



**Scaling Up the Next Generation of
Building Efficiency Packages**
CommercialBuildings@ee.doe.gov

FOA Webinar
DE-FOA-0001518
November 2, 2016

Good morning. Thanks for joining us today, this is a webinar to review the content of FOA 1518, or Funding Opportunity Announcement 1518, titled Scaling Up the Next Generation of Building Efficiency Packages.

DE-FOA-0001518: Scaling Up Next Gen Packages

Anticipated Schedule:

FOA Issue Date:	10/19/2016
FOA Informational Webinar:	11/02/2016
Submission Deadline for Concept Papers:	11/21/2016 5:00pm ET
Submission Deadline for Full Applications:	02/21/2017 5:00pm ET
Expected Submission Deadline for Replies to Reviewer Comments:	03/29/2017 5:00pm ET
Expected Date for EERE Selection Notifications:	May 2017
Expected Timeframe for Award Negotiations:	June 2017

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This slide shows the anticipated schedule for the FOA. The FOA has already been posted, and we are conducting the FOA Informational Webinar now. Please note that there are a few requirements that we will go over in the presentation that are different than in past FOAs, such as Replies to Reviewer Comments – we will cover all requirements for this FOA later in the presentation.

Regarding the submission deadlines in this slide, note that Exchange tends to get bogged down on the evening of submission deadlines, so please make sure to submit ahead of time if you can, don't procrastinate. It's better for everyone if you try to do all of this ahead of time. Regarding logistics, we are not going to be answering questions live through the chat. Please submit all questions to the FOA email box: CommercialBuildings@ee.doe.gov. All questions will be posted on the Exchange website so you can see other people's questions as well. Please check there to see if your questions has already been asked.

Before We Begin

- Please carefully read the Funding Opportunity Announcement DE-FOA-0001518 (“**FOA**”) and adhere to the stated submission requirements.
- This presentation summarizes the contents of FOA. If there are any inconsistencies between the FOA and this presentation or statements from DOE personnel, the FOA is the controlling document.
- For questions please contact CommercialBuildings@ee.doe.gov.

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The FOA is a fairly long document, please make sure to read it, do not skip over any details. This is the way we communicate the submission requirements to you so that you can progress through the different stages successfully. If any of the information in this presentation conflicts with the FOA, please let us know by emailing us at CommercialBuildings@ee.doe.gov. READ SLIDE

Included in these Slides

- 1) Program Overview
- 2) FOA Objectives and Topics
- 3) Teaming List
- 4) Award Information
- 5) Schedule
- 6) Statement of Substantial Involvement
- 7) Cost Sharing
- 8) Merit Review and Selection Process
- 9) Registration Requirements
- 10) Tips for Submissions

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The agenda for this presentation is as follows: READ SLIDE

We encourage you to have a copy of the FOA in front of you for reference as we go through the presentation.

Commercial Buildings Represent Significant Opportunity

- \$410 billion/year
- 75% of the nation's electricity
- Contributes 40% of greenhouse gas emissions

