

**FINANCIAL ASSISTANCE
FUNDING OPPORTUNITY ANNOUNCEMENT**



**U.S. Department of Energy
Golden Field Office**

Technology Research, Development, and Tools for Clean Biomass Cookstoves

Funding Opportunity Announcement Number: DE-FOA-0000709

Announcement Type: Amendment 001

CFDA Number: 81.087

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Application Due Date: 05/23/2012, 5:00 PM Eastern Time



Department of Energy

Golden Field Office
1617 Cole Boulevard
Golden, Colorado 80401-3393

Amendment No. 002

DATE: May 14, 2012
FROM: Molly Hames, Contracting Officer
TO: All Prospective Applicants

SUBJECT: Amendment No. 001 to Announcement DE-FOA-0000709,
Technology Research, Development, and Tools for Clean Biomass Cookstoves

I. The purpose of this amendment is to add language to the Cookstoves FOA in Section IV.C, “Content and Form of Application” as follows:

8. Subaward Budget File(s)

You must provide a separate budget (i.e., budget for each budget year and a cumulative budget) for each subawardee that is expected to perform work estimated to be more than \$100,000 or 50 percent of the total work effort (whichever is less). Use the SF 424 A Excel, “Budget Information – Non Construction Programs” form on the DOE Financial Assistance Forms Page at <http://energy.gov/management/office-management/operational-management/financial-assistance/financial-assistance-forms>. Save each Subaward budget in a single file titled “ControlNumber_LeadOrganization_Subawardee_SF424A.”

9. Subaward Budget Justification

PMC 123.1 Budget Justification File

A PMC 123.1 Budget Justification file for the subaward budget is also required. The budget justification must include the same justification information described in Paragraph 6 above. Save each Subaward budget justification in a single file titled “ControlNumber_LeadOrganization_Subawardee_Budget.”

Summary of Required Forms/Files

Your application must include the following documents:

8.	Subaward Budget File(s), if applicable	Excel	ControlNumber_LeadOrganization_Subawardee_SF424A
9.	Subaward Budget Justification(s), if applicable	Excel	ControlNumber_LeadOrganization_Subawardee_Budget

12. Table A1 – Clean Cookstove Emissions, Efficiency, and Cost Baseline Performance

Summary, if applicable

For Applicants for Topics 1 and 2, the tables are provided below to facilitate applicants in proposing performance and cost baselines and targets. Complete these tables as they apply to the proposed project. It is expected that all relevant data will be provided where possible.

13. Table A2 – Clean Cookstove Emissions, Efficiency, and Cost Performance Targets

Summary, if applicable

For Applicants for Topics 1 and 2, the tables are provided below to facilitate applicants in proposing performance and cost baselines and targets. Complete these tables as they apply to the proposed project. It is expected that all relevant data will be provided where possible.

Summary of Required Forms/Files

Your application must include the following documents:

12.	Table A1 – Clean Cookstove Emissions, Efficiency, and Cost Baseline Performance Summary, if applicable	Excel	ControlNumber_LeadOrganization_TableA1
13.	Table A2 – Clean Cookstove Emissions, Efficiency, and Cost Performance Targets Summary, if applicable	Excel	ControlNumber_LeadOrganization_TableA2

II. All other parts of the FOA remain unchanged.

REGISTRATION REQUIREMENTS

There are several one-time actions before submitting an Application in response to this Funding Opportunity Announcement (FOA), as follows:

- 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.

The applicant will receive an automated response when the Application is received. This will serve as a confirmation of receipt. Please do not reply to the automated response. The applicant will have the opportunity to re-submit a revised Application for any reason as long as the relevant submission is submitted by the specified deadline. The Users' Guide for Applying to the Department of Energy EERE Funding Opportunity Announcements is found at <https://eere-exchange.energy.gov/Manuals.aspx>.

The EERE Exchange registration does not have a delay; however, the remaining **registration requirements below could take several weeks to process and are necessary in order for a potential applicant to receive an award under this announcement**. Therefore, although not required in order to submit an Application through the EERE Exchange site, **all potential applicants lacking a DUNS number, or not yet registered with CCR or FedConnect should complete those registrations as soon as possible**.

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

- Obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number (including the plus 4 extension, if applicable) at <http://fedgov.dnb.com/webform>.
- Register with the Central Contractor Registry (CCR) at <https://www.ccr.gov/>. Designating an Electronic Business Point of Contact (EBiz POC) and obtaining a special password called an MPIN are important steps in CCR registration. Please update your CCR registration annually.
- Register in FedConnect at <https://www.fedconnect.net/>. To create an organization account, your organization's CCR MPIN is required. For more information about the CCR MPIN or other registration requirements, review the FedConnect Ready, Set, Go! Guide at https://www.fedconnect.net/FedConnect/PublicPages/FedConnect_Ready_Set_Go.pdf.
- Register in Grants.gov to receive automatic updates when Amendments to this FOA are posted. However, please note that applications will not be accepted through Grants.gov. <http://www.grants.gov/>.

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SECTION I – FUNDING OPPORTUNITY DESCRIPTION

Description

1. Background

The U.S. Department of Energy (DOE), Office of Energy Efficiency and Renewable Energy (EERE) announces a notice of availability of funds for financial assistance to support research, product development based on laboratory and field testing, and tools to accelerate the dissemination of low-emission, high-efficiency cookstoves technologies that use solid biomass fuels. By replacing open fires and inefficient stoves, these technologies can increase access to clean energy and enhance indoor air quality, personal health, livelihoods, and the environment.

The United States is a founding partner of the Global Alliance for Clean Cookstoves, a public-private initiative. DOE's activities are part of this five year U.S. government commitment announced by Secretary of State Hillary Rodham Clinton on September 21, 2010 (See Factsheet: <http://www.state.gov/s/partnerships/cleancookstoves/commitment/index.htm>). DOE's role within this U.S. Government effort is to focus on technical research and development to overcome barriers that impede the production and use of clean cookstoves in the developing world. Other U.S. Government Agencies' activities through the Global Alliance for Clean Cookstoves include advancing laboratory and field testing (U.S. Environmental Protection Agency [EPA]), understanding and improving health impacts (Department of Health and Human Services [including the Centers for Disease Control and Prevention (CDC) and the National Institutes of Health (NIH)]), operational research and implementation (U.S. Agency for International Development [USAID]), and diplomatic outreach and interagency coordination (State Department [State]). The Global Alliance has set a goal to have 100 million clean cookstoves adopted by 2020 through the activities of over 250 partner governments and organizations focused on dissemination, financing, monitoring and evaluation, testing, humanitarian assistance, and building awareness of clean cookstove technology. In this Funding Opportunity Announcement (FOA), the term dissemination is used to include both distribution and sales, with no or any level of financing mechanisms.

Significant progress has been achieved in designing and disseminating cookstoves with reduced emissions and increased efficiency. Substantially greater emission reductions are needed to achieve the Global Alliance's goal of widespread adoption of stoves that reach the highest levels of performance (for emissions, indoor emissions, efficiency, and safety) as defined by the February 2012 International Standards Organization (ISO) International Workshop Agreement (IWA). Thus, DOE has a unique role in the Alliance to conduct technical research and development, integrated with field studies and validation, that supports the larger effort to create sustainable markets for clean and efficient cookstoves.

