

Thank you, Randy. Good afternoon and welcome to the webinar. This Informational Webinar is for potential Applicants and others interested in the Department of Energy's **Deployment of Clean Energy and Energy Efficiency Projects on Indian Lands** Funding Opportunity Announcement (or FOA), which was issued on July 16, 2014. As Randy said, my name is Lizana Pierce and I am the Project Manager for the Tribal Energy Program under DOE's Office of Energy Efficiency and Renewable Energy and have been since its inception in 2002. And, I will be presenting today.

The intent of this webinar is to cover the basic aspects of the Funding Opportunity Announcement and highlighting essential details about the application process, including:

- The types of applications sought;
- Who is eligible to apply;
- Cost share and other requirements;
- What the application needs to contain;
- How to ask questions; and
- How applications will be selected for funding.

Before we begin, I'd like to draw your attention to the email address on the left hand side of this cover page. This is the official mailbox to direct all of your questions to during the entire FOA process. Please do not contact EERE individuals directly with questions,

including myself, as all questions must be in writing. The reason for only accepting questions in writing is to ensure that everyone has the benefit of the response - because if you have a question, other potential applicants may as well.

As we will not have a live Q&A session as part of this webinar, please capture your questions as they come up and send them via email to tribal@ee.doe.gov. All questions received at this mailbox and the answers will be posted publicly to the Q&A section of the FOA page on the EERE Exchange website. The reason for only accepting questions in writing is to ensure that everyone has the benefit of the response - because if you have a question, other potential applicants may as well. The official answers to your questions will typically be posted within 3 business days. Before submitting a question, you may wish to check the FOA Q&A section on EERE Exchange to see if your question has already been answered. In submitting a question, please be careful not to include any language that might be business sensitive, proprietary or confidential.

Your participation in this webinar is completely voluntary. There are no particular advantages or disadvantages to the Application evaluation process with respect to your participation in the webinar today.

Let's get started! Next slide please.

Deployment of Clean Energy and Energy Efficiency Projects on Indian Lands (DE-FOA-0001021)	
Anticipated Schedule:	
FOA Issue Date:	07/16/2014
Informational Webinar	08/14/2014 at 1:00 PM Eastern Time
Submission Deadline for Applications:	10/02/2014 at 5:00 PM Eastern Time
Expected Date for EERE Selection Notifications:	01/09/2015
Expected Timeframe for Award Negotiations	04/30/2015

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This slide shows the anticipated schedule for the FOA which is also on page 1 of the Funding Opportunity Announcement (FOA) document. The FOA has already been posted, and we are conducting the FOA Informational Webinar now. Please note that all Applications are due on the EERE Exchange website on October 2, 2014 no later than 5:00 Eastern. Note that this is 5:00 Eastern so you will need to adjust to your time zone and plan accordingly. Please ensure you begin uploading you application in advance to ensure you meet the deadline.

Applicants are strongly encouraged to submit their Applications at least 48 hours in advance of the submission deadline. Under normal conditions (i.e., at least 48 hours in advance of the submission deadline), you should allow at least 1 hour to submit an Application. Once the Application is submitted in EERE Exchange, you may revise or update your Application until the expiration of the deadline.

EERE anticipates notifying Applicants selected for negotiation of award by January 9, 2015 and making awards by April 30, 2015.

Randy, next slide please.

EERE Exchange Registration

- To apply to this FOA, **Applicants must register with and submit Application materials through EERE Exchange** at <https://eere-Exchange.energy.gov>, EERE's online Application portal.
- Frequently asked questions for this FOA and the EERE Application process can be found at <https://eere-exchange.energy.gov/FAQ.aspx>.
- Register in Grants.gov (<http://www.grants.gov>) to receive automatic updates when Amendments to this FOA are posted. However, please note Applications will not be accepted through Grants.gov.

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Other Registration Requirements

- The EERE Exchange registration does not have a delay; however, **the remaining registration requirements could take several weeks to process and are necessary for a potential Applicant to receive an award under this FOA.**
- Although not required in order to submit an Application through the EERE Exchange site, all potential Applicants lacking a DUNS number, or not yet registered with SAM or FedConnect should complete those registrations as soon as possible.
- Please see Part VI.C of the FOA (pages 44-45) for information on how to register in the above systems.

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Notice

- All applicants are strongly encouraged to carefully read the Funding Opportunity Announcement DE-FOA-0001021 (**“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 and applicants should rely on the FOA language and seek clarification from EERE.
- If you believe there is an inconsistency, please contact us by sending an email to tribal@ee.doe.gov.

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To locate the FOA document, the energy savings template and other forms needed to apply to this FOA, search “EERE Exchange” on the Internet and once on Funding Opportunity Exchange Page scroll down the table until you find “DE-FOA-0001021”. Click on it and it will take you to the section of the webpage specific to this FOA. The actual FOA document can be found by clicking on “DE-FOA-0001021 Deployment of Clean Energy and Energy Efficiency on Indian Lands” under FOA Documents. Note that depending on the size of your computer screen you may need to scroll down. To locate the Microsoft Excel Energy Savings Template and other forms needed to apply to the FOA, scroll down to Required Application Documents and click on “View Required Application Documents”. A list of documents with hyper-links will appear. Clicking on the names of these forms and templates will open that document, which can then be saved to your computer so you can then fill-out or complete that form or template.

Frequently Asked Questions (FAQs) can be found under that same section of the webpage. Remember, you may need to scroll down a little. Clicking on “FAQs webpage” will take you to a list of all questions and answers related to this Funding Opportunity Announcement (or FOA). You may wish to check this page periodically as questions and answers will continue to be posted throughout the entire time the FOA is open.

Please be aware that a modification to the FOA was just issued. The Modification simple made some minor corrections, clarified that the minimum clean energy system size can be for a single individual clean energy system or the aggregate of multiple clean energy systems, and clarified that an eligible combined heat and power system may be fueled by either renewable energy or natural gas. All changes are highlighted in the FOA document as part of the Modification, so please review those changes along with the Frequently Asked Questions.

Next slide please.

Agenda

- 1) FOA Executive Summary
- 2) FOA Description
- 3) Topic Areas
- 4) Non-responsive Applications
- 5) Award Information
- 6) Applicant Eligibility
- 7) Cost Sharing
- 8) Content and Form of Full Applications
- 9) Merit Review and Selection Criteria and Process
- 10) Registration Requirements
- 11) Application Submission and Points-of-Contact
- 12) Questions
- 13) Energy Savings Calculation (Topic Area 1 Only)
- 14) Energy Savings Template Demonstration (Topic Area 1 Only)
- 15) Closing

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The agenda for this presentation is as shown. We'll go over the FOA description including Topic Areas, applications not of interest, general award information, applicant eligibility, cost sharing, including how to request a reduction in cost share, the content and form of the application, the merit review and selection criteria and process. We'll also address registration requirements and how to submit an application, and how to submit questions to this FOA. Remember, we will not entertain questions as part of this webinar. All questions must be submitted via email to tribal@ee.doe.gov.

Additionally, we will also cover how energy savings must be calculated for Topic Area 1, and provide a demonstration of the energy savings template provided for calculating the energy savings under Topic Area 1. Note that energy savings calculations are only required under Topic Area 1. No energy calculations are needed for Topic Area 2.

We encourage you to have a copy of the FOA in front of you for reference as we go through the presentation. The FOA document itself can be found by searching the internet for EERE Exchange and once on the EERE Exchange website, scrolling down and clicking on the specific FOA number (DE-FOA-0001021). This will take you to all the FOA information, including a hyper-link directly to the FOA document itself.

Next slide please, Randy.

FOA Executive Summary

Means of Submission	Applications <u>must</u> be submitted through EERE Exchange at https://eere-Exchange.energy.gov , EERE's online Application portal. EERE will not review or consider Applications submitted through other means. The Users' Guide for Applying to the Department of Energy EERE Funding Opportunity Announcements is found at https://eere-Exchange.energy.gov/Manuals.aspx .
Total Amount to be Awarded	Approximately \$4 to \$7 million
Average Award Amount	EERE anticipates making awards that range from \$50,000 to \$500,000 for Topic Area 1 (Tribal Building Clean Energy and Energy Efficiency Retrofits) and from \$250,000 to \$1,000,000 for Topic Area 2 (Community-Scale Clean Energy Deployment).
Types of Funding Agreements	Grants
Period of Performance	1 to 2 years, but no longer than 3 years including the energy savings verification period.

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The FOA Executive Summary included on page 1 of the FOA document includes key information on the FOA. This information is summarized on this and the next two slides. We will go over this information as part of the presentation, but is provide here as a summary.

READ SLIDE.

FOA Executive Summary - Continued

Eligible Applicants	Subject to the definitions and requirements in Section III.A, Indian Tribes (including Alaska Native regional and village corporations), Tribal Energy Resource Development Organizations, or Tribal Consortium (group of organizations, one of which is an eligible Indian Tribe who submits the Application on behalf of the consortium). Applications from a consortium of Indian Tribes will be accepted but <u>must</u> be submitted by a single Indian Tribe acting as the Applicant representing the Consortium. Applications may also be submitted on behalf of an Indian Tribe(s) by an authorized Tribal Organization or Inter-tribal Organization, provided evidence of that authority is supplied as part of the Application (see Section III.A for requirements and definitions).
Cost Share Requirement	50% of Total Project Costs (100% match against EERE funds), unless an Applicant requests a reduction in the cost share as part of the Application and receives approval from EERE. Cost share reduction requests of less than 10% will not be considered. If EERE does not grant a request for reduced cost share, the Applicant will be required to meet the requisite 50% cost share. See Section III.B.7 for the content of cost share reduction requests and the criteria by which they will be reviewed.

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We will discuss in detail later in the presentation the eligibility and cost share requirements. However, I'll give you a moment to read through the slide before continuing.

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FOA Executive Summary - Continued

Submission of Multiple Applications	Applicants may submit more than one Application to this FOA or under a Topic Area, provided that each Application is for a unique and distinct project.
Application Forms	Required forms and templates for Applications are available on EERE Exchange at https://eere-Exchange.energy.gov .
FOA Summary	Under this FOA, EERE is soliciting Applications from Indian Tribes, Tribal Energy Resource Development Organizations and Tribal Consortia to: (1) install clean energy and energy efficiency retrofits projects for tribal buildings; and (2) to deploy clean energy systems on a community-scale on Indian Lands (see Section III.A for eligibility definitions).

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READ FIRST TWO ITEMS.

We will provide a more detailed description of the FOA and the two Topic Areas in subsequent slides so I won't go over the FOA Summary now.

Next slide please.

FOA Description

Through this Funding Opportunity Announcement (FOA or Announcement), EERE is continuing its efforts to promote tribal energy sufficiency and to spur increased deployment of clean energy and energy efficiency projects on Indian lands.

In support of these program objectives, EERE is soliciting Applications from Indian Tribes (including Alaska Native regional and village corporations), Tribal Energy Resource Development Organizations and Tribal Consortia to:

- (1) Install clean energy and energy efficiency retrofit projects for tribal buildings (Topic Area 1); and
- (2) Deploy clean energy systems on a community-scale (Topic Area 2).

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Randy, next slide.

FOA Description - Continued

“Clean energy systems” for purposes of this FOA include:

- (1) renewable energy power systems; and
- (2) combined heat and power systems (see definitions in Appendix A).

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It is important to understand definitions to ensure your project fits the requirements of this FOA. So, over the next few slides I'll define important terms.