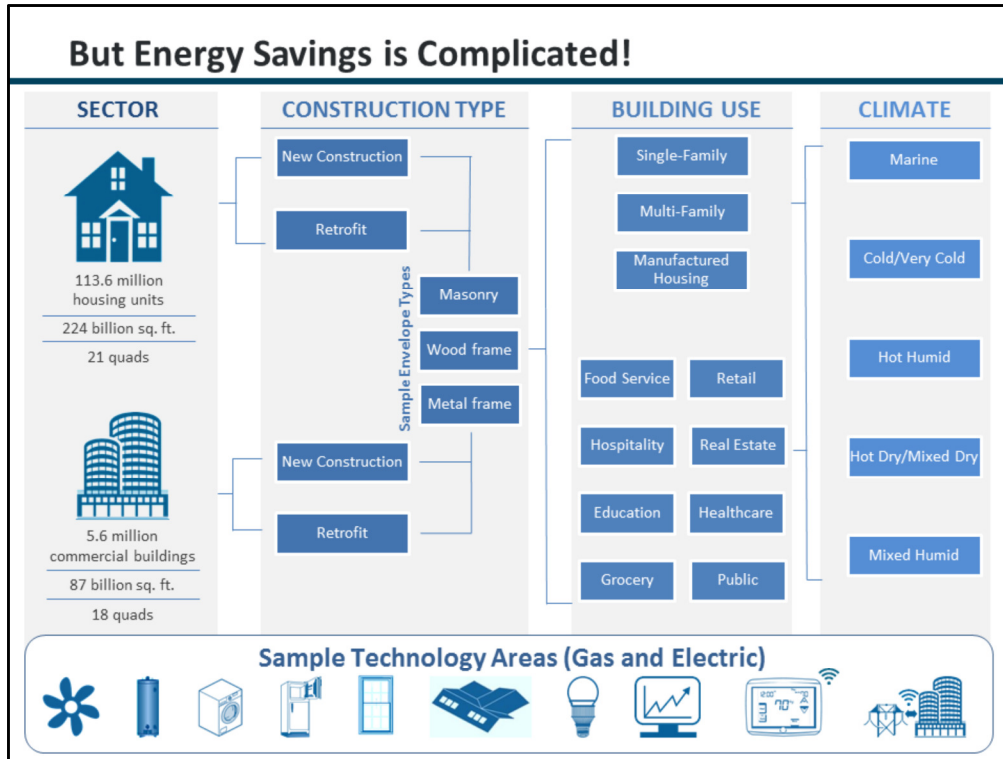


Building efficiency products represent \$60 billion in U.S. revenue; up 43% over the last 4 years.

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- Buildings have many different aspects that complicate their energy usage – for example, a residential building will have a different set of needs than a commercial building. Similarly, buildings can either be New Construction or Retrofit, made of different building envelope materials.
- Usage of these buildings varies greatly – the requirements for an air-conditioning system will be very different between a single-family home, a grocery store, and an office building.
- And the energy needs are further differentiated by location – a school in Alaska will have very different air-conditioning requirements than a school in Arizona or Oregon.

RECS: <http://www.eia.gov/consumption/residential/data/2009/index.cfm#undefined>

CBECs: <http://www.eia.gov/consumption/commercial/>

High Impact Technology: A Strategic Approach

Goal: identify and prioritize cost-effective, underutilized, energy-efficient technologies

Strategic Emphasis: accelerate underutilized technologies into the market through pre-identified and pre-defined pathways

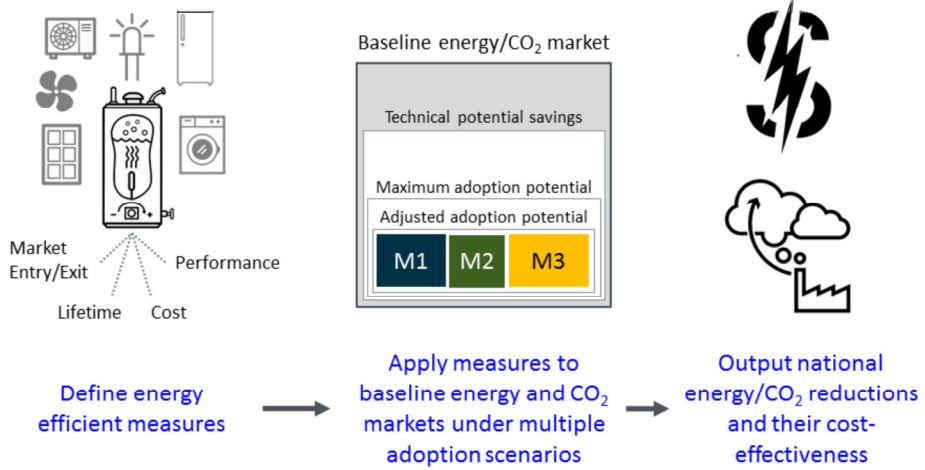


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Calculating Adoption across U.S. Buildings



