

Department of Energy (DOE)
Office of Energy Efficiency and Renewable Energy (EERE)

Combined Heat and Power Technical Assistance Partnerships

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Expected Submission Deadline for Replies to Reviewer Comments:	4/18/2017 5:00pm ET
Expected Date for EERE Selection Notifications:	May 2017
Expected Timeframe for Award Negotiations	May – August 2017

- 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.
- Applicants must designate primary and backup points-of-contact in EERE Exchange with whom EERE will communicate to conduct award negotiations. If an application is selected for award negotiations, it is not a commitment to issue an award. It is imperative that the applicant/selectee be responsive during award negotiations and meet negotiation deadlines. Failure to do so may result in cancelation of further award negotiations and rescission of the Selection.

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MODIFICATIONS

All modifications to the Funding Opportunity Announcement are highlighted in yellow in the body of the FOA.

Mod. No.	Date	Description of Modifications
000001	2/7/2017	The purpose of this modification is to revise Section II.A.i. Estimated Funding to clarify funding amounts for Topic Area 1 and optional Topic Area 2; revise Section IV.C.ii Technical Volume to clarify that the annual budget must include a budget for each region if proposing to cover multiple regions provide; and revise IV.C.iv Budget Justification Workbook (EERE 335) to clarify that if the application is proposing to cover multiple regions (see Section I.B.i) applicants must complete the budget justification workbook for the primary region and identify in the Technical Volume the additional amount of funds needed to cover each secondary region.

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subject line.*

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I. Funding Opportunity Description

A. Description/Background

The U.S. Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy's (EERE) Advanced Manufacturing Office (AMO) seeks to further the installation of cost-effective, highly efficient combined heat and power (CHP). CHP is a suite of commercially available, predominately gas-fired distributed generation technologies that produce both electricity and thermal energy onsite, thereby reducing line losses and strain on grid infrastructure while also increasing site reliability and energy security. The promotion of CHP is part of the EERE mission to create and sustain American leadership in the transition to a strong and prosperous America powered by clean, domestic, affordable and secure energy for the industrial, manufacturing, commercial and multifamily sectors. Within AMO, CHP is the focus of both research and development (R&D) and deployment activities, with R&D activities focused on new CHP technologies including hybrid and also grid reactive controls. On the deployment side, the CHP Deployment Program conducts technical assistance activities that promote the use of combined heat and power to support U.S. economic competitive advantage, promote economic development, instill resiliency in businesses and communities, create and maintain local energy-related jobs, and provide sustainable solutions for modernizing energy generation and delivery. Today's energy environment and technology solutions present an opportunity for continued deployment of CHP. The goal of this FOA is to solicit proposals from interested parties to become regional CHP Technical Assistance Partnerships (CHP TAPs) who will assist the CHP Deployment Program in the development of strategies to maximize CHP exposure to potential end-users and key stakeholders, and to locally promote best practices in CHP technology policies and installation. (For more information about the DOE/EERE CHP Deployment Program, visit <https://energy.gov/eere/amo/chp-deployment>)

The EERE CHP Deployment Program's definition of CHP includes both traditional "topping cycle" (fuel combusted first to generate electricity) and "bottoming cycle" (sometimes referred to as waste heat to power whereby fuel is first combusted to provide thermal input and then released heat is captured and used for power production) technologies as solutions to energy issues facing our nation. EERE supports CHP both at individual sites as well as in Microgrid or District Energy with CHP scenarios. CHP currently represents approximately 8% of U.S. generating capacity with 82GW of currently installed capacity. A DOE Report, "Combined Heat and Power Technical Potential in the United States" estimates an additional technical potential of over 140GW at more than 291,000 sites across the country.

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If one quarter of this potential were met, the U.S. would save 1 quadrillion BTUs (Quad) of energy and would save energy users \$10 Billion a year compared to current energy use¹. While there is considerable technical potential, it remains an underutilized resource today due to various knowledge, economic, and regulatory barriers as outlined in the DOE “Barriers to Industrial Energy Efficiency” June 2015 report. Nevertheless, the outlook for increased use of CHP is bright as decision makers at the federal and state level are recognizing the potential benefits of CHP and the role it could play in providing reliable, secure, clean, cost-effective energy services to industry and businesses for economic development and job creation among other purposes. The CHP Deployment Program and the R&D teams mutually support each other to promote the increased installation of CHP. Unlocking this potential and mitigating market and non-market barriers requires expertise in engineering, communications, and strategic market intelligence, as well as an understanding of federal, state and local regulation and policy diversity.

EERE’s CHP Deployment Program is comprised of five functional areas:

- Market Analysis - Supporting analyses of CHP opportunities in diverse sectors including industrial, federal, institutional, and commercial; and in key market areas including hospitals, chemicals, food processing, universities, waste water treatment plants, and military bases.
- Market Engagement – Supporting cities, states, utilities and other entities to design and implement CHP programs based on market analysis and portfolio assessment of CHP buildings/facilities for short-, mid- and long-term investment opportunities.
- CHP for Resiliency Accelerator – Collaborating with State, local and market actors to better incorporate CHP into critical infrastructure resiliency planning at the state, local, and utility levels.
- CHP Packaged Systems – Much of the current installations of CHP are in the commercial and institutional sectors and are often replicable in similar sites. DOEERE is working to minimize the cost and installation time by creating resources that streamline information to reduce risk through standardized packaged CHP systems coupled with strong end-user engagement with cities, states, and utilities.
- CHP Technical Assistance Partnerships – Promoting and assisting in the transformation of the market for CHP, waste heat to power technologies, microgrids with CHP and district energy with CHP through state, local and utility support throughout the United States as described below.

¹ USDOE, USEPA, “CHP: A Clean Energy Solution” 2012

Objectives: The purpose of this Funding Opportunity Announcement (FOA) is to seek organizations to be regional Combined Heat and Power Technical Assistance Partnerships (CHP TAPs), with the goal of enabling CHP to meet its full potential by mitigating educational, economic, and regulatory CHP barriers by educating end users and stakeholders in the best practices of CHP and providing direct technical support to promote CHP installation. This will be achieved by CHP TAPs providing strategically targeted education on CHP technology, CHP's technical potential, and CHP's energy and non-energy benefits as well as providing direct technical support to advance projects through the project development pipeline from concept to installation. It is expected CHP TAPs will provide the highest quality education and technical assistance to advance CHP installation including usage of EERE CHP tools and procedures. The CHP TAPs may also support R&D teams if that's a method of effectively advancing CHP installation. It is anticipated this FOA will result in national coverage with up to 10 CHP TAPs being selected based on a competitive selection process.

The continuation of the regional focus on CHP through the CHP TAPs funded under this FOA will provide essential support for the increased use of these technologies by offering assistance for evaluating the economic development, job creation, energy cost savings, and business continuity reliability values of proposed CHP systems. In support of CHP's benefits as a domestic, predominantly gas-fired energy resource, the EERE Advanced Manufacturing Office's CHP Deployment Program provides stakeholders with the resources necessary to identify CHP market opportunities and support implementation of CHP systems in industrial, federal, commercial, institutional, and other applications. The CHP TAPs play a unique role – they are the regional CHP experts who provide fact based, unbiased information on CHP, including technologies, project development, project financing, local electric and natural gas utility interfaces, and related state/local best practice policies. They are vendor, fuel, and technology neutral.

The CHP TAPs promote and assist in transforming the market for CHP, waste heat to power technologies, microgrids with CHP and district energy with CHP throughout the United States by:

- Providing neutral third party technical assistance to help end-users explore the feasibility of CHP and additional support to move feasible CHP projects through the project development process.
- Providing end-user engagement and education services to high potential CHP markets on the energy and non-energy benefits and applications of CHP.

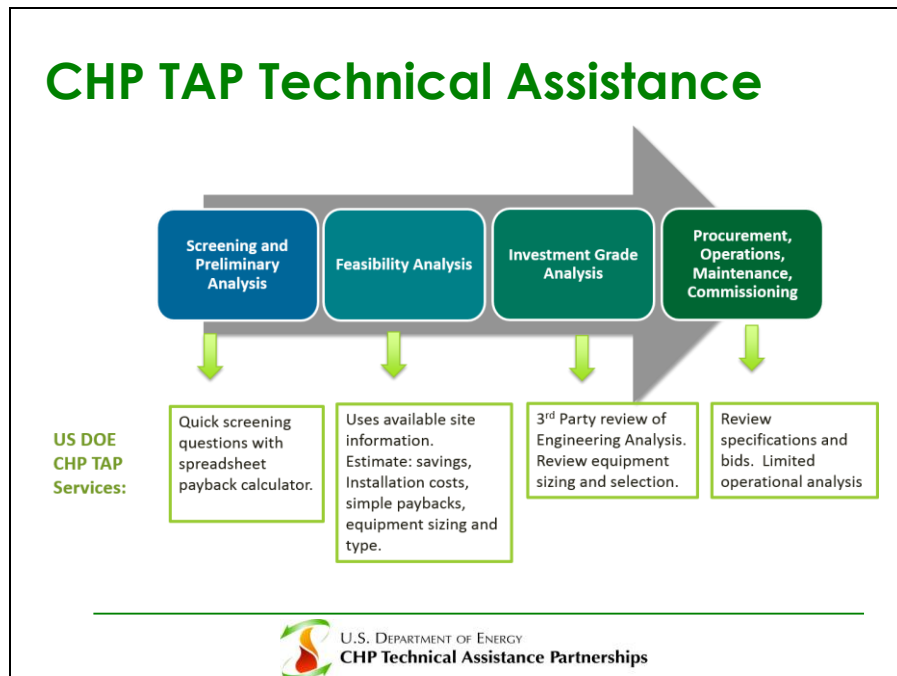
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- Providing education to state and local policy makers and regulators on state best practices regarding CHP policy issues that can either stimulate or impede the installations of CHP in their jurisdiction.
- Supporting analyses of CHP market opportunities in diverse markets.

Currently, the seven EERE-funded regional CHP TAPs encourage deployment of CHP to all 50 states by providing end-user engagement and education, technical assistance, and policy maker education services. The CHP TAPs are one type of Clean Energy Application Center (and were previously called Clean Energy Application Centers--CEACs) and there were eight regional CEACs that served all 50 states. EERE intends to maintain service to all 50 states and the District of Columbia through selections under this FOA and intends to select 6-10 applications to continue service to all 50 states operating as regional CHP TAPs.

CHP TAPs have provided engagement and education services to thousands of end users and other stakeholders in high technical potential markets, including hospitals, chemicals, food processing, universities, waste water treatment plants, and commercial buildings. The CHP TAPs have provided technical support to over 1,300 CHP projects. Of those projects, more than 280 with an estimated installed capacity of over 2GW, are in the project pipeline for installations. The following figure illustrates the CHP TAP Technical Assistance project flow.



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As the CHP TAPs are intended to spur regional market transformation, the core responsibilities of the CHP TAPs are to work with end-users and strategic market organizations to:

- Provide CHP technical and economic screenings to gauge CHP potential
- Support end-users with the deep-dive technical support necessary to move CHP projects into and through the decision and installation process
- Produce and disseminate CHP best practices and project profiles (case studies)
- Educate on CHP opportunities and benefits for their application
- Support the CHP role and opportunity in specific markets
- Work with cities, states, utilities, and others to assess their CHP potential, including through portfolio analysis
- Work with state and local policymakers and regulators to educate them on CHP policy best practices
- Function as regional Subject Matter Experts (SMEs) for CHP deployment, including technologies and policies
- Effectively coordinate their efforts to support other AMO and EERE programs

B. Topic Areas/Technical Areas of Interest

i. Topic Area 1: Regional CHP Technical Assistance Partnerships

The objective of the U.S. Department of Energy's Combined Heat and Power Technical Assistance Partnership (CHP TAP) is to provide essential support to accelerate the installation of CHP's suite of technologies. The CHP TAP work is designed to assist public and private entities in getting to the decision to install CHP. This is achieved by providing technology-neutral and fuel-neutral technical assistance for CHP installations to potential end-users; and also providing education and engagement to a variety of stakeholders including end-users (commercial, industrial, institutional and more), electric and gas utilities, trade associations, non-profit organizations, state policymakers and regulators, and other stakeholders. This assistance includes evaluating the economic, energy savings, environmental value, reliability, and energy security of proposed CHP systems and conveying this value to encourage CHP installations. The CHP TAPs represent multi state regions and are 'in the field' CHP experts and champions providing fact based, unbiased information on CHP, including technologies, project development, project financing, local electric and natural gas utility interfaces, and related best practice policies. CHP applications (including waste heat to power) can be both stand-alone as

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well as in district energy or microgrid configurations; the CHP TAPs will encourage the installation of CHP in these various configuration types as appropriate.

Multi State Regions:

Due to current CHP market conditions, for the purposes of this FOA, EERE has divided the country into 10 regions to provide coverage to all 50 states and the District of Columbia. Regions are as follows:

Region 1: VT, NH, ME, MA, RI, CT

Region 2: NY, NJ

Region 3: PA, WV, VA DE, MD, DC

Region 4: KY, TN, NC, SC, GA, FL, AL, MS

Region 5: MN, WI, MI, IL, IN, OH

Region 6: TX, NM, OK, AR, LA

Region 7: NE, IA, KS, MO

Region 8: UT, CO, WY, MT, ND, SD

Region 9: CA, NV, AZ, HI

Region 10: WA, OR, ID, AK

Applicants may propose operating as a CHP TAP in up to three regions, with one being the applicant's primary region and the other one or two being the applicant's secondary region(s). (If an applicant proposes to operate three regions, one region should be proposed as the primary region and the other two regions as the secondary regions—the secondary regions shouldn't be ranked, for example, as the 1st secondary region and the 2nd secondary region.) EERE's goal is to provide complete national coverage by the CHP TAP program and its evaluation and selection process will include criteria and selection factors to ensure complete national coverage is achieved and overlaps of coverage are avoided. If an entity is selected to be a CHP TAP for multiple regions, the entity will operate one CHP TAP that covers all the selected regions, not operate two or three separate CHP TAPs that cover each region. EERE anticipates selecting 6-10 applicants for award negotiations. See Section V of the FOA for the Technical Review Criteria and Other Selection Factors.

Applicants are requested to respond to the following activities that are required to be performed by each CHP TAP organization:

CHP Technical Assistance

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This activity involves engagement of potential industrial, commercial and institutional end-users to identify, evaluate, and technically support prospective CHP projects, including stand-alone CHP, waste heat to power, district energy and microgrid with CHP as appropriate. Each applicant must provide a personnel plan that includes development of junior personnel, evidence of successful CHP technical experience with project development and project feasibility assessments, and contains a detailed execution plan, including key partners to support the plan, on how the applicant proposes to identify and implement CHP Technical Assistance opportunities through:

Conduct Project Qualification Screenings. Conduct preliminary economic and technical CHP screenings to determine simple payback combined with qualitative questions on energy use, drivers and motivations, and other factors to provide actionable next steps for site decision makers. EERE assumes about 2-6 hours to complete a Qualification Screening.

Feasibility Assessments. CHP TAPs provide greater in-depth technical support and economic based assessments to potential end-users to include detailed assessments of economic and technical viability; potential equipment sizing and technical configurations; estimated savings, costs and paybacks; and environmental characteristics of potential projects. Feasibility assessments are expected to be similar in approach to the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) CHP Design guide, it is based on site available information: facility descriptions, plant energy requirements including electric and thermal energy requirements using available load profiles [seasonally, monthly, weekly or daily], and a minimum of 12 months of electricity and fuel/steam usage bills. The applicant should provide a brief description of the CHP feasibility assessment software that they plan to use for this effort.