DOE held a workshop in January 2011 to gather input from the cookstoves research, design, manufacturing, and implementation community on the major technical challenges for

developing clean biomass cookstoves. A summary report of this workshop was released in May 2011 and is posted at: http://www1.eere.energy.gov/biomass/pdfs/cookstove_meeting_summary.pdf. DOE also held a follow-up webinar in September 2011 to continue discussion of some of the topics that were introduced in the workshop. The input gathered during these events was used to prepare this FOA.

2. Purpose of FOA

The goal of this FOA is to increase the viability and deployment of renewable energy technologies through research, development, and tools that lead to biomass cookstoves that address the highest levels of performance (for emissions, indoor emissions, efficiency, and safety) defined through the ISO/IWA. This FOA seeks to develop cookstove technologies that:

- Are low-cost and affordable in regions that currently rely predominantly on biomass fuels for household energy;
- Are durable and safe, address the conditions, use the biomass fuels, and meet the needs of the people in geographical areas in which the stoves will ultimately be deployed;
- Aim to meet or surpass the highest level of stove performance for total and indoor emissions (including carbon monoxide [CO] and particulate matter 2.5 micrometers in diameter and smaller [PM_{2.5}], fuel efficiency, and safety in the testing standards developed through the ongoing ISO/IWA process;

Metric	Value for Tier 4 in ISO International Workshop Agreement Using VITA WBT 4.1 Protocol
Emissions High Power CO (g/MJ)	≤8
Emissions Low Power CO (g/min/L)	≤0.09
Emissions High Power PM _{2.5} (mg/MJ)	≤41
Emissions Low Power PM _{2.5} (mg/min/L)	≤1
Indoor Emissions CO (g/min)	≤0.42
Indoor Emissions PM _{2.5} (mg/min)	≤2
High Power Thermal Efficiency (%)	≥45
Low Power Specific Consumption (MJ/min/L)	≤0.017
Safety	≥95

- Achieve field performance that is comparable to stove performance in laboratory testing; and
- Are ready to be produced and manufactured at scale and widely disseminated through manufacturing and implementation partners of the Global Alliance for Clean Cookstoves.

These goals are intended to drive technology developments that can support the widespread adoption of affordable, user-desirable stoves that provide significant health benefits, labor and financial savings, and soil and forestry benefits. These advances will necessarily build

on progress to date in developing and disseminating biomass stoves, but input from DOE's January 2011 technical meeting indicate that carefully targeted applied research on combustion and heat transfer, and auxiliary devices like fans/controls/sensors can lead to substantial advances for a wide range of increasingly affordable technologies. In addition, a practical design tool is needed to consolidate these and other research results and models to enable designers and manufacturers to easily improve the performance of a wide range of stoves to meet the range of user needs. The intent of this FOA is to initiate activities that provide mid-range improvements in the technology in the mid-term as well as activities that build the foundation for major longer term improvements. To maximize the adoption and benefit of these technologies, activities supported by this FOA will be based on thorough assessments of user needs and laboratory testing. Technologies must be piloted in the field to verify and improve performance under a wide range of operating conditions and fuel types and qualities.

Relevant Fuels

There are significant developments in clean cookstoves using a variety of fuels. Solid biomass fuels are a major fuel source in developing countries and provide an opportunity for significant improvements in fuel usage and emissions. Thus, research, products, and materials for this FOA must be relevant for cookstoves fueled by wood or crop wastes. Using the Food and Agriculture Organization's Unified Bioenergy Terminology, relevant fuels for this FOA include direct, indirect, and recovered woody and herbaceous biomass and agricultural by-products. The biomass fuels may be unprocessed or minimally processed (e.g. size or moisture content changes, densification, but not altered thermally, chemically, or biochemically). **Applications that propose the use of charcoal, coal, animal by-products, or solar as the primary fuel will be considered non-responsive and will NOT be considered for funding under this FOA.**

Integration and Collaboration

DOE is seeking applications to address these important issues from a team of well qualified scientists with the background, experience, and physical resources required to conceptualize and execute critical, incisive studies aimed at the goals outlined here. The project team should include collaborators with the necessary skills to discover and adequately describe how to optimize the design and usability of clean cookstoves, with the goal of ensuring improved efficiency, reduced emissions, and minimal costs. This may require collaboration among scientists, engineers, testing and monitoring, and implementation partners with training in distinctly different disciplines. Therefore, applicants must address how they plan to effectively share information among collaborators. The appropriate set of researchers for the proposed project may also be employed at different institutions, so collaboration among different organizations is encouraged. Leveraging established successful collaborations will be favorably received, as it provides some evidence that the project team has a productive and proven collaborative track record. Communication and coordination are encouraged with other DOE-supported projects and with other clean cookstoves efforts, particularly through the Global Alliance for Clean Cookstoves. Awardees will be expected to identify how they will encourage broad use of their stove advances to help achieve Global Alliance goals of 100 million high performance stoves in operation by 2020. In particular, awardees

for Topic Areas 1 and 2 will be expected to provide feedback and share data and models with awardees for Topic Area 3 and evaluate versions of the design tool developed under Topic Area 3. Awardees for Topic Area 3 will be expected to use the feedback, data and models from awardees from Topic Areas 1 and 2.

Environmental Review and Approval

Federal agencies are responsible for conducting the environmental review process required by the National Environmental Policy Act (NEPA) and related environmental statutes, regulations, permits, and approvals. NEPA applies to all Federal grant programs and requires Federal agencies to integrate environmental values into their decision-making processes by considering the environmental impacts of their proposed actions. While NEPA compliance is a Federal agency responsibility and the ultimate decisions remain with the Federal agency, applicants will be required to assist in the timely and effective completion of the NEPA process in the manner most pertinent to the applicant's proposed project.

3. Topics of Focus

Topic Area 1 – Applied research and development for products with auxiliary devices, including fans, sensors, and controls.

Applicants for this topic area should propose projects to develop stoves that improve performance, affordability and durability of auxiliary devices, including fans (powered by thermoelectric devices, photovoltaic/battery systems, grid power, or other approaches), sensors, and controls. These products and devices should improve combustion, heat transfer, or other factors that improve fuel efficiency or reduce emissions to the level outlined in Section 2 above. All projects must span applied research, development of improved stove designs and testing of prototypes in the laboratory and field to ensure performance and usability. Applicants must identify manufacturing and implementation partners to evaluate manufacturability and scale up successful technologies.