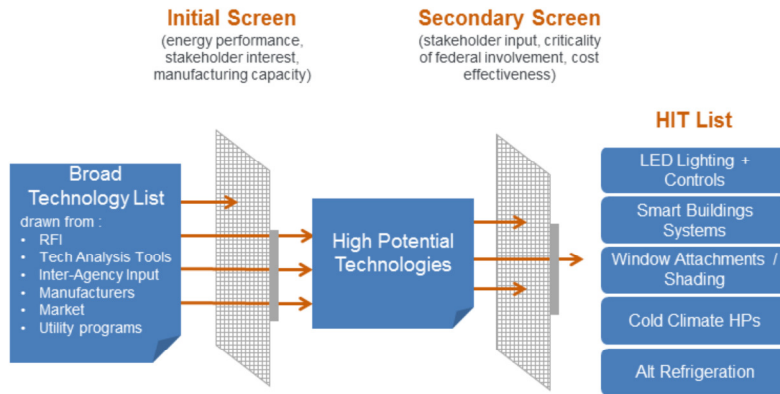
8 <https://github.com/trythink/scout>

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The High Impact Technology Priority List

Deployment prioritization enables partners to focus on market-ready, high potential technologies in a shifting landscape with multiple, complicated choices.



<http://energy.gov/eere/buildings/high-impact-technology-catalyst>

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FOA Background and Objectives

1. Foster new partnerships that bridge current gaps between research scientists/building experts, manufacturers, utilities and building owners.
2. Identify and verify multi-system energy efficiency packages (groups of technologies that improve efficiency across two building systems: envelope, lighting/electrical, plug, process, heating, ventilation, cooling, refrigeration, energy management and information, sensors and controls).
3. Help utilities develop and release or expand more aggressive and ambitious Energy Efficiency (EE) program offerings.
4. Generate and disseminate data, case studies, and information that lowers perceived risk regarding the efficacy and economic benefits of innovative and under-utilized commercial building technology packages

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Topic Areas/Technical Areas of Interest

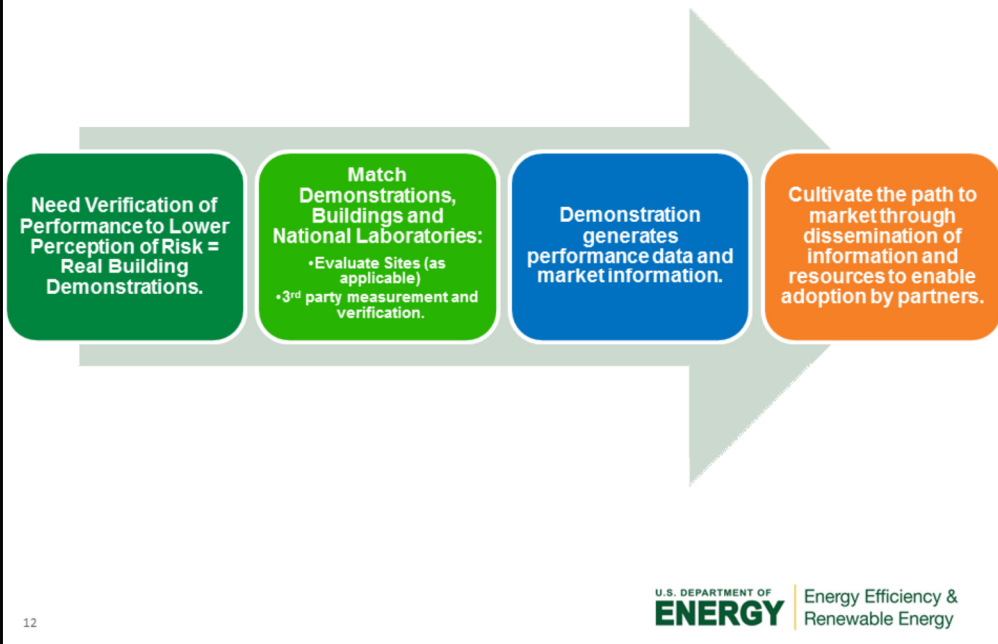
- Technology packages that improve efficiency across **two building systems** with preference for those packages that build off of HIT List, outcomes of previous demonstration projects, simulation analyses and/or existing BTO R&D investments in envelope retrofits and multi-system, interoperable controls.
- Documentation to establish package energy savings of **50% across a building market segment or 750 TBtu/yr in national energy savings potential at 100% penetration.**
- Strategic teams include a **technology provider, utility, and deployment lead.** BTO will prefer applications including partners representing large portfolios of buildings.
- Demonstrate the capability and commitment to rapidly initiate and complete the demonstrations in **less than three years with a clear, strategic path to broad adoption (including regulatory approval where appropriate).**