Advanced Technical Assistance. CHP TAPs provide a variety of site-specific advanced technical assistance to potential end users from CHP system design to installation and commissioning as needed to move a facility through the project pipeline to CHP installation. Potential Advanced Technical Assistance could include:

- Providing third party review of Investment Grade Analysis (IGA), or site feasibility studies performed by others.
- Assisting in procurement process – Request for Proposal (RFP) development and/or resultant proposal review.
- Supporting project specific areas of support including information on interconnection, tariffs (including standby) and available incentives.
- Providing updates to previously performed feasibility studies

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incorporating revised data inputs, such as fuel source costs, revised incentives availability, etc.

- Assisting in other areas of support approved by EERE.
- Sharing information with end users on the commissioning process as well as Operation and Maintenance best practices to ensure built/operating to design.

Development of Project Profiles. The CHP TAPs develop (with input from the facility where CHP was installed) detailed project summaries called [Project Profiles](#) that illustrate the successful installation of a CHP system and highlight CHP's value to the facility and replicability to the broader market. The intent is for CHP project profiles to help educate prospective end-users on how CHP technologies can be used to support their specific market and plant concerns. The Project Profiles are developed for replicable projects in strategic markets. Included are technical characteristic descriptions of the facility, the CHP technology installed, and how CHP electric and thermal energy will be utilized; performance data (either historic or anecdotal if recent install); testimonials; pictures and other information of relevance to a prospective end user with a similar facility. See energy.gov/chp-projects, for example profiles.

CHP Program-wide Initiatives. The CHP TAP will work cooperatively with the EERE Deployment Program staff to support CHP initiatives such as:

- Market Analysis – Support analyses of CHP market opportunities in diverse markets including industrial, federal, institutional and commercial sectors.
- Market Engagement – Support cities, states, utilities and other entities to design and implement CHP programs based on market analysis and portfolio assessment of CHP buildings/facilities for short-, mid- and long-term investment opportunities.
- CHP for Resiliency– Collaborate with Partners to support consideration of CHP and other distributed generation solutions for critical infrastructure resiliency planning at the state, local, and utility levels.
- CHP Packaged Systems – Support packaged system technical and market actor needs.

EERE estimates approximately 50% of the CHP TAP's budget to be allocated to CHP Technical Assistance activities.

Market and End-User Education and Engagement

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Each application should contain a detailed plan on how the applicant will engage and educate key end-user and end-user stakeholder groups on the technical/economic potential and benefits of CHP for high technical potential markets in the proposed region. The plan should include an overview of the applicant's market awareness and provide a list of key partners in the region such as state energy, economic development or other agencies, cities, utilities, and nonprofits, other industry/market sector associations, or other partners. The intent of this engagement and education is to reach end users and drive the technical assistance efforts discussed above. Typical CHP TAP activities include strategically hosted/participated webinars, workshops, and presentations at end-user forums. Other activities could include:

Outreach, Education and Recruitment of Potential End Users. The CHP TAPs identify end users with project opportunities in the CHP TAP's geographic region as well as strategic target markets. The CHP TAPs promote, educate, and assist end-users with the goal of increasing understanding of their specific CHP opportunities and to facilitate installations.

Outreach, Education and Recruitment of Potential End-User Enterprise Accounts. The CHP TAPs may also pursue enterprise accounts or owners/operators with numerous CHP potential facilities, or portfolios, within its region and/or strategic target market. Portfolio analysis assists end-users through the technical assistance pipeline to CHP installation by presenting information on short-, mid-, long-term CHP investment opportunities within their enterprise portfolio.

EERE estimates approximately 25% of the CHP TAP's budget to be allocated to these activities.

Stakeholder Education and Engagement

Each applicant must provide an overview of their knowledge and experience with the current status of state, local, and utility (including electric and natural gas) policies and programs within their proposed region(s) with regards to CHP. This includes understanding the current state of key policy areas and the current and future resources needed to positively impact CHP project and program development and operation. Applicants must present a plan to reach and educate state, local, and utility (both electric and natural gas) decision makers on best practices for CHP. Each application should contain a detailed plan on how the applicant proposes to build and maintain a network of CHP expertise and partners across all covered states and to provide clear, concise, practical, and actionable information to decision

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makers of various types and levels.

EERE estimates approximately 20% of the CHP TAP's budget to be allocated to these activities.

Project Management and Coordination

Each applicant should include time and budget for the following EERE active project management and coordination activities. Only limited resources are anticipated to be needed in the following activities:

- Submittal of monthly project activity summary metrics.
- Participation in monthly Director CHP TAP Status calls.
- Participation in semi-annual Director Meetings hosted by EERE HQ or a CHP TAP.

EERE estimates approximately 5% of the CHP TAP's budget to be allocated to these activities.

ii. Topic Area 2: Subject Matter Experts (SMEs) [optional Topic]:

Note: Submitting an application to Topic Area 2 is Optional – An Applicant may apply for Topic Area 1 Only or may apply for Topic Area 1 and 2. To be eligible for consideration under Topic Area 2, an applicant must apply for funding under both Topic Area 1 and Topic Area 2, by choosing “Topic Area 1 and 2” in the dropdown in Exchange. Applicants may only submit one application to this FOA. Applicants may submit an application for Topic Area 1 only, but EERE will not consider applications that only address Topic Area 2. An application that only addresses Topic Area 2 will be ineligible and will not be submitted for further review by EERE. Only entities that submit an application for Topic Area 1 and Topic Area 2 and are selected as a CHP TAP under Topic Area 1 will be eligible to receive funds for Topic Area 2.

For Topic Area 2, EERE's goal is to have a pool of SMEs to further the overall CHP TAP mission and enhance the value of CHP TAP service delivery. Interested applicants should provide a short narrative in the Technical Volume highlighting the SME's specific skills and experience and a detailed resume for each proposed SME showing specific CHP expertise and skillsets in the identified areas of interest. Each applicant may propose one or more technical areas of interest with SMEs, and it is not expected that each applicant will have SMEs in each of the areas of interest. Applicant's SME(s) have knowledge of the business case for CHP, have significant experience

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working in the market sector, and demonstrate knowledge of the key players, drivers and motivations for the target market, with demonstrated success in communicating with market personnel on multiple organizational levels to develop CHP projects. See section IV.C.ii. Technical Volume for more information.

The SME technical areas of interest include, but are not limited to, the following:

Sectors of large CHP potential (industrial and commercial)

- Chemicals
- Paper
- Petroleum & refining
- Primary metals
- Food processing
- Federal facilities
- Commercial buildings
- Hospitals
- Institutional facilities
- Universities

Technical areas of expertise

- Biomass and biogas CHP applications
- CHP permitting codes and standards
- Grid-responsive CHP applications
- Hybrid renewable CHP applications
- Microgrid/District Energy applications
- CHP emerging technologies and RD&D applications
- Packaged CHP system applications
- State/utility CHP program design (EE programs, RPS, etc.)
- State/utility policies (including ratemaking, standby, interconnection, etc.)
- Waste heat to power CHP applications

Each applicant may propose one or more SMEs. For each SME proposed, the applicant should clearly define the specific area of national interest that the SME fulfills, as listed above. Submissions should include a detailed resume of relevant past experience as well as a narrative that provides sufficient evidence to demonstrate the individual SME's knowledge and experience of the barriers and proposed solutions [including knowing the market and key

players] to implementing CHP in the proposed specialized area. Resumes will be submitted separately from the Technical Volume. Each SME selected is expected to provide specialized expertise to support the national CHP TAP mission and enhance service delivery. An SME applying for multiple technical areas can provide one detailed resume that includes demonstration of the various technical areas to which they are applying. Applicants should estimate the amount of funding dedicated to Topic Area 2 on an annual basis as well as propose a task in the Statement of Project Objectives for this activity. Topic Area 2 funding is in addition to the Topic Area 1 funding levels and should be clearly distinguished in the proposed budget for the project. For the eligibility requirements associated with Topic Area 2, please see Section III.E. below. All work under EERE funding agreements must be performed in the United States. See Section IV.J.iii and Appendix C.

C. Applications Specifically Not of Interest

The following types of applications will be deemed nonresponsive and will not be reviewed or considered (See Section III.D of the FOA):

- Applications that fall outside the technical parameters specified in Section I.A and Section I.B of the FOA.

D. Authorizing Statutes

The programmatic authorizing statutes are section 375 of the Energy Independence and Security Act, as codified at 42 U.S.C. § 6345 and section 911 of the Energy Policy Act of 2005, as codified at 42 U.S.C. § 16191.

Awards made under this announcement will fall under the purview of 2 CFR Part 200 as amended by 2 CFR Part 910.

II. Award Information

A. Award Overview

i. Estimated Funding

EERE expects to make approximately \$25,000,000 of Federal funding available for new awards under this FOA, subject to the availability of appropriated funds. EERE anticipates making approximately 6-10 awards under this FOA. EERE may issue one, multiple, or no awards. Individual awards may vary between \$1,500,000 and \$6,000,000 million. EERE expects

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applicants to propose between \$300,000 and \$500,000 per year for a single CHP TAP Region under Topic Area 1. Applicants may propose to cover up to three regions. Total annual funding for a two region application is expected to be between \$500,000 and \$800,000. Total annual funding for a three region application is expected to be between \$700,000 and \$1,100,000. For optional Topic Area 2, EERE expects up to a total of \$1,000,000 annually to fund a national pool of Subject Matter Experts on an as needed basis located at selected CHP TAPs. EERE expects between \$100,000 and \$300,000 per year per selected CHP TAP for Topic Area 2 activities which would be in addition to funding for Topic Area 1. For example, an applicant proposing to cover three regions might propose an annual budget of \$500,000 for the primary region, and identify additional funds of \$250,000 for one of the secondary regions and \$200,000 for the other secondary region. Further, the applicant might propose under optional Topic Area 2: Subject Matter Experts, a budget of \$200,000. This would result in an applicant proposing a total annual budget of \$1,150,000 (\$500,000 + \$250,000 + \$200,000 for Topic Area 1 and \$200,000 for Topic Area 2.) Applicants must provide a detailed budget for the primary region and if also proposing to cover 1 or 2 secondary regions, identify in the Technical Volume the additional amount of funds needed to cover each secondary region.

EERE may issue awards in one, multiple, or none of the following topic areas:

Topic Area 1: Regional CHP Technical Assistance Partnership

Topic Area 2: Subject Matter Experts (SMEs)

For more information about Topic Area 1 and Topic Area 2, see Section I.B..

EERE may establish more than one budget period for each award and fund only the initial budget period(s). Funding for all budget periods, including the initial budget period, is not guaranteed. Before the expiration of the initial budget period(s), EERE may perform a down-select among different recipients and provide additional funding only to a subset of recipients.

ii. **Period of Performance**

EERE anticipates making awards that will run up to 60 months in length, comprised of one or more budget periods. Project continuation will be contingent upon satisfactory performance and go/no-go decision review. At the go/no-go decision points, EERE will evaluate project performance, project schedule adherence, meeting milestone objectives, compliance with reporting requirements, and overall contribution to the program goals and

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objectives. As a result of this evaluation, EERE will make a determination to continue the project, re-direct the project, or discontinue funding the project.

iii. New Applications Only

EERE will accept only new applications under this FOA. EERE will not consider applications for renewals of existing EERE-funded awards through this FOA.

B. EERE Funding Agreements

Through Cooperative Agreements and other similar agreements, EERE provides financial and other support to projects that have the potential to realize the FOA objectives. EERE does not use such agreements to acquire property or services for the direct benefit or use of the United States Government.

i. Cooperative Agreements

EERE generally uses Cooperative Agreements to provide financial and other support to Prime Recipients.

Through Cooperative Agreements, EERE provides financial or other support to accomplish a public purpose of support or stimulation authorized by Federal statute. Under Cooperative Agreements, the Government and Prime Recipients share responsibility for the direction of projects.

EERE has substantial involvement in all projects funded via Cooperative Agreement. See Section VI.B.ix of the FOA for more information on what substantial involvement may involve.

ii. Funding Agreements with FFRDCs

In most cases, Federally Funded Research and Development Centers (FFRDC) are funded independently of the remainder of the Project Team. The FFRDC then executes an agreement with any non-FFRDC Project Team members to arrange work structure, project execution, and any other matters. Regardless of these arrangements, the entity that applied as the Prime Recipient for the project will remain the Prime Recipient for the project.

iii. Grants

Although EERE has the authority to provide financial support to Prime Recipients through Grants, EERE generally does not fund projects through Grants. EERE may fund a limited number of projects through Grants, as appropriate.

iv. Technology Investment Agreements

In rare cases and if determined appropriate, EERE will consider awarding a Technology Investment Agreement (TIA) to a non-FFRDC applicant. TIAs, governed by 10 CFR Part 603, are assistance instruments used to increase the involvement of commercial entities in the Department's research, development, and demonstration programs. A TIA may be either a type of cooperative agreement or an assistance transaction other than a cooperative agreement, depending on the intellectual property provisions. In both cases, TIAs are not necessarily subject to all of the requirements of 2 CFR Part 200 as amended by 2 CFR Part 910.

In a TIA, EERE may modify the standard Government terms and conditions, including but not limited to:

- Intellectual Property Provisions: EERE may negotiate special arrangements with recipients to avoid the encumbrance of existing intellectual property rights or to facilitate the commercial deployment of inventions conceived or first actually reduced to practice under the EERE funding agreement.
- Accounting Provisions: EERE may authorize the use of generally accepted accounting principles (GAAP) where recipients do not have accounting systems that comply with Government recordkeeping and reporting requirements.

EERE will be more amenable to awarding a TIA in support of an application from a consortium or a team arrangement that includes cost sharing with the private sector, as opposed to an application from a single organization. Such a consortium or teaming arrangement could include a FFRDC. If a DOE/NNSA FFRDC is a part of the consortium or teaming arrangement, the value of, and funding for the DOE/NNSA FFRDC portion of the work will be authorized and funded under the DOE field work authorization system and performed under the laboratory's Management and Operating contract. Funding for a non-DOE/NNSA FFRDC would be through an interagency agreement under the Economy Act or other statutory authority. Other appropriate contractual accommodations, such as those involving intellectual property, may be made through a "funds in" agreement to facilitate the FFRDCs participation in the consortium or teaming arrangement. If a TIA is awarded, certain types of information described in 10 CFR 603.420(b) are exempt from disclosure

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under the Freedom of Information Act for five years after DOE receives the information.

An applicant may request a TIA if it believes that using a TIA could benefit the RD&D objectives of the program (see 10 CFR 603.225) and can document these benefits. If an applicant is seeking to negotiate a TIA, the applicant must include an explicit request in its Full Application. After an applicant is selected for award negotiation, the Contracting Officer will determine if awarding a TIA would benefit the RD&D objectives of the program in ways that likely would not happen if another type of assistance agreement (e.g., cooperative agreement subject to the requirements of 2 CFR Part 200 as amended by 2 CFR Part 910). The Contracting Officer will use the criteria in 10 CFR 603, Subpart B, to make this determination.

III. Eligibility Information

To be considered for substantive evaluation, an applicant's submission must meet the eligibility requirements set forth below. If the application does not meet these eligibility requirements, it will be determined to be ineligible for further consideration, removed from further evaluation, and ineligible for any award.