READ SLIDE

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FOA Description- Continued

“Renewable energy systems”, for purposes of this announcement, include systems for:

- (1) electric power generation; and/or
- (2) heating or cooling systems.

Renewable energy systems also include renewable energy fueled combined heat and power systems (see below).

- Renewable energy systems for **electric power generation** include, but are not limited to, photovoltaic (solar electric), biomass (including waste to energy), wind power, incremental hydropower, or other renewable energy hybrid systems for electricity power generation.
- **Heating or cooling systems** include, but are not limited to, the use of biomass for high efficiency combustion systems (i.e., stoves and boilers), active solar thermal systems for space or water heating, wind energy for heating, direct-use hydrothermal (geothermal) resources for water and space heating, or other renewable energy hybrid systems for heating and/or cooling.

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Renewable energy systems may be proposed under Topic Area 1.a for providing power, heating, or cooling on a facility-scale to Tribal buildings or under Topic Area 2 on a community-scale.

For this FOA, “Renewable energy systems” include systems for: (1) electric power generation; and/or (2) heating or cooling systems. The FOA further defines renewable energy systems as shown here. Note that for this FOA, ground source heat pumps are not defined as a renewable energy system, but rather included under energy efficiency measures. I’ll give you a moment to read those definitions. PAUSE.

Next slide, please Randy.

FOA Description - Continued

“Clean energy systems” for purposes of this FOA include:

- (1) renewable energy power systems; and
- (2) combined heat and power systems (see definitions below or under Appendix A).

“**Combined heat and power systems**”, for purposes of this announcement, include, but are not limited to, integrated systems that simultaneously generate heat and power using energy efficient turbines, reciprocating engines, micro-turbines, or fuel cells and incorporating waste heat recovery technologies for heating and cooling. Eligible combined heat and power systems may be fueled by either renewable energy resources or natural gas. Combined heat and power systems not fueled by either renewable energy resources or natural gas will not be considered.

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As with renewable energy systems, combined heat and power systems may be proposed under Topic Area 1.a to provide heat and power on a facility-scale to Tribal buildings or under Topic Area 2 on a community-scale.

I'll give you a moment to read the definition. Note that only combined heat and power systems fueled by either renewable energy resources or natural gas will be considered. You may also find all definitions under Appendix A of the FOA. PAUSE.

Next slide.

FOA Description - Continued

“Energy Efficiency Measures (EEM)” for purposes of this FOA, may include, but are not limited to,

- building envelope improvements (walls, roofs, foundation slab, ceiling, windows, doors, insulation),
- the installation of energy efficient equipment,
- high-efficiency lighting,
- efficient appliances,
- air sealing,
- moisture management,
- controlled ventilation,
- high R-value (high thermal resistance) insulation,
- high efficiency windows,
- efficient heating systems (furnaces, boilers, passive solar),
- efficient cooling systems (air conditioners, evaporative coolers),
- ground source heat pumps,
- high efficiency office equipment,
- energy saving building electrical equipment,
- efficient mechanical systems, and
- heat recovery ventilation units.

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Under this FOA, Energy Efficiency Measures (EEM) may be proposed only under Topic Area 1.b. “Deep Energy Retrofit Energy Efficiency Measures”. If submitted under any other Topic Area, the Application will be deemed non-responsive and will not be reviewed or considered.

“Energy Efficiency Measures (EEM)” for purposes of this FOA, may include, but are not limited to, the items listed on the slide. As mentioned previously, for this FOA ground source heat pumps are not defined as a renewable energy system, but rather included under energy efficiency measures. I’ll give you a moment to read through the list of energy efficiency measures. PAUSE.

Next slide please.

Topic Areas

EERE is soliciting Applications from Indian Tribes (including Alaska Native regional and village corporations), Tribal Energy Resource Development Organizations and Tribal Consortia to:

(1) Topic Area 1: Tribal Building Clean Energy and Energy Efficiency Retrofits

- (a) Topic Area 1.a. Clean energy systems
- (b) Topic Area 1.b. "Deep energy retrofit" measures

(2) Topic Area 2: Community-Scale Clean Energy Deployment

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As previously indicated, there are two (2) Topic Areas under this FOA. One for "facility-scale" (Topic Area 1) and one for "Community-Scale Projects (Topic Area 2). Under Topic Area 1, applications may be submitted for clean energy systems (either renewable energy systems or combined heat and power systems) on a facility-scale which is Topic Area 1.a; or for deep energy retrofit measures (Topic Area 1.b.). We will go over each of these Topic Areas in more detail in the upcoming slides.

Next slide, please.

Topic Area 1: Tribal Building Clean Energy and Energy Efficiency Retrofits - Continued

Under Topic Area 1, EERE is soliciting Applications for the deployment of “facility-scale”:

- (a) Clean energy systems (renewable energy or combined heat and power systems) to displace electrical, heating and/or cooling loads; and/or
- (b) “Deep energy retrofit” measures to reduce the total of all energy used in a building or buildings (total of all energy sources combined including, but not limited to, electrical, propane, heating oil, diesel oil, natural gas, or any other energy source or fuel used for electrical production, heating and/or cooling).

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Again, READ SLIDE

Randy, next slide please.

Topic Area 1: Tribal Building Clean Energy and Energy Efficiency Retrofits - Continued

For Topic Area 1:

- **“Facility-scale”** for purposes of this announcement means a single or multiple “Tribally-owned or controlled building(s)” located on Indian lands.
- All proposed installations must be for either existing “Tribally-owned or controlled building(s)” or “Tribally-owned or controlled building(s)” being constructed or to be constructed during the proposed project period.
- **“Tribally-owned or controlled building(s)”** for purposes of this FOA, is one where the eligible entity has the authority to retrofit the building and where the building is either owned by the eligible entity or Tribal members, or the eligible entity has a long-term lease (at least 20 years).
- **Buildings may include**, but are not limited to, homes, schools, community buildings, clinics, Tribal government buildings, utility facilities (such as water/waste water systems) or Tribal businesses.

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It is important to understand definitions to ensure your project fits the requirements of this FOA. READ SLIDE

Next slide please.

Topic Area 1: Tribal Building Clean Energy and Energy Efficiency Retrofits - Continued

Under Topic Area 1.a., EERE is soliciting Applications for the deployment of “facility-scale” **clean energy systems** to displace electrical, heating and/or cooling loads.

- Clean energy systems (renewable energy systems or combined heat and power systems) **must displace an existing energy source** (e.g., electricity, heating oil, diesel oil, natural gas or any other energy source or fuel used for electrical production, heating and/or cooling) **by at least 15%, must be a minimum of 10 kW rated capacity (or Btu equivalent of 34,121 Btu/hr for heating and cooling)**, and use commercially proven technology. Energy generated by combined heat and power systems **must displace 15% of the combined electricity and heating fuels on a source energy basis** (see Appendix C).

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READ SLIDE. Note that the 10kW requirement may be for a single system or the cumulative of multiple systems.

Randy, next slide please. Thanks.

Topic Area 1: Tribal Building Clean Energy and Energy Efficiency Retrofits - Continued

Under Topic Area 1.a., EERE is soliciting Applications for the deployment of “facility-scale” **clean energy systems** to displace electrical, heating and/or cooling loads.

- Applications must demonstrate the availability of the resource (renewable or natural gas). Applications proposing geothermal or biomass systems must also demonstrate the sustainability of the resource.
- Proposed systems may either be physically attached to the Tribally-owned or controlled building(s) or ground-mounted, but must be sited on Indian lands.
- For either existing Tribally-owned or controlled building(s) or a building(s) being, or to be, constructed, the total energy displacement may be for either a single building, or the cumulative energy displaced in multiple buildings.
- The 15% displacement of an energy source(s) used in a building(s) must occur during the project period.

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READ SLIDE BULLETS

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Topic Area 1: Tribal Building Clean Energy and Energy Efficiency Retrofits - Continued

Under Topic Area 1.a., EERE is soliciting Applications for the deployment of “facility-scale” **clean energy systems** to displace electrical, heating and/or cooling loads.

- For existing Tribally-owned or controlled building(s), the requirement for a 15% displacement in an existing energy source (or multiple energy sources if a combined heat and power system is proposed) in a building or buildings **must be based on the actual annual consumption of that energy source(s) in the building or buildings during the prior year (12 months) as evidenced by utility bills** (e.g., electric utility bills, fuel purchase invoices, or other comparable documentation for the energy source(s) to be displaced). Provide annual energy consumption data as an attachment under the Energy Use Data File (see Section IV.C.7.).

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Under Topic Area 1.a. (Clean Energy Systems), the 15% displacement of an existing energy source must be based on the actual annual consumption of that energy source(s) in the building or buildings during the prior year (12 months) as evidenced by utility bills. Utility bills may include electric utility bills, fuel purchase invoices, or other comparable documentation for the energy source or sources to be displaced, and you will be required to provide those utility bills as part of your application.

Next slide please.

Topic Area 1: Tribal Building Clean Energy and Energy Efficiency Retrofits - Continued

Under Topic Area 1.a., EERE is soliciting Applications for the deployment of “facility-scale” **clean energy systems** to displace electrical, heating and/or cooling loads.

- For Tribally-owned or controlled buildings being constructed or to be constructed during the project period, the requirement for a 15% displacement in an existing energy source (or multiple energy sources if a combined heat and power system is proposed) **must be based on the projected annual energy use and those projections must be provided as part of the Application** (see Section IV.C.7).

NOTE: Projects proposing energy efficiency measures will be deemed non-responsive to Topic Area 1.a. and, if submitted under Topic Area 1.a., will not be reviewed or considered.

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READ SLIDE BULLET. As previously stated, energy efficiency measures are only eligible under Topic Area 1.b.

Next slide, Randy. Thank you.

Topic Area 1: Tribal Building Clean Energy and Energy Efficiency Retrofits - Continued

Under Topic Area 1.a., EERE is soliciting Applications for the deployment of “facility-scale” **clean energy systems** to displace electrical, heating and/or cooling loads.

- **Verification of the actual annual displacement (amount, cost, and percentage) of an energy source(s) will be required after installation** of the renewable energy system(s) or combined heat and power system(s), and a description of those verification methods must be included as part of the Technical Volume (see Section IV.C., Content and Form of the Application).
- The percentage of energy displaced will be independently verified; therefore, the **methodology described in Appendix C must be used. A Microsoft Excel template has been provided in EERE Exchange** for calculating the amount of energy saved. Appendix C includes instructions on how to calculate the percentage of the energy displaced under this topic Area, the conversion factors that must be used, and various examples.

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Please note that if you are selected for an award, you will need to verify the actual annual displacement of the energy source after installation. As such, the project period will need to include sufficient time for this verification period. READ SECOND BULLET

As part of this webinar, we will describe the methodology for calculating the energy saved and will also provide a demonstration of the template.

Remember that if you are proposing to install clean energy systems for an existing building or buildings, **utility bills** (such as electric utility bills, fuel purchase invoices, or other comparable documentation for the energy source to be displaced) must be provided as part of your Application. And if the building or buildings are being constructed or will be constructed during the project period, the annual energy use must be projected and those projections provided as part of your Application.

Next slide, please.

Topic Area 1: Tribal Building Clean Energy and Energy Efficiency Retrofits - Continued

Under Topic Area 1.b., EERE is soliciting Applications for the deployment of “facility-scale **“deep energy retrofit” measures** to reduce the total of all energy used in a building or buildings

A **“deep energy retrofit”** for purposes of this Topic Area 1.b. is a whole-building approach involving a comprehensive renovation or remodeling strategy which combines energy efficiency measures (EEM), so that significant energy savings are achieved, and the comfort, durability, health, and indoor air quality of the building or buildings is improved.