Awardees for Topic Area 1 will be required to: a) submit yearly updates on progress towards the proposed intermediate performance targets, b) provide feedback, data, and models to awardees for Topic Areas 2 and 3 and evaluate versions of the design tool, and c) share and present the results of their research at a relevant household energy or clean cookstoves conference and/or publish these results in a peer reviewed journal. The presentation(s) and publication(s) should include 1) description of the stove design, 2) the resulting emissions, fuel efficiency, and safety in the laboratory and field (see Appendix E), 3) current and projected material and production costs, 4) evaluation of usability based on field testing with households in the geographical region of focus, and 5) how technologies and research results are applicable for and will be made available to the global community of stove designers, manufacturers, and implementers. DOE strongly encourages awardees to apply for their products to be tested with the U.S. EPA's laboratory and field testing opportunities.

Applications for Topic Area 1 must include the following:

1. Specific geographical region(s) and justification for selection. The geographical region(s) of focus will be the location of studies to understand user needs and field testing.
2. Identification of relevant fuels in the geographical region(s) of focus, including local availability.
3. A plan for laboratory and field testing that is integrated with research and product development in order to verify performance, identify design improvements, and to validate usability. This plan should also identify potential risks and how they will be addressed, incorporate go-no go decision points, and describe possible alternate research and modeling needs based on laboratory and field testing results. For laboratory and field testing to evaluate emissions, thermal efficiency, safety, and usability, applicants are strongly encouraged to use the protocols described by the Partnership for Clean Indoor Air (<http://www.pciaonline.org/testing>) – the Water Boiling Test version 4.1, Controlled Cooking Test version 2.0, the Kitchen Performance Test version 3.0, and the Iowa State Stove Safety Protocol – or justify any modifications or the use of alternate protocols. The plan should also address the goal of developing sustainable markets for production, distribution, and maintenance of stoves.
4. Manufacturing and implementation partners who will evaluate manufacturability of stove designs and prototypes and scale up successful technologies.
5. Baseline data for the metrics listed in Appendix E or a plan to collect data for these metrics. Baseline data must be provided for traditional open fires or stoves currently in use in the geographical regions of focus as well as for current performance of the proposed technology.
6. Proposed yearly targets for technology performance and costs (Appendix E) that are aggressive but achievable.
7. A manufacturing and/or commercialization plan, which must include addressing intellectual property issues, and a plan to disseminate research results, tools, and technologies developed under this award that will further the goals of the Global Alliance for Clean Cookstoves to deploy 100 million clean stoves by 2020. Applications must also address how information will be shared effectively among collaborators.

Topic Area 2 - Combustion and heat transfer research applied to stove development.

The goal of this topic area is to improve understanding of combustion, heat transfer, and emissions formation and develop designs for low-cost, user-desirable biomass cookstoves, including both natural draft and fan-powered stoves that achieve the performance levels outlined in the Goals section above. Relevant projects may include the development of practical and simplified models of combustion, heat transfer, and emissions formation, empirical testing and validation of models, and evaluation of factors like combustion chamber geometry, mixing, and the air-to-fuel ratio. When using existing tools, open source software is preferred over proprietary software and applicants must justify any choice to use proprietary software. All projects must span applied research, development of improved stove designs and testing of prototypes in the laboratory and field. Applicants must identify manufacturing and implementation partners to evaluate manufacturability and scale up successful technologies.

Awardees for Topic Area 2 will be required to: a) submit yearly updates on progress towards

the proposed intermediate performance targets, b) provide feedback, data, and models to awardees for Topic Areas 1 and 3 and evaluate versions of the design tool, and c) share and present the results of their research at a relevant household energy or clean cookstoves conference and/or publish these results in a peer reviewed journal. The presentation(s) and publication(s) should include 1) description of the stove design, 2) the resulting emissions, fuel efficiency, and safety in the laboratory and field (see Appendix E), 3) current and projected material and production costs, 4) evaluation of usability based on field testing with households in the geographical region of focus, and 5) how technologies and research results are applicable for and will be made available to the global community of stove designers, manufacturers, and implementers. DOE strongly encourages awardees to apply for their products to be tested with the U.S. EPA's laboratory and field testing opportunities.

Applications for Topic Area 2 must include the following:

1. Specific geographical region(s) and justification for selection. The geographical region(s) of focus will be the location of studies to understand user needs and field testing.
2. Identification of relevant fuels in the geographical region(s) of focus, including local availability.
3. A plan for laboratory and field testing that is integrated with research and product development in order to verify performance, identify design improvements, and to validate usability. This plan should also identify potential risks and how they will be addressed, incorporate go-no go decision points, and describe possible alternate research and modeling needs based on laboratory and field testing results. For laboratory and field testing to evaluate emissions, thermal efficiency, safety, and usability, applicants are strongly encouraged to use the protocols described by the Partnership for Clean Indoor Air (<http://www.pciaonline.org/testing>) – the Water Boiling Test version 4.1, Controlled Cooking Test version 2.0, the Kitchen Performance Test version 3.0, and the Iowa State Stove Safety Protocol – or justify any modifications or the use of alternate protocols. The plan should also address the goal of developing sustainable markets for production, distribution, and maintenance of stoves.
4. Manufacturing and implementation partners who will evaluate manufacturability of stove designs and prototypes and scale up successful technologies.
5. Baseline data for the metrics listed in Appendix E or a plan to collect data for these metrics. Baseline data must be provided for traditional open fires or stoves currently in use in the geographical regions of focus as well as for current performance of the proposed technology.
6. Proposed yearly targets for technology performance and costs (Appendix E) that are aggressive but achievable.
7. A manufacturing and/or commercialization plan, which must include addressing intellectual property issues, and a plan to disseminate research results, tools, and technologies developed under this award that will further the goals of the Global Alliance for Clean Cookstoves to deploy 100 million clean stoves by 2020. Applications must also address how information will be shared effectively among collaborators. Proposals must also address whether open source or proprietary software will be used for any modeling activities and provide justification for use of proprietary software.

Topic Area 3 - Development of a design tool for stove design and manufacturing.

The goal of this topic area is to accelerate improved biomass cookstove development by unifying the large existing research knowledge base and new developments from Topic Areas 1 and 2 in an accessible software tool. Applicants should propose to develop a design tool to enable stove designers from many organizations to quickly assess the impacts of design modifications on stove performance. Thus, the design tool should be developed with input from a range of cookstove designers, manufacturers, and implementing organizations. The design tool should also enable the cookstoves research, design, and manufacturing community to identify knowledge gaps and future research areas with high potential impact on stove emissions and efficiency. The resulting design tool should be designed to effectively support product development for a range of stoves, cooking tasks, practices, fuels, and levels of affordability.

Awardees for Topic Area 3 will be required to: a) produce an open-source, user-friendly, widely accessible tool designed with input, data, and models from and tested with stove researchers (including awardees for Topic Areas 1 and 2), designers and manufacturers and b) share and present research and the design tool at relevant household energy or clean cookstoves conferences and/or publish these results in a peer reviewed journal. Because the design tool must be distributed as open-source software, the awardee must request permission from DOE to assert copyright in any software developed under the award, and must submit a plan for disseminating and maintaining it as open-source at the time the copyright assertion request is made.