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subject line.*

A. Eligible Applicants

i. Individuals

U.S. citizens and lawful permanent residents are eligible to apply for funding as a Prime Recipient or Subrecipient.

ii. Domestic Entities

For-profit entities, educational institutions, and nonprofits that are incorporated (or otherwise formed) under the laws of a particular State or territory of the United States are eligible to apply for funding as a Prime Recipient or Subrecipient. Nonprofit organizations described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995, are not eligible to apply for funding.

State, local, and tribal government entities are eligible to apply for funding as a Prime Recipient or Subrecipient.

DOE/NNSA Federally Funded Research and Development Centers (FFRDCs) and National Laboratories are eligible to apply for funding as a Prime Recipient or Subrecipient.

Non-DOE/NNSA FFRDCs are eligible to apply for funding as a Subrecipient, but are not eligible to apply as a Prime Recipient.

Federal agencies and instrumentalities (other than DOE) are eligible to apply for funding as a Subrecipient, but are not eligible to apply as a Prime Recipient.

iii. Foreign Entities

Foreign entities, whether for-profit or otherwise, are eligible to apply for funding under this FOA. Other than as provided in the “Individuals” or “Domestic Entities” sections above, all Prime Recipients receiving funding under this FOA must be incorporated (or otherwise formed) under the laws of a State or territory of the United States. If a foreign entity applies for funding as a Prime Recipient, it must designate in the Full Application a subsidiary or affiliate incorporated (or otherwise formed) under the laws of a State or territory of the United States to be the Prime Recipient. The Full Application must state the nature of the corporate relationship between the foreign entity and domestic subsidiary or affiliate.

Foreign entities may request a waiver of the requirement to designate a subsidiary in the United States as the Prime Recipient in the Full Application (i.e., a foreign entity may request that it remains the Prime Recipient on an award). To do so, the Applicant must submit an explicit written waiver request in the Full Application. Appendix C lists the necessary information that must be included in a request to waive this requirement. The applicant does not have the right to appeal EERE's decision concerning a waiver request.

In the waiver request, the applicant must demonstrate to the satisfaction of EERE that it would further the purposes of this FOA and is otherwise in the economic interests of the United States to have a foreign entity serve as the Prime Recipient. EERE may require additional information before considering the waiver request.

A foreign entity may receive funding as a Subrecipient.

iv. Incorporated Consortia

Incorporated consortia, which may include domestic and/or foreign entities, are eligible to apply for funding as a Prime Recipient or Subrecipient. For consortia incorporated (or otherwise formed) under the laws of a State or territory of the United States, please refer to "Domestic Entities" above. For consortia incorporated in foreign countries, please refer to the requirements in "Foreign Entities" above.

Each incorporated consortium must have an internal governance structure and a written set of internal rules. Upon request, the consortium must provide a written description of its internal governance structure and its internal rules to the EERE Contracting Officer.

v. Unincorporated Consortia

Unincorporated Consortia, which may include domestic and foreign entities, must designate one member of the consortium to serve as the Prime Recipient/consortium representative. The Prime Recipient/consortium representative must be incorporated (or otherwise formed) under the laws of a State or territory of the United States. The eligibility of the consortium will be determined by the eligibility of the Prime Recipient/consortium representative under Section III.A of the FOA.

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Upon request, unincorporated consortia must provide the EERE Contracting Officer with a collaboration agreement, commonly referred to as the articles of collaboration, which sets out the rights and responsibilities of each consortium member. This agreement binds the individual consortium members together and should discuss, among other things, the consortium's:

- Management structure;
- Method of making payments to consortium members;
- Means of ensuring and overseeing members' efforts on the project;
- Provisions for members' cost sharing contributions; and
- Provisions for ownership and rights in intellectual property developed previously or under the agreement.

B. Cost Sharing

Cost sharing is not required under this FOA.

Although cost share is not required under this FOA, an applicant may choose to propose cost share. To assist applicants in calculating proper cost share amounts in case cost share is proposed, EERE has included a cost share information sheet and sample cost share calculation as Appendices A and B to this FOA.

i. Legal Responsibility

Although the cost share requirement applies to the project as a whole, including work performed by members of the project team other than the Prime Recipient, the Prime Recipient is legally responsible for paying the entire cost share. The Prime Recipient's cost share obligation is expressed in the Assistance Agreement as a static amount in U.S. dollars (cost share amount) and as a percentage of the Total Project Cost (cost share percentage). If the funding agreement is terminated prior to the end of the project period, the Prime Recipient is required to contribute at least the cost share percentage of total expenditures incurred through the date of termination.

The Prime Recipient is solely responsible for managing cost share contributions by the Project Team and enforcing cost share obligation assumed by Project Team members in subawards or related agreements.

ii. Cost Share Allocation

Each Project Team is free to determine how best to allocate the cost share requirement among the team members. The amount contributed by

individual Project Team members may vary, as long as the cost share requirement for the project as a whole is met.

iii. Cost Share Types and Allowability

Every cost share contribution must be allowable under the applicable Federal cost principles, as described in Section IV.J.1 of the FOA. In addition, cost share must be verifiable upon submission of the Full Application.

Project Teams may provide cost share in the form of cash or in-kind contributions. Cash contributions may be provided by the Prime Recipient or Subrecipients. Allowable in-kind contributions include, but are not limited to: rental value of buildings or equipment, the value of a donated service or resource, or third party in-kind contribution.

Project teams may use funding or property received from state or local governments to meet the cost share requirement, so long as the funding was not provided to the state or local government by the Federal Government.

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 (e.g., Federal grants, equipment owned by the Federal Government); or
- Expenditures that were reimbursed under a separate Federal Program.

Project Teams may not use the same cash or in-kind contributions to meet cost share requirements for more than one project or program.

Cost share contributions must be specified in the project budget, verifiable from the Prime Recipient's records, and necessary and reasonable for proper and efficient accomplishment of the project. As all sources of cost share are considered part of total project cost, the cost share dollars will be scrutinized under the same Federal regulations as Federal dollars to 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.

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Applicants are encouraged to refer to 2 CFR 200.306 as amended by 2 CFR 910.130 & 10 CFR 603.525-555 for additional guidance on cost sharing.

iv. Cost Share Contributions by FFRDCs

Because FFRDCs are funded by the Federal Government, costs incurred by FFRDCs generally may not be used to meet the cost share requirement. FFRDCs may contribute cost share only if the contributions are paid directly from the contractor's Management Fee or another non-Federal source.

v. Cost Share Verification

Applicants are required to provide written assurance of their proposed cost share contributions in their Full Applications.

Upon selection for award negotiations, applicants are required to provide additional information and documentation regarding their cost share contributions. Please refer to Appendix A of the FOA.

vi. Cost Share Payment

EERE requires Prime Recipients to contribute the cost share amount incrementally over the life of the award. Specifically, the Prime Recipient's cost share for each billing period must always reflect the overall cost share ratio negotiated by the parties (i.e., the total amount of cost sharing on each invoice when considered cumulatively with previous invoices 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. Regardless of the interval requested, the Prime Recipient must be up-to-date on cost share at each interval. Such requests must be sent to the Contracting Officer during award negotiations and include the following information: (1) a detailed justification for the request; (2) a proposed schedule of payments, including amounts and dates; (3) a written commitment to meet that schedule; and (4) such evidence as necessary to demonstrate that the Prime Recipient has complied with its cost share obligations to date. The Contracting Officer must approve all such requests before they go into effect.

C. Compliance Criteria

Letters of Intent and Full Applications must meet all Compliance criteria listed below or they will be considered noncompliant. EERE will not review or consider noncompliant submissions, including Letters of Intent, Full Applications, and Replies to Reviewer Comments that were: submitted through means other than EERE Exchange; submitted after the applicable deadline; and/or submitted incomplete. EERE will not extend the submission deadline for applicants that fail to submit required information due to server/connection congestion.

i. Compliance Criteria

1. Letters of Intent (Optional)

Letters of Intent are deemed compliant if:

- The applicant entered all required information and clicked the “Create Submission” button in EERE Exchange and submitted via email to CHPTAP@ee.doe.gov by the deadline stated in the FOA.
- A Letter of Intent is not required in order to be eligible to submit a Full Application.

2. Full Applications

Full Applications are deemed compliant if:

- The Full Application complies with the content and form requirements in Section IV.C of the FOA; and
- The applicant successfully uploaded all required documents and clicked the “Submit” button in EERE Exchange by the deadline stated in the FOA.

3. Replies to Reviewer Comments

Replies to Reviewer Comments are deemed compliant if:

- The Reply to Reviewer Comments complies with the content and form requirements in Section IV.D of the FOA; and
- The applicant successfully uploaded all required documents to EERE Exchange by the deadline stated in the FOA.

D. Responsiveness Criteria

All “Applications Specifically Not of Interest,” as described in Section I.C of the FOA, are deemed nonresponsive and are not reviewed or considered.

E. Other Eligibility Requirements

i. **Requirements for a DOE/NNSA Federally Funded Research and Development Center (FFRDC) or National Laboratory Listed as the Applicant**

A DOE/NNSA FFRDC or National Laboratory is eligible to apply for funding under this FOA if its cognizant Contracting Officer provides written authorization and this authorization is submitted with the application. If a DOE/NNSA FFRDC or National Laboratory is selected for award negotiation, the proposed work will be authorized under the DOE work authorization process and performed under the laboratory's Management and Operating (M&O) contract.

The following wording is acceptable for the authorization:

Authorization is granted for the [Enter Laboratory Name] Laboratory to participate in the proposed project. The work proposed for the laboratory is consistent with or complementary to the missions of the laboratory, and will not adversely impact execution of the DOE assigned programs at the laboratory.

ii. **Requirements for DOE/NNSA FFRDC/National Laboratory and non-DOE/NNSA FFRDC Included as a Subrecipient**

DOE/NNSA FFRDC/National Laboratory and non-DOE/NNSA FFRDCs may be proposed as a Subrecipient on another entity's application subject to the following guidelines:

1. **Authorization for non-DOE/NNSA FFRDCs**

The Federal agency sponsoring the FFRDC must authorize in writing the use of the FFRDC on the proposed project and this authorization must be submitted with the application. The use of a FFRDC must be consistent with its authority under its award.

2. **Authorization for DOE/NNSA FFRDCs/National Laboratory**

The cognizant Contracting Officer for the FFRDC/National Laboratory must authorize in writing the use of the FFRDC/National Laboratory on the proposed project and this authorization must be submitted with the application. The following wording is acceptable for this authorization:

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Authorization is granted for the [Enter Laboratory Name] Laboratory to participate in the proposed project. The work proposed for the laboratory is consistent with or complementary to the missions of the laboratory, and will not adversely impact execution of the DOE assigned programs at the laboratory.

3. Value/Funding

The value of and funding for the FFRDC/National Laboratory. portion of the work will not normally be included in the award to a successful applicant. Usually, DOE will fund a DOE/NNSA FFRDC/National Laboratory through the DOE field work proposal system and non-DOE/NNSA FFRDC through an interagency agreement with the sponsoring agency.

4. Cost Share

Although the FFRDC/National Laboratory portion of the work is usually excluded from the award to a successful applicant, the applicant's cost share requirement will be based on the total cost of the project, including the applicant's and the FFRDC/National Laboratory's portions of the project.

5. Responsibility

The Prime Recipient will be the responsible authority regarding the settlement and satisfaction of all contractual and administrative issues including, but not limited to disputes and claims arising out of any agreement between the Prime Recipient, Subrecipient(s) and the FFRDC/National Laboratory.

6. Limit on FFRDC Effort

The scope of work to be performed by the FFRDC/National Laboratory may not be more significant than the scope of work to be performed by the applicant.

F. Limitation on Number of Full Applications Eligible for Review

An entity may only submit one Full Application in response to this FOA. For example, EERE will only consider one Full Application per university for this FOA (not one submission per each college or school within the university.) This limitation does not prohibit an entity from collaborating on other applications (e.g., as a potential Subrecipient or partner) so long as the entity is only listed as the Prime Applicant on one Letter of Intent and/or Full Application submitted under this FOA.

An application may propose a maximum of three (3) CHP TAP regions. If applying for multiple CHP TAP regions, all regions must be listed in the same application and that application must follow the instructions for clearly identifying the primary and secondary region(s). For more information on primary and secondary regions, see FOA section I.B.i. “Topic Area 1: Regional CHP Technical Assistance Partnerships, Multi State Regions.” Likewise, if an applicant is apply for funding under both Topic Area 1 and Topic Area 2, both topic areas must be included in a single application.

G. Eligibility Requirements to be Considered for Funding Under Topic Area 2 Subject Matter Experts

To be eligible for consideration under Topic Area 2, an applicant must apply for funding under both Topic Area 1 and Topic Area 2. Applicants may submit an application for Topic Area 1 only, but EERE will not consider applications that only address Topic Area 2. Only entities that submit applications for Topic Area 1 and Topic Area 2 and are selected as CHP TAPS under Topic Area 1 will be eligible to receive funds for Topic Area 2. For more information on the Topic Areas, see Section I.B.1 and I.B.2 above.

H. Questions Regarding Eligibility

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.

IV. Application and Submission Information

A. Application Process

The application process will include two phases: an optional Letter of Intent phase and a Full Application phase. EERE performs an initial eligibility review of Full Applications to determine whether they meet the eligibility requirements of Section III of the FOA. EERE will not review or consider submissions that do not meet the eligibility requirements of Section III. All submissions must conform to the following form and content requirements, including maximum page lengths (described below) and must be submitted via EERE Exchange at <https://eere-exchange.energy.gov/>, unless specifically stated otherwise. **EERE will not review or consider submissions submitted through means other than EERE Exchange, submissions submitted after the applicable deadline, and incomplete submissions.** EERE will not extend deadlines for applicants who fail to submit required information and documents for any reason, including due to

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server/connection congestion. A control number will be issued when an applicant begins the Exchange application process. This control number must be included with all Application documents, as described below.

The Letter of Intent, Full Application, and Reply to Reviewer Comments must conform to the following requirements:

- Each must be submitted in Adobe PDF format unless stated otherwise.
- Each must be written in English.
- All pages must be formatted to fit on 8.5 x 11 inch paper with margins not less than one inch on every side. Use Times New Roman typeface, a black font color, and a font size of 12 point or larger (except in figures or tables, which may be 10 point font). A symbol font may be used to insert Greek letters or special characters, but the font size requirement still applies. References must be included as footnotes or endnotes in a font size of 10 or larger. Footnotes and endnotes are counted toward the maximum page requirement.
- The Control Number must be prominently displayed on the upper right corner of the header of every page. Page numbers must be included in the footer of every page.
- Each submission must not exceed the specified maximum page limit, including cover page, charts, graphs, maps, and photographs when printed using the formatting requirements set forth above and single spaced. If applicants exceed the maximum page lengths indicated below, EERE will review only the authorized number of pages and disregard any additional pages.

Applicants are responsible for meeting each submission deadline. **Applicants are strongly encouraged to submit their Letters of Intent and Full 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), applicants should allow at least 1 hour to submit a Letter of Intent, Full Application, or Reply to Reviewer Comments. Once the Letter of Intent, Full Application, or Reply to Reviewer Comments is submitted in EERE Exchange, applicants may revise or update that submission until the expiration of the applicable deadline. If changes are made, the applicant must resubmit the Letter of Intent, Full Application, or Reply to Reviewer Comments before the applicable deadline.

