 for the drought.

Project teams must include one or more local city or county governments located in the same geographic region. Other recommended team members include, but are not limited to: building developers, property managers, real estate agents, technology vendors, utilities and financiers. All recipients for this solicitation will be encouraged to collaborate with each other throughout the terms of the projects to give each recipient the opportunity to learn from the experiences of their peers, as well as to better promote a unified effort across all jurisdictions receiving funding. The premise of this solicitation is that to achieve the true benefit of wide-spread deployment of Advanced Energy Communities and realize accompanying cost savings to future residents and homeowners, a cooperative model is needed between developers, permitting agencies, and financiers. Examples of collaboration include joint Technical Advisory Committee (TAC) meetings and joint workshops.

The Technical Merits of **the Project Narrative (Attachment 4)** should describe at a minimum, how the project plans to address the following questions:

- How can the risks and uncertainties surrounding the design, permitting, planning, and financing of these types of communities be minimized or addressed?

- What combination of emerging and proven clean energy technologies and systems offer the best value in terms of economic, environmental, and technical performance?
- What innovative financing strategies can be used to support the development of these types of communities and make them more financially attractive relative to standard new residential developments?
- Where are the optimal locations within a jurisdiction for designing and deploying these communities that offer the most benefit to ratepayers and the electric grid?
- What are potential business models or collaborative strategies among developers, local governments, investor-owned utilities, etc. that will accelerate the deployment of Advanced Energy Communities?

The Technical Approach of **the Project Narrative (Attachment 4)** should describe at a minimum, the following:

- Actions or steps already adopted by the local jurisdiction to meet the goals of existing state and regional climate and energy plans. Examples of these plans include the California Climate Adaptation Planning Guide, and the Desert Renewable Energy Conservation Plan.<sup>910</sup>
- Analytical tools, software applications, and data that will be used to improve the design, planning, and permitting of the Advanced Energy Community.
- How the applicant will work with various project partners and stakeholder groups to develop a replicable approach for local governments to plan, permit, and finance an Advanced Energy Community.
- How the community will capture lessons learned and best practices, and how those will be turned into useful guidance for future Advanced Energy Communities.

**The Project Narrative (Attachment 4)**, as well as the Technical Tasks in Part III of **the Scope of Work (Attachment 6)** must also incorporate a plan to accomplish the following:

- Develop a case study documenting the actions taken – such as adopting regulatory changes at the local or regional level to increase process certainty for building developers - to reduce the time, cost, and administrative cost to plan and permit Advanced Energy Communities. Case studies should also include analysis on how the development of an Advanced Energy Community will impact savings on distribution infrastructure.
- Develop a Master Community Design showcasing a real world conceptual design of a proposed Advanced Energy Community. The community design should include descriptions of the proposed location(s) for the development, tentative maps,

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<sup>9</sup> Additional information on the Climate Adaptation Planning Guide can be found here: [http://resources.ca.gov/climate/safeguarding/adaptation\\_policy\\_guide/](http://resources.ca.gov/climate/safeguarding/adaptation_policy_guide/)

<sup>10</sup> Information on the Desert Renewable Energy Conservation Plan can be found here: <http://www.drecp.org/>

engineering designs of proposed buildings, streets, community spaces, energy technologies to be deployed, water conservation features, water saving technologies, potential interconnection sites, advanced energy infrastructure, and how these elements are combined in a systems approach.

- Using the lessons learned from developing both the case study and the master community design, develop tools and recommendations for use in planning and building departments to allow for more streamlined review of future submittals of Advanced Energy Community plans.
- Develop comprehensive financial and business models showcasing innovative financing strategies that can help make Advanced Energy Communities financially attractive with standard new residential developments.
- Develop an outreach strategy, supported by education and outreach materials, including, but not limited to, journal articles, webinars, and conference presentations. These materials will inform other local governments and developers of project costs and benefits; the approaches and methods used to overcome planning, permitting and financing barriers; and the benefits to ratepayers and grid reliability and safety.

At the conclusion of the project term, all recipients will be invited to an event hosted by the applicant and the Energy Commission to share their case studies and Advanced Energy Community designs. This event will be open to the public and allow participants to better promote the lessons learned resulting from this solicitation's projects, and share them with a wider audience.

## Phase II

Only applicants selected for funding from Groups 1, 2, or 3 in this solicitation will be eligible, once the development is shovel ready, to apply for additional funding from Groups 4, 5, and 6 from this solicitation for the build out of their Advanced Energy Community. In Phase II, applicants may only apply for funding for the type of community or development that was originally funded in Phase I.

Applicants must accomplish the following to be eligible for Phase II funding:

- Submit the case study developed during Phase I
- Submit the real world conceptual design developed during Phase I and highlight any changes the applicant intends to make for their build-out under Phase II.
- Demonstrate that the applicant has secured sufficient financing in addition to the grant amount requested in order to complete development of the project, and secure the necessary permits

### **3. Ratepayer Benefits, Technological Advancements, and Breakthroughs**

California Public Resources Code Section 25711.5(a) requires EPIC-funded projects to:

- Benefit electricity ratepayers; and
- Lead to technological advancement and breakthroughs to overcome the barriers that prevent the achievement of the state's statutory energy goals.

The CPUC defines “ratepayer benefits” as greater reliability, lower costs, and increased safety.<sup>11</sup> The CPUC has also adopted the following guiding principles as complements to the key principle of electricity ratepayer benefits: societal benefits; GHG emissions mitigation and adaptation in the electricity sector at the lowest possible cost; the loading order; low-emission vehicles/transportation; economic development; and efficient use of ratepayer monies.<sup>12</sup>

Accordingly, the Project Narrative Form (Attachment 4) and the “Goals and Objectives” section of the Scope of Work Template (Attachment 6) must describe how the project will: (1) benefit California IOU ratepayers by increasing reliability, lowering costs, and/or increasing safety; and (2) lead to technological advancement and breakthroughs to overcome barriers to achieving the state’s statutory energy goals.

Further details on Phase II will be provided at a future time.

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<sup>11</sup> *Id.* at p. 19.

<sup>12</sup> *Id.* at pp. 19-20.