Applications for Topic Area 3 must also include the following:

1. A plan for integrating feedback from cookstoves research, design, manufacturing, and implementation organizations throughout the design tool development process.
2. A plan for outreach, dissemination, and long term development and maintenance that will ensure that the design tool is widely evaluated, accessible, and used.
3. A plan to disseminate research results, open-source software design tools, and technologies developed under this award that will further the goals of the Global Alliance for Clean Cookstoves to deploy 100 million clean stoves by 2020. Applications must also address how information will be shared effectively among collaborators.

Multiple applications

Applicants may submit applications to one or more Topic Areas under this announcement. If an applicant is applying under more than one Topic Area, **a separate application must be submitted for each Topic Area and each application must be a stand-alone application.** For applicants submitting multiple applications, each application must include a description of how activities for multiple topic areas will be integrated. All applications must, in the Project Summary/Abstract file and on the cover of the Project Narrative file, designate the specific Topic Area under which that application is being submitted (See Part IV.C., Content and Form of Application).

SECTION II – AWARD INFORMATION

A. Type of Award Instrument

DOE anticipates awarding grants under this funding opportunity announcement.

B. Estimated Funding

Approximately \$2,500,000 is expected to be available for new awards under this announcement in Fiscal Year (FY) 2012. The Administration has requested an additional \$2,500,000 in FY2013 for this program. The actual total level of funding depends on FY2013 appropriations for this program. All awards under this announcement are subject to the appropriation and availability of funding.

C. Maximum and Minimum Award Size

- Ceiling (i.e., the maximum amount for an individual award made under this announcement): \$1,000,000
- Floor (i.e., the minimum amount for an individual award made under this announcement): \$450,000

D. Expected Number of Awards

Under this announcement, DOE expects to make the following number of awards for each Program/Topic Area, depending on the size of the awards and Congressional appropriations:

Program/Topic Area	Number of Awards
Topic Area 1	1 – 2
Topic Area 2	1 – 2
Topic Area 3	1

E. Anticipated Award Size

While the maximum award size (i.e., the ceiling) is \$1,000,000, DOE anticipates that awards will be in the \$450,000 - \$875,000 range for the total project period.

F. Cost Share Summary by Entity

Recipient and Subrecipient Type	Cost Share Requirement*
Domestic Small Businesses, Domestic Non-Profit Organizations, National Labs, FFRDCs and Domestic Institutions of Higher Education	0%
Domestic Large Businesses that are subrecipient team members and incur 20% or less of the Total Allowable Project Costs	10%

Foreign Entity Team Members	20%
All Other Entities	20%

* Note: Cost share requirement percentages are based on total allowable project costs.

G. Period of Performance

DOE anticipates making awards that will run for up to 3 years.

H. Type of Application

DOE will accept only new applications under this announcement (i.e., applications for renewals of existing DOE funded projects will not be considered).

SECTION III - ELIGIBILITY INFORMATION

A. Eligible Applicants

All types of entities are eligible to apply for this announcement, except nonprofit organizations described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995. Eligible applicants include but are not limited to: (1) institutions of higher education; (2) National Laboratories and Federally Funded Research and Development Center (FFRDC) contractors; (3) nonprofit and for-profit entities; (4) State and local governments, (5) Indian Tribes and Tribal Energy Resource Development Organizations (TERDO); and (6) consortia of entities (1)-(5) above. If applying as a consortium, an established member of the consortium must be designated as the lead applicant.

A foreign legal entity may be proposed as a team member on a domestic entity's application, but may not incur more than 20% of total allowable project costs. Eligible foreign legal entities include but are not limited to: (1) institutions of higher education; (2) nonprofit and for-profit private entities; and (3) consortia of entities (1) through (2). If the foreign team member is a consortium an established member of the consortium must be designated as the point of contact.

B. Cost Sharing

Projects awarded under this announcement to domestic Institutions of Higher Education, National Laboratories, FFRDCs, domestic non-profits, and domestic small businesses are eligible for a waiver of the cost share requirement otherwise applicable under this FOA. Domestic large businesses are eligible for a reduced cost share of 10% if they are subrecipient team members and incur only 20% or less of the total allowable project cost (i.e., the sum of the Government share, including FFRDC contractor costs if applicable, and the recipient share of allowable costs equals the total allowable cost of the project). Foreign entity team members are not eligible for a cost share waiver.

Recipients not eligible for the cost share waiver must provide cost share of at least 20% of the total allowable costs for research and development projects (i.e., the sum of the Government share, including FFRDC contractor costs if applicable, and the recipient share of allowable costs equals the total allowable cost of the project) and must come from non-Federal sources unless otherwise allowed by law. (See 10 CFR Part 600 for the applicable cost sharing requirements.)

In the event a selected project includes subrecipients that are not the same type of entity as the prime recipient, the applicability of any cost share waiver is dependent upon the entity type of each subrecipient. Each entity is responsible only for its required cost share, if any.

Recipient and Subrecipient Type	Cost Share Requirement*
Domestic Small Businesses, Domestic Non-Profit Organizations, National Labs, FFRDCs and Domestic Institutions of Higher Education	0%
Domestic Large Businesses that are subrecipient team members and incur 20% or less of the Total Allowable Project Costs	10%
Foreign Entity Team Members	20%
All Other Entities	20%

* Note: Cost share requirement percentages are based on total allowable project costs.

C. Other Eligibility Requirements

DOE National Laboratory Contractors and Other Federally Funded Research and Development Center (FFRDC) Contractors.

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

Please be advised that those entities that form teams with National Laboratories in which the Laboratory is a Prime Recipient (i.e., lead participant) will be required to enter into subcontracts with the Laboratory. As such, the terms and conditions of the Management and Operating contract between the Laboratory and the Department of Energy will be in effect for any subcontracts, and not the traditional provisions associated with a financial assistance award. National Laboratories acting as Prime Recipients must make all applicable terms and conditions available to their subcontractors prior to submission of their applications. Any entities considering such teaming arrangements should request the laboratory to provide the applicable terms and conditions prior to the Prime Recipient submitting a response to this FOA.

The following wording is acceptable for the authorization:

“Authorization is granted for the _____ Laboratory to participate in the proposed project. The work proposed for the laboratory is consistent with or complementary to the missions of the laboratory, will not adversely impact execution of the DOE assigned programs at the laboratory.”

FFRDC contractors may be proposed as team members on another entity's application, subject to the following guidelines:

Authorization for non-DOE FFRDCs. The Federal agency sponsoring the FFRDC contractor must authorize in writing the use of the FFRDC contractor on the proposed project and this

authorization must be submitted with the application. The use of a FFRDC contractor must be consistent with the contractor's authority under its award.

Authorization for DOE FFRDCs. The cognizant Contracting Officer for the FFRDC must authorize in writing the use of a DOE FFRDC contractor on the proposed project and this authorization must be submitted with the application. The following wording is acceptable for this authorization:

“Authorization is granted for the _____ Laboratory to participate in the proposed project. The work proposed for the laboratory is consistent with or complementary to the missions of the laboratory, will not adversely impact execution of the DOE assigned programs at the laboratory.”