EERE urges applicants to carefully review their Letters of Intent, Reply to Reviewer Comments, and Full Applications and to allow sufficient time for the submission of

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required information and documents. All Full Applications that pass the initial eligibility review will undergo comprehensive technical merit review according to the criteria identified in Section V.A.2 of the FOA.

i. Additional Information on EERE Exchange

EERE Exchange is designed to enforce the deadlines specified in this FOA. The “Apply” and “Submit” buttons will automatically disable at the defined submission deadlines. Should applicants experience problems with Exchange, the following information may be helpful.

Applicants that experience issues with submission PRIOR to the FOA deadline: In the event that an applicant experiences technical difficulties with a submission, the Application should contact the Exchange helpdesk for assistance (EERE-ExchangeSupport@hq.doe.gov). The Exchange helpdesk and/or the EERE Exchange system administrators will assist Applicants in resolving issues.

Applicants that experience issue with submissions that result in late submissions: In the event that an applicant experiences technical difficulties so severe that they are unable to submit their application by the deadline, the applicant should contact the Exchange helpdesk for assistance (EERE-ExchangeSupport@hq.doe.gov). The Exchange helpdesk and/or the EERE Exchange system administrators will assist the applicant in resolving all issues (including finalizing submission on behalf of and with the applicant’s concurrence). PLEASE NOTE, however, those applicants who are unable to submit their application on time due to their waiting until the last minute when network traffic is at its heaviest to submit their materials will not be able to use this process.

B. Application Forms

The application forms and instructions are available on EERE Exchange. To access these materials, go to <https://eere-Exchange.energy.gov> and select the appropriate funding opportunity number.

Note: The maximum file size that can be uploaded to the EERE Exchange website is 10MB. Files in excess of 10MB cannot be uploaded, and hence cannot be submitted for review. If a file exceeds 10MB but is still within the maximum page limit specified in the FOA, it must be broken into parts and denoted to that effect. For example:

ControlNumber_LeadOrganization_Project_Part_1

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ControlNumber_LeadOrganization_Project_Part_2, etc.

i. Content and Form of the Letter of Intent

It is recommended that Applicants submit a Letter of Intent by the due date set forth on the FOA cover page. Letters of Intent will be used by EERE to plan for the merit review process. The letters should not contain any proprietary or sensitive business information. The letters will not be used for down-selection purposes, and do not commit an applicant to submit an application.

Two steps are required to complete the Letter of Intent submission process. First, Applicants must create a Letter of Intent record in EERE Exchange by selecting the 'Apply' button next to the FOA; populating the required information; and selecting the 'Create Letter of Intent' button at the bottom of the record. Note that a control number will be issued when an Applicant selects the 'Apply' button in EERE Exchange. This control number must be included in the Letter of Intent document as described below, as well as in all Full Application documents.

Second, the Applicant must create a separate Letter of Intent document for email submission to EERE. The Letter of Intent must not exceed two (2) pages, including cover page, charts, graphs, maps, and photographs when printed using standard 8.5" by 11" paper with 1 inch margins (top, bottom, left, and right), single spaced. Do not include any Internet addresses (URLs) that provide information necessary to review the letter. Save the information in a single file named
"ControlNumber_LeadOrganization_LetterofIntent.pdf."

Letters of Intent must be submitted via email to the following email address:
CHPTAP@ee.doe.gov.

Each applicant must provide the following information as part of the Letter of Intent:

- Project Title;
- Regional CHPTAP Coverage Proposed
- Identify if proposing Topic Area 1 or both Topic Area 1 and Topic Area 2;
- Identify proposed Region. If proposing multiple regions, identify which region is primary and which is/are the 1 or 2 secondary

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region(s). For more information on multiple regions, see FOA section I.B.i. "Topic Areas 1: Regional CHP Technical Assistance Partnerships, Multi State Regions." Applicants may propose a maximum of three (3) CHP TAP regions. For more information on eligibility on multiple regions, see FOA section III.F. "Limitation on Number of Full Applications Eligible for Review."

- Lead Organization;
- Organization Type (Business < 500 Employees; Business > 1000 Employees; Business 500-1000 Employees; Federally Funded Research and Development Center (FFRDC); Government-Owned, Government Operated; Non-Profit; University);
- Proposed Project Team with each team member's organizational affiliation, including:
 - The Principal Investigator for the Prime Recipient;
 - Team Members (i.e., Subrecipients); and
 - Key Participants (i.e., individuals who contribute in a substantive, measureable way to the execution of the proposed project);
- Abstract – Provide a short summary (not more than 200 words in length) of the proposed project.

C. Content and Form of the Full Application

Applicants must submit a Full Application by the specified due date and time to be considered for funding under this FOA. Applicants must complete the following application forms found on the EERE Exchange website at <https://eere-Exchange.energy.gov/>, in accordance with the instructions.

All Full Application documents must be marked with the Control Number issued to the applicant. Applicants will receive a control number upon submission of their Letter of Intent, and must include that control number in the file name of their Full Application submission (i.e., Control number_Applicant Name_Full Application)."

If a Letter of Intent is not submitted, a control number will be issued when an applicant begins the Exchange application process for at Full Application.

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i. Full Application Content Requirements

EERE will not review or consider ineligible Full Applications (see Section III of the FOA).

Each Full Application shall be limited to a single concept or technology. Unrelated concepts and technologies shall not be consolidated in a single Full Application.

Full Applications must conform to the following requirements:

Submission	Components	File Name
Full Application (PDF, unless stated otherwise)	Technical Volume (See Chart in Section IV.C.ii)	ControlNumber_LeadOrganization_TechnicalVolume
	SF-424	ControlNumber_LeadOrganization_App424
	Budget Justification (EERE 335) (Microsoft Excel format. Applicants must use the template available in EERE Exchange)	ControlNumber_LeadOrganization_Budget_Justification
	Summary for Public Release (1 page limit)	ControlNumber_LeadOrganization_Summary
	Summary Slide (1 page limit, Microsoft PowerPoint format)	ControlNumber_LeadOrganization_Slide
	Subaward Budget Justification, if applicable (EERE 335) (Microsoft Excel format. Applicants must use the template available in EERE Exchange)	ControlNumber_LeadOrganization_Subaward_Budget_Justification
	Budget for FFRDC, if applicable	ControlNumber_LeadOrganization_FWP
	Authorization from cognizant Contracting Officer for FFRDC, if applicable	ControlNumber_LeadOrganization_FFRDCAuth
	SF-LLL Disclosure of Lobbying Activities	ControlNumber_LeadOrganization_SF-LLL
	Foreign Entity and Performance of Work in the United States waiver requests, if applicable	ControlNumber_LeadOrganization_Waiver

Note: The maximum file size that can be uploaded to the EERE Exchange website is 10MB. Files in excess of 10MB cannot be uploaded, and hence cannot be submitted for review. If a file exceeds 10MB but is still within the maximum page limit specified in the FOA it must be broken into parts and denoted to that effect. For example:

ControlNumber_LeadOrganization_TechnicalVolume_Part_1

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ControlNumber_LeadOrganization_TechnicalVolume_Part_2, etc.

EERE will not accept late submissions that resulted from technical difficulties due to uploading files that exceed 10MB.

EERE provides detailed guidance on the content and form of each component below.

ii. Technical Volume

The Technical Volume must be submitted in Adobe PDF format. The Technical Volume must conform to the following content and form requirements, including maximum page lengths. If applicants exceed the maximum page lengths indicated below, EERE will review only the authorized number of pages and disregard any additional pages. This volume must address the Merit Review Criteria as discussed in Section V.A.2 of the FOA. Save the Technical Volume in a single PDF file using the following convention for the title: “ControlNumber_LeadOrganization_TechnicalVolume”.

Applicants must provide sufficient citations and references to the primary research literature to justify the claims and approaches made in the Technical Volume. However, EERE and reviewers are under no obligation to review cited sources.

Technical Volume Page Limits:

- For applications proposing a CHP TAP for **one** region, the Technical Volume to the Full Application must not exceed 20 pages, including the cover page, table of contents, and all citations, charts, graphs, maps, photos, or other graphics, and must include all of the information in the table below.
- For applications proposing a CHP TAP for **two or three** regions, the Technical Volume must not exceed 30 pages for 2 regions or 40 pages for 3 regions, including the cover page, table of contents, and all citations, charts, graphs, maps, photos, or other graphics, and must include all of the information in the table below. To clarify, if an entity is selected to be a CHP TAP for multiple regions, the entity will operate one CHP TAP that covers all the selected regions, not operate two or three CHP TAPs that covers each region.

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- For applications proposing a CHP TAP and also applying for funding under Topic Area 2 (SMEs), the Technical Volume may include five additional pages (25 or 35 or 45 page limit for a single or two-region or three-region Technical Volume respectively). The page limit includes the cover page, table of contents, and all citations, charts, graphs, maps, photos, or other graphics, along with all of the information in the table below.

The above stated page limits for the Technical Volume **do not include**, Personnel Bios and/or Resumes, which are submitted as a separate attachment.

The applicant should consider the weighting of each of the evaluation criteria (see Section V.A.2 of the FOA) when preparing the Technical Volume.

SECTION/PAGE LIMIT	DESCRIPTION
Cover Page	The cover page should include the applicant's name, project title, the Region(s) to be covered, proposed budget on an annual basis (if proposing to cover multiple regions, the applicant must provide a budget for each region), both the technical and business points of contact, names of partner organizations, and any statements regarding confidentiality.
Project Overview (This section should constitute approximately 10% of the Technical Volume)	The Project Overview should contain the following information: <ul style="list-style-type: none"> • Background: The applicant should discuss the background of their organization, including the history, successes, and current efforts related to the topics of this FOA. • Project Goal: The applicant should explicitly identify the overall goals of the proposed project and the critical success factors in achieving that goal. • EERE Impact: The applicant should discuss the impact that EERE funding would have on the proposed project. Applicants should specifically explain how EERE funding, relative to prior, current, or anticipated funding from other public and private sources, is necessary to achieve the project objectives.
TOPIC AREA 1: CHP Technical Assistance (This section should constitute approximately	The CHP Technical Assistance section in the application should include the applicant's plan to identify CHP opportunities and to provide CHP Technical Assistance for end-user sites, a plan for personnel that includes how CHP TAPs will develop skills and experience of junior personnel, and include details of CHP expertise, partners engaged to support this effort and the ability to produce professional, effective means to communicate with prospective and current end users. The applicant needs to

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<p>30% of the Technical Volume)</p>	<p>demonstrate the experience of key personnel, ability of the proposed organization and its plans for completing effective CHP Technical Assistance to include the following elements:</p> <ul style="list-style-type: none"> • <u>Qualifications Screenings</u>: A plan for conducting preliminary economic and technical CHP screenings to determine simple payback combined with qualitative questions on energy use, drivers and motivations, and other factors to provide actionable next steps for site decision makers. • <u>Feasibility Assessments</u>: The applicant should provide a brief description of their proposed process to effectively analyze and relay to end users detailed technical feasibility analyses (including software to be used). • <u>Advanced Technical Assistance</u>: The applicant should provide a plan for providing a variety of site-specific, advanced technical assistance to potential end users from CHP system design to installation and commissioning as needed to move a facility through the project pipeline to CHP installation. • <u>Project Profiles</u>: The applicant should provide a plan to prepare detailed project summaries called '<u>Project Profiles</u>' that illustrate the successful installation of a CHP system and highlight CHP's value to the facility and replicability to the broader market. • <u>CHP Program-wide Initiatives</u>: The CHP TAP should describe its capability to work cooperatively with the EERE CHP Deployment Program staff to support CHP initiatives as needed in: <ul style="list-style-type: none"> ○ Market Analysis ○ Market Engagement ○ CHP for Resiliency ○ CHP Packaged Systems • A detailed plan on how the CHP TAP will follow-up and monitor progress of sites that have received CHP TAP technical assistance, in an effort to continue to move projects through the project pipeline to CHP installation. • The Applicant's above-referenced plans should address their ability to deliver unbiased CHP technical assistance that is fuel, technology and equipment neutral with no conflicts of interest. Applicants should describe any known or potential conflict of interest and address how they will mitigate and avoid any conflict of interest regarding delivery of unbiased technical assistance on CHP fuel, technology, equipment and/or policy. <p>EERE estimates approximately 50% of an applicant's activities and budget in this area.</p>
<p>TOPIC AREA 1: Market and End-User Education and Engagement</p>	<p>This section of the Technical Volume should contain a detailed plan on how the applicant will engage and educate key end-user and end-user stakeholder groups on the technical/economic potential and benefits of CHP for high technical potential markets in the proposed region. The plan</p>

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<p>(This section should constitute approximately 20% of the Technical Volume)</p>	<p>should include an overview of the applicant’s market awareness and provide a list of key partners in the region such as state energy, economic development or other agencies, cities, utilities, and nonprofits, other industry/market sector associations, or other partners.</p> <p>The Plan should include:</p> <ul style="list-style-type: none"> • A strategy, including key outreach and personnel capability, to effectively engage and educate key markets, their organizations, and individual end-users. • A communications plan, specifying key personnel, and effective delivery mechanisms to communicate and reach major players and sites in these key markets. It is anticipated that this could include webinars, workshops, and presentations at end-user association conferences; website; social media; events; partnership engagements; and other innovative strategies. • A list of existing and planned key partners in the region who can support your engagement and outreach efforts, such as industry/market sector associations, state energy economic development or other agencies, cities, utilities, nonprofits, and other partners. If available, each partner should submit a Letter of Support outlining how this relationship will lead to market transformation in their jurisdiction. • A description of how these partners will interact with the CHP TAP activities and, as appropriate, how they could bring resources to support the CHP TAP mission. <p>EERE estimates approximately 25% of an applicant’s activities and budget in this area.</p>
<p>TOPIC AREA 1: Stakeholder Education and Engagement (This section should constitute approximately 20% of the Technical Volume)</p>	<p>Each applicant must discuss their knowledge of the current state of CHP programs and policies and working relationships with key state and local stakeholders, including state energy offices, local officials, and electric and natural gas utilities in the proposed region. In addition, the applicant must present a plan to reach and develop an effective engagement strategy to maximize the education and informative ability to support state, local, and utility programs and policies. This plan must demonstrate experience with understanding state, local and utility (electric and natural gas) policies and their best practices that promote CHP installations as well as the following elements:</p> <ul style="list-style-type: none"> • A detailed strategy, including key personnel capabilities, for prioritizing states and effectively educating key program and policy stakeholders on the relevant barriers and opportunities in their state, and best practices in place at other states (utilizing EERE information and tools such as the SEE Action Guide). • A communications plan, specifying key personnel, and effective delivery mechanisms to communicate and reach key policy

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	<p>stakeholders and the most fruitful delivery mechanism for these audiences.</p> <ul style="list-style-type: none"> • A strategy, specifying key personnel, for engaging local electric and gas utilities to capitalize on opportunities and address barriers in their territories. • Provide evidence that the applicant understands the economic, financial, regulatory, and informational barriers to implementing CHP systems in the states and regions covered in the application. [Ref: Barriers to Industrial Energy Efficiency]. • A list of existing and planned key partners in the region who can support your policy efforts, such as industry/market sector associations, state energy, economic development or other agencies, cities, utilities, nonprofits, and other partners. If available, each partner should submit a Letter of Support outlining how this relationship will lead to market transformation in their jurisdiction. • Describe how these partners will interact with the CHP TAP activities and, as appropriate, how they could bring resources to support the CHP TAP mission. <p>EERE estimates approximately 20% of an applicant's activities and budget in this area.</p>
<p>TOPIC AREA 1: Project management and Coordination (This section should constitute approximately 2% of the Technical Volume)</p>	<p>Each applicant should provide a plan including personnel resources and budget for the following project management and coordination activities. It is anticipated that only limited resources need to be involved in the following activities:</p> <ul style="list-style-type: none"> • Submittal of monthly project activity summary metrics to on-line SharePoint site by the 10th of each month. • Participation in scheduled monthly Director CHP TAP Status calls (planned for one-half hour each month). • Participation in semi-annual Director Meetings hosted by EERE in Washington, DC, a CHP TAP, or another location to be specified. <p>EERE estimates approximately 5% of an applicant's activities and budget in this area.</p>
<p>TOPIC AREA 1: Technical Qualifications, Resources and Commitment (This section should constitute approximately 18% of the Technical Volume)</p>	<p>Technical Qualifications, Resources and Commitment section should contain the following information:</p> <ul style="list-style-type: none"> • Provide a list of available resources and infrastructure to support the CHP TAP program including, but not limited to: personnel [including resumes], office space and support staff, communications media and outlets, etc. • Describe the experience and qualifications of the proposed Principal Investigator/Director for the Partnership and his/her current position within the parent organization. Applicants are encouraged to propose a Co-Director.