See slide 15 for the definition of EEM or refer to Appendix A of the FOA for any other definitions.

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Under Topic Area 1.b. READ 2nd and 3rd PARAGRAPH.

Randy, next slide please.

Topic Area 1: Tribal Building Clean Energy and Energy Efficiency Retrofits - Continued

Under Topic Area 1.b., EERE is soliciting Applications for the deployment of "facility-scale ""**deep energy retrofit**"" measures to reduce the total of all energy used in a building or buildings.

- Deep energy retrofit(s) **must be based on a prior energy audit** and must demonstrate the potential of **at least a 20% reduction in the total of all energy and fuel used** (total of all energy and fuel sources combined, including but not limited to, electricity, propane, heating oil, diesel oil, natural gas, or any other energy or fuel used) in the building and improve comfort, durability, health, and air quality of a home or building.

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Under Topic Area 1.b. READ BULLET. This is different than Topic Area 1.a. where only the **energy source or sources being displaced** are used to calculate the amount of energy saved. Whereas under this Topic Area (Topic Area 1.b.), **all** energy sources used in a building or buildings **must** be used to calculate the energy saved.

Randy, next slide please. Thanks.

Topic Area 1: Tribal Building Clean Energy and Energy Efficiency Retrofits - Continued

Under Topic Area 1.b., EERE is soliciting Applications for the deployment of "facility-scale ""**deep energy retrofit**"" measures to reduce the total of all energy used in a building or buildings.

- If any renewable energy systems are being proposed in addition to the energy efficiency measures, the renewable energy system **must also be a minimum of 10 kW rated capacity** (or Btu equivalent of 34,121 Btu/hr for heating and cooling), and use commercially proven technology in addition to meeting the 20% reduction in the **total** of all energy used in the building or buildings).

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Under Topic Area 1.b. READ BULLET. Note that the 10kW requirement may be for a single system or the cumulative of multiple systems.

Randy, next slide please. Thanks.

Topic Area 1: Tribal Building Clean Energy and Energy Efficiency Retrofits - Continued

Under Topic Area 1.b., EERE is soliciting Applications for the deployment of “facility-scale “**deep energy retrofit**” measures to reduce the total of all energy used in a building or buildings.

- For either existing Tribally-owned or controlled building(s) or a building(s) being, or to be, constructed, the total energy reduction may be for either a single building, or the cumulative energy savings in multiple buildings.
- The 20% reduction in the **total** of all energy sources used in a building(s) must occur during the project period.

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Under Topic Area 1.b. “deep energy retrofit” measures, READ BULLETS

Next slide.

Topic Area 1: Tribal Building Clean Energy and Energy Efficiency Retrofits - Continued

Under Topic Area 1.b., EERE is soliciting Applications for the deployment of “facility-scale **“deep energy retrofit” measures** to reduce the total of all energy used in a building or buildings.

- For **existing** Tribally-owned or controlled building(s), the requirement for a 20% reduction in the **total** of all energy sources used in a building or buildings must be based on the **actual annual consumption of all energy sources used during the prior year (12 months of data) as evidenced by utility bills** (e.g., electric utility bills, fuel purchase invoices, or other comparable documentation for all energy source used in the building or buildings). Provide annual energy consumption data as an attachment under the Energy Use Data File (see Section IV.C.7.).

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For existing Tribally-owned or controlled buildings proposed under Topic Area 1.b., the percent of energy savings must be based on the actual annual consumption of all energy sources used during the prior year (12 months of data) as evidenced by utility bills. And those utility bills provided as part of your application.

Next slide please.

Topic Area 1: Tribal Building Clean Energy and Energy Efficiency Retrofits - Continued

Under Topic Area 1.b., EERE is soliciting Applications for the deployment of “facility-scale “**deep energy retrofit**” measures to reduce the total of all energy used in a building or buildings.

- For Tribally-owned or controlled buildings **being constructed or to be constructed** during the project period, the requirement for a 20% reduction in the **total** of all energy used in a building or buildings **must be based on the projected annual energy use and those projections supplied as part of the Application.**

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For buildings being constructed or to be constructed during the project period, the reduction in the **total** of all energy used, must be based on the projected annual energy use and those projections supplied as part of the Application.

Next slide, Randy. Thank you.

Topic Area 1: Tribal Building Clean Energy and Energy Efficiency Retrofits - Continued

Under Topic Area 1.b., EERE is soliciting Applications for the deployment of “facility-scale **“deep energy retrofit” measures** to reduce the total of all energy used in a building or buildings.

- **Verification of the actual annual reduction (amount, cost, and percentage) in the total of all energy used in a building(s) will be required after installation of the deep energy retrofits**, and a description of those verification methods must be included as part of the Technical Volume (see Section IV.C., Content and Form of the Application).
- The percentage of energy saved will be independently verified; therefore, the **methodology described in Appendix C must be used. A Microsoft Excel template has been provided in EERE Exchange** for calculating the amount of energy saved. Appendix C includes instructions on how to calculate the percentage of the **total** of all energy saved under this Topic Area, the conversion factors that must be used, and various examples.

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Under Topic Area 1.b, READ SLIDE

Stay tuned for a demonstration of the Microsoft Excel template by Dan Olis and Caleb Rockenbaugh, both of DOE’s National Renewable Energy Laboratory. They will demonstrate how to use the Energy Saved Template provided to help you calculate energy displacement for Topic Area 1.a or the total of all energy saved for Topic Area 1.b. In preparation you may wish to download the Template from EERE Exchange.

To locate a copy of the Template, search “EERE Exchange” on the Internet and once on Funding Opportunity Exchange Page scroll down the table until you find “DE-FOA-0001021”. Click on it and it will take you to the section of the webpage specific to this FOA. Note that depending on the size of your computer screen you may need to scroll down. To locate the Microsoft Excel Energy Savings Template scroll down to Required Application Documents and click on “View Required Application Documents” and a list of documents with hyper-links will appear. For the Template, click on “Energy Saved Template - DE-FOA-0001021”.

Next slide, please.

Topic Area 2: Community-Scale Clean Energy Deployment

Under Topic Area 2, EERE is seeking Applications for the

- EERE is seeking Applications for the deployment of **“community-scale” clean energy systems** (renewable energy power systems or combined heat and power systems) on Indian lands to provide electricity, and/or heating or cooling **to many buildings or to an entire tribal community**.

See definition of “clean energy systems”, “renewable energy systems” and “combined heat and power systems” on slides 11-13 or under Appendix A of the FOA.

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Now on to Topic Area 2, Community-Scale Clean Energy Systems. READ SLIDE

Randy, next slide please.

Topic Area 2: Community-Scale Clean Energy Deployment - Continued

Under Topic Area 2., EERE is seeking Applications for the deployment of **“community-scale” clean energy systems** (renewable energy power systems or natural gas combined heat and power systems) on Indian lands to provide electricity, and/or heating or cooling to many buildings or to an entire tribal community.

- To be considered, any system or the total of multiple systems **must be a minimum of 50 kW rated capacity** (or for heating or cooling the Btu equivalent of 170,607 Btu/hr) **using commercially proven technology.**
- Applications **must demonstrate the availability of the resource** (renewable or natural gas), and Applications proposing geothermal or biomass systems **must** also demonstrate the sustainability of the resource.

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Under Topic Area 2, READ BULLETS. Note that the 50kW requirement may be for a single system or the cumulative of multiple systems.

Randy, next slide please.

Topic Area 2: Community-Scale Clean Energy Deployment

Under Topic Area 2,

- All proposed projects must be on **Indian lands and must be “owned or controlled” by an eligible entity** and the power and/or heat must be generated and used on Indian land; however, the **buildings where the energy or heat is to be used do not necessarily need to be “owned or controlled” by the eligible entity.**
- **“Owned or controlled”** for purposes of this FOA, is where the eligible entity has the authority to exercise direction and control over the project. If the eligible entity has been given the authority by another entity, evidence of that authority must be provided as part of the Application

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READ SLIDE

Randy, next slide please.

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.
- Applications proposing the evaluation of product marketing opportunities, assessment of manufacturing opportunities, research, product development, or the construction of manufacturing facilities.
- Applications proposing the construction of a building or buildings. Only the clean energy system installation, energy efficiency measures (retrofits) in an existing building or the incremental cost of installing clean energy systems or energy efficiency measures during, or after new building construction will be considered allocable to the proposed EERE funded project.

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READ SLIDE. That's a mouthful. To re-phrase, the cost of constructing a building or buildings is not eligible, only the costs associated with the clean energy system or energy efficiency measures will be considered.

Non-Responsive Applications - Continued

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

- Any Application where the Applicant has already taken irreversible actions regarding the proposed EERE funded project. The proposed EERE funded project may consist of only: clean energy system installation and energy efficiency measures (retrofits) in an existing building; the incremental cost of installing clean energy systems or energy efficiency measures during or after new building construction; or deployment of community-scale clean energy systems. Irreversible actions relative to the proposed EERE funded project may include, but are not limited to, the demolition of existing buildings, site clearing, ground breaking, building construction, equipment or system installation, building renovation, or building retrofits (see Section VI.C.6).

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Because this may be a little confusing, I'll read the slide and then try to clarify. READ SLIDE. To clarify, per FOA Q&A #9 posted on EERE Exchange: "[T]he intent of Topic Areas 1.a. and 2 is for the installation of clean energy systems; however, any irreversible actions including the purchase and installation of a solar system, begun before being selected for funding or before receiving a DOE Environmental Determination are "not of interest" and cannot be considered. Therefore, as long as the project has been selected for funding and DOE has made an environmental determination, then the purchase and installation of a solar system is allowed."

Non-Responsive Applications - Continued

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

- Applications for commercial or utility-scale projects intended solely for profit through the export of electricity off Indian lands for commercial sale.
- Applications proposing the use of materials, supplies, or equipment which are not commercial and warrantied.
- Applications proposing combined heat and power systems not fueled by either renewable energy resources or natural gas.

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Read Slide

Award Information

Total Amount to be Awarded	Approximately \$4 to \$7 million
Average Award Amount	EERE anticipates making awards that range from \$50,000 to \$500,000 for Topic Area 1 (Tribal Building Clean Energy and Energy Efficiency Retrofits) and from \$250,000 to \$1,000,000 for Topic Area 2 (Community-Scale Clean Energy Deployment).
Types of Funding Agreements	Grants
Period of Performance	1 to 2 years, but no longer than 3 years including the energy savings verification period.

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As discussed in the Executive summary, EERE expects to make approximately \$4 to \$7 million of Federal funding available for new awards under this FOA. The average award amount varies by Topic Area as shown. EERE intends to fund grants under this FOA. The period of performance is expected to be 1 to 2 years, but no longer than 3 years including the energy savings verification period.

Next slide please.

Applicant Eligibility

Who's Eligible to Apply?

- Only the following types of Applicants are eligible to apply to this FOA. Applicants that do not meet the requirements of this subsection will be deemed ineligible and their Applications will not be reviewed or considered.
- In accordance with EPA 2005 authorities and consistent with 10 CFR 600.6(b), eligibility for award under this Funding Opportunity Announcement is restricted to:
 - (1) an Indian Tribe;
 - (2) Tribal Energy Resource Development Organization; or
 - (3) Tribal Consortium; and on whose
 - (4) Indian Lands the project(s) will be located.

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READ BULLETS

Randy, next slide, please.