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Technology Demonstrations



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Non-Responsive Applications

- Applications that do not include technology packages that improve efficiency across two building systems.
- Applications for technology packages that do not document energy savings of 50% across a building market segment or 750 TBtu/year in national energy savings potential at 100% penetration.
- Applications for technologies that are not market ready. For example, a technology(ies) that cannot be specified and purchased within one year of the award agreement is not market ready.
- Technologies with market barriers that cannot be addressed through resource development, training and outreach. For example, the technology cannot meet local code requirements.

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Non-Responsive Applications

The following types of applications will be deemed nonresponsive and will not be reviewed or considered for an award:

- Applications that fall outside the technical parameters specified in Section I.B of the FOA, including but not limited to:
 - Applications for proposed technologies that are not based on sound scientific principles (e.g., violates the law of thermodynamics).

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Teaming Partners

- To facilitate the formation of innovative project teams for this FOA, a Teaming Partner List is available on the EERE Exchange website:
 - <https://eere-exchange.energy.gov/Default.aspx#Foald746d7b5b-0f97-4848-b7d9-ba4f66905af9>
- Any organization that would like to be included on this list should submit the following information to
 - Organization Name
 - Generic Organizational Contact Email (to receive queries related to this Teaming RFI)
 - Organization Type
 - Area of Technical, Market or Building Science Expertise
 - Brief Description of Capabilities
 - A statement of consent acknowledging that you permit DOE to share the above-provided information with other entities as part of this teaming list for the purpose of facilitating teaming arrangements for the anticipated *Scaling Up Packages* FOA.
- By facilitating this Teaming Partner List, EERE does not endorse or otherwise evaluate the qualifications of the entities that self-identify themselves for placement on the Teaming Partner List

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To facilitate the formation of new project teams for this FOA, a Teaming Partner List is available on the Exchange website.

The Teaming Partner List will be updated periodically, to reflect new Teaming Partners who have provided their information.

Any organization that would like to be included on this list should submit the information shown on this slide to the email address provided.

By submitting this information, you consent to the publication of the above-referenced information

By facilitating this Teaming Partner List, EERE does not endorse or otherwise evaluate the qualifications of the entities that self-identify themselves for placement on the Teaming Partner List.

EERE will not pay for the provision of any information, nor will it compensate any respondents for the development of such information.