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	<ul style="list-style-type: none"> • Describe the organizational model and the operation plan to show how the various efforts will be integrated and managed. • Provide Personnel Bios that describe the Project Team's qualifications and expertise to support the CHP TAP, with particular emphasis on engineering background. Include the roles and work to be performed by each key participant and the commitment to support the project. Proposed project team member's bios should be no more than one-page each and be supported by an attached resume. • Attach resumes (5 page limit each) for key participating team members as an appendix. Please clearly differentiate key personnel by Topic area (Topic 1 and/or Topic 2) and clearly specify direct technical experience based on the technical proposal. • Describe how the proposed CHP TAP will manage and resolve any potential conflicts of interest for other work by the team members, partners and subcontractors
<p>Note: Topic Area 2 is Optional To be eligible for consideration under Topic Area 2, an applicant must apply for funding under both Topic Area 1 and Topic Area 2. Applicants may submit an application for Topic Area 1 only, but EERE will not consider application that only address Topic Area 2. Only entities that submit applications for Topic Area 1 and Topic Area 2 and are selected as CHP TAPS under Topic Area 1 will be eligible to receive funds for Topic Area 2.</p>	
<p>TOPIC AREA 2: SMEs (optional) This section is limited to five pages. SME resumes are submitted in a separate attachment and are not part of this page limit.</p>	<p>For Topic Area 2 EERE's goal is to have a pool of SMEs to assist overall EERE CHP Deployment initiatives in specialized areas. Interested applicants should provide a short narrative highlighting the SME's specific skills and experience and a detailed resume for each proposed SME showing specific CHP expertise and skillsets in the identified areas of interest. Each applicant may propose one or more topic areas with SMEs, and it is not expected that each applicant will have SMEs in each of the areas of interest. SMEs applicants should detail their knowledge of the business case for CHP, have significant experience working in the market sector, and know the key players, drivers and motivations for the target market, and demonstrated success in communicating with market personnel on multiple organizational levels to develop CHP projects. The SME technical areas include, but applicants may propose additional, the following areas:</p> <p>Sectors of large CHP potential (industrial and commercial)</p> <ul style="list-style-type: none"> • Chemicals • Commercial buildings • Food processing • Hospitals • Institutional facilities • Paper • Petroleum & refining

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	<ul style="list-style-type: none"> • Primary metals • Universities <p>Technical areas of expertise</p> <ul style="list-style-type: none"> • Biomass and biogas CHP applications • CHP permitting codes and standards • Grid-responsive CHP applications • Hybrid renewable CHP applications • Microgrid/District Energy applications • Packaged CHP system applications • State/utility CHP program design (EE programs, renewable portfolio standards (RFP), etc.) • State/utility policies (including ratemaking, standby, interconnection, etc.) • Waste heat to power CHP applications • CHP emerging technologies and RD&D applications <p>Resumes (5 page limit each) for each technical area SME proposed should be included in the resume attachment to the application. Resumes should provide specific engineering background, qualifications, and experience, as well as other expertise for the technical areas proposed. An SME applying for multiple technical areas can provide one detailed resume that includes demonstration of the various technical areas to which they are applying.</p>
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iii. **SF-424: Application for Federal Assistance**

Complete all required fields in accordance with the instructions on the form. The list of certifications and assurances in Field 21 can be found at <http://energy.gov/management/office-management/operational-management/financial-assistance/financial-assistance-forms>, under Certifications and Assurances. Note: The dates and dollar amounts on the SF-424 are for the complete project period and not just the first project year, first phase or other subset of the project period. Save the SF-424 in a single PDF file using the following convention for the title "ControlNumber_LeadOrganization_App424".

iv. **Budget Justification Workbook (EERE 335)**

Applicants are required to complete the Budget Justification Workbook. This form is available on EERE Exchange at <https://eere-Exchange.energy.gov/>. Prime Recipients must complete each tab of the Budget Justification Workbook for the project as a whole, including all work to be performed by

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the Prime Recipient and its Subrecipients and Contractors, and provide all requested documentation (e.g., a Federally-approved rate agreement, vendor quotes). If proposing to cover multiple regions (see Section I.B.i) applicants must complete the budget justification workbook for the primary region and identify in the Technical Volume the additional amount of funding proposed to cover each secondary region. Applicants should include costs associated with required annual audits and incurred cost proposals in their proposed budget documents. The “Instructions and Summary” included with the Budget Justification Workbook will auto-populate as the applicant enters information into the Workbook. Applicants must carefully read the “Instructions and Summary” tab provided within the Budget Justification Workbook. Save the Budget Justification Workbook in a single Microsoft Excel file using the following convention for the title “ControlNumber_LeadOrganization_Budget_Justification”.

v. Summary/Abstract for Public Release

Applicants are required to submit a one-page summary/abstract of their project. The project summary/abstract must contain a summary of the proposed activity suitable for dissemination to the public. It should be a self-contained document that identifies the name of the applicant, the project director/principal investigator(s), the project title, the objectives of the project, a description of the project, including methods to be employed, the potential impact of the project (e.g., benefits, outcomes), and major participants (for collaborative projects). This document must not include any proprietary or sensitive business information as EERE may make it available to the public after selections are made. The project summary must not exceed 1 page when printed using standard 8.5 x 11 paper with 1” margins (top, bottom, left, and right) with font not smaller than 12 point. Save the Summary for Public Release in a single PDF file using the following convention for the title “ControlNumber_LeadOrganization_Summary”.

vi. Summary Slide

Applicants are required to provide a single PowerPoint slide summarizing the proposed project. The slide must be submitted in Microsoft PowerPoint format. This slide is used during the evaluation process. Save the Summary Slide in a single file using the following convention for the title “ControlNumber_LeadOrganization_Slide”.

The Summary Slide template requires the following information:

- A technology/project Summary;

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- A description of the technology's/project's impact;
- Proposed project goals;
- Any key graphics (illustrations, charts and/or tables);
- The project's key idea/takeaway;
- Project title, Prime Recipient, Principal Investigator, and Key Participant information; and
- Requested EERE funds and proposed applicant cost share.

vii. Subaward Budget Justification (EERE 335) (if applicable)

Applicants must provide a separate budget justification, EERE 335 (i.e., budget justification for each budget year and a cumulative budget) for each subawardee that is expected to perform work estimated to be more than \$250,000 or 25 percent of the total work effort (whichever is less). The budget justification must include the same justification information described in the "Budget Justification" section above. Save each subaward budget justification in a Microsoft Excel file using the following convention for the title "ControlNumber_LeadOrganization_Subawardee_Budget_Justification".

viii. Budget for DOE/NNSA FFRDC (if applicable)

If a DOE/NNSA FFRDC contractor is to perform a portion of the work, the applicant must provide a DOE Field Work Proposal (FWP) in accordance with the requirements in DOE Order 412.1, Work Authorization System. DOE Order 412.1 and DOE O 412.1 (Field Work Proposal form) area available at the following link, under "DOE Budget Forms":
<https://www.directives.doe.gov/directives/0412.1-BOrder-a/view>. Save the FWP in a single PDF file using the following convention for the title "ControlNumber_LeadOrganization_FWP".

ix. Authorization for non-DOE/NNSA or DOE/NNSA FFRDCs (if applicable)

The Federal agency sponsoring the FFRDC must authorize in writing the use of the FFRDC on the proposed project and this authorization must be submitted with the application. The use of a FFRDC must be consistent with the contractor's authority under its award. Save the Authorization in a single PDF file using the following convention for the title "ControlNumber_LeadOrganization_FFRDCAuth".

x. SF-LLL: Disclosure of Lobbying Activities

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Prime Recipients and Subrecipients may not use any Federal funds to influence or attempt to influence, directly or indirectly, congressional action on any legislative or appropriation matters.

Prime Recipients and Subrecipients are required to complete and submit SF-LLL, "Disclosure of Lobbying Activities" (<http://www.whitehouse.gov/sites/default/files/omb/grants/sflllin.pdf>) if any non-Federal funds have been paid or will be paid to any person for influencing or attempting to influence any of the following in connection with your application:

- An officer or employee of any Federal agency;
- A Member of Congress;
- An officer or employee of Congress; or
- An employee of a Member of Congress.

Save the SF-LLL in a single PDF file using the following convention for the title "ControlNumber_LeadOrganization_SF-LLL".

xi. Waiver Requests: Foreign Entities and Performance of Work in the United States (if applicable)

1. Foreign Entity Participation:

As set forth in Section III.A.iii, all Prime Recipients receiving funding under this FOA must be incorporated (or otherwise formed) under the laws of a State or territory of the United States. To request a waiver of this requirement, the applicant must submit an explicit waiver request in the Full Application. Appendix C lists the necessary information that must be included in a request to waive this requirement.

2. Performance of Work in the United States

As set forth in Section IV.I.iii, 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. Appendix C lists the necessary information that must be included in a request to waive the Performance of Work in the United States requirement.

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Save the Waiver in a single PDF file using the following convention for the title "ControlNumber_LeadOrganization_Waiver".

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D. Content and Form of Replies to Reviewer Comments

EERE will provide applicants with reviewer comments following evaluation of all eligible Full Applications. Applicants will have a brief opportunity to review the comments and to prepare a short Reply to Reviewer Comments responding to comments however they desire or supplementing their Full Application. The Reply to Reviewer Comments is an optional submission; applicants are not required to submit a Reply to Reviewer Comments. EERE will notify applicants via email when the Reviewer Comments are available for reply. The expected submission deadline is on the cover page of the FOA; however, it is the applicant's responsibility to monitor email in the event that the expected date changes. The deadline will not be extended for applicants who are unable to timely submit their reply due to failure to check email or relying on the expected date alone. Applicants should anticipate having approximately three (3) business days to submit Replies to Reviewer Comments.

EERE will not review or consider ineligible Replies to Reviewer Comments (see Section III of the FOA). EERE will review and consider each eligible Full Application, even if no Reply is submitted or if the Reply is found to be ineligible.

Replies to Reviewer Comments must conform to the following content and form requirements, including maximum page lengths, described below. If a Reply to Reviewer Comments is more than three pages in length, EERE will review only the first three (3) pages and disregard any additional pages.

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

E. Post-Award Information Requests

If selected for award, EERE reserves the right to request additional or clarifying information for any reason deemed necessary, including but not limited to:

- Indirect cost information
- Other budget information

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- Commitment Letters from Third Parties Contributing to Cost Share, if applicable
- Name and phone number of the Designated Responsible Employee for complying with national policies prohibiting discrimination (See 10 CFR 1040.5)
- Representation of Limited Rights Data and Restricted Software, if applicable
- Environmental Questionnaire

F. Dun and Bradstreet Universal Numbering System Number and System for Award Management

Each applicant (unless the applicant is an individual or Federal awarding agency that is excepted from those requirements under 2 CFR §25.110(b) or (c), or has an exception approved by the Federal awarding agency under 2 CFR §25.110(d)) is required to: (1) Be registered in the System for Award Management (SAM) at <https://www.sam.gov> before submitting its application; (2) provide a valid Dun and Bradstreet Universal Numbering System (DUNS) number in its application; and (3) continue to maintain an active SAM registration with current information at all times during which it has an active Federal award or an application or plan under consideration by a Federal awarding agency. EERE may not make a Federal award to an applicant until the applicant has complied with all applicable DUNS and SAM requirements and, if an applicant has not fully complied with the requirements by the time EERE is ready to make a Federal award, EERE may determine that the applicant is not qualified to receive a Federal award and use that determination as a basis for making a Federal award to another applicant.

G. Submission Dates and Times

Letters of Intent, Full Applications, and Replies to Reviewer Comments must be submitted in EERE Exchange no later than 5 p.m. Eastern on the dates provided on the cover page of this FOA.

H. Intergovernmental Review

This FOA is not subject to Executive Order 12372 – Intergovernmental Review of Federal Programs.

I. Funding Restrictions

i. Allowable Costs

All expenditures must be allowable, allocable, and reasonable in accordance with the applicable Federal cost principles.

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Refer to the following applicable Federal cost principles for more information:

- FAR Part 31 for For-Profit entities; and
- 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.

ii. Pre-Award Costs

Selectees must request prior written approval to charge pre-award costs. Pre-award costs are those incurred prior to the effective date of the Federal award directly pursuant to the negotiation and in anticipation of the Federal award where such costs are necessary for efficient and timely performance of the scope of work. Such costs are allowable only to the extent that they would have been allowable if incurred after the date of the Federal award and **only** with the written approval of the Federal awarding agency, through the Contracting Officer assigned to the award.

Pre-award costs cannot be incurred prior to the Selection Official signing the Selection Statement and Analysis. Pre-award costs can only be incurred if such costs would be reimbursable under the agreement if incurred after award.

Pre-Award expenditures are made at the Selectee's risk; EERE is not obligated to reimburse costs: (1) in the absence of appropriations; (2) if an award is not made; or (3) if an award is made for a lesser amount than the Selectee anticipated.

1. Pre-Award Costs Related to National Environmental Policy Act (NEPA) Requirements

EERE's decision whether and how to distribute Federal funds under this FOA is subject to NEPA. Applicants should carefully consider and should seek legal counsel or other expert advice before taking any action related to the proposed project that would have an adverse effect on the environment or limit the choice of reasonable alternatives prior to EERE completing the NEPA review process.

EERE does not guarantee or assume any obligation to reimburse costs where the Prime Recipient incurred the costs prior to receiving written authorization from the Contracting Officer. If the applicant elects to

undertake activities that may have an adverse effect on the environment or limit the choice of reasonable alternatives prior to receiving such written authorization from the Contracting Officer, the applicant is doing so at risk of not receiving Federal funding and such costs may not be recognized as allowable cost share. Likewise, if a project is selected for negotiation of award, and the Prime Recipient elects to undertake activities that are not authorized for Federal funding by the Contracting Officer in advance of EERE completing a NEPA review, the Prime Recipient is doing so at risk of not receiving Federal Funding and such costs may not be recognized as allowable cost share. Nothing contained in the pre-award cost reimbursement regulations or any pre-award costs approval letter from the Contracting Officer override these NEPA requirements to obtain the written authorization from the Contracting Officer prior to taking any action that may have an adverse effect on the environment or limit the choice of reasonable alternatives.

iii. Performance of Work in the United States

1. Requirement

All work performed under EERE Awards must be performed in the United States. This requirement does not apply to the purchase of supplies and equipment; however, the Prime Recipient should make every effort to purchase supplies and equipment within the United States. The Prime Recipient must flow down this requirement to its Subrecipients.