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

Cost Share. The applicant's cost share requirement will be based on the total cost of the project, including the applicant's and the FFRDC contractor's portions of the effort.

FFRDC Contractor Effort:

The scope of work to be performed by the FFRDC contractor may not be more significant than the scope of work to be performed by the applicant, if the FFRDC Contractor is a subrecipient.

Responsibility. The applicant, if successful, 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 applicant and the FFRDC contractor.

D. Questions Regarding Eligibility

DOE 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.

SECTION IV – APPLICATION AND SUBMISSION INFORMATION

A. Address to Request 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.

B. Letter of Intent and Pre-Application

- Letter of Intent is not required.
- A pre-application is not required.

C. Content and Form of Application

You must complete the following application forms found on the EERE Exchange website at <https://eere-exchange.energy.gov/>, in accordance with the instructions. **Applicants will receive a Control Number once they “Apply to this FOA” on the EERE Exchange website and should include the Control Number in the file name, as indicated below.**

1. 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 year, first phase or other subset of the project period. Save the information in a single file titled “ControlNumber_LeadOrganization_App424.”

2. Project Summary/Abstract File

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 (i.e., benefits, outcomes), and major participants (for collaborative projects). This document must not include any proprietary or sensitive business information, as the Department may make it available to the public if an award is made. The project summary must not exceed 1 page when printed using standard 8.5” by 11” paper with 1” margins (top, bottom, left and right), single spaced, with font not smaller than 11 point. Save the information in a single file titled “ControlNumber_LeadOrganization_Summary.”

3. Project Narrative File

The project narrative must not exceed **20** pages, including cover page, table of contents, charts, graphs, maps, photographs, and other pictorial presentations, when printed using standard 8.5” by 11” paper with 1 inch margins (top, bottom, left, and right), single

spaced. EVALUATORS WILL REVIEW ONLY THE FIRST 20 PAGES IN THE PROJECT NARRATIVE FILE. The font must not be smaller than 11 point. Do not include any Internet addresses (URLs) that provide information necessary to review the application. See Section VIII.D for instructions on how to mark proprietary application information. Save the information in a single file titled “ControlNumber_LeadOrganization_Project.”

The project narrative must include:

- Project Objectives.
This section should provide a clear, concise statement of the specific objectives/aims of the proposed project, including the specific geographical regions(s) of focus and relevant fuels and local availability of these fuels.
- Merit Review Criterion Discussion.
This section should be formatted to address each merit review criterion and sub-criterion listed in Part V. A. below. Provide sufficient information so that reviewers will be able to evaluate the application in accordance with these merit review criteria. **DOE WILL EVALUATE AND CONSIDER ONLY THOSE APPLICATIONS THAT SPECIFICALLY ADDRESS EACH MERIT REVIEW CRITERION AND SUB-CRITERION.**
- Project Timetable:
This section should outline as a function of time, year by year, all the important activities or phases of the project, including any activities planned beyond the project period. For applications for Topic Areas 1 and 2, the project timetable should include a plan for laboratory and field testing that is integrated with research and product development with the goal of verifying performance, identifying design improvements, validating usability and establishing manufacturability. Project timetables for applications to Topic Areas 1 and 2, should also include potential risks and how they will be addressed, go-no go decision points, and alternate research and modeling needs based on laboratory and field testing results. For applications for Topic Area 3, the project timetable should include assessment of user requirements from researchers, designers and manufacturers; the software development timeline; multiple rounds of testing with a wide range of users, and outreach and dissemination; and outreach and dissemination to ensure that the design tool is widely used. Successful applicants must use this project timetable to report progress.
- Relevance and Outcomes/Impacts:
This section should explain the relevance of the effort to the objectives in the program announcement and the expected outcomes and/or impacts. The justification for the proposed project should include a clear statement of the importance of the project in terms of the utility of the outcomes and the target community of beneficiaries, including households in the geographic region(s) of focus and the global community of cookstoves designers, manufacturers, and implementers.

- Roles of Participants:
For multi-organizational or multi-investigator projects, describe the roles and the work to be performed by each participant/investigator, business agreements between the applicant and participants, and how the various efforts will be integrated and managed.
- Facilities and Other Resources:
Identify the facilities (e.g., office, laboratory, computer, etc.) to be used at each performance site listed, and, if appropriate, indicate their capacities pertinent capabilities, relative proximity, and extent of availability to the project. Describe only those resources that are directly applicable to the proposed work. Provide any information describing the other resources available to the project, such as machine and electronics shops.
- Equipment:
List important items of equipment already available for this project, and if appropriate, note the location and pertinent capabilities of each. If you are proposing to acquire equipment, describe comparable equipment, if any, already at your organization and explain why it cannot be used.
- Bibliography and References, if applicable:
Provide a bibliography for any references cited in the Project Narrative section. This section must include only bibliographic citations.
- Baselines and targets (for applications to Topic Areas 1 and 2)
Submit baseline data for the metrics listed in Appendix E or a plan to collect baseline data for these metrics. Baseline data should be provided for traditional open fires or stoves currently in use in the geographical regions of focus as well as for current performance of the proposed technology. Applicants should also propose yearly targets for technology performance that are aggressive but achievable, for the same set of metrics.
- Feedback, outreach, and dissemination for design tool (for applications to Topic Area 3)
This section should outline the plan for integrating feedback from cookstoves research, design, manufacturing, and implementation organizations throughout the design tool development process. Also include a plan for outreach and dissemination to ensure that the design tool is widely accessible and maintained.

All the components of your Project Narrative must be within the Narrative page limit specified in paragraph 3. Documents listed below may be included as clearly marked appendices to your Narrative and will not count towards the Project Narrative page limit. Please note that some of the required documents listed below may have their own page limits to which you must adhere.

4. Resume File

Provide a resume for each key person proposed, including subawardees and consultants if

they meet the definition of a key person. A key person is any individual who contributes in a substantive, measurable way to the execution of the project. The biographical information for each resume must not exceed 2 pages when printed on 8.5" by 11" paper with 1 inch margins (top, bottom, left, and right), single spaced, with font not smaller than 11 point and should include the information below, if applicable. Save the information in a single file titled "ControlNumber_LeadOrganization_Resume."

Education and Training. Undergraduate, graduate and postdoctoral training; provide institution, major/area, degree and year.

Professional Experience: Beginning with the current position list, in chronological order, professional/academic positions with a brief description.

Publications. Provide a list of up to 10 publications most closely related to the proposed project. For each publication, identify the names of all authors (in the same sequence in which they appear in the publication), the article title, book or journal title, volume number, page numbers, year of publication, and website address, if available electronically.

Patents, copyrights and software systems developed may be provided in addition to, or substituted for, publications.

Synergistic Activities. List no more than 5 professional and scholarly activities related to the effort proposed.