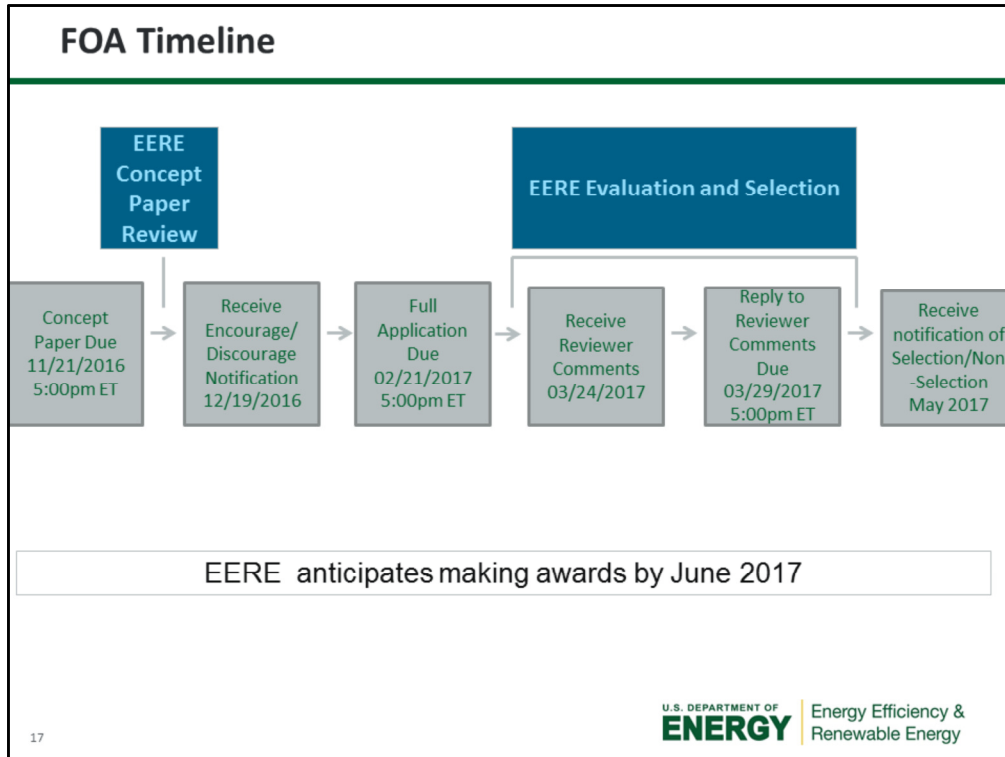
Award Information

Total Amount to be Awarded (DOE only)	\$6.5 million*
Average Award Amount (Federal share only)	EERE anticipates making awards that range from \$250K to \$700K
Types of Funding Agreements	Cooperative Agreements, Grants, Technology Investment Agreements, Work Authorizations, and Interagency Agreements
Period of Performance	Up to 36 months
Cost Share Requirement	50% of Total Project Costs

*Subject to the availability of appropriated funds

EERE expects to make approximately \$6.5 million of Federal funding available for new awards under this FOA subject to the availability of appropriated funds. The average award amount is anticipated to range from \$250K to \$1 million

EERE intends to fund mostly cooperative agreements under this FOA, but may also fund Grants, TIAs, Work Authorizations, and Interagency Agreements. Cooperative Agreements include Substantial Involvement, which we will discuss next.



EERE’s Evaluation and Selection Process is shown in blue here. EERE will review Concept Papers, Replies to Reviewer Comments (which we will cover later in the presentation), and Full Applications. The gray boxes represent the actions that apply to applicants throughout the FOA process.

Statement of Substantial Involvement

EERE has substantial involvement in work performed under Awards made following this FOA. EERE does not limit its involvement to the administrative requirements of the Award. Instead, EERE has substantial involvement in the direction and redirection of the technical aspects of the project as a whole. Substantial involvement includes, but is not limited to, the following:

- EERE shares responsibility with the Recipient for the management, control, direction, and performance of the Project.
- EERE may intervene in the conduct or performance of work under this Award for programmatic reasons. Intervention includes the interruption or modification of the conduct or performance of project activities.
- EERE may redirect or discontinue funding the Project based on the outcome of EERE's evaluation of the Project at that the Go/No Go decision point.
- EERE participates in major project decision-making processes.

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- Under cooperative agreements, there will be what is known as “substantial involvement” between EERE and the Recipient during the performance of the project.
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Cost Share

Applicants must contribute a minimum of 50% of the total project costs.

- Cost Share must be allowable and must be verifiable upon submission of the Full Application
- Refer to the following applicable Federal cost principles:

Entity	Cost Principles
For-profit entities	FAR Part 31
All other non-federal entities	2 CFR Part 200 Subpart E - Cost Principles

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Allowable Cost Share

- Cash Contributions
 - May be provided by the Prime Recipient, Subrecipients, or a Third Party
- In-Kind Contributions
 - Can include, but are not limited to: personnel costs, indirect costs, facilities and administrative costs, rental value of buildings or equipment, and the value of a service, other resource, or third party in-kind contribution

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Cost share can be provided in cash and/or in-kind. It can be provided by the Prime Recipient, subs, or a third party.

The basic definition of in-kind cost share is the donation of personnel time, equipment, facilities, or other items that an organization will contribute to the project. It can take many forms, each of which must be assigned a dollar value to be included in the budget. Some examples of in-kind cost share are the donation of work hours, facility use, equipment use.

Unallowable Cost Share

- The Prime Recipient may not use the following sources to meet its cost share obligations including, but not limited to:
 - Revenues or royalties from the prospective operation of an activity beyond the project period
 - Proceeds from the prospective sale of an asset of an activity
 - Federal funding or property
 - Expenditures reimbursed under a separate Federal Technology Office
 - Independent research and development (IR&D) funds
 - The same cash or in-kind contributions for more than one project or program

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Be aware that there are items that are considered unallowable cost share. If a cost is considered unallowable, it cannot be counted as cost share. This slide provides some examples of cost share that is unallowable.