2. Failure to Comply

If the Prime Recipient fails to comply with the Performance of Work in the United States requirement, EERE may deny reimbursement for the work conducted outside the United States and such costs may not be recognized as allowable recipient cost share. The Prime Recipient is responsible should any work under this Award be performed outside the United States, absent a waiver, regardless of if the work is performed by the Prime Recipient, Subrecipients, contractors or other project partners.

3. Waiver

There may be limited circumstances where it is in the interest of the project to perform a portion of the work outside the United States. To seek a waiver of the Performance of Work in the United States requirement, the applicant must submit a written waiver request to EERE. Appendix C lists the necessary information that must be included

in a request to waive the Performance of Work in the United States requirement.

The applicant must demonstrate to the satisfaction of EERE that a waiver would further the purposes of the FOA and is in the economic interests of the United States. EERE may require additional information before considering a waiver request. Save the waiver request(s) in a single PDF file titled "ControlNumber_LeadOrganization_Waiver". The applicant does not have the right to appeal EERE's decision concerning a waiver request.

iv. Construction

Recipients are required to obtain written authorization from the Contracting Officer before incurring any major construction costs.

v. Foreign Travel

Foreign travel costs are not allowable under this FOA.

vi. Equipment and Supplies

To the greatest extent practicable, all equipment and products purchased with funds made available under this FOA should be American-made. This requirement does not apply to used or leased equipment.

Property disposition will be required at the end of a project if the current fair market value of property exceeds \$5,000. The rules for property disposition are set forth in 2 CFR 200.310 – 200.316 as amended by 2 CFR 910.360.

vii. Lobbying

Recipients and Subrecipients may not use any Federal funds to influence or attempt to influence, directly or indirectly, congressional action on any legislative or appropriation matters.

Recipients and Subrecipients are required to complete and submit SF-LLL, "Disclosure of Lobbying Activities"

(<http://www.whitehouse.gov/sites/default/files/omb/grants/sfillin.pdf>) if any non-Federal funds have been paid or will be paid to any person for influencing or attempting to influence any of the following in connection with your application:

- An officer or employee of any Federal agency;

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- A Member of Congress;
- An officer or employee of Congress; or
- An employee of a Member of Congress.

viii. Risk Assessment

Prior to making a Federal award, the EERE is required by 31 U.S.C. 3321 and 41 U.S.C. 2313 to review information available through any OMB-designated repositories of government-wide eligibility qualification or financial integrity information, such as SAM Exclusions and “Do Not Pay.”

In addition, EERE evaluates the risk(s) posed by applicants before they receive Federal awards. This evaluation may consider: results of the evaluation of the applicant's eligibility; the quality of the application; financial stability; quality of management systems and ability to meet the management standards prescribed in this part; history of performance; reports and findings from audits; and the applicant's ability to effectively implement statutory, regulatory, or other requirements imposed on non-Federal entities.

In addition to this review, EERE must comply with the guidelines on government-wide suspension and debarment in 2 CFR 180, and must require non-Federal entities to comply with these provisions. These provisions restrict Federal awards, subawards and contracts with certain parties that are debarred, suspended or otherwise excluded from or ineligible for participation in Federal programs or activities.

ix. Invoice Review and Approval

EERE employs a risk-based approach to determine the level of supporting documentation required for approving invoice payments. Recipients may be required to provide some or all of the following items with their requests for reimbursement:

- Summary of costs by cost categories
- Timesheets or personnel hours report
- Invoices/receipts for all travel, equipment, supplies, contractual, and other costs
- UCC filing proof for equipment acquired with project funds by for-profit recipients and subrecipients
- Explanation of cost share for invoicing period
- Analogous information for some subrecipients

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- Other items as required by EERE

V. Application Review Information

A. Technical Review Criteria

i. Full Applications

Applications will be evaluated against the merit review criteria shown below. All sub-criteria are of equal weight.

Criterion 1: Performance of CHP Technical Assistance (40%)

- Proposed personnel's knowledge and experience working in CHP deployment;
- Proposed personnel's knowledge of the CHP marketplace relative to where technical assistance will have the greatest impact for catalyzing CHP deployment in the U.S.;
- Proposed personnel experience with CHP Qualification Screening, Feasibility Assessments, Advanced Technical Assistance and developing high quality Project Profiles;
- Proposed plans and processes for conducting Qualification Screening, Feasibility Assessments, Advanced Technical Assistance, developing high quality Project Profiles, providing support for CHP Program-wide Activities, as well as follow-up and monitoring of technical assistance provided;
- Quality of proposed plan to develop and train junior personnel; and
- Quality of proposed plan to deliver unbiased CHP technical assistance with no conflict of interest.

For Applicants who included Topic Area 2:

- Quality and experience of SMEs proposed for identified technical areas, as well as reasonableness of the scope and budget for the SMEs.

Criterion 2: Market and End-User Education and Engagement (25%)

- Ability to effectively engage and educate key markets, their organizations and end-users to ultimately increase CHP deployment in the U.S.;

- Knowledge of strategic market key players, organizational structure with interest in portfolio analysis, drivers and motivations, and strategies of engagement of particular value to the strategic market;
- Quality of communication plan for engagement of end-users and other major players with a focus on getting more CHP deployed; and
- Quality of stakeholders and partners identified to support engagement and outreach efforts in order to increase the market for CHP. Includes the commitment provided in letters of support from project partners

Criterion 3: Stakeholder Education and Engagement (25%)

- In-depth demonstrated understanding of the policies influencing CHP deployment and knowledge of efforts across the country to be more conducive to CHP at the state, local and utility levels;
- Quality of the communications plan and ability to effectively engage state, local and utility (both electric and natural gas) stakeholders to ultimately increase CHP deployment in the US;
- Clarity of plan and likelihood for success in increasing deployment of CHP in the US through stakeholder engagement and education;
- Demonstrated understanding of the economic and financial, regulatory and informational barriers to implementing CHP systems in the states and regions covered in the application; and
- Quality of stakeholders and partners identified to support policy efforts including the commitment provided in letters of support from project partners.

Criterion 4: Project Management and Coordination, and Technical Qualifications (10%)

- Adequacy of plan to provide resources and budget for project management and coordination activities;
- Adequacy of resources and infrastructure for CHP TAP operations including personnel, office space and other necessary items;
- Experience and qualifications of proposed Director and co-Director (if applicable) and the rest of the proposed project team; and
- Quality of organizational model proposed to integrate and manage CHP TAP activities.

ii. Criteria for Replies to Reviewer Comments

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EERE has not established separate criteria to evaluate Replies to Reviewer Comments. Instead, Replies to Reviewer Comments are attached to the original applications and evaluated as an extension of the Full Application.

B. Standards for Application Evaluation

Applications that are determined to be eligible will be evaluated in accordance with this FOA, by the standards set forth in EERE's Notice of Objective Merit Review Procedure (76 Fed. Reg. 17846, March 31, 2011) and the guidance provided in the "Department of Energy Merit Review Guide for Financial Assistance," which is available at:

<http://energy.gov/management/downloads/merit-review-guide-financial-assistance>.

C. Other Selection Factors

i. Program Policy Factors

In addition to the above criteria, the Selection Official may consider the following program policy factors in determining which Full Applications to select for award negotiations:

- Past performance of a currently active CHP TAP with regards to the delivery of technical assistance per the approved Statement of Project Objectives;
- The degree to which the proposed project, or group of projects, represents a desired geographic distribution, ensures full national coverage, and avoids coverage of one defined region by more than one selected applicant;
- The degree to which the proposed project, including any proposed cost share, optimizes the use of available EERE funding to achieve programmatic objectives;
- Technical, market, organizational, and environmental risks associated with the project;
- The degree to which the proposed project collectively represents diverse types and sizes of applicant organizations;
- The extent to which the proposed project is likely to lead to increased employment and competitiveness in the United States; and
- The extent to which the proposed project will accelerate CHP installations in areas that industrial, commercial, institutional facilities and others by themselves are not likely to undertake because of technical and financial uncertainty.

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D. Evaluation and Selection Process

i. Overview

The evaluation process consists of multiple phases; each includes an initial eligibility review and a thorough technical review. Rigorous technical reviews of eligible submissions 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, in determining which applications to select.

ii. Pre-Selection Interviews

As part of the evaluation and selection process, EERE may invite one or more applicants to participate in Pre-Selection Interviews. Pre-Selection Interviews are distinct from and more formal than pre-selection clarifications (See Sections V.D.ii and V.D.iii of the FOA). The invited applicant(s) will meet with EERE representatives to provide clarification on the contents of the Full Applications and to provide EERE an opportunity to ask questions regarding the proposed project. The information provided by applicants to EERE through Pre-Selection Interviews contributes to EERE's selection decisions.

EERE will arrange to meet with the invited applicants in person at EERE's offices or a mutually agreed upon location. EERE may also arrange site visits at certain applicants' facilities. In the alternative, EERE may invite certain applicants to participate in a one-on-one conference with EERE via webinar, videoconference, or conference call.

EERE will not reimburse applicants for travel and other expenses relating to the Pre-Selection Interviews, nor will these costs be eligible for reimbursement as pre-award costs.

EERE may obtain additional information through Pre-Selection Interviews that will be used to make a final selection determination. EERE may select applications for funding and make awards without Pre-Selection Interviews. Participation in Pre-Selection Interviews with EERE does not signify that applicants have been selected for award negotiations.

iii. Pre-Selection Clarification

EERE may determine that pre-selection clarifications are necessary from one or more applicants. Pre-selection clarifications are distinct from and less formal than pre-selection interviews. These pre-selection clarifications will solely be for the purposes of clarifying the application, and will be limited to

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information already provided in the application documentation. The pre-selection clarifications may occur before, during or after the merit review evaluation process. Information provided by an applicant that is not necessary to address the pre-selection clarification question will not be reviewed or considered. Typically, a pre-selection clarification will be carried out through either written responses to EERE's written clarification questions or video or conference calls with EERE representatives.

The information provided by applicants to EERE through pre-selection clarifications is incorporated in their applications and contributes to the merit review evaluation and EERE's selection decisions. If EERE contacts an applicant for pre-selection clarification purposes, it does not signify that the applicant has been selected for negotiation of award or that the applicant is among the top ranked applications.

EERE will not reimburse applicants for expenses relating to the pre-selection clarifications, nor will these costs be eligible for reimbursement as pre-award costs.

iv. Recipient Integrity and Performance Matters

EERE, prior to making a Federal award with a total amount of Federal share greater than the simplified acquisition threshold, is required to review and consider any information about the applicant that is in the designated integrity and performance system accessible through SAM (currently FAPIIS) (see 41 U.S.C. 2313).

The applicant, at its option, may review information in the designated integrity and performance systems accessible through SAM and comment on any information about itself that a Federal awarding agency previously entered and is currently in the designated integrity and performance system accessible through SAM.

EERE will consider any written comments by the applicant, in addition to the other information in the designated integrity and performance system, in making a judgment about the applicant's integrity, business ethics, and record of performance under Federal awards when completing the review of risk posed by applicants as described in 2 C.F.R. § 200.205.

v. Selection

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The Selection Official may consider the technical merit, the Federal Consensus Board's recommendations, program policy factors, and the amount of funds available in arriving at selections for this FOA.

E. Anticipated Notice of Selection and Award Dates

EERE anticipates notifying applicants selected for negotiation of award by late Spring 2017 and making awards by August 2017.

VI. Award Administration Information

A. Award Notices

i. Ineligible Submissions

Ineligible Full Applications will not be further reviewed or considered for award. The Contracting Officer will send a notification letter by email to the technical and administrative points of contact designated by the applicant in EERE Exchange. The notification letter will state the basis upon which the Full Application is ineligible and not considered for further review.

ii. Full Application Notifications

EERE will notify applicants of its determination via a notification letter by email to the technical and administrative points of contact designated by the applicant in EERE Exchange. The notification letter will inform the applicant whether or not its Full Application was selected for award negotiations. Alternatively, EERE may notify one or more applicants that a final selection determination on particular Full Applications will be made at a later date, subject to the availability of funds or other factors.

iii. Successful Applicants

Receipt of a notification letter selecting a Full Application for award negotiations does not authorize the applicant to commence performance of the project. If an application is selected for award negotiations, it is not a commitment by EERE to issue an award. Applicants do not receive an award until award negotiations are complete and the Contracting Officer executes the funding agreement, accessible by the Prime Recipient in FedConnect.

The award negotiation process will take approximately 60 days. Applicants must designate a primary and a backup point-of-contact in EERE Exchange with whom EERE will communicate to conduct award negotiations. The applicant must be responsive during award negotiations (i.e., provide

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requested documentation) and meet the negotiation deadlines. If the applicant fails to do so or if award negotiations are otherwise unsuccessful, EERE will cancel the award negotiations and rescind the Selection. EERE reserves the right to terminate award negotiations at any time for any reason.

Please refer to Section IV.J.ii of the FOA for guidance on pre-award costs.

iv. Alternate Selection Determinations

In some instances, an applicant may receive a notification that its application was not selected for award and EERE designated the application to be an alternate. As an alternate, EERE may consider the Full Application for Federal funding in the future. A notification letter stating the Full Application is designated as an alternate does not authorize the applicant to commence performance of the project. EERE may ultimately determine to select or not select the Full Application for award negotiations.

v. Unsuccessful Applicants

EERE shall promptly notify in writing each applicant whose application has not been selected for award or whose application cannot be funded because of the unavailability of appropriated funds.

B. Administrative and National Policy Requirements

i. Registration Requirements

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. These requirements are as follows:

1. EERE Exchange

Register and create an account on EERE Exchange at <https://eere-Exchange.energy.gov>.

This account will then allow the user to register for any open EERE FOAs that are currently in EERE Exchange. It is recommended that each organization or business unit, whether acting as a team or a single entity, use only one account as the contact point for each submission. Applicants should also designate backup points of contact so they may be easily

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contacted if deemed necessary. **This step is required to apply to this FOA.**

The EERE Exchange registration does not have a delay; however, **the remaining registration requirements below could take several weeks to process and are necessary for a potential applicant to receive an award under this FOA.**

2. DUNS Number

Obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number (including the plus 4 extension, if applicable) at <http://fedgov.dnb.com/webform>.

3. System for Award Management

Register with the System for Award Management (SAM) at <https://www.sam.gov>. 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.

4. FedConnect

Register in FedConnect at <https://www.fedconnect.net>. 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 https://www.fedconnect.net/FedConnect/Marketing/Documents/FedConnect_Ready_Set_Go.pdf.

5. Grants.gov

Register in Grants.gov (<http://www.grants.gov>) to receive automatic updates when Amendments to this FOA are posted. However, please note that Letters of Intent and Full Applications will not be accepted through Grants.gov.

