

DE-FOA-0001427: Request for Information: Building Technologies Office (BTO) Draft Multi-Year Program Plan (MYPP)

DATE: October 19, 2015

SUBJECT: Request for Information (RFI)

Description: The United States (U.S.) Department of Energy (DOE) Building Technologies Office (BTO) is seeking the review of its <u>draft Multi-Year Program Plan (MYPP)</u> by stakeholders and the general public. Comments are requested to be submitted by email to <u>BTO MYPP@ee.doe.gov</u> by November 13, 2015. The draft MYPP provides a broad overview of buildings energy use and efficiency opportunities, and the strategies and goals of BTO to substantially accelerate the rate of efficiency improvements in both new and existing residential and commercial buildings. The draft plan describes each of BTO's programs, focusing on their activities over the next five years. Each program section provides an overview of the relevant market characteristics, including key market barriers, the program's history, and a description of the remaining opportunities for energy savings. This is followed by a description of each of the program's goals, the strategies used to achieve those goals, and a summary of specific program activities and key targets.

Background

The Building Technologies Office (BTO) is leading a network of national laboratory, university, small business, and industry partners to develop innovative, cost-effective energy saving solutions for U.S. buildings, the single largest energy-consuming sector in the nation. In 2013, residential and commercial buildings consumed more than 40% of the nation's total energy and more than 70% of the electrical energy, resulting in an estimated annual national energy bill totaling \$410 billion. Widespread adoption of existing energy-efficient building technologies—and the introduction and use of new technologies—could eventually reduce energy use in homes and commercial buildings by 50%. This would save more than \$200 billion annually and reduce U.S. energy-related greenhouse gas (GHG) emissions by about 20% compared to 2010 levels.

BTO's vision is a strong and prosperous America in which all homes and buildings operate at peak energy performance, are affordable, and provide optimal health conditions and comfort. In the context of this vision, BTO's mission is to develop, demonstrate, and accelerate the adoption of technologies, techniques, tools and services that are affordable and enable high-performing, energy-efficient residential and commercial buildings, both new and existing.

This is a Request for Information (RFI) only. EERE will not pay for information provided under this RFI and no project will be supported as a result of this RFI. This RFI is not accepting applications for financial assistance or financial incentives. EERE may or may not issue a Funding Opportunity Announcement (FOA) based on consideration of the input received from this RFI.



BTO has designed a three-part ecosystem to accomplish its mission and realize its vision. This ecosystem targets the technology, market, and regulatory needs that enable emerging energy-efficient technologies and solutions to achieve substantial, long-lasting energy savings:

- 1. Research and Development (R&D) to reduce technology cost, improve performance, and accelerate commercialization.
- Market Stimulation to validate energy-efficient technologies and practices in new and
 existing buildings by confirming performance in real-world conditions; provide reliable,
 objective data, best practices, and benchmarks; and develop a skilled workforce—all to
 reduce uncertainty for investors and spur wide-scale adoption.
- Codes and Standards to lock in savings for the long term by providing a consistent regulatory framework for manufacturers, builders, and consumers, and driving technologies and buildings to greater energy efficiencies.

BTO's strategy integrates innovation with market priming efforts to accelerate the widespread adoption of energy saving technologies and practices, maximize benefits, and realize savings in new and existing buildings. BTO's efforts are then solidified with federal regulatory action to improve minimum standards for both new buildings and new energy using products. Like an ecosystem, each piece of the BTO framework supports the other pieces, and each are equally important.

Purpose

The purpose of this RFI is to solicit feedback from industry, academia, research laboratories, government agencies, other stakeholders, including building owners and operators, and the general public, on questions related to the strategies, goals, and specific program plans described in the Draft Multi-Year Program Plan, which is available at: http://energy.gov/eere/buildings/downloads/draft-multi-year-program-plan.

This information will be used by BTO to help revise and finalize the MYPP, and to help it improve the effectiveness of its program activities over the period covered by this plan. More information on the current portfolio can also be found at http://www.energy.gov/eere/buildings. This is solely a request for information and not a Funding Opportunity Announcement (FOA). BTO is not accepting applications.

Disclaimer and Important Notes

This RFI is not a Funding Opportunity Announcement (FOA); therefore, EERE is not accepting applications at this time. Responding to this RFI does not provide any advantage or disadvantage to potential applicants if EERE chooses to issue a FOA regarding the subject matter.

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Any information obtained as a result of this RFI is intended to be used by the Government on a non-attribution basis for planning and strategy development. Your response to this notice will be treated as information only. EERE will review and consider all responses in its formulation of program strategies and for other elements of the draft MYPP that is the subject of this request. EERE will not provide reimbursement for costs incurred in responding to this RFI. Respondents are advised that EERE is under no obligation to acknowledge receipt of the information received or provide feedback to respondents with respect to any information submitted under this RFI. Responses to this RFI do not bind EERE to any further actions related to this topic.

Proprietary Information

Because information received in response to this RFI may be used to structure future programs and FOAs and/or otherwise be made available to the public, respondents are strongly advised to NOT include any information in their responses that might be considered business sensitive, proprietary, or otherwise confidential. If, however, a respondent chooses to submit business sensitive, proprietary, or otherwise confidential information, it must be clearly and conspicuously marked as such in the response.