Cost Share Payment

- Recipients must provide documentation of the cost share contribution, incrementally over the life of the award
- The cumulative cost share percentage provided on each invoice must reflect, at a minimum, the cost sharing percentage negotiated
- In limited circumstances, and where it is in the government's interest, the EERE Contracting Officer may approve a request by the Prime Recipient to meet its cost share requirements on a less frequent basis, such as monthly or quarterly. See Section III.B.7 of the FOA.

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Cost Share must be provided on an invoice basis, unless a waiver is requested and approved by the DOE Contracting Officer.

Review and Selection Process

- The Merit Review process consists of multiple phases that each include an initial eligibility review and a thorough technical review
- Rigorous technical reviews are conducted by reviewers that are experts in the subject matter of the FOA
- Ultimately, the Selection Official considers the recommendations of the reviewers, along with other considerations such as program policy factors, to make the selection decisions

Please carefully read and respond to review criteria for both concept papers and full applications.

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Replies to Reviewer Comments

- EERE provides applicants with reviewer comments
- Applicants are not required to submit a Reply - it is optional
- To be considered by EERE, a Reply must be submitted by 3/29/2017, 5:00pm ET and submitted through EERE Exchange
- Content and form requirements:

Section	Page Limit	Description
Text	2 pages max	Applicants may respond to one or more reviewer comments or supplement their Full Application.
Optional	1 page max	Applicants may use this page however they wish; text, graphs, charts, or other data to respond to reviewer comments or supplement their Full Application are acceptable.

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The Full Applications are reviewed by experts in the FOA topic area(s). After those experts review the applications, EERE will provide applicants with reviewer comments. Applicants will have a brief opportunity to review the comments and prepare a short Reply to Reviewer Comments responding to comments however they desire. The Reply to Reviewer Comments is due by the date and time provided on this slide. Applicants should anticipate receiving the independent reviewer comments approximately three business days before this due date. The Reply to Reviewer Comments is an optional submission; applicants are not required to submit a Reply to Reviewer Comments.

This a **customer centric** process that provides applicants with a unique opportunity to correct misunderstandings and misinterpretations and to provide additional data that might influence the selection process in their favor. The Replies are considered by the reviewers and the selection official.

Replies to Reviewer Comments must conform to the content and form requirements listed here, including maximum page lengths. If a Reply to Reviewer Comments is more than three pages in length, EERE will review only the first three pages and disregard any additional pages.

Please see Sections IV.E. and V.A.3 for additional information regarding Replies to Reviewer Comments

Registration Requirements

- To apply to this FOA, Applicants must register with and submit application materials through EERE Exchange: <https://eere-Exchange.energy.gov>
- Obtain a “control number” at least 24 hours before the first submission deadline
- Although not required to submit an Application, the following registrations must be complete to receive an award under this FOA:

Registration Requirement	Website
DUNS Number	http://fedgov.dnb.com/webform
SAM	https://www.sam.gov
FedConnect	https://www.fedconnect.net
Grants.gov	http://www.grants.gov

There are several one-time actions before submitting an application in response to this FOA, and it is vital that applicants address these items as soon as possible. Some may take several weeks, and failure to complete them could interfere with an applicant’s ability to apply to this FOA, or to meet the negotiation deadlines and receive an award if the application is selected.

DUNS Number

Obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number.

System for Award Management

Register with the System for Award Management (SAM). Designating an Electronic Business Point of Contact (EBiz POC) and obtaining a special password called an MPIN are important steps in SAM registration. Please update your SAM registration annually.

Fedconnect

Register in FedConnect. To create an organization account, your organization’s SAM MPIN is required. For more information about the SAM MPIN or other registration requirements, review the FedConnect Ready, Set, Go! Guide at the FedConnect site.

Grants.gov

Register in Grants.gov to receive automatic updates when Amendments to this FOA are posted. However, please note that Concept Papers and Full Applications will not be accepted through Grants.gov.