6. Electronic Authorization of Applications and Award Documents

Submission of an application and supplemental information under this FOA through electronic systems used by the Department of Energy, including EERE Exchange and FedConnect.net, constitutes the authorized representative's approval and electronic signature.

ii. Award Administrative Requirements

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The administrative requirements for EERE grants and cooperative agreements are contained in 2 CFR Part 200 as amended by 2 CFR Part 910.

iii. Foreign National Access to DOE Sites

All applicants that ultimately enter into an award resulting from this FOA will be subject to the following requirement concerning foreign national involvement. Upon DOE's request, Prime Recipients must provide information to facilitate DOE's responsibilities associated with foreign national access to DOE sites, information, technologies, and equipment. A foreign national is defined as any person who was born outside the jurisdiction of the United States, is a citizen of a foreign government, and has not been naturalized under U.S. law. If the Prime Recipient or Subrecipients, contractors or vendors under the award, anticipate utilizing a foreign national person in the performance of an award, the Prime Recipient is responsible for providing to the Contracting Officer specific information of the foreign national(s) to satisfy compliance with all of the requirements for access approval.

iv. Subaward and Executive Reporting

Additional administrative requirements necessary for EERE grants and cooperative agreements to comply with the Federal Funding and Transparency Act of 2006 (FFATA) are contained in 2 CFR Part 170. Prime Recipients must register with the new FFATA Subaward Reporting System database and report the required data on their first tier Subrecipients. Prime Recipients must report the executive compensation for their own executives as part of their registration profile in SAM.

v. National Policy Requirements

The National Policy Assurances that are incorporated as a term and condition of award are located at: <http://www.nsf.gov/awards/managing/rtrc.jsp>.

vi. Environmental Review in Accordance with National Environmental Policy Act (NEPA)

EERE's decision whether and how to distribute federal funds under this FOA is subject to the National Environmental Policy Act (42 USC 4321, *et seq.*). NEPA requires Federal agencies to integrate environmental values into their decision-making processes by considering the potential environmental impacts of their proposed actions. For additional background on NEPA, please see DOE's NEPA website, at <http://nepa.energy.gov/>.

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While NEPA compliance is a Federal agency responsibility and the ultimate decisions remain with the Federal agency, all recipients selected for an award will be required to assist in the timely and effective completion of the NEPA process in the manner most pertinent to their proposed project. If EERE determines certain records must be prepared to complete the NEPA review process (e.g., biological evaluations or environmental assessments), the costs to prepare the necessary records may be included as part of the project costs.

vii. Applicant Representations and Certifications

1. Lobbying Restrictions

By accepting funds under this award, the Prime Recipient agrees that none of the funds obligated on the award shall be expended, directly or indirectly, to influence Congressional action on any legislation or appropriation matters pending before Congress, other than to communicate to Members of Congress as described in 18 U.S.C. §1913. This restriction is in addition to those prescribed elsewhere in statute and regulation.

2. Corporate Felony Conviction and Federal Tax Liability Representations

In submitting an application in response to this FOA, the applicant represents that:

- a. It is **not** a corporation that has been convicted of a felony criminal violation under any Federal law within the preceding 24 months, and
- b. It is **not** a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

For purposes of these representations the following definitions apply:

A Corporation includes any entity that has filed articles of incorporation in any of the 50 states, the District of Columbia, or the various territories of the United States [but not foreign corporations]. It includes both for-profit and non-profit organizations.

3. Nondisclosure and Confidentiality Agreements Representations

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In submitting an application in response to this FOA the applicant represents that:

- a. It **does not and will not** require its employees or contractors to sign internal nondisclosure or confidentiality agreements or statements prohibiting or otherwise restricting its employees or contractors from lawfully reporting waste, fraud, or abuse to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information.
- b. It **does not and will not** use any Federal funds to implement or enforce any nondisclosure and/or confidentiality policy, form, or agreement it uses unless it contains the following provisions:
 - (1) *“These provisions are consistent with and do not supersede, conflict with, or otherwise alter the employee obligations, rights, or liabilities created by existing statute or Executive order relating to (1) classified information, (2) communications to Congress, (3) the reporting to an Inspector General of a violation of any law, rule, or regulation, or mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety, or (4) any other whistleblower protection. The definitions, requirements, obligations, rights, sanctions, and liabilities created by controlling Executive orders and statutory provisions are incorporated into this agreement and are controlling.”*
 - (2) The limitation above shall not contravene requirements applicable to Standard Form 312, Form 4414, or any other form issued by a Federal department or agency governing the nondisclosure of classified information.
 - (3) Notwithstanding the provision listed in paragraph (a), a nondisclosure or confidentiality policy form or agreement that is to be executed by a person connected with the conduct of an intelligence or intelligence-related activity,

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other than an employee or officer of the United States Government, may contain provisions appropriate to the particular activity for which such document is to be used. Such form or agreement shall, at a minimum, require that the person will not disclose any classified information received in the course of such activity unless specifically authorized to do so by the United States Government. Such nondisclosure or confidentiality forms shall also make it clear that they do not bar disclosures to Congress, or to an authorized official of an executive agency or the Department of Justice, that are essential to reporting a substantial violation of law.

viii. Statement of Federal Stewardship

EERE will exercise normal Federal stewardship in overseeing the project activities performed under EERE Awards. Stewardship Activities include, but are not limited to, conducting site visits; reviewing performance and financial reports, providing assistance and/or temporary intervention in usual circumstances to correct deficiencies that develop during the project; assuring compliance with terms and conditions; and reviewing technical performance for periodic go/no go decisions and after project completion to ensure that the project objectives have been accomplished.

ix. Statement of Substantial Involvement

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

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

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4. EERE participates in major project decision-making processes.
5. EERE will collaborate with each CHP-TAPs and foster collaboration and coordination between all CHP-TAPs.

x. Intellectual Property Provisions

The standard DOE financial assistance intellectual property provisions applicable to the various types of recipients are located at

<https://energy.gov/gc/standard-intellectual-property-ip-provisions-financial-assistance-awards>.

xi. Reporting

Reporting requirements are identified on the Federal Assistance Reporting Checklist, attached to the award agreement. The checklist can be accessed at <https://energy.gov/management/downloads/federal-assistance-reporting-checklist-and-instructions-rdd-projects>.

Additionally, monthly metrics reports of programmatic activities are required for activity coordination among CHPTAPs and also for tracking annual activity goals.

xii. Go/No-Go Review

Each project selected under this FOA will be subject to a periodic project evaluation referred to as a Go/No-Go Review. Federal funding beyond the Go/No Go decision point (continuation funding), is contingent on (1) the availability of funds appropriated by Congress for the purpose of this program and the availability of future-year budget authority; (2) meeting the objectives, milestones, deliverables, and decision point criteria of recipient's approved project and obtaining approval from EERE to continue work on the project; and (3) the submittal of required reports in accordance with the Statement of Project Objectives.

As a result of the Go/No Go Review, EERE may, at its discretion, authorize the following actions: (1) continue to fund the project, contingent upon the availability of funds appropriated by Congress for the purpose of this program and the availability of future-year budget authority; (2) recommend redirection of work under the project; (3) place a hold on federal funding for the project, pending further supporting data or funding; or (4) discontinue funding the project because of insufficient progress, change in strategic direction, or lack of funding.

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The Go/No-Go decision is distinct from a non-compliance determination. In the event a recipient fails to comply with the requirements of an award, EERE may take appropriate action, including but not limited to, redirecting, suspending or terminating the award.

xiii. Conference Spending

The recipient shall not expend any funds on a conference not directly and programmatically related to the purpose for which the grant or cooperative agreement was awarded that would defray the cost to the United States Government of a conference held by any Executive branch department, agency, board, commission, or office for which the cost to the United States Government would otherwise exceed \$20,000, thereby circumventing the required notification by the head of any such Executive Branch department, agency, board, commission, or office to the Inspector General (or senior ethics official for any entity without an Inspector General), of the date, location, and number of employees attending such conference.

xiv. UCC Financing Statements

Per 2 CFR 910.360 (Real Property and Equipment) when a piece of equipment is purchased by a for-profit recipient or subrecipient with Federal Funds, and when the Federal share of the financial assistance agreement is more than \$1,000,000, the recipient or subrecipient must:

Properly record, and consent to the Department's ability to properly record if the recipient fails to do so, UCC financing statement(s) for all equipment in excess of \$5,000 purchased with project funds. These financing statement(s) must be approved in writing by the contracting officer prior to the recording, and they shall provide notice that the Recipient's title to all equipment (not real property) purchased with Federal funds under the financial assistance agreement is conditional pursuant to the terms of this section, and that the Government retains an undivided reversionary interest in the equipment. The UCC financing statement(s) must be filed before the Contracting Officer may reimburse the recipient for the Federal share of the equipment unless otherwise provided for in the relevant financial assistance agreement. The recipient shall further make any amendments to the financing statements or additional recordings, including appropriate continuation statements, as necessary or as the contracting officer may direct.

VII. Questions/Agency Contacts

Upon the issuance of a FOA, EERE personnel are prohibited from communicating (in writing or otherwise) with applicants regarding the FOA except through the established

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question and answer process as described below. Specifically, questions regarding the content of this FOA must be submitted to: CHPTAP@ee.doe.gov. Questions must be submitted not later than 3 business days prior to the application due date and time.

All questions and answers related to this FOA will be posted on EERE Exchange at: <https://eere-exchange.energy.gov>. **Please note that you must first select this specific FOA Number in order to view the questions and answers specific to this FOA.** EERE will attempt to respond to a question within 3 business days, unless a similar question and answer has already been posted on the website.

Questions related to the registration process and use of the EERE Exchange website should be submitted to: EERE-ExchangeSupport@hq.doe.gov.

VIII. Other Information

A. FOA Modifications

Amendments to this FOA will be posted on the EERE Exchange website and the Grants.gov system. However, you will only receive an email when an amendment or a FOA is posted on these sites if you register for email notifications for this FOA in Grants.gov. EERE recommends that you register as soon after the release of the FOA as possible to ensure you receive timely notice of any amendments or other FOAs.

B. Informational Webinar

EERE will conduct one informational webinar during the FOA process. It will be held after the initial FOA release but before the due date for Letters of Intent.

Attendance is not mandatory and will not positively or negatively impact the overall review of any applicant submissions. As the webinar will be open to all applicants who wish to participate, applicants should refrain from asking questions or communicating information that would reveal confidential and/or proprietary information specific to their project. Specific dates for the webinar can be found on the cover page of the FOA.

C. Government Right to Reject or Negotiate

EERE reserves the right, without qualification, to reject any or all applications received in response to this FOA and to select any application, in whole or in part, as a basis for negotiation and/or award.

D. Commitment of Public Funds

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The Contracting Officer is the only individual who can make awards or commit the Government to the expenditure of public funds. A commitment by anyone other than the Contracting Officer, either express or implied, is invalid.

E. Treatment of Application Information

In general, EERE will only use data and other information contained in applications for evaluation purposes, unless such information is generally available to the public or is already the property of the Government.

Applicants should not include trade secrets or commercial or financial information that is privileged or confidential in their application unless such information is necessary to convey an understanding of the proposed project or to comply with a requirement in the FOA.

The use of protective markings such as “Do Not Publicly Release – Trade Secret” or “Do Not Publicly Release – Confidential Business Information” is encouraged. However, applicants should be aware that the use of protective markings is not dispositive as to whether information will be publicly released pursuant to the Freedom of Information Act, 5 U.S.C. §552, et. seq., as amended by the OPEN Government Act of 2007, Pub. L. No. 110-175. (See Section I of this document, “Notice of Potential Disclosure Under the Freedom of Information Act (FOIA)” for additional information regarding the public release of information under the Freedom of Information Act.

Applicants are encouraged to employ protective markings in the following manner:

The cover sheet of the application must be marked as follows and identify the specific pages containing trade secrets or commercial or financial information that is privileged or confidential:

Notice of Restriction on Disclosure and Use of Data:

Pages [list applicable pages] of this document may contain trade secrets or commercial or financial information that is privileged or confidential, and is exempt from public disclosure. Such information shall be used or disclosed only for evaluation purposes or in accordance with a financial assistance or loan agreement between the submitter and the Government. The Government may use or disclose any information that is not appropriately marked or otherwise restricted, regardless of source.
[End of Notice]

The header and footer of every page that contains trade secrets or commercial or financial information that is privileged must be marked as follows: “May contain trade secrets or commercial or financial information that is privileged or confidential and exempt from public disclosure.”

In addition, each line or paragraph containing trade secrets or commercial or financial information that is privileged or confidential must be enclosed in brackets.

F. Evaluation and Administration by Non-Federal Personnel

In conducting the merit review evaluation, the Go/No-Go Review and Peer Review, the Government may seek the advice of qualified non Federal personnel as reviewers. The Government may also use non-Federal personnel to conduct routine, nondiscretionary administrative activities. The applicant, by submitting its application, consents to the use of non-Federal reviewers/administrators. Non-Federal reviewers must sign conflict of interest and non-disclosure agreements prior to reviewing an application. Non-Federal personnel conducting administrative activities must sign a non-disclosure agreement.

G. Notice Regarding Eligible/Ineligible Activities

Eligible activities under this FOA include those which describe and promote the understanding of scientific and technical aspects of specific energy technologies, but not those which encourage or support political activities such as the collection and dissemination of information related to potential, planned or pending legislation.

H. Notice of Right to Conduct a Review of Financial Capability

EERE reserves the right to conduct an independent third party review of financial capability for applicants that are selected for negotiation of award (including personal credit information of principal(s) of a small business if there is insufficient information to determine financial capability of the organization).

I. Notice of Potential Disclosure Under Freedom of Information Act (FOIA)

Under the Freedom of Information Act, (FOIA), 5 U.S.C. §552, et. seq., as amended by the OPEN Government Act of 2007, Pub. L. No. 110-175, any information received from the Applicant is considered to be an agency record, and as such, subject to public release under FOIA. The purpose of the FOIA is to afford the public the right to request and receive agency records unless those agency records are protected from disclosure under one or more of the nine FOIA exemptions.

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Decisions to disclose or withhold information received from the Applicant are based upon the applicability of one or more of the nine FOIA exemptions, not on the existence or nonexistence of protective markings or designations. Only the agency's designated FOIA Officer may determine if information received from the Applicant may be withheld pursuant to one of the nine FOIA exemptions. All FOIA requests received by DOE are processed in accordance with 10 C.F.R. Part 1004.

J. Requirement for Full and Complete Disclosure

Applicants are required to make a full and complete disclosure of all information requested. Any failure to make a full and complete disclosure of the requested information may result in:

- The termination of award negotiations;
- The modification, suspension, and/or termination of a funding agreement;
- The initiation of debarment proceedings, debarment, and/or a declaration of ineligibility for receipt of Federal contracts, subcontracts, and financial assistance and benefits; and
- Civil and/or criminal penalties.

K. Retention of Submissions

EERE expects to retain copies of all Letters of Intent, Full Applications, Replies to Reviewer Comments, and other submissions. No submissions will be returned. By applying to EERE for funding, applicants consent to EERE's retention of their submissions.

L. Title to Subject Inventions

Ownership of subject inventions is governed pursuant to the authorities listed below.

- Domestic Small Businesses, Educational Institutions, and Nonprofits: Under the Bayh-Dole Act (35 U.S.C. § 200 et seq.), domestic small businesses, educational institutions, and nonprofits may elect to retain title to their subject inventions.
- All other parties: The Federal Non-Nuclear Energy Act of 1974, 42 U.S.C. 5908, provides that the Government obtains title to new inventions unless a waiver is granted (see below).

M. Government Rights in Subject Inventions

Where Prime Recipients and Subrecipients retain title to subject inventions, the U.S. Government retains certain rights.