Applicant Eligibility - Continued

- “**Indian Tribe**,” for purposes of this announcement, means any “Indian Tribe, Band, Nation or other organized group or community” (see below for further definition), including any Alaska Native village, regional corporation, or village corporation as defined in and established pursuant to the Alaska Native Claims Settlement Act (85 Stat. 688) [43 U.S.C. §§ 1601 et seq.], which are recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.
- For purposes of this announcement, an eligible “Indian Tribe” (including Alaska Native villages, but not regional or village corporations), must be federally recognized as listed in *Indian Entities Recognized and Eligible to Receive Services from the United States Bureau of Indian Affairs*, published by the Department of Interior’s Bureau of Indian Affairs in the Federal Register on January 29, 2014, 79 FR 4748.

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The definition of “Indian Tribe” is as shown. PAUSE. Note that “Indian Tribe” for purposes of this FOA includes any Alaska Native village, regional corporation, or village corporation. And, “Indian Tribe” (including Alaska Native villages, but not regional or village corporations) must be **Federally recognized** as listed in the *Indian Entities Recognized and Eligible to Receive Services from the United States Bureau of Indian Affairs* dated January 29, 2014. You may also find these definitions under Section III.A. of the FOA itself which begins on page 11.

Randy, next slide, please.

Applicant Eligibility - Continued

- **“Tribal Organization,”** for purposes of this announcement means any legally established organization of an Indian Tribe, which is controlled, sanctioned, or chartered by the recognized governing body of that Indian Tribe.
 - A “Tribal Organization” may include, but is not limited to, a subsidiary, subdivision, or instrumentality of an Indian Tribe, established under Congressional, State or Tribal law to act on behalf of an Indian Tribe.
 - Applications may be submitted by an authorized “Tribal Organization”, provided evidence of the authority to submit an Application, relative to the proposed project, is supplied as part of the Application.
 - Evidence may include, but is not limited to, a constitution, resolution, ordinance, executive order, charter or other legal documentation.
 - EERE will determine the sufficiency of the authorization based on the evidence submitted as part of the Application.

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“Tribal Organization,” for purposes of this announcement means any legally established organization of an Indian Tribe, which is controlled, sanctioned, or chartered by the recognized governing body of that Indian Tribe. Examples of “Tribal Organizations” are included under the first bullet. READ REMAINING SLIDE BULLETS.

Randy, next slide, please.

Applicant Eligibility - Continued

- **“Inter-Tribal Organization,”** for purposes of this announcement, means any organization comprised of *two or more* Indian Tribes, established under Congressional, State, or Tribal law to act on behalf of the participating Indian Tribes.
 - “Inter-Tribal Organizations” may include, but are not limited to, inter-tribal councils, regional tribal organizations or associations, and tribal federations.
 - Applications may be submitted by an authorized “Inter-Tribal Organization”, provided evidence of the authority to submit an Application, relative to the proposed project, is supplied as part of the Application.
 - Evidence may include, but is not limited to, a resolution, ordinance, executive order, charter, P.L. 93-638 contract, self-governance compact, or other legal documentation.
 - EERE will determine the sufficiency of the authorization based on the evidence submitted as part of the Application.

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“Inter-Tribal Organization,” for purposes of this announcement, means any organization comprised of two or more Indian Tribes, established under Congressional, State, or Tribal law to act on behalf of the participating Indian Tribes. Examples “Inter-Tribal Organizations” are included under the first bullet. Like applications submitted by a “Tribal Organization”, applications submitted by an “Inter-Tribal Organization” must also provide evidence of their authority to submit an application on behalf of an eligible applicant (Indian Tribe, Tribal Energy Resource Development Organization, or Tribal Consortium) . The third bullet identifies various types of evidence of the authority to submit an application. Again, EERE will determine the sufficiency of the authorization based on the evidence submitted as part of the Application.

Randy, next slide, please.

Applicant Eligibility - Continued

- **“Tribal Energy Resource Development Organization”** for purposes of this announcement means an “organization” of two or more entities, at least one of which is an Indian Tribe (see “Indian Tribe” above) that has the written consent of the governing bodies of all Indian Tribes participating in the organization to apply for a grant or loan, or other assistance under 25 U.S.C. § 3503, where “organization” means a partnership, joint venture, Limited Liability Company (LLC) or other unincorporated association or entity that is established to develop Indian Energy.”
- **“Tribal Consortium”** (plural consortia), for purposes of this announcement, means a group of organizations, at least one of which is an Indian Tribe as defined above, that have chosen to submit a single Application. Under this announcement, a Tribal Consortium is eligible to submit an Application provided the Application is submitted by a single Indian Tribe representing the consortium.

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The definitions of Tribal Energy Resource Development Organization and Tribal Consortium are included here. Also, see definitions in Appendix A of the FOA. I give you a moment to read those definitions. PAUSE

Randy, next slide, please.

Applicant Eligibility - Continued

- **“Indian Lands” or “Indian Country”** for purposes of this Announcement, is defined as:
 - (a) any land located within the boundaries of an “Indian reservation” (see definition below), pueblo, or rancharia;
 - (b) any land not located within boundaries of an Indian reservation, pueblo, or rancharia, the title to which is held –
 - (i) in trust by the United States for the benefit of an Indian Tribe or an individual Indian;
 - (ii) by an Indian Tribe or an individual Indian, subject to restriction against alienation under laws of the United States; or
 - (iii) by a dependent Indian community;
 - (c) land that is owned by an Indian Tribe and was conveyed by the United States to a Native Corporation pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. § 1601 et seq.), or that was conveyed by the United States to a Native Corporation in exchange for such land;
 - (d) lands held in fee simple (purchased or owned); and
 - (e) lands under a long-term Federal land lease (at least 20 years).
 - (f) land that was conveyed to a Native Corporation pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. § 1601 et seq.) and subsequently conveyed to another entity, provided that entity is either a Native village or Tribal governmental entity or the land is held, invested, managed for and on behalf of a Native village or Tribal governmental entity.

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Indian land is as defined in the Energy Policy Act of 2005, including for purposes of this FOA, (1) lands held in fee simple (purchased or owned); (2) lands under a long-term Federal land lease (at least 20 years); and (3) land that was conveyed to a Native Corporation pursuant to the Alaska Native Claims Settlement Act and subsequently conveyed to another entity, provided that entity is either a Native village or Tribal governmental entity or the land is held, invested, managed for and on behalf of a Native village or Tribal governmental entity.

Next slide, please.

Cost Sharing Requirements

- Under this Funding Opportunity Announcement, required cost share **must be at least 50% (100% match against EERE funds)** of the total allowable costs of the project (i.e., the sum of the Government share, and the recipient share of allowable costs equals the total allowable cost of the project), **unless an Applicant request for reduced cost share is received and approved by EERE** (see Cost Share Reduction Request in Section III. B.7 below).
- Failure to meet the requirements of this subsection may result in your Application not being reviewed or considered.

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Next, on to cost sharing. READ SLIDE.

Cost Sharing Requirements - Continued

- All cost share must come from non-Federal sources unless otherwise allowed by law (see note below and Appendices B and C). See 10 CFR 600.30 for the applicable cost sharing requirements.

NOTE:

- Per the Indian Self-Determination Act (Public Law 93-638) as codified and amended, funding under the **Indian Self-Determination Act** may be used as non-Federal cost share by Indian Tribes on Federal grants.
- For **Tribal self-governance funding agreements**, see 25 U.S.C. Section 458cc(j), *Funds*, "All funds provided under funding agreements entered into pursuant to this subchapter, and all funds provided under contracts or grants made pursuant to this subchapter, shall be treated as non-Federal funds for purposes of meeting matching requirements under any other Federal law."
- For **self-determination contract funding**, see 25 U.S.C Section 450h(c), *Use as matching shares for other similar Federal grant programs*, "The provisions of any other Act notwithstanding, any funds made available to a tribal organization under grants pursuant to this section may be used as matching shares for any other Federal grant programs which contribute to the purposes for which grants under this section are made."
- For **compact funding**, see 25 U.S.C. Section 450j-1(j), "Notwithstanding any other provision of law, a tribal organization may use funds provided under a self-determination contract to meet matching or cost participation requirements under other Federal and non-Federal programs."

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All cost share must come from non-Federal sources unless otherwise allowed by law. Included here and in the FOA are a few instances where Federal funds can be used as non-Federal cost share, including funding under the Indian Self-Determination Act, Tribal self-governance funding agreements, self-determination contract funding, and compact funding. For more on cost share, see Appendix B of the FOA document. PAUSE.

Next slide please.

Cost Share Contributions

- Contributions must be:
 - Specified in the project budget
 - Verifiable from the Prime Recipient's records
 - Necessary and reasonable for proper and efficient accomplishment of the project
- Every cost share contribution must be reviewed and approved in advance by the Contracting Officer and incorporated into the project budget before the expenditures are incurred
- **As all sources of cost share are considered part of total project costs, the cost share dollars will be scrutinized under the same Federal regulations as Federal dollars to the project.**

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The total budget presented in the application must include both Federal (DOE), and Non-Federal (cost share) portions, thereby reflecting TOTAL PROJECT COSTS proposed. All costs must be verifiable from the Recipient's records and be necessary and reasonable for the accomplishment of the project.

Next slide, Randy. Thanks.

Allowable Cost Share

- 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
Educational Institutions	2 CFR Part 220
State, Local, and Indian Tribal Governments	2 CFR Part 225
Non-profit Organizations	2 CFR Part 230
For-profit Organizations	FAR Part 31

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Cost Share must be allowable and must be verifiable at the time of submission of the Full Application. Please refer to this chart for your entity's applicable cost principles. It is imperative that you follow the applicable cost principles when creating your budget for the Full Application.

Next slide please.

Allowable Cost Share - Continued

- 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 or as in-kind contributions. It can be provided by the Prime Recipient, subcontractors, 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, and equipment use.

Next slide.

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.

PAUSE

Randy, next slide please.

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-by-invoice basis, unless a waiver is requested and approved by the DOE Contracting Officer. PAUSE

Next slide, please. Thank you.

Cost Share Reduction Request

Applicants may request a cost share reduction (from the 50% requirement) as part of their Application.

- EERE will evaluate the following factors in determining whether an Applicant's request for reduced cost share will be granted.
 - Financial need
 - Economic benefits
 - Environmental benefits
- The Applicant's financial need is significantly more important than the project's economic or environmental benefits. If the Applicant fails to demonstrate financial need, the other factors will not be considered, and the cost share request will be denied.
- **If EERE does not grant the request for reduced cost share, the Applicant will be required to meet the requisite 50% cost share.**

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READ SLIDE.

Next slide.

Cost Share Reduction Request - Continued

- To be considered, a cost share reduction request **must** justify the reduction in cost share by addressing the Applicant's financial need and the economic and environmental benefits of the project if it were to be implemented.
- Evidence of financial need in the form of Financial Statements **must** be included as part of the Application (see Section IV.C.18). Any other supplemental data may be included as an attachment with the cost share reduction request itself (see Section IV.C.17).
- **Cost share reductions of less than 10% of the total allowable costs of the project will not be considered.**

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READ SLIDE

Next slide please.

Cost Share Reduction Request - Continued

The Applicant's cost share reduction request must:

- Describe the Applicant's financial need, including a detailed explanation of why the required 50% cost share cannot be met. Include general information on demographics, economic condition, and unemployment within the tribal community. Additional information about the Applicant's sources of income (e.g., grants, taxes, investments, enterprises), as well as other types of economic development efforts should be included. Supply all relevant Financial Statements as an attachment to the Application (see Section IV.C.18).
- Identify the cost share percentage being proposed by the Applicant (between 10% and 50%), including the amount of funds (cash) and level of resources (e.g., contribution of time, services, or property; donated equipment, buildings, or land; donated supplies; or unrecovered indirect costs) that will be committed.
- Describe in detail the economic benefits to be incurred if the project is implemented, including, but not limited to, money saved and number of jobs created.
- Describe in detail the environmental benefits to be derived if the project is implemented including, but not limited to, amount of reduced greenhouse gases and reduced amount of fuel use (e.g., gallons, tons/year, therms, Btu/year, or kWh).