- Of the key personnel identified in this file, indicate the Principal Investigator(s) (PI(s)).
- For Multiple Principal Investigators:

The applicant, whether a single organization or team/partnership/consortium, must indicate if the project will include multiple PIs. The decision to use multiple PIs for a project is the sole responsibility of the applicant. If multiple PIs will be designated, the application must identify the Contact PI/Project Coordinator and provide a "Coordination and Management Plan" that describes the organization structure of the project as it pertains to the designation of multiple PIs. This plan should, at a minimum, include:

1. Process for making decisions on scientific/technical direction;
2. Publications;
3. Intellectual property issues;
4. Communication plans;
5. Procedures for resolving conflicts; and
6. PIs' roles and administrative, technical, and scientific responsibilities for the project.

The resume file does not have a page limitation.

5. Budget File

SF 424 A Excel, Budget Information – Non-Construction Programs File

You must provide a separate budget for each year of support requested and a cumulative budget for the total project period. Use the SF 424 A Excel, “Budget Information – Non Construction Programs” form on the DOE Financial Assistance Forms Page at <http://energy.gov/management/office-management/operational-management/financial-assistance/financial-assistance-forms>. The SF424A provides columns for each individual budget-year as well as the cumulative project-budget.

You may request funds under any of the Object Class Categories as long as the item and amount are necessary to perform the proposed work, meet all the criteria for allowability under the applicable Federal cost principles, and are not prohibited by the funding restrictions in this announcement (see Section IV, G). Save the information in a single file titled “ControlNumber_LeadOrganization_SF424A.”

6. Budget Justification File

PMC 123.1 Budget Justification File

You must justify the costs proposed in each Object Class Category/Cost Classification category using the PMC 123.1 Budget Justification File. The total project cost, including cost share (if applicable) and federal funding, must be represented in this document. Save the budget justification information in a single file titled “ControlNumber_LeadOrganization_Budget.”

7. Letters of Commitment

If cost share is required, you must have a letter from each third party contributing cost share (i.e., a party other than the organization submitting the application) stating that the third party is committed to providing a specific minimum dollar amount of cost share.

All Letters of Commitment must be attached as an Appendix to the Project Narrative File. Identify the following information for each third party contributing cost share: (1) the name of the organization; (2) the proposed dollar amount to be provided; (3) the amount as a percentage of the total project cost; and (4) the proposed type of cost share – cash, services, or property. Letters of Commitment from parties participating in the project, exclusive of vendors, who will not be contributing cost share, but will be integral to the success of the project must be included as part of this Appendix to the Narrative. Letters of Commitment will not count towards the Project Narrative page limit.

8. Subaward Budget File(s)

You must provide a separate budget (i.e., budget for each budget year and a cumulative budget) for each subawardee that is expected to perform work estimated to be more than \$100,000 or 50 percent of the total work effort (whichever is less). Use the SF 424 A Excel, “Budget Information – Non Construction Programs” form on the DOE Financial Assistance Forms Page at <http://energy.gov/management/office-management/operational-management/financial-assistance/financial-assistance-forms>. Save each Subaward budget in a single file titled “ControlNumber_LeadOrganization_Subawardee_SF424A.”

9. Subaward Budget Justification

PMC 123.1 Budget Justification File

A PMC 123.1 Budget Justification file for the subaward budget is also required. The budget justification must include the same justification information described in Paragraph 6 above. Save each Subaward budget justification in a single file titled “ControlNumber_LeadOrganization_Subawardee_Budget.”

10. Budget for DOE Federally Funded Research and Development Center (FFRDC) Contractor File, if applicable

If a DOE FFRDC contractor is to perform a portion of the work, you must provide a DOE Field Work Proposal (FWP) in accordance with the requirements in DOE Order 412.1 Work Authorization System. The DOE Order 412.1, Work Authorization System and the DOE O 412.1, Field Work Proposal form are available at the following link, under “DOE Budget Forms”:

<http://energy.gov/management/office-management/operational-management/financial-assistance/financial-assistance-forms>. Save the Field Work Proposal in a single file titled “ControlNumber_LeadOrganization_FFRDC_FWP.”

11. Authorization for non-DOE or DOE FFRDCs

Save the Authorization for non-DOE or DOE FFRDCs, as specified in Section III.C. Other Eligibility Requirements, in a single file titled “ControlNumber_LeadOrganization_FFRDC_Auth.”

12. SF-LLL Disclosure of Lobbying Activities

If applicable, complete the SF- LLL. Applicability: If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the grant/cooperative agreement, you must complete and submit Standard Form - LLL, "Disclosure Form to Report Lobbying." If applicable, save the SF-LLL in a single file titled “ControlNumber_LeadOrganization_SF LLL.”

13. Table A1 – Clean Cookstove Emissions, Efficiency, and Cost Baseline Performance Summary, if applicable

For Applicants for Topics 1 and 2, the tables are provided below to facilitate applicants in proposing performance and cost baselines and targets. Complete these tables as they apply to the proposed project. It is expected that all relevant data will be provided where possible.

14. Table A2 – Clean Cookstove Emissions, Efficiency, and Cost Performance Targets Summary, if applicable

For Applicants for Topics 1 and 2, the tables are provided below to facilitate applicants in proposing performance and cost baselines and targets. Complete these tables as they apply to the proposed project. It is expected that all relevant data will be provided where possible.

Summary of Required Forms/Files

Your application must include the following documents:

	Name of Document	Format	File Name
1.	SF 424 - Application for Federal Assistance	PDF	ControlNumber_LeadOrganization_App424
2.	Project Summary/Abstract File	PDF	ControlNumber_LeadOrganization_Summary
3.	Project Narrative File, including required appendix for Letters of Commitment	PDF	ControlNumber_LeadOrganization_Project
4.	Resume File	PDF	ControlNumber_LeadOrganization_Resume
5.	SF 424A Excel – Budget Information for Non-Construction Programs File	Excel	ControlNumber_LeadOrganization_SF424A
6.	PMC 123.1 Budget Justification File	Excel	ControlNumber_LeadOrganization_Budget
7.	Letters of Commitment	PDF	ControlNumber_LeadOrganization_LOC
8.	Subaward Budget File(s), if applicable	Excel	ControlNumber_LeadOrganization_Subawardee_SF424A
9.	Subaward Budget Justification(s), if applicable	Excel	ControlNumber_LeadOrganization_Subawardee_Budget
10.	Budget for Federally Funded Research and Development Center (FFRDC) Contractor File, if applicable	PDF	ControlNumber_LeadOrganization_FFRDC_FWP
11.	Authorization from cognizant Contracting Officer for FFRDC, if applicable	PDF	ControlNumber_LeadOrganization_FFRDC_Auth
12.	SF-LLL Disclosure of Lobbying Activities, if applicable	PDF	ControlNumber_LeadOrganization_SF LLL
13.	Table A1 – Clean Cookstove Emissions, Efficiency, and Cost Baseline Performance Summary, if applicable	Excel	ControlNumber_LeadOrganization_TableA1
14.	Table A2 – Clean Cookstove Emissions, Efficiency, and Cost Performance Targets Summary, if applicable	Excel	ControlNumber_LeadOrganization_TableA2

D. Submissions from Successful Applicants

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

- Statement of Project Objectives (SOPO) (provided in a similar format as the SOPO template shown in Appendix E)
- Indirect cost information
- Other budget information
- Commitment Letter 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

E. Submission Dates and Times

1. Letter of Intent Is Not Required.
2. Pre-applications Are Not Required.
3. **Application Due Date and Submission Time.**

Applications must be received by **May 23, 2012**, not later than **5:00 PM Eastern Time**. You are encouraged to transmit your application well before the deadline.

