

NATIONAL ENESGY TECHNOLOGY LABORATORY

State Energy Program (SEP)
Strengthening Building Retrofit
Markets and Stimulating Energy
Efficiency Action

Stimulating Energy Efficiency Action from State Public Utility Commissions DE-FOA-0000266

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DE-FOA-0000251



State Energy Program (SEP) Strengthening Building Retrofit Markets and Stimulating Energy Efficiency Action

DE-FOA-0000251

Issue Date: 04/09/2010

Application Due Date: 05/24/2010 11:59:59 pm Eastern Time

Eligible Entities: State Energy Offices

Stimulating Energy Efficiency Action from State Public Utility Commissions

DE-FOA-0000266

Issue Date: 04/27/2010

Application Due Date: 06/07/2010 11:59:59 pm Eastern Time

Eligible Entities: Public Utility Commissions

(or equivalent state regulatory agency)



Registration Requirements

- Applicants must obtain a DUNS number at http://fedgov.dnb.com/webform
- Applicants must be registered with CCR at <u>http://www.ccr.gov</u>
- Applicants must be registered at Grants.gov: http://grants.gov
- Applicants must register with FedConnect to submit questions: <u>www.fedconnect.net</u>

Grants.gov

- The application "package" is available on grants.gov
- Click on "Apply for Grants"
- Click on "Download a Grant Application Package"
- Enter Funding Opportunity Number
- Click on "Download"

FedConnect.net

- The FOA, any amendments, and the message center are available on FedConnect
- Direct link to the FOA on FedConnect:
- Or search by "reference number"
 - Reference number is FOA number
- To see the message center, you must be signed in to FedConnect and you must join the response team for the FOA

SEP FOA

https://www.fedconnect.net/fedconnect?doc=DE-FOA-0000251&agency=DOE

OE FOA

https://www.fedconnect.net/fedconnect?doc=DE-FOA-0000266&agency=DOE



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SEP FOA

Strengthening Building Retrofit Markets

Objective

 Develop programs/strategies to retrofit residential and/or commercial properties in markets with little or no retrofit activity and/or to increase the market penetration of existing whole-building retrofits

Target

 Retrofit at least 2 percent of the buildings of a defined market <u>annually</u> by 2013.

Project Metrics

 Buildings retrofitted, energy saved, GHG emissions avoided, individuals trained/certified, funds leveraged, teaming with stakeholders, and others as listed in FOA



"Whole-Building Retrofit"

- Evaluate major energy-consuming systems and building components with diagnostic tools
 - Analyze building systems/components
 - Shell/thermal envelope, heating, cooling, ventilation, water heating, energy control systems, major appliances/plug loads
 - Determine if conditions present major health and safety risk
 - carbon monoxide, rot/mold, asbestos, lead, etc.
 - Identify occupant behaviors that lead to excessive energy consumption
 - Provide actionable work scope
- Perform retrofits to resolve identified issues
 - Target of ≥20% reduction in energy consumption
- Perform post-retrofit evaluation



Market Defined by Applicant

Some key points:

- Defined market must be broad enough to require the retrofit of a <u>substantial</u> number of buildings to reach the 2% annual goal
- Markets can cross city and state boundaries
- Multiple states encouraged to partner together to strengthen the building retrofit ecosystem

"Substantial"

- Minimum market of 50,000 residential buildings
 - Retrofit annual goal of 1,000 homes
- Minimum market of 12,500 commercial buildings
 - Retrofit annual goal of 250 buildings



What Is DOE Looking For?

- Regional strategies
 - Number of states can partner to serve a market
- Replicable programs
- Collaboration with appropriate organizations
 - Public utility commissions, power authorities, utilities, program sponsors, local governments, retailers, manufacturers, trade organizations, financial institutions, regional organizations, etc.
- Leveraging of resources (private capital) to greatest possible extent
- Strategies to address barriers to widespread adoption of retrofits
- Sustainable programs beyond period of funding for the agreement



Example Strategies

- Building performance benchmarking and disclosure
- Home Performance with ENERGY STAR®
- Finance programs that leverage private capital
 - PACE, Utility On-Bill Financing, Revolving Loan Funds, and other innovative financing mechanisms
- Innovative Organizational Structures
 - Energy Efficiency Utilities, Power Authority, etc.

Use Portfolio of Programs to Strengthen the Market

More than one program or strategy may be necessary to address barriers



Strategies That Do Not Meet DOE's Objectives

- Programs that make new construction energyefficient
- Programs that target a majority of funding and/or program focus on renewable technology
- Direct install programs that subsidize a majority of the cost of measures installed and do not focus on transforming the market

Merit Review Criteria (1 of 2)

Criterion 1: Project Strategy (35%)

- Wide-spread adoption of building retrofits and energy savings
- Regional strategies, innovative, changes consumer behavior
- •Clear goals, methods, metrics, schedule, budget
- Stakeholders involved to facilitate effort
- Sustainability, future resources
- Risk management approach
- •Cost-effectiveness measure development and validation

Criterion 2: Potential Project Impact (25%)

- •Increases energy savings and reduces GHG emissions
- Develops new or strengthens existing retrofit markets
- Program can be replicated
- Transforms market and encourages consumer adoption
- •Addresses markets with little or no retrofit activity and/or increases market penetration of existing whole-building retrofits



Merit Review Criteria (2 of 2)