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This slide and Section III.B.7 of the FOA (pages 17-18) identifies the content of a cost share reduction request. I'll give you a moment to read through the slide. PAUSE

Randy, next slide please. Thank you.

Content and Form of Full Applications

- The Full Application includes:
 - **Application for Federal Assistance (SF-424):** The formal application form signed by the authorized representative of the applicant.
 - **Summary for Public Release:** Applicants must provide a **1 page** summary of their proposed project for public release.
 - **Summary Slide:** A **single** PowerPoint slide that provides quick facts about the proposed project.
 - **Technical Volume:** Key submission describing the proposed project and addressing the Merit Review Criteria (**Maximum of 15 pages**)
 - **Workplan:** Detailed activities and tasks to complete the project (**Maximum of 5 pages**)
 - **Attachments:** Supplemental information to support and supplement the application.
 - **Budget (SF-424A) & Budget Justification (EERE-159) :** Detailed budget for the project (Both DOE funds and Cost share).
 - **Administrative Documents:** Disclosure of Lobbying Activities (SF-LLL) and Waiver Requests: Performance of Work in the United States

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Next on to the Content and Format of a Full Application.

The Full Application includes an:

- 1) Application for Federal Assistance (Form SF-424):** The formal application form signed by the authorized representative of the applicant. Includes cost share amounts and Federal certifications and assurances. All forms can be obtained from the EERE Exchange webpage (search EERE Exchange and once on the Funding Opportunity Exchange page, scroll down the list to DE-FOA-0001021. By clicking on the FOA number will take you to the section of the page for this FOA. The “FOA Documents” section includes a link to the actual FOA document and clicking on “View Required Application Documents” under the “Required Application Documents” section produces a list of the FOA forms and documents from which those documents can be downloaded and completed for submitting with your application.
- 2) Summary for Public Release:** Applicants must provide a **1 page** summary of their proposed project for public release.
- 3) Summary Slide:** A **single** PowerPoint slide that provides quick facts about the proposed project. Slide content requirements are provided in the FOA.

4) Technical Volume: The Key submission describing the proposed project and addressing the Merit Review Criteria. The technical volume **must not exceed 15 pages** as EERE will only review the first 15 pages. See the Table on pages 24-29 of the FOA for specific content. However, briefly, the Technical Volume needs to include a project description, relevant background, must demonstrate the technical and economic viability of the proposed project, describe and quantify the outcomes, specifically the energy saved, and identify the roles, responsibilities, resources, and capabilities of the applicant and project team.

Additionally, the Technical Volume must address commitments and cost sharing by the applicant and project team members. The actual commitments, including

- a) an **executed** Tribal Council Resolution by each participating Indian Tribe,
- b) a declaration (or resolution) from each Tribal Energy Resource Development Organization or Tribal Consortium,
- c) and a letter of commitment from all other project participants, need to be submitted as an Attached to our application.

See pages 33 and 34 of the FOA for the content of those commitments. Be aware that the executed **Tribal Council Resolution(s), declarations (or resolutions) and letters of commitment must be specific to this Funding Opportunity Announcement and include a statement of the level and type of cost share commitments. Failure to submit the appropriate Tribal Council Resolution(s), declarations (or resolutions) and letters of commitment with your Application may result in your Application not being reviewed or considered.**

5) Workplan: The Workplan should describe the work to be accomplished and how the Applicant will achieve the milestones, including project milestones, Go/No Go Decision points (at least one is required), and a schedule. The Workplan must not exceed 5 pages as only the first 5 pages will be reviewed. See pages 29-30 of the FOA and Appendix D for specific content of the Workplan. Appendix D includes the format for the Workplan.

6) Budget (Form SF-424A) & Budget Justification (Form EERE 159): The Budget and Budget justification must include both the funds requested from EERE as well as cost share. Supplemental budget information such as a copy of your indirect Rate Agreement, vendor quotes, or other information may be included as an Attachment. Remember all forms can be obtained from the EERE Exchange website.

7) Administrative Documents: Include a Disclosure of Lobbying Activities (Form SF-LLL) and if applicable, a request to waive the Performance of Work in the United States requirement. Waiver Request for Performance of Work in the United States. All

work under EERE funding agreements must be performed in the United States. This requirement does not apply to the purchase of supplies and equipment, so a waiver is not required for foreign purchases of these items. However, the Prime Recipient should make every effort to purchase supplies and equipment within the United States. Remember, the disclosure of lobbying activities is a required form for all applicants.

Please use the table on pages 21-22 of the FOA document as a checklist for ensuring your application includes the required content.

Next slide please, Randy.

FOA Document Checklist (Pages 21-22)

SUBMISSION	#	COMPONENTS	FILE NAME (IF NECESSARY)
Application (PDF, unless stated otherwise)	1	Application for Financial Assistance SF-424 (Required)	ControlNumber_ApplicantName_App424
	2	Summary for Public Release (Required, 1 page limit)	ControlNumber_ApplicantName_Summary
	3	Summary Slide (Required, 1 page limit , Microsoft PowerPoint format)	ControlNumber_ApplicantName_Slide
	4	Technical Volume (Required, 15 page limit , see Section IV.C.4)	ControlNumber_ApplicantName_TechnicalVolume
	5	Workplan (Required, 5 page limit including milestone table and project schedule , Microsoft Word format)	ControlNumber_ApplicantName_Workplan
	6-15	Attachments	
	16	Budget Justification Workbook EERE 159 (Required, Microsoft Excel format. Applicants <u>must</u> use the template available in EERE Exchange)	ControlNumber_ApplicantName_Budget_Justification
	17	Subaward Budget Justification Workbook EERE 159, if applicable (Required only if thresholds met, Microsoft Excel format. Applicants <u>must</u> use the template available in EERE Exchange)	ControlNumber_ApplicantName_Subawardee_Budget_Justification
	18	Budget Support (Optional)	ControlNumber_ApplicantName_Budget_Support
	21	SF-LLL Disclosure of Lobbying Activities (Required)	ControlNumber_LeadOrganization_SF-LLL
	22	Waiver Request: Performance of Work in the United States (Optional)	ControlNumber_LeadOrganization_Waiver

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This slide summarizes the elements of an application and is included on pages 21-22 of the FOA document. We discussed items 1-5 on the last slide, all of which are required elements of your application. Items 6-15 are various attachments and will be discussed on the next slide. Items #16 and #17 are the required Budget Justification Forms (Form EERE 159). A budget Justification form (Form EERE 159) **must** be provided for the applicant (Item #16 on the slide) and any subawards (Item #17) as follows. Applicants must provide a separate budget justification, Form EERE 159 for each subawardee (i.e., subrecipient or subcontractor), excluding vendors, that is expected to perform work estimated to be **more than \$250,000 or 25 percent of the total work effort** (whichever is less). Remember, the budget Justification must address both the funds being requested from EERE, as well as those proposed as cost share. Budget support may also be provided as an attachment (Item #18). Items #19 and #20 will be discussed on an upcoming slide. We covered Items #21 and #22 on the last slide.

Next slide, please.

FOA Document Checklist (Pages 21-22)			
SUBMISSION	#	COMPONENTS	FILE NAME (IF NECESSARY)
Application (PDF, unless stated otherwise)	6-15	Attachments	
	6	Site and Resources Maps and Graphics (Optional)	ControlNumber_LeadOrganization_MapsResources
	7	Energy Savings Calculations File (Required for Topic Area 1, Microsoft Excel format. See Appendix C for the methodology that <u>must</u> be used. A Microsoft Excel template is available in EERE Exchange).	ControlNumber_ApplicantName_EnergySavings
	8	Energy Use Data (Required for Topic Area 1)	ControlNumber_ApplicantName_EnergyUseData
	9	Energy Audits for Deep Energy Retrofits File (Required for Topic Area 1.b)	ControlNumber_ApplicantName_EnergyUseData
	10	Design and Engineering File (Optional)	ControlNumber_ApplicantName_Engineering
	11	Economics File (Optional)	ControlNumber_ApplicantName_Economics
	12	Statements of Commitment and Cost Sharing File (Required)	ControlNumber_ApplicantName_Commitments
	13	Agreements File (Optional)	ControlNumber_ApplicantName_Agreements
	14	Subcontract Plan File, if applicable (Optional)	ControlNumber_ApplicantName_SubcontractPlan
	15	Resume File (Required)	ControlNumber_ApplicantName_Resumes

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Energy Efficiency & Renewable Energy

Items #6 through 15 are Attachments to your application. **Note:** During the submittal of your Application in EERE Exchange, files are denoted as “Required” or “Optional”. Files designated as “Optional” in this table, and in EERE Exchange may be necessary to complete your Application and to fully address the merit review criteria.

The Optional Attachments, may in fact be necessary to complete your application, and include:

- 1) the Site and Resources Maps and Graphics (Item #6). This Attachment may be used to supply any graphics to supplement the Technical Volume including maps, photographs, or other visuals of the project location or building(s) affected by the proposed project. Evidence of the renewable energy resource (if applicable) including resource maps and quantitative resource data should also be included under this file. Evidence of an available and sustainable renewable resource may be in the form of a previously completed feasibility study and any supplemental information or the study may be included here.
- 2) The Design and Engineering File (Item #10) is an Attachment for copies of any hardware performance specifications, warranties, engineering drawings, and any other design or engineering data to supplement the Technical Volume.
- 3) Any supplemental data to support the economic analysis including financial pro-forma calculations or cash flow analyses may be included in the Economics File attachment (Item #11 in the Table).

- 4) The Agreements file (Item #13) allows you to supplement the Technical Volume with evidence of any business agreements between the Applicant and participants, including consultants, contractors, or vendors, and any other agreements, such as interconnection, net metering, lease agreements, and biomass supply agreements, if applicable.
- 5) The Subcontract Plan File (Item #14) is required if project participants (i.e., consultants, contractors, or vendors) have not been identified. The plan should include a description of the selection process to be employed, statement of work, and criteria to be used for selection. The Subcontract Plan may be supplemented by excerpts of the Applicant's procurement policy and procedures document.

The following attachments are only required for Topic Area 1:

- 1) The Energy Savings Calculations File (#7 in the table). As previously indicated, the methodology included in appendix C **must** be used to calculate the energy displacement for Topic Area #1.a. (Clean Energy Systems) and the reduction in the total of all energy and fuel used for Topic Area 1.b. ("Deep Energy Retrofit" Energy Efficiency Measures). Remember, that we have provided a Microsoft Excel Template to assist you in those calculations and a demonstration will follow my presentation.
- 2) The Energy Use File (Item #8) is **required** for Topic Area 1 (Tribal Building Clean Energy and Energy Efficiency Retrofits) and should include a summary of the energy used by month for the past 12 months for each building affected, and evidence of the actual prior year consumption data (amount and cost). Evidence may include utility bills, fuel purchase invoices, or other comparable documentation. For affected buildings being constructed, or to be constructed during the project period, supply the methodology, calculations, and assumptions used to project the annual energy use.
- 3) If Deep Energy Retrofits are being proposed under Topic Area 1.b., energy audits are required for each existing building affected and those reports must be provided as part of the Application. Those should be included as an Attachment (see #9 in the table).