APPLICATIONS RECEIVED AFTER THE DEADLINE WILL NOT BE REVIEWED OR CONSIDERED FOR AWARD.

F. Intergovernmental Review

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

G. Funding Restrictions

Cost Principles. Costs must be allowable in accordance with the applicable Federal cost principles referenced in 10 CFR Part 600. The cost principles for commercial organization are in FAR Part 31.

Pre-award Costs. Recipients may charge to an award resulting from this announcement pre-award costs that were incurred within the ninety (90) calendar day period immediately preceding the effective date of the award and no earlier than the selection date, if the costs are allowable in accordance with the applicable Federal cost principles referenced in 10 CFR part 600. Recipients must obtain the prior approval of the Contracting Officer for any pre-award costs that are for periods greater than this 90 day calendar period.

Pre-award costs are incurred at the applicant's risk. DOE is under no obligation to reimburse such costs if for any reason the applicant does not receive an award or if the award is made for a lesser amount than the applicant expected.

If recipients are State or Local Governments, they may not incur pre-award costs prior to award, without prior approval of the DOE Contracting Officer.

H. Submission and Registration Requirements

1. **Where to Submit**

APPLICATIONS MUST BE SUBMITTED UNDER THIS ANNOUNCEMENT THROUGH EERE EXCHANGE at <https://eere-exchange.energy.gov/> TO BE CONSIDERED FOR AWARD.

You cannot submit an application through EERE Exchange unless you are registered. Please read the registration requirements below carefully and start the process immediately. Applications submitted by any other means will not be accepted.

If you have problems completing the registration process or submitting your application, send an email to the EERE Exchange helpdesk at EERE-ExchangeSupport@hq.doe.gov. It is the responsibility of the applicant to verify successful transmission, prior to the Application due date and time.

2. Registration Process Requirements

There are several one-time actions that must be completed before submitting an Application in response to this Funding Opportunity Announcement (FOA), as follows:

- 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 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 appropriate contact point for each submission.

The applicant will receive an automated response when the Application is received. This will serve as a confirmation of receipt. Please do not reply to the automated response. The applicant will have the opportunity to re-submit a revised Application for any reason as long as the relevant submission is submitted by the specified deadline. The Users' Guide for Applying to the Department of Energy EERE Funding Opportunity Announcements is found at <https://eere-exchange.energy.gov/Manuals.aspx>.

The EERE Exchange registration does not have a delay; however, the remaining **registration requirements below could take several weeks to process and are necessary in order for a potential applicant to receive an award under this announcement.** Therefore, although not required in order to submit an Application through the EERE Exchange site, **all potential applicants lacking a DUNS number, or not yet registered with CCR or FedConnect should complete those registrations as soon as possible.**

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

- Obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number (including plus 4 extension, if applicable) at <http://fedgov.dnb.com/webform>
- Register with the Central Contractor Registry (CCR) at: <https://www.bpn.gov/ccr/default.aspx>. Designating an Electronic Business Point of

Contact (EBiz POC) and obtaining a special password called an MPIN are important steps in CCR registration. Please update your CCR registration annually.

- Register in FedConnect at <https://www.fedconnect.net/>. To create an organization account, your organization's CCR MPIN is required. For more information about the CCR MPIN or other registration requirements, review the FedConnect Ready, Set, Go! Guide at https://www.fedconnect.net/FedConnect/PublicPages/FedConnect_Ready_Set_Go.pdf
- Register in Grants.gov to receive automatic updates when Amendments to this FOA are posted. However, please note that applications will not be accepted through Grants.gov. <http://www.grants.gov/>.

3. Electronic Authorization of Applications and Award Documents

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

Submission of award documents, including modifications, through electronic systems used by the Department of Energy, including FedConnect, constitutes the authorized representative's approval and acceptance of the terms and conditions of the award. Award acknowledgement via FedConnect constitutes the authorized representative's electronic signature.

SECTION V - APPLICATION REVIEW INFORMATION

A. Criteria

1. Initial Review Criteria

Application Award Eligibility

Prior to a comprehensive merit evaluation, DOE will perform an initial review to determine that (1) the applicant is eligible for an award; (2) the information required by the announcement has been submitted; (3) all mandatory requirements are satisfied; and (4) the proposed project is responsive to the objectives of the funding opportunity announcement. If an application fails to meet these requirements, it may be deemed non-responsive and eliminated from full Merit Review.

2. Merit Review Criteria

Applications will be evaluated against the merit review criteria shown below.

Criterion 1: Technical Merit

Weight: 45%

The quality and extent to which the application demonstrates the technical merit and rationale for the proposed project. The extent to which the technical description of the proposed project adequately presents and justifies that the proposed project addresses the following technical focus areas and priorities:

- Validity and credibility of the proposed approach and likelihood of success based on current state of technology and published literature and the scientific principles underpinning the proposed approach.
- The degree to which the technical approach is clearly stated and responsive to the FOA objectives.
- The identification of key technical risk areas and mitigation strategies to address them.
- For Topic Areas 1 - 2, reliability of the baseline data and feasibility of the technical targets provided in Appendix E.
- The potential of the project to (a) achieve immediately implementable cookstoves with improved performance and affordability (Topic Areas 1 and 2) OR (b) to achieve or facilitate breakthroughs that will lead to major performance improvements that can contribute to the Global Alliance for Clean Cookstoves' goal of 100 million homes adopting clean and efficient stoves and fuels by 2020 (Topic Areas 1 – 3).

Criterion 2: Roles, Responsibilities and Capabilities

Weight: 30%

The extent to which the Applicant adequately demonstrates that its team has the core competencies necessary to cover all project aspects. DOE will evaluate:

- The clarity with which the roles, skills, and expertise of all key personnel are defined.
- The clarity with which the project narrative explains who is responsible for which activities in the project.
- The demonstrated experience of key scientists and partners with relevant areas including technology development, testing, and implementation, modeling and tool development, or applied research in combustion, heat transfer, and particulate formation.

- The degree to which the proposed management plan allows the project to function smoothly and effectively. The clarity with which the project narrative explains who is responsible for what activities in the project.
- The clarity and effectiveness of the plan to disseminate information and open source software tools to other project team members, others upon whom the project is dependent, and the global network of cookstoves organizations.
- The complement and relative quality of resources that team members and their institutions plan to bring to the project, including but not limited to:
 - Laboratory and field testing equipment and experience;
 - Peer reviewed and published data that can be utilized in this project;
 - Relevant computer models; and
 - Networks of cookstoves implementation and monitoring and evaluation partners.