Criterion 3: Partnership Structure and Capabilities (25%)

- •Clear roles, responsibilities, level-of-effort defined for project team members
- •Stakeholder credentials, capabilities, experience
- •Stakeholder ability to ensure leaders work together to develop legal, regulatory and statutory frameworks to support investment in energy efficiency
- Funds leveraged with other resources
- Project member commitment is demonstrated

Demonstration of commitment is an executed agreement or a memorandum of understanding that an agreement is planned between the applicant and another organization that describes the roles and responsibilities and financial/resource commitments of each

Criterion 4: Evaluation, Measurement & Verification (15%)

- Quality assurance
- •Strategy for accurately quantifying energy savings and tons CO₂ equivalent avoided and ensuring quality of program implementation



Area of Interest 2 – Stimulating Energy Efficiency Action

Objective

 Stimulate ground-level development of results-based policies and programs to decrease electricity consumption and improve annual energy savings

Target

Electricity savings of ≥1% through energy efficiency

Focus

- States with < 0.5% savings relative to electricity sales
- States with <1% total electricity or gas revenues invested in energy efficiency
 - Above based on 2007 data, but states can be below thresholds using data from 2008 or 2009



Phased Approach: Phase I

Develop process to establish an energy savings goal

 Natural gas and transportation fuel savings are in addition to the minimum 1% electricity savings

Phase I Action Plan

- Review/evaluate goals and steps in "Vision for 2025"
- Outline collaborative stakeholder process to set annual savings target
- List activities/benchmarks
 - Stakeholder meetings, public comment periods, target calculation methods, strategies for measurement and verification
- Schedule/Deliverables
 - Phase I final report on process and goal established
 - Plan for Phase II



Phased Approach: Phase II

- Implement framework to achieve established energy savings target from Phase I by end of calendar year 2013
 - Phase II funding contingent upon progress toward benchmarks outlined in Phase I Action Plan
- Phase II Implementation Plan
 - Outlines programs and frameworks to be put in place by end of CY 2013 to achieve target savings
 - To be reviewed and approved by DOE
 - Remaining funding provided upon DOE approval

Example Strategies to Establish/Meet Goal

- Modification of Electricity Market
- Energy Efficiency Resource Standard
- Integrated Resource Plan
- Public Benefit Fund
- Other savings strategies....

Goal Development Process

Electricity Savings Target

 At least 1% per year through ratepayer funded programs excluding savings from building codes and appliance standards

Market Actor Integration

- How / what extent / timeframe of engaging stakeholders to establish goal
- ESCOs, contractors, financial institutions, retailers, manufacturers, auditors, educational institutions, government agencies, etc.

Merit Review Criteria (1 of 2)

Criterion 1: Goal Development Process (35%)

- Collaborative stakeholder involvement
- •Role of utilities, consumer behavior, energy efficiency investment, long-term plans for state(s), and implementation goals in National Action Plan for Energy Efficiency
- •Standard protocols for data collection and reporting
- Opportunities for leveraging investments

Criterion 2: Phase I Action Plan (25%)

- Feasibility and justification for benchmarks and activities
- National Action Plan used as basis
- •Clear goals, methods, metrics, deliverables, schedule and budget
- Sustainability / future funding resources and plans
- •Risk management approach



Merit Review Criteria (2 of 2)

Criterion 3: Potential Project Impact (15%)

•Impact on energy efficiency and long-term goals of and planning for state(s)

Criterion 4: Partnership Structure and Capabilities (25%)

- •Clear roles, responsibilities, level-of-effort defined for project team members
- •Stakeholder credentials, capabilities, experience (Is PUC participating?)
- Project member commitment is demonstrated

Demonstration of commitment is an executed agreement or a memorandum of understanding that an agreement is planned between the applicant and another organization that describes the roles and responsibilities and financial/resource commitments of each



Multi-State Applications: DE-FOA-0000251

Area of Interest 1: Building Retrofit Markets

- States may submit both a state-specific application and a multi-state application.
 - A state could potentially be awarded both a state-specific award(s) and a multi-state award (provided each award differs in scope).

Area of Interest 2: Energy Efficiency Action

- States may submit either a state-specific application or a multi-state application.
 - A state cannot be awarded both a state-specific award(s) and a multi-state award

Multi-State Applications: DE-FOA-0000251

Instructions

- States submit <u>separate</u> applications
 - Project Title should indicate it is a collaborative effort
 - Contain <u>same</u> identical Project Narrative File
 - Describe overall coordinated effort
 - Outline integrated activities for each state involved
 - Demonstrate value of partnership vs. individual applications
 - Identify total project cost
 - All other files are to be specific to individual state
 - Budget file to provide individual state funding requirements
- Individual awards will be made with each of the participating states



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PUC/REGULATORY AGENCY FOA



Energy Efficiency Action Addressed in 2 FOAs

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- Addressed in Area of Interest 2
- Open to SEOs

- Requires
 Demonstrations of
 Commitment
 - Will allow letters of support but Demonstrations of Commitment are required prior to receiving the award

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- Single area of interest
- Open to PUCs or other regulatory equivalent
- Encourages
 Demonstrations of
 Commitment



Summary & Wrap Up

- How to submit questions
- Where/when responses will be posted

- This presentation was recorded and is available on
 - Fedconnectand
 - DOE/EERE OWIP website
 http://www1.eere.energy.gov/wip/financial.html

Thank you.....

END