We've already discussed Statement of Commitment and Cost Sharing. For more, see page 32 of the FOA document.

Resume are **required** for each key person proposed (Tribal representative or staff, consultant, or contractor) as part of the project. A key person is any individual who contributes in a substantive, measurable way to the execution of the project. **Each resume must not exceed 2 pages.** Save all resumes in a single file for uploading with your application.

Next slide, please Randy.

FOA Document Checklist (Pages 21-22)

SUBMISSION	#	COMPONENTS	FILE NAME (IF NECESSARY)
Application (PDF, unless stated otherwise)	19	Cost Share Reduction Request, if applicable (Optional)	ControlNumber_ApplicantName_CostShareReduction
	20	Financial Statements, if applicable (Required only if a Cost Share Reduction is being requested)	ControlNumber_ApplicantName_FinancialStatements

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If a reduction in the cost share from 50% is being requested, a Cost Share Reduction Request file **must** be submitted with your application. The cost share reduction request **must** specify the percentage of allowable project costs proposed as cost share (no less than 10%) and include justification and evidence of the applicant's inability to meet a 50% cost share. An Applicant's cost share reduction request **must** address all factors and provide all information identified in Section III.B.7 of the FOA, Cost Share Reduction Request. If the cost share reduction request does not address all the factors or provide the information needed to make a determination, the request will not be considered. The reduction request **must** be signed by an authorized representative of the Applicant.

Financial Statements for the applicant are **required** if a cost share reduction is being requested. The financial statements should include a balance sheet, statement of income and retained earnings or statement of activities (listing income and expenses), and cash flows. If the requisite financial statements are not submitted, the Applicant will not be considered for a cost share reduction.

Again, please refer to pages 21 and 22 of the FOA document and use this table to ensure you have all completed applicable elements of your application.

Next slide, please.

Full Application Eligibility Requirements

- Applicants must submit a Full Application by 10/02/2014 at 5:00 PM Eastern Time
- Full Applications are eligible for review if:
 - The Applicant is an eligible entity (Section III.A of FOA);
 - The Cost Share requirement is satisfied Section III.B of FOA;
 - The Full Application is compliant Section III.C of FOA; and
 - The proposed project is responsive to the FOA Section III.D of FOA
 - The Full Application meets any other eligibility requirements listed in Section III of the FOA.
- EERE will not make eligibility determinations for potential Applicants prior to the date on which Applications to this FOA must be submitted. The decision whether to submit an Application in response to this FOA lies solely with the Applicant.

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As we previously pointed out, applicants must submit full applications by October 02, 2014 at 5:00 PM Eastern Time. EERE will conduct an eligibility review, and full application will be deemed eligible if:

- 1) The Applicant is an eligible entity. Refer to Section III.A of FOA (Pages 11-13). Specifically, eligibility for award under this Funding Opportunity Announcement is restricted to: (1) an Indian Tribe; (2) Tribal Energy Resource Development Organization; or (3) Tribal Consortium; and on whose (4) Indian Lands the project(s) will be located.;
- 2) The Cost Share requirement per Section III.B of FOA is satisfied. The required cost share must be at least 50% (100% match against EERE funds) of the total allowable costs of the project, unless an Applicant request for reduced cost share is received and approved by EERE (see Cost Share Reduction Request in Section III. B.7 of the FOA document, pages 17-18);
- 3) The Full Application is compliant Section III.C of FOA. Specifically, the Applications are deemed compliant if: (1) The Application complies with the content and form requirements in Section IV.C of the FOA; and (2) The Applicant successfully uploaded all required documents and clicked the "Submit" button in EERE Exchange by the deadline stated in the FOA.;

4) The proposed project is responsive to the FOA Section III.D of FOA (Page 18). Specifically, any "Applications Specifically Not of Interest," as described in Section I.C of the FOA (Page 9), are deemed nonresponsive and are not reviewed or considered.;

And

5) The Full Application meets any other eligibility requirements listed in Section III of the FOA.

Please be aware that EERE will not make eligibility determinations. The decision whether to submit an Application in response to this FOA lies solely with the Applicant.

Next slide, please.

Multiple Applications

- Applicants may submit more than one Application to this FOA or under a single Topic Area, provided that each Application is for a unique and distinct project.
- Each Application must have a distinct title and be readily distinguishable.

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Next slide.

Merit 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

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Next.

Technical Merit Review Criteria

The sub-criteria under each criterion are of equal weight, unless otherwise specified.

Criterion 1: Goals and Objectives (10%)

- Clarity and completeness of the following:
 - Discussion of project goals and objectives; and
 - Description of the Indian Tribe, Tribal Energy Resource Development Organization, or Tribal Consortium including the long-term energy goals or vision, organizational structure, and demographics. If applicable, clarity of the description of the Tribal or Inter-tribal Organization submitting the application on behalf of the Indian Tribe.
- Extent to which the proposed project provides economic or environmental benefits to the Indian Tribe(s) and Tribal community and integrates into the long-term energy goals of the Indian Tribe, Tribal Energy Resource Development Organization, or Tribal Consortium.
- Soundness of the discussion that justifies the need for and impacts of EERE funding.

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Applications will be evaluated against the following merit review criteria. The goals and objectives (Criteria 1), including clarity and completeness, the extent to which the proposed project provides economic and environmental benefits, and the soundness of the discussion that justifies the need for and impacts of EERE funding.

Next slide please.

Technical Merit Review Criteria - Continued

Criterion 2: Project Description and Outcomes (40%)

- Clarity and completeness of the detailed project description (10% of total evaluation weighting)
- Technical and economic viability of the proposed project (20% of total evaluation weighting), including
 - Adequacy of the available renewable energy resource(s) and/or quality of the energy audit(s);
 - Viability of the design and availability of commercial renewable energy technologies and/or viability of the energy efficiency measures and completeness of the materials or equipment list(s).
 - Reasonableness of the methodology to be used to install renewable energy system(s), combined heat and power systems, or implement energy efficiency measure(s);
 - Quality of the economic assessment and ability to fund the project;
 - Clarity and completeness of the discussion of barriers that could impede the project and reasonableness of the plan to overcome those barriers;
 - Reasonableness of the plan to verify the energy displacement or reduction in total energy sources (amount, cost, and percentage); and
 - Reasonableness of the operation and maintenance plan.

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Criterion 2 or the Project Description and Outcomes is weighted at 40% with each sub-criteria weighted as shown. PAUSE.

Next slide.

Technical Merit Review Criteria - Continued

Criterion 2: Project Description and Outcomes (40%) - Continued

- Potential energy generation or savings (10% of total evaluation weighting), including:
 - Quality of actual energy use data (e.g., utility bills); and
 - Probability of displacing or reducing energy use (see Appendix C for instructions and a sample format on EERE Exchange).

Criterion 3: Workplan (20%)

- Clarity and completeness of the description of each activity necessary to complete the project (10% of total evaluation weighting); and
- Likelihood of achieving project objectives through realistic milestones and logical task structure (10% of total evaluation weighting).

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In addition to sub-criteria on the previous slide, “Project Description and Outcomes” also includes the amount of potential energy generation or savings. Criterion 3 (the Workplan) is weighted at 20% and will be review based on the sub-criteria shown. Remember, Appendix D includes the Workplan content and format.

Next slide, please Randy. Thank you.

Technical Merit Review Criteria - Continued

Criterion 4: Roles, Responsibilities, Resources, Capabilities and Commitment (30%)

- Soundness of the project management concept (10% of total evaluation weighting), including:
 - Management approach and organizational structure for implementing the project, including organizational and individual roles and responsibilities; and
 - Capabilities of the applicant and participants to comprehensively address all aspects of the proposed project or reasonableness of the plan to obtain qualified suppliers, subcontractors, or consultants.
- Level of commitment of the applicant and each participating organization (20% of total evaluation weighting) as evidenced by the,
 - (1) Level of involvement and,
 - (2) Amount of cost sharing identified in the Tribal Council Resolutions, declarations, and letters of commitment.

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Criterion 4 is weighted at 30% and includes the soundness of the project management concept and the level of commitment. Note that the level of commitment includes the level of involvement and the amount of cost sharing.

Selection Factors

The Selection Official may consider the merit review recommendation, program policy factors, and the amount of funds available in arriving at selections for this FOA

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Program Policy Factors

In addition to the Technical Merit Review Criteria, the Selection Official may consider the following program policy factors in determining which Applications to select for award negotiations:

- The degree to which the proposed project, including proposed cost share, optimizes the use of available EERE funding to achieve programmatic objectives;
- Technical, market, organizational, and environmental risks associated with the project;
- Whether the proposed project is likely to lead to increased employment and manufacturing in the United States;
- The degree to which the proposed project directly addresses EERE's statutory mission and strategic goals.

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After the Merit Review process, the Selection Official may consider program policy factors to come to a final selection decision. The Program Policy Factors are included here and on page 41 and 42 of the FOA.

Next slide please.

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 submission deadline
- Although not required to submit an Application, the following registrations must be complete to received 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

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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.

SAM (System for Award Management)

Register with the System for Award Management system. 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 Full Applications will **not** be accepted through Grants.gov.

Next slide, please.

Means of Submission

- Full Applications **must** be submitted through EERE Exchange at <https://eere-Exchange.energy.gov>
 - EERE will not review or consider applications submitted through other means
- The Users' Guide for Applying to the Department of Energy EERE Funding Opportunity Announcements can be found at <https://eere-Exchange.energy.gov/Manuals.aspx>

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All required submissions **must** come through EERE Exchange. EERE will not review or consider applications submitted through any other means.

Please see the *User's Guide for Applying to the Department of Energy EERE Funding Opportunity Announcements* found on EERE Exchange under "Manuals". It is a step-by-step guide including screen shots on how to register and how to submit an application into EERE Exchange. Please note that for this FOA, there are no pre-application documents such as concept papers or letters of intent. Nor will you be able to reply to reviewer comments as reviewer comments will not be provided to applicants until after selections have been made. So, please disregard those sections of the EERE Exchange User's Guide.

Next slide, please Randy.

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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Key Submission Points. Please READ SLIDE

Next slide.

Applicant Points-of-Contact

- Applicants must designate primary and backup points-of-contact in EERE Exchange with whom EERE will communicate to conduct award negotiations
- It is imperative that the Applicant/Selectee be responsive during award negotiations and meet negotiation deadlines
 - Failure to do so may result in cancellation of further award negotiations and rescission of the Selection

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Questions

- Questions about this FOA? Email tribal@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 questions 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](mailto:EERE-ExchangeSupport@hq.doe.gov).
 - Include FOA name and number in subject line
- We will not entertain questions during this webinar. So, please capture any questions you may have and send those via email to tribal@ee.doe.gov.

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Next. Thanks, Randy.

Energy Savings Calculations (Topic Area 1 Only)

- Under Topic Area 1, Tribal Building Clean Energy and Energy Efficiency Retrofits, there are specific requirements for displacing an energy source or sources (Topic Area 1.a., Clean Energy Systems) or reducing the total of all energy sources (Topic Area 1.b, “Deep Energy Retrofit” Energy Efficiency Measures).
- The percentage of energy saved will be independently verified; therefore, the methodology described in Appendix C of the FOA must be used.
- Appendix C includes instructions on how to calculate the energy saved, the conversion factors that must be used, and various examples.
- A Microsoft Excel template has been provided in EERE Exchange for calculating the amount of energy saved.