Key Submission Points

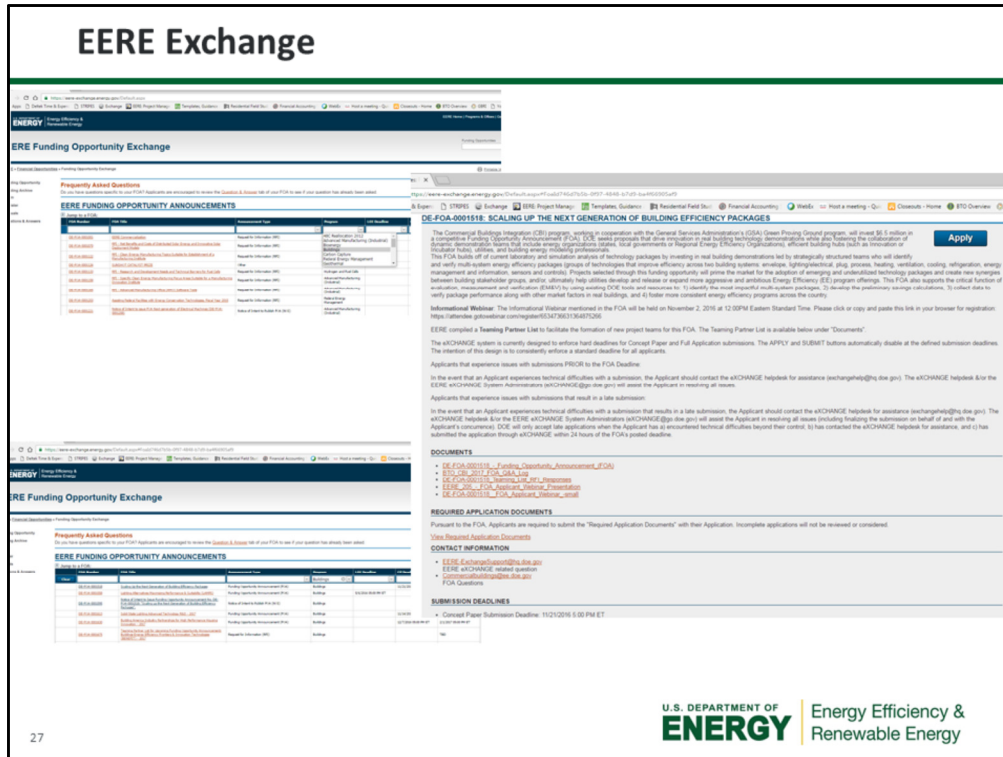
- Check entries in EERE Exchange
 - Submissions could be deemed ineligible due to an incorrect entry
- EERE strongly encourages Applicants to submit 1-2 days prior to the deadline to allow for full upload of application documents and to avoid any potential technical glitches with EERE Exchange
- Make sure you hit the submit button
 - Any changes made after you hit submit will un-submit your application and you will need to hit the submit button again
- For your records, print out the EERE Exchange Confirmation page at each step, which contains the application's Control Number

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I will go over this slide and then Robin will walk you through Exchange so you can see where our FOA is, where the Teaming List is, and where the Q&A is posted.

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When you log into Exchange (<https://eere-Exchange.energy.gov>) this is the page you will see. A quick way to find the FOA is to sort by the Program filter, and then select Buildings. Next, select this FOA, DE-FOA-0001518. This is where you would apply to the FOA and where you can read some helpful information about the FOA. Here are some important documents: The FOA itself which you will definitely want to download and read through and here is the Q&A log that Amy referred to. We will be keeping this up to date with questions as they come in. Here is the Teaming List that Amy referred to. Other things you will find here are some key dates, required application documents, the email address for any FOA questions, and the Exchange email address if you are having any issues in Exchange.

Questions

- Questions about this FOA? Email CommercialBuildings@ee.doe.gov
 - All Q&As related to this FOA will be posted on EERE Exchange
 - You must select this specific FOA Number in order to view the Q&As
 - EERE will attempt to respond to a question within 3 business days, unless a similar Q&A has already been posted on the website
- Problems logging into EERE Exchange or uploading and submitting application documents with EERE Exchange? Email EERE-ExchangeSupport@hq.doe.gov.
 - Include FOA name and number in subject line

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Thank you for joining our webinar, have a great day!