Responses containing confidential, proprietary, or privileged information must be conspicuously marked as described below. Failure to comply with these marking requirements may result in the disclosure of the unmarked information under the Freedom of Information Act or otherwise. The U.S. Federal Government is not liable for the disclosure or use of unmarked information, and may use or disclose such information for any purpose.

If your response contains confidential, proprietary, or privileged information, you must include a cover sheet marked as follows identifying the specific pages containing confidential, proprietary, or privileged information:

Notice of Restriction on Disclosure and Use of Data:

Pages of this response may contain confidential, proprietary, or privileged information that is exempt from public disclosure. Such information shall be used or disclosed only for the purposes described in this RFI DE-FOA-0001409. The Government may use or disclose any information that is not appropriately marked or otherwise restricted, regardless of source.

In addition, (1) the header and footer of every page that contains confidential, proprietary, or privileged information must be marked as follows: "Contains Confidential, Proprietary, or Privileged Information Exempt from Public Disclosure" and (2) every line and paragraph containing proprietary, privileged, or trade secret information must be clearly marked with double brackets or highlighting.

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Evaluation and Administration by Federal and Non-Federal Personnel

Federal employees are subject to the non-disclosure requirements of a criminal statute, the Trade Secrets Act, 18 USC 1905. The Government may seek the advice of qualified non-Federal personnel. The Government may also use non-Federal personnel to conduct routine, nondiscretionary administrative activities. The respondents, by submitting their response, consent to EERE providing their response to non-Federal parties. Non-Federal parties given access to responses must be subject to an appropriate obligation of confidentiality prior to being given the access. Submissions may be reviewed by support contractors and private consultants.

Request for Information Categories and Questions

Information is sought in response to the following questions:

BTO Strategies and Goals Hierarchy

- 1. The draft MYPP uses a new framework for setting sector-wide and program-specific goals. It emphasizes the achievement of reductions in primary energy use per square foot of building space (Energy Use Intensity or EUI), relative to 2010. Can this new framework be used to more effectively integrate and track the impacts of BTO programs on building energy use? How might BTO improve or most effectively use this framework?
- 2. Has BTO identified the key barriers and opportunities in the residential and commercial sectors? Do the strategies identified by BTO effectively address the key barriers and opportunities identified?
- 3. Will the strategies identified in the roadmap result in the outcomes sought by BTO? Are certain strategies likely to be substantially more effective than others?

Emerging Technologies (ET) Program

- 4. Has BTO identified the key technology challenges in the buildings sector?
- 5. Does BTO's research agenda adequately address the technology challenges identified? How might BTO's plans in this area be improved?
- 6. Are the technology-specific performance goals for 2020 (and beyond) ambitious, but achievable?

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Residential Buildings Integration (RBI) Program

- 7. Has BTO identified and effectively addressed the key barriers to improving the efficiency of new and existing residential buildings? How might BTO's plans in this area be improved?
- 8. Are the Interim Market Goals associated with the RBI program ambitious, but achievable (given likely budget constraints and taking into account the effects of other government and utility initiatives)?
- 9. Are the 2020 performance goals for the RBI program ambitious, but achievable? Do the program performance goals measure meaningful metrics that can be directly linked to RBI's activities as well as indicate early stage market transformation?

Commercial Buildings Integration (CBI) Program

- 10. Has BTO identified and effectively addressed the key barriers to improving the efficiency of new and existing commercial buildings? How might BTO's plans in this area be improved?
- 11. Are the Interim Market Goals associated with the CBI program ambitious, but achievable (given likely budget constraints and taking into account the effects of other government and utility initiatives)?
- 12. Are the 2020 performance goals for the CBI program ambitious, but achievable? Do the program performance goals measure meaningful metrics that can be directly linked to CBI's activities as well as indicate early stage market transformation?

Building Energy Codes Program

- 13. Is BTO pursuing the most effective strategies for accelerating the development, adoption and implementation of new residential and commercial building energy codes? How might BTO's plans in this area be improved?
- 14. Are the goals for influencing the code development, adoption and implementation process, and for reducing the EUI of new residential and commercial buildings ambitious, but realistic?

Appliance and Equipment Efficiency Standards

15. Is BTO pursuing the most effective strategies for implementing its statutory responsibilities for implementing appliance and equipment efficiency standards? How might BTO's plans in this area be improved?

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16. Are the goals for reducing the sector-wide EUI through improved product efficiencies ambitious, but realistic?

Request for Information Response Guidelines

Responses to this RFI must be submitted by email to BTO_MYPP@ee.doe.gov no later than 5:00pm (ET) November 13, 2015. It is recommended that attachments with file sizes exceeding 25MB be compressed (i.e., zipped) to ensure message delivery. Responses must be provided as a Microsoft Word (.docx) attachment to the email. Only electronic responses will be accepted.

Please identify your answers by responding to a specific category and question if applicable. Respondents may answer as many or as few questions as they wish.

EERE will not respond to individual submissions or publish publicly a compendium of responses. However, if clarification is needed, the responder may be contacted. A response to this RFI will not be viewed as a binding commitment to develop or pursue the project or ideas discussed.

Respondents are requested to provide the following information at the start of their response to this RFI:

- Company / institution name;
- Company / institution contact;
- Contact's e-mail address.

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