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READ SLIDE. And now I am going to turn the presentation over to Dan Olis and Caleb Rockenbaugh. Both Dan and Caleb work at DOE’s National Renewable Energy Laboratory (NREL), under NREL’s analysis group. They are going to describe the methodology documented in Appendix C of the FOA, and demonstrate how to use the Energy Saved Template provided to help you calculate the energy displacement for Topic Area 1.a or the total of all energy saved for Topic Area 1.b. Remember, these calculations are only required for Topic Area 1, not Topic Area 2 (Community-Scale Clean Energy Deployment).

For those of you who may not be staying for this part of the webinar, I want to thank you for your interest and your attention. Hopefully, we’ve answered some of your questions and provided an overview of the FOA and the process. However, if you have any questions, please send us an email at tribal@ee.doe.gov. We look forward to seeing all your project ideas and hopefully working with you in the future. Thank you.

Randy, next slide, please. I am now turning the presentation over to Dan Olis who will present the methodology from Appendix C of the FOA, followed by Caleb who will demonstrate the Excel Energy Savings Template. Dan.....

Energy Savings Calculations - Continued

- Per Appendix C, energy savings is the difference between the total energy usage before the project and the projected energy usage after the project. The equation for calculating the percentage of energy savings is shown in equation below.

Equation 1

$$\text{Savings (\%)} = \frac{\text{Energy usage before project (kBtu)} - \text{Energy usage projected after project (kBtu)}}{\text{Energy usage before project (kBtu)}} \times 100$$

- To simplify the analysis and to provide an equivalent basis of comparison, all Applicants must use a common set of conversion factors (see Table 1).

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Thank you, Lizana. First we are going to discuss the methodology in Appendix C of the FOA and then demo the Template.

Note that these calculations are only required for Topic Area 1, not Topic Area 2 (Community-Scale Clean Energy Deployment). No calculations are required for Topic Area 2.

READ SLIDE

Next slide.

Energy Savings Calculations - Continued

Table 1. Conversion Factors to thousands of Btu (kBtu) and *Source Energy*¹

To convert to kBtu from:	Input units	Conversion to kBtu*	Conversion to Source Energy	Multiply by:
Electricity	kWh	3.412	3.14	10.7
Natural Gas	Therms	100	1.05	105
Natural Gas	100 cubic feet (CCF)	102.8	1.05	107.1
Diesel,	Gallons	138	1.01	139.4
Fuel Oil (No. 1)	Gallons	139	1.01	140.4
Fuel Oil (No. 2)	Gallons	138	1.01	139.4
Fuel Oil (No. 4)	Gallons	146	1.01	147.5
Fuel Oil (No. 5 & 6)	Gallons	150	1.01	151.5
Kerosene	Gallons	135	1.01	136.4
Propane and liquid Propane	Gallons	91.0	1.01	91.9
Propane and Liquid Propane	cubic feet (CF)	0.68	1.01	0.69
Coal	lb	12.5	1.00	12.5
Coal	Ton	25,000	1.00	25,000
Steam	lbs	1.194	1.20	1.21
Steam	1000 lbs	1,194	1.20	1,432.8
Chilled Water	Ton-hours	12	1.00	12
Any Fuel	million Btu (or MMBtu)	0.001	Use above	

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Shown here and as Table 1 in Appendix C of the FOA are the conversion factors that **must** be used in your calculations. The common conversion factors (multipliers in Table 1) not only convert energy values to a common unit (kBtu), but also account for the effects of inefficiencies in energy conversion and distribution by converting site energy to *source energy*.

Source energy is the most equitable unit of evaluation, and enables assessment of energy efficiency. *Source energy* traces the heat and electricity requirements of the building back to the raw fuel input, thereby accounting for any losses and enabling a complete thermodynamic assessment. For more, see the Energy Protection Agency (EPA) Energy Star website or Portfolio Manager Technical Reference on Source Energy.

These conversion factors are built into the Energy Savings Template and can be found in Appendix C of the FOA.

Next slide please.

Energy Savings Calculations - Continued

Methodology:

The general process for calculating energy savings is as follows:

- 1) Identify the energy source(s)
 - a) For Topic Area 1.a (Clean Energy Systems), identify the energy source or sources (e.g., electricity, heating oil, diesel oil, natural gas, or any other energy source or fuel used for electricity production, heating and/or cooling) that are being displaced by the proposed clean energy system.
 - b) For Topic Area 1.b. (Deep Energy Retrofit Energy Efficiency Measures), identify all of the sources of energy (e.g., electricity, propane, heating oil, diesel oil, natural gas, or any other energy source or fuel used for electricity production, heating and/or cooling) that are used by the building or buildings.
- 2) Establish a baseline of the energy currently used by the building or group of buildings (referred to as “energy usage before project” in Equation 1).

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So for Topic Area 1.a., the calculation requires you to identify and quantify only the baseline and energy savings that the Clean Energy System will displace. For example, if you are proposing to install a photovoltaic system on a building, then the displaced energy will be electricity. You don't have to include other energy types like natural gas or diesel fuel that the building might consume.

However, for Topic Area 1.b., Deep Energy Retrofit Energy Efficiency Measures, the project needs to displace 20% of all building energy. So you need to identify all electricity, fuels, and other possible energy sources consumed by the building. If you are proposing an energy efficiency project that only saves natural gas, for example, you still need to include electricity plus any other energy sources in your baseline energy total.

Next.

Energy Savings Calculations - Continued

Methodology:

- 3) Determine projected energy usage of the building(s) after the proposed project is completed (referred to as “projected energy usage after project” in Equation 1).
- 4) Convert energy values to the common unit of kBtu using the unit conversion multipliers provided in Table 1 below.
- 5) Sum energy usage values together for the before-project case and sum the energy usage values together for the after-project case.
- 6) Calculate the projected fuel savings using Equation 1.

Equation 1

$$\text{Savings (\%)} = \frac{\text{Energy usage before project (kBtu)} - \text{Energy usage projected after project (kBtu)}}{\text{Energy usage before project (kBtu)}} \times 100$$

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READ SLIDE

Energy Savings Calculations - Continued

Assumptions:

- 1) Where renewable energy systems, including renewable-fueled combined heat and power systems, are proposed, the “energy usage projected after project” would be reduced by the amount of energy projected to be generated for and used in the building or buildings (i.e., energy displaced by the renewable energy system).
- 2) For purposes of this FOA, all renewable energy system inputs including biomass, are assumed to be zero for calculating the percentage of energy savings; meaning that the “energy usage before project” being replaced by a renewable energy or renewable-fueled system is 100% displaced by the renewable energy or renewable-fueled system.
- 3) If steam and chilled water are generated in the building(s) using energy sources already included in the utility totals (e.g. electricity to generate chilled water), do not double count their usage. If steam or chilled water are purchased separately from a utility provider, their usage needs to be included in the building(s) totals.

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READ ASSUMPTIONS 1 AND 2. Meaning that for renewable energy fuels (such as biomass for example) that might be consumed by the proposed project do not count in the “Energy Usage Projected After Project” total in the energy savings equation. All fuel is displaced (100%).

READ ASSUMPTION 3.

Next slide please.

Energy Savings Calculations - Continued

Topic Area 1.a. Clean Energy System Examples

- The following example is used to demonstrate how to apply these factors and calculate the percentage of displaced energy in the building or buildings.

Example #1: Topic Area 1.a. Renewable Power and Heating Systems

- Proposed Project:* A 20,000 ft² building is projected to save 20% of its electricity usage using a photovoltaic (solar electric) system projected to produce 68,000 kWh/year, and 100% of its natural gas usage by replacing a natural gas boiler with a biomass-fueled boiler. The total annual energy usage for the building in 2013 was 340,000 kWh/year of electricity, 6,400 therms of natural gas, and 15,000 gallons of fuel oil (No. 5).

Appendix C of the FOA contains 6 step-by-step examples which address a variety of situations. We will go over Example #1 here which is also exemplified on the Energy Savings Template. You may want to follow along in Appendix C. READ SLIDE

For those of you who may be following along in the FOA document, the title of Example 1 on page 72 is in error and should read “Renewable Power and Heating Systems” using a photovoltaic (solar electric) and biomass boiler systems.

Next slide please.

Energy Savings Calculations - Continued

Example #1: Topic Area 1.a. Renewable Power and Heating Systems

Find: Percentage of energy displaced resulting from the proposed project.

Method: The general steps described above are followed in this example.

- 1) Identify only the sources of energy that will be displaced by the proposed systems
- 2) Establish the baseline energy usage before the proposed project is implemented.
- 3) Determine projected energy usage after the project.

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In this example, since the respondent is proposing a photovoltaic electric system and a biomass heating system, the baseline electricity and natural gas must both be used in the energy savings calculation. Under Topic Area 1.a, the project needs to save at least 15% of the total of both electricity and natural gas, after converted to common units of kBtu.

Next slide please.

Energy Savings Calculations - Continued

Example #1: Topic Area 1.a. Renewable Power and Heating Systems

- Table 2 shows the building energy usage for this example before and after the proposed project is implemented. The figures in the table are provided in the typical units for these forms of energy, kWh and therms. Note that the electricity usage after the project is reduced by the amount of energy projected to be generated by the photovoltaic (solar electric) system or 68,000 kWh/year (20% or 272,000 therms) and its natural gas is 100% offset by the biomass-fueled boiler reducing the therms to be used after the project to 0.

Table 2. Example #1 building energy usage

	Before	After	% Savings
Electricity (kWh)	340,000	272,000	20%
Natural Gas (therms)	6,400	0	100%

READ SLIDE

Note: The requirement under Topic Area 1.a. is the displacement of energy; therefore, only the energy sources being displaced are included in the calculation. Since the fuel oil used is not being affected, it is not considered in the calculation.

Next slide please.

Energy Savings Calculations - Continued

Example #1: Topic Area 1.a. Renewable Power and Heating Systems

- 4) Convert the various forms of energy values to the common unit of kBtu using the multipliers provided in Table 1. The energy values with mixed units of kWh and therms are multiplied by the unit conversion factors for the given forms of energy to get the energy values in the common units of kBtu. Note that the biomass boiler is assumed to displace 100% of the natural gas (see Assumption #2 above).

Table 3. Example #1 conversion of energy values from mixed units to common units of kBtu

	Energy Usage (Mixed Units)			Units conversion factor	Energy Usage (Common Units)		
	Before	After	Units		Before	After	Units
Electricity	340,000	272,000	kWh	10.7	3,638,000	2,910,400	kBtu
Natural Gas	6,400	0	therms	105	672,000	0	kBtu

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For Step #4, READ SLIDE

Next slide please.

Energy Savings Calculations - Continued

Example #1: Topic Area 1.a. Renewable Power and Heating Systems

- 5) Sum the energy usage values for the before-project case and sum the energy usage values for the after-project case as shown for this example in Table 4 below.

Table 4. Example #1 summation of before and after project energy usage in common units of kBtu

	Building Energy Usage		
	Before	After	Units
Electricity	3,638,000	2,910,400	kBtu
Natural Gas	672,000	0	kBtu
Sum	4,310,000	2,910,400	kBtu

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For Step #5, READ SLIDE

Next slide please.

Energy Savings Calculations - Continued

Example #1: Topic Area 1.a. Renewable Power and Heating Systems

- 6) Calculate the projected percentage of fuel savings using Equation 1.