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i. Government Use License

The U.S. Government retains a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States any subject invention throughout the world. This license extends to contractors doing work on behalf of the Government.

ii. March-In Rights

The U.S. Government retains march-in rights with respect to all subject inventions. Through “march-in rights,” the Government may require a Prime Recipient or Subrecipient who has elected to retain title to a subject invention (or their assignees or exclusive licensees), to grant a license for use of the invention to a third party. In addition, the Government may grant licenses for use of the subject invention when a Prime Recipient, Subrecipient, or their assignees and exclusive licensees refuse to do so.

EERE may exercise its march-in rights only if it determines that such action is necessary under any of the four following conditions:

- The owner or licensee has not taken or is not expected to take effective steps to achieve practical application of the invention within a reasonable time;
- The owner or licensee has not taken action to alleviate health or safety needs in a reasonably satisfied manner;
- The owner has not met public use requirements specified by Federal statutes in a reasonably satisfied manner; or
- The U.S. Manufacturing requirement has not been met.

Any determination that march-in rights are warranted must follow a fact-finding process in which the recipient has certain rights to present evidence and witnesses, confront witnesses and appear with counsel and appeal any adverse decision. To date, EERE has never exercised its march-in rights to any subject inventions.

N. Rights in Technical Data

Data rights differ based on whether data is first produced under an award or instead was developed at private expense outside the award.

“Limited Rights Data”: The U.S. Government will not normally require delivery of confidential or trade secret-type technical data developed solely at private expense prior to issuance of an award, except as necessary to monitor technical

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progress and evaluate the potential of proposed technologies to reach specific technical and cost metrics.

Government Rights in Technical Data Produced Under Awards: The U.S. Government retains unlimited rights in technical data produced under Government financial assistance awards, including the right to distribute to the public. One exception to the foregoing is that invention disclosures may be protected from public disclosure for a reasonable time in order to allow for filing a patent application.

O. Copyright

The Prime Recipient and Subrecipients may assert copyright in copyrightable works, such as software, first produced under the award without EERE approval. When copyright is asserted, the Government retains a paid-up nonexclusive, irrevocable worldwide license to reproduce, prepare derivative works, distribute copies to the public, and to perform publicly and display publicly the copyrighted work. This license extends to contractors and others doing work on behalf of the Government.

P. Personally Identifiable Information (PII)

All information provided by the Applicant must to the greatest extent possible exclude Personally Identifiable Information (PII). The term “personally identifiable information” refers to information which can be used to distinguish or trace an individual's identity, such as their name, social security number, biometric records, etc. alone, or when combined with other personal or identifying information which is linked or linkable to a specific individual, such as date and place of birth, mother's maiden name, etc. (See OMB Memorandum M-07-16 dated May 22, 2007, found at:

<https://www.whitehouse.gov/sites/default/files/omb/memoranda/fy2007/m07-16.pdf>

By way of example, Applicants must screen resumes to ensure that they do not contain PII such as personal addresses, phone/cell numbers, personal emails and/or SSNs. In short, if the PII is not essential to the application, it should not be in the application.

Q. Annual Compliance Audits

If a for-profit entity is a Prime Recipient and has expended \$750,000 or more of EERE funds during the entity's fiscal year, an annual compliance audit performed by an independent auditor is required. For additional information, please refer to 2 C.F.R. § 910.501 and Subpart F.

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If an educational institution, non-profit organization, or state/local government is a Prime Recipient or Subrecipient and has expended \$750,000 or more of Federal funds during the non-Federal entity's fiscal year, then a single or program-specific audit is required. For additional information, please refer to 2 C.F.R. § 200.501 and Subpart F.

Applicants and sub-recipients (if applicable) should propose sufficient costs in the project budget to cover the costs associated with the audit. EERE will share in the cost of the audit at its applicable cost share ratio.

Appendix A – Cost Share Information

Cost Sharing or Cost Matching

The terms “cost sharing” and “cost matching” are often used synonymously. Even the DOE Financial Assistance Regulations, 2 CFR 200.306, use both of the terms in the titles specific to regulations applicable to cost sharing. EERE almost always uses the term “cost sharing,” as it conveys the concept that non-federal share is calculated as a percentage of the Total Project Cost. An exception is the State Energy Program Regulation, 10 CFR 420.12, State Matching Contribution. Here “cost matching” for the non-federal share is calculated as a percentage of the Federal funds only, rather than the Total Project Cost.

How Cost Sharing Is Calculated

As stated above, cost sharing is calculated as a percentage of the Total Project Cost. FFRDC costs must be included in Total Project Costs. Following is an example of how to calculate cost sharing amounts for a project with \$1,000,000 in federal funds with a minimum 20% non-federal cost sharing requirement:

- Formula: Federal share (\$) divided by Federal share (%) = Total Project Cost
Example: \$1,000,000 divided by 80% = \$1,250,000
- Formula: Total Project Cost (\$) minus Federal share (\$) = Non-federal share (\$)
Example: \$1,250,000 minus \$1,000,000 = \$250,000
- Formula: Non-federal share (\$) divided by Total Project Cost (\$) = Non-federal share (%)
Example: \$250,000 divided by \$1,250,000 = 20%

What Qualifies For Cost Sharing

While it is not possible to explain what specifically qualifies for cost sharing in one or even a couple of sentences, in general, if a cost is allowable under the cost principles applicable to the organization incurring the cost and is eligible for reimbursement under an EERE grant or cooperative agreement, then it is allowable as cost share. Conversely, if the cost is not allowable under the cost principles and not eligible for reimbursement, then it is not allowable as cost share. In addition, costs may not be counted as cost share if they are paid by the Federal Government under another award unless authorized by Federal statute to be used for cost sharing.

The rules associated with what is allowable as cost share are specific to the type of organization that is receiving funds under the grant or cooperative agreement, though are generally the same for all types of entities. The specific rules applicable to:

- FAR Part 31 for For-Profit entities, (48 CFR Part 31); and
- 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.

In addition to the regulations referenced above, other factors may also come into play such as timing of donations and length of the project period. For example, the value of ten years of donated maintenance on a project that has a project period of five years would not be fully allowable as cost share. Only the value for the five years of donated maintenance that corresponds to the project period is allowable and may be counted as cost share.

Additionally, EERE generally does not allow pre-award costs for either cost share or reimbursement when these costs precede the signing of the appropriation bill that funds the award. In the case of a competitive award, EERE generally does not allow pre-award costs prior to the signing of the Selection Statement by the EERE Selection Official.

DOE Financial Assistance Rules 2 CFR Part 200 as amended by 2 CFR Part 910

As stated above, the rules associated with what is allowable cost share are generally the same for all types of organizations. Following are the rules found to be common, but again, the specifics are contained in the regulations and cost principles specific to the type of entity:

- (A) Acceptable contributions. All contributions, including cash contributions and third party in-kind contributions, must be accepted as part of the Prime Recipient's cost sharing if such contributions meet all of the following criteria:
- (1) They are verifiable from the recipient's records.
 - (2) They are not included as contributions for any other federally-assisted project or program.
 - (3) They are necessary and reasonable for the proper and efficient accomplishment of project or program objectives.
 - (4) They are allowable under the cost principles applicable to the type of entity incurring the cost as follows:
 - a. For-profit organizations. Allowability of costs incurred by for-profit organizations and those nonprofit organizations listed in Attachment C to OMB Circular A-122

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is determined in accordance with the for-profit cost principles in 48 CFR Part 31 in the Federal Acquisition Regulation, except that patent prosecution costs are not allowable unless specifically authorized in the award document. (v) Commercial Organizations. FAR Subpart 31.2—Contracts with Commercial Organizations

- b. Other types of organizations. For all other non-federal entities, allowability of costs is determined in accordance with 2 CFR Part 200 Subpart E.

(5) They are not paid by the Federal Government under another award unless authorized by Federal statute to be used for cost sharing or matching.

(6) They are provided for in the approved budget.

(B) Valuing and documenting contributions

(1) Valuing recipient's property or services of recipient's employees. Values are established in accordance with the applicable cost principles, which mean that amounts chargeable to the project are determined on the basis of costs incurred. For real property or equipment used on the project, the cost principles authorize depreciation or use charges. The full value of the item may be applied when the item will be consumed in the performance of the award or fully depreciated by the end of the award. In cases where the full value of a donated capital asset is to be applied as cost sharing or matching, that full value must be the lesser or the following:

- a. The certified value of the remaining life of the property recorded in the recipient's accounting records at the time of donation; or
- b. The current fair market value. If there is sufficient justification, the Contracting Officer may approve the use of the current fair market value of the donated property, even if it exceeds the certified value at the time of donation to the project. The Contracting Officer may accept the use of any reasonable basis for determining the fair market value of the property.

(2) Valuing services of others' employees. If an employer other than the recipient furnishes the services of an employee, those services are valued at the employee's regular rate of pay, provided these services are for the same skill level for which the employee is normally paid.

(3) Valuing volunteer services. Volunteer services furnished by professional and technical personnel, consultants, and other skilled and unskilled labor may be counted as cost sharing or matching if the service is an integral and necessary part of an approved project or program. Rates for volunteer services must be consistent

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with those paid for similar work in the recipient's organization. In those markets in which the required skills are not found in the recipient organization, rates must be consistent with those paid for similar work in the labor market in which the recipient competes for the kind of services involved. In either case, paid fringe benefits that are reasonable, allowable, and allocable may be included in the valuation.

(4) Valuing property donated by third parties.

- a. Donated supplies may include such items as office supplies or laboratory supplies. Value assessed to donated supplies included in the cost sharing or matching share must be reasonable and must not exceed the fair market value of the property at the time of the donation.
- b. Normally only depreciation or use charges for equipment and buildings may be applied. However, the fair rental charges for land and the full value of equipment or other capital assets may be allowed, when they will be consumed in the performance of the award or fully depreciated by the end of the award, provided that the Contracting Officer has approved the charges. When use charges are applied, values must be determined in accordance with the usual accounting policies of the recipient, with the following qualifications:
 - i. The value of donated space must not exceed the fair rental value of comparable space as established by an independent appraisal of comparable space and facilities in a privately-owned building in the same locality.
 - ii. The value of loaned equipment must not exceed its fair rental value.

(5) Documentation. The following requirements pertain to the recipient's supporting records for in-kind contributions from third parties:

- a. Volunteer services must be documented and, to the extent feasible, supported by the same methods used by the recipient for its own employees.
- b. The basis for determining the valuation for personal services and property must be documented.

Appendix B – Sample Cost Share Calculation for Blended Cost Share Percentage

The following example shows the math for calculating required cost share for a project with \$2,000,000 in Federal funds with four tasks requiring different Non-federal cost share percentages:

Task	Proposed Federal Share	Federal Share %	Recipient Share %
Task 1 (R&D)	\$1,000,000	80%	20%
Task 2 (R&D)	\$500,000	80%	20%
Task 3 (Demonstration)	\$400,000	50%	50%
Task 4 (Outreach)	\$100,000	100%	0%

Federal share (\$) divided by Federal share (%) = Task Cost

Each task must be calculated individually as follows:

Task 1

\$1,000,000 divided by 80% = \$1,250,000 (Task 1 Cost)

Task 1 Cost minus federal share = Non-federal share

\$1,250,000 - \$1,000,000 = \$250,000 (Non-federal share)

Task 2

\$500,000 divided 80% = \$625,000 (Task 2 Cost)

Task 2 Cost minus federal share = Non-federal share

\$625,000 - \$500,000 = \$125,000 (Non-federal share)

Task 3

\$400,000 / 50% = \$800,000 (Task 3 Cost)

Task 3 Cost minus federal share = Non-federal share

\$800,000 - \$400,000 = \$400,000 (Non-federal share)

Task 4

Federal share = \$100,000

Non-federal cost share is not mandated for outreach = \$0 (Non-federal share)

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The calculation may then be completed as follows:

Tasks	\$ Federal Share	% Federal Share	\$ Non-Federal Share	% Non-Federal Share	Total Project Cost
Task 1	\$1,000,000	80%	\$250,000	20%	\$1,250,000
Task 2	\$500,000	80%	\$125,000	20%	\$625,000
Task 3	\$400,000	50%	\$400,000	50%	\$800,000
Task 4	\$100,000	100%	\$0	0%	\$100,000
Totals	\$2,000,000		\$775,000		\$2,775,000

Blended Cost Share %

Non-federal share (\$775,000) divided by Total Project Cost (\$2,775,000) = 27.9% (Non-federal)

Federal share (\$2,000,000) divided by Total Project Cost (\$2,775,000) = 72.1% (Federal)

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Appendix C – Waiver Requests: Foreign Entity Participation as the Prime Recipient and Performance of Work in the United States

1. Waiver for Foreign Entity Participation as the Prime Recipient

As set forth in Section III.A.3, all Prime Recipients receiving funding under this FOA must be incorporated (or otherwise formed) under the laws of a State or territory of the United States. To request a waiver of this requirement, an applicant must submit an explicit waiver request in the Full Application.

Overall, the applicant must demonstrate to the satisfaction of EERE that it would further the purposes of this FOA and is otherwise in the economic interests of the United States to have a foreign entity serve as the Prime Recipient. A request to waive the *Foreign Entity Participation as the Prime Recipient* requirement must include the following:

- Entity name;
- The rationale for proposing a foreign entity to serve as the Prime Recipient;
- Country of incorporation;
- A description of the project’s anticipated contributions to the US economy;
 - How the project will benefit U.S. research, development and manufacturing, including contributions to employment in the U.S. and growth in new markets and jobs in the U.S.;
 - How the project will promote domestic American manufacturing of products and/or services;
- A description of how the foreign entity’s participation as the Prime Recipient is essential to the project;
- A description of the likelihood of Intellectual Property (IP) being created from the work and the treatment of any such IP;
- Countries where the work will be performed (Note: if any work is proposed to be conducted outside the U.S., the applicant must also complete a separate request for waiver of the Performance of Work in the United States requirement).

EERE may require additional information before considering the waiver request.

The applicant does not have the right to appeal EERE’s decision concerning a waiver request.

2. Waiver for Performance of Work in the United States

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As set forth in Section IV.J.3, 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. There may be limited circumstances where it is in the interest of the project to perform a portion of the work outside the United States. To seek a waiver of the Performance of Work in the United States requirement, the applicant must submit an explicit waiver request in the Full Application. A separate waiver request must be submitted for each entity proposing performance of work outside of the United States.

Overall, a waiver request must demonstrate to the satisfaction of EERE that it would further the purposes of this FOA and is otherwise in the economic interests of the United States to perform work outside of the United States. A request to waive the *Performance of Work in the United States* requirement must include the following:

- The rationale for performing the work outside the U.S. (“foreign work”);
- A description of the work proposed to be performed outside the U.S.;
- An explanation as to how the foreign work is essential to the project;
- A description of the anticipated benefits to be realized by the proposed foreign work and the anticipated contributions to the US economy;
 - The associated benefits to be realized and the contribution to the project from the foreign work;
 - How the foreign work will benefit U.S. research, development and manufacturing, including contributions to employment in the U.S. and growth in new markets and jobs in the U.S.;
 - How the foreign work will promote domestic American manufacturing of products and/or services;
- A description of the likelihood of Intellectual Property (IP) being created from the foreign work and the treatment of any such IP;
- The total estimated cost (EERE and Recipient cost share) of the proposed foreign work;
- The countries in which the foreign work is proposed to be performed; and
- The name of the entity that would perform the foreign work.

EERE may require additional information before considering the waiver request.

The applicant does not have the right to appeal EERE’s decision concerning a waiver request.