For this example, the building used 4,310,000 kBtu of energy in 2013. The proposed renewable energy systems are projected to reduce the annual energy usage to 2,910,400 kBtu after the project is implemented. The percent of energy savings is calculated as:

$$\text{Energy Savings (\%)} = \frac{4,310,000 \text{ kBtu} - 2,910,400 \text{ kBtu}}{4,310,000 \text{ kBtu}} \times 100 = 32.5\%$$

Note: If under Example #1, a biomass-fueled combined heat and power (CHP) system was used in place of the photovoltaic (solar electric) system and the biomass boiler system (assuming the biomass-fueled CHP system produced the same amount of electricity as the photovoltaic system and heat as the biomass boiler system), the result would be same (32.5% savings).

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For Step #6, READ SLIDE

Next slide please.

Energy Savings Template Demonstration

- We'll now provide an overview of the template and move into the live demonstration afterwards.

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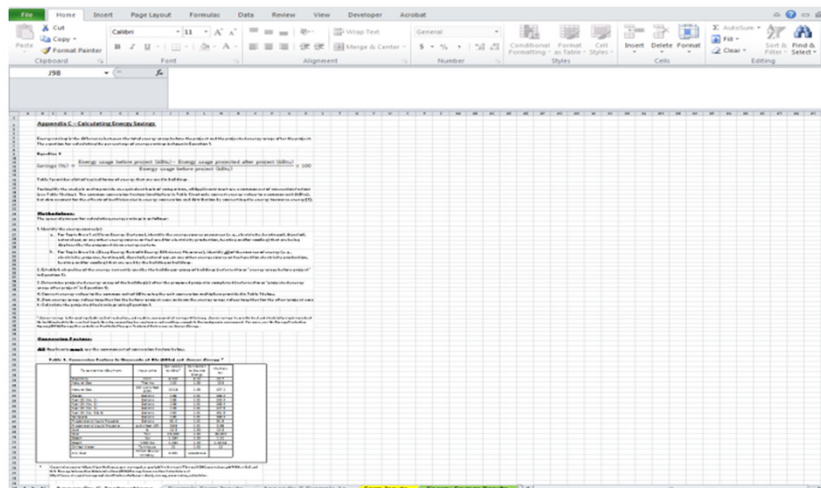
READ SLIDE

Ahead of the “live demonstration”, we’ll be looking at each tab of the template. The tabs are located at the bottom of the Microsoft Excel template. Clicking on these tabs will take you to the information contained in each one. As we will discuss, some information in these tabs can be altered while others are “locked” for editing.

Thank you for your attention. I will now turn the presentation over to Caleb Rockenbaugh. Caleb.....

Energy Savings Template Demonstration

- Tab1: “Appendix C-Instructions”



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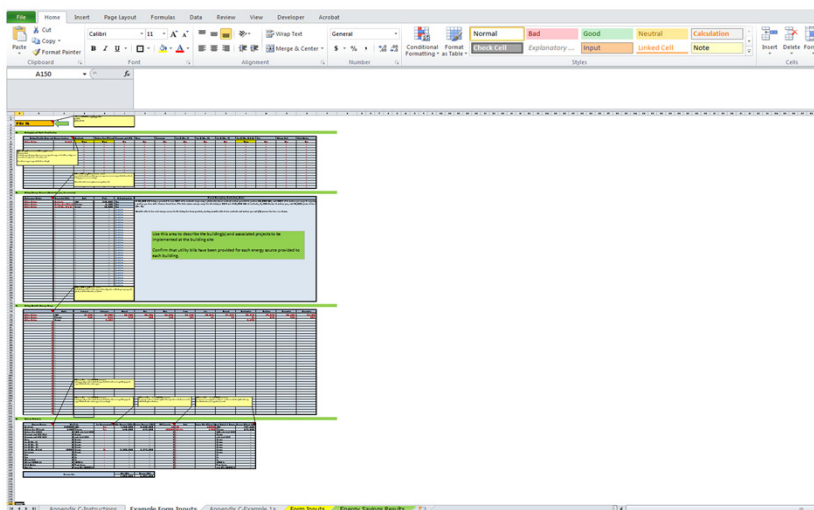
Shown here is a screen image of Tab1, labeled “Appendix C-Instructions”. This tab provides an overview of the information contained in Appendix C of the FOA and is summarized here for reference. As shown, this tab provides the equation for energy use savings, the methodology for calculating the energy savings for your proposed project, the fuel conversion factors for various fuels, and assumptions used. The conversion factors are embedded into the template and will be calculated automatically based on the information provided. We’ll see this during the live demonstration in just a moment.

Please note that the images shown are provided as a reference only; that they’re not perfectly clear is OK.

Next slide, please.

Energy Savings Template Demonstration

- Tab2: “Example Form Inputs”



Shown here is a screen image of Tab2, labeled “Example Form Inputs”. Along with specific instructions to be used on the “Form Inputs” tab, this tab shows the inputs for Example 1.a.

As we’ll discuss in more detail later, this tab provides instructions related to (5) general areas:

- 1) FOA Being Applied for
- 2) Building/Facility Info and Energy Source Identification
- 3) Monthly Energy Source Information
- 4) Monthly Energy Use Information
- 5) Project Summary and Additional Info

Next slide, please.

Energy Savings Template Demonstration

- Tab3: “Appendix C-Example 1a”

Example #1: Topic Area 1.a. (Renewable Power and Heating Systems)

Proposed Project: A 20,000 ft² building is projected to save 20% of its electricity usage using a photovoltaic (solar electric) system projected to produce 68,000 kWh/year, and 100% of its natural gas usage by replacing a natural gas boiler with a biomass-fueled boiler. The total annual energy usage for the building in 2013 was 340,000 kWh/year of electricity, 6,400 therms of natural gas, and 15,000 gallons of fuel oil (No. 5).

Energy Source	Energy Usage (Mixed Units)	Conversion Factor	Energy Usage (kBtu)	Before/After/Net	20% Save Met	100% Save Met	RE Capacity	Required/Installed Capacity/Net	Yes
12 Electricity	340,000	277,000 kWh	10.7	5,638,000	2,910,400	20%	10	68,000 kWh/yr	Yes
13 Natural Gas (Therm)	6,400	Therms	100	672,000	-	100%	34121	100,000 Btu/yr	Yes
14 Natural Gas (CCF)	-	100 cubic feet (CCF)	107.3	-	-	-	-	-	-
15 Propane and LPG (Gall)	-	Gallons	91.9	-	-	-	-	-	-
16 Propane and LPG (CCF)	-	Cubic feet (CCF)	8.49	-	-	-	-	-	-
17 Diesel	-	Gallons	139.4	-	-	-	-	-	-
18 Fuel Oil (No. 1)	-	Gallons	146.4	-	-	-	-	-	-
19 Fuel Oil (No. 2)	-	Gallons	139.4	-	-	-	-	-	-
20 Fuel Oil (No. 4)	-	Gallons	147.5	-	-	-	-	-	-
21 Fuel Oil (No. 5 & 6)	15,000	Gallons	155.5	-	-	-	-	-	-
22 Kerosene	-	Gallons	136.4	-	-	-	-	-	-
23 Coal	-	Tons	12.5	-	-	-	-	-	-
24 Coal	-	Tons	12.5	-	-	-	-	-	-
25 Steam (lbs)	-	Lbs	3.21	-	-	-	-	-	-
26 Steam (1000 lbs)	-	1000 lbs	3432.8	-	-	-	-	-	-
27 Chilled water	-	Ton-Foots	12	-	-	-	-	-	-
28 Dry Fuel	-	million Btu (MMBtu)	1	-	-	-	-	-	-
Energy Reductions			4,310,000	2,910,400	32.3%	Save Met	Total RE Capacity:	795kw	Cap Met

See Appendix C of the FOA for the complete step-by-step example.

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Shown here is a screen image of Tab3, labeled “Appendix C-Example 1a”. This tab reflects the results of the inputs from the previous tab where the utility and project information were entered. As shown, this tab not only provides a summary of the information provided in Tab2, but also calculates the energy savings and provides you with feedback of energy use and savings, equipment capacities as well as feedback on whether the project passes the initial screening.

Next slide, please.

Energy Savings Template Demonstration

- Tab4: “Form Inputs”

Shown here is an screen image of Tab4, labeled “Form Inputs”. This form is to be used for inputting facility and project information related to your specific project. Note that this is a blank of the form shown in Tab2: “Example Form Inputs” and will be used for inputting your data. This is the only tab that you will need to actually input data. The other 4 tabs are instructions, examples, and results and do not require any data input.

Next slide, please.

Energy Savings Template Demonstration

- Tab5: “Energy Savings Results”

Energy Savings Results

Calculates automatically from the input data

Energy Source	Energy Usage (Peak/Year)	Conversion Factor	Energy Usage (Total)	PE Conversion
Electricity	1000	1.0	1000	1.0
Gas	1000	1.0	1000	1.0
Water	1000	1.0	1000	1.0
Steam	1000	1.0	1000	1.0
Chilled Water	1000	1.0	1000	1.0
Hot Water	1000	1.0	1000	1.0
Refrigeration	1000	1.0	1000	1.0
Compressed Air	1000	1.0	1000	1.0
Process Heat	1000	1.0	1000	1.0
Other	1000	1.0	1000	1.0
Total	1000	1.0	1000	1.0

Indicates whether the FOA requirements are met.

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Shown here is an screen image of Tab5, labeled “Energy Savings Results”. As demonstrated in Tab3: “Appendix C-Example 1a”, this tab provides a summary of the information provided in Tab4: “Form Inputs” and provides the you with feedback on your project’s energy use, projected energy savings, as well as whether your project meets the requirements of the FOA. No input is required on this tab. All cells are locked.

Note that this information is provided for the applicant’s benefit. All FOA applications will be reviewed independent of the feedback provided on the spreadsheet.

And let’s move to the next slide...

Energy Savings Template Demonstration

- Please just give us a moment to transfer to the Microsoft Excel File for the demonstration.

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READ SLIDE

DO DEMONSTRATION.

I hope this helps you using the template and calculating the energy savings. I will now turn the mic over to Lizana for the closing.

Closing

- Thank you
- Submit questions on the FOA to tribal@ee.doe.gov
- Please download Funding Opportunity Announcement DE-FOA-0001021 (“FOA”) and read it thoroughly so you understand all the steps and requirements for submitting an application.
- If you are considering submitting an application, please register in EERE Exchange as soon as possible to obtain a Control Number. This control number must be included with all application documents.
- Check the Frequently Asked Questions (FAQs) on EERE Exchange periodically for any supplemental information or amendments to the FOA.

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Thanks Dan and Caleb. Hopefully that will help you use the template and employ the methodology in calculating energy savings under Topic Area 1.

Wow.....a lot of information. I want to thank Dan, Caleb, and Randy for helping me present this information and to thank each of you for your interest and for joining us today.

A few final comments. READ SLIDE BEGINNING WITH 2ND BULLET

You may also wish to subscribe to the Tribal Energy Program’s email list for any information on this funding opportunity, funding opportunities through other agencies, training opportunities, webinars, and other upcoming events. For more on the program and previously funded tribal energy projects, see “Projects” on our website at www.eere.energy.gov/tribalenergy. Also, see “Related Funding Opportunities” on our website for funding opportunities through other agencies.

These slides and an audio recording of this webinar will be posted on the Tribal Energy Program website. You will be notified when this material is available. Please consider joining us for other webinars in our 2014 Tribal Renewable Energy series. If interested, see our website at www.eere.energy.gov/tribalenergy for the webinar schedule and how to register.

Remember to send any questions regarding the Funding Opportunity Announcement to tribal@ee.doe.gov. Thank you again for your attention and have a wonderful afternoon. This concludes today's webinar. Goodbye.