Criterion 3: Work Plan

Weight: 25%

The extent to which the work plan:

- Clearly defines the scope, schedule, and budget, and demonstrates that the project will be able to achieve its goals and objectives, as planned.
- Clearly describes how progress will be measured (i.e., performance targets, milestones and deliverables, including quarterly progress reports).
- Proposes a reasonable budget for the scope of work.
- Includes a comprehensive plan for integrating R&D with laboratory and field testing and input from manufacturers, designers, and implementers and partners of the Global Alliance for Clean Cookstoves.
- Demonstrates the knowledge of and a plan to address all environmental, health and safety, permitting, and compliance concerns related to the project scope. (Topic Areas 1 and 2).

3. Other Selection Factors

Program Policy Factors

The selection official may consider the following program policy factors in the selection process:

- Type and diversity of relevant fuels and technologies.
- Potential for regional or global impact.
- Cost share in excess of minimum requirement.

B. Review and Selection Process

1. Applications Subject to Merit Review

Applications that pass the initial review will be subjected to a merit review in accordance with the guidance provided in the “Department of Energy Merit Review Guide for Financial Assistance”. This guide is available at:

<http://energy.gov/sites/prod/files/meritrev.pdf>.

It is very important that the Project Abstract and Project Narrative file used during the Merit Review Process do not contain any Personally Identifiable Information as described in Appendix B.

2. Selection Official Consideration

The Selection Official may consider the merit review recommendation, program policy factors, and the amount of funds available.

3. Government Discussions with Applicant

The Government may enter into discussions with a selected applicant for any reason deemed necessary, including, but not limited to: (1) the budget is not appropriate or reasonable for the requirement; (2) only a portion of the application is selected for award; (3) the Government needs additional information to determine that the recipient is capable of complying with the requirements in 10 CFR part 600; and/or (4) special terms and conditions are required. Failure to resolve satisfactorily the issues identified by the Government will preclude award to the applicant.

C. Anticipated Notice of Selection and Award Dates

Selection and Award Date

DOE anticipates notifying applicants selected for award by the **end of July 2012** and making awards by the **end of August 2012**.

SECTION VI - AWARD ADMINISTRATION INFORMATION

A. Notice of Selection and Award

1. Notice of Selection

Selected Applicants Notification

DOE will notify applicants selected for negotiations for award. This notice of selection is not an authorization to begin performance. (See Section IV.G with respect to the allowability of pre-award costs.)

Non-selected Notification

Organizations whose applications have not been selected will be advised as promptly as possible. This notice will explain why the application was not selected.

2. Notice of Award

A Financial Assistance Award or Assistance Agreement issued by the Contracting Officer is the authorizing award document. It normally includes, either as an attachment or by reference: (1) Special Terms and Conditions; (2) Applicable program regulations, if any; (3) Application as approved by DOE; (4) DOE assistance regulations at 10 CFR part 600; (5) National Policy Assurances To Be Incorporated As Award Terms; (6) Budget Summary; and (7) Federal Assistance Reporting Checklist, which identifies the reporting requirements.

For grants and cooperative agreements made to universities, non-profits and other entities subject to OMB Circular A-110, the Award also includes the Research Terms and Conditions and the DOE Agency Specific Requirements located at:

<http://www.nsf.gov/bfa/dias/policy/rtr/index.jsp>.

B. Administrative Requirements, National Policy Requirements, and Applicant Certifications

1. Administrative Requirements

The administrative requirements for DOE grants and cooperative agreements are contained in Title 10 CFR Part 600 (See: [10 CFR 600](#)). Grants and cooperative agreements made to universities, non-profits and other entities subject to Title 10 CFR Part 600 are subject to the Research Terms and Conditions located on the National Science Foundation web site at: <http://www.nsf.gov/bfa/dias/policy/rtr/index.jsp>.

DUNS and CCR Requirements

Additional administrative requirements for DOE grants and cooperative agreements are contained in 2 CFR, Part 25 (See: <http://ecfr.gpoaccess.gov>). Prime awardees must keep their data at CCR current. Subawardees at all tiers must obtain DUNS numbers and provide the DUNS to the prime awardee before the subaward can be issued.

Subaward and Executive Reporting

Additional administrative requirements necessary for DOE grants and cooperative

agreements to comply with the Federal Funding and Transparency Act of 2006 (FFATA) are contained in 2 CFR, Part 170. (See: <http://ecfr.gpoaccess.gov>). Prime awardees must register with the new FSRS database and report the required data on their first tier subawardees. Prime awardees must report the executive compensation for their own executives as part of their registration profile in the CCR.

2. Special Terms and Conditions, National Policy Requirements, and Applicant Certifications

The DOE Special Terms and Conditions for Use in Most Grants and Cooperative Agreements are located at:

<http://energy.gov/management/office-management/operational-management/financial-assistance/financial-assistance-forms>.

The National Policy Assurances To Be Incorporated as Award Terms are located at:

<http://energy.gov/management/office-management/operational-management/financial-assistance/financial-assistance-forms>

Applicant Certifications:

By submitting an application in response to this FOA the Applicant certifies that:

- (1) It is **not** a corporation that has been convicted (or had an officer or agent of such corporation acting on behalf of the corporation convicted) of a felony criminal violation under any Federal law within the preceding 24 months,
- (2) 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,
- (3) If the Applicant's financial assistance application is chosen for award and the award is in excess of \$1,000,000, the applicant will, by the end of the fiscal year, upgrade the efficiency of their facilities by replacing any lighting that does not meet or exceed the energy efficiency standard for incandescent light bulbs set forth in Section 325 of the Energy Policy and Conservation Act (42 U.S.C. 6295).

3. Intellectual Property Provisions

The standard DOE financial assistance intellectual property provisions applicable to the various types of recipients are located at <http://energy.gov/management/office-management/operational-management/financial-assistance/financial-assistance-forms>

C. Reporting

Reporting requirements are identified on the Federal Assistance Reporting Checklist, DOE F 4600.2, attached to the award agreement.

SECTION VII - QUESTIONS/AGENCY CONTACTS

A. Questions

Questions regarding the content of this announcement must be submitted to: cookstoves@go.doe.gov not later than 3 business days prior to the application due date.

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.** DOE will attempt to respond to a question within 3 business days, unless a similar question and answer has already been posted on the website.

DOE cannot 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.

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

SECTION VIII - OTHER INFORMATION

A. Amendments

Amendments to this announcement will be posted on the EERE eXCHANGE web site and the Grants.gov system. However, you will only receive an email when an amendment or an announcement is posted on these sites if you register for email notifications for this FOA in Grants.gov. DOE 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 announcements.

B. Government Right to Reject or Negotiate

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

C. Commitment of Public Funds

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

D. Proprietary Application Information

DOE will use data and other information contained in applications strictly for evaluation purposes. Applicants should not include confidential, proprietary, or privileged information in their applications unless such information is necessary to convey an understanding of the proposed project.

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

The cover sheet of the application must be marked as follows and identify the specific pages containing confidential, proprietary, or privileged information:

Notice of Restriction on Disclosure and Use of Data:

Pages *[list applicable pages]* of this document may contain confidential, proprietary, or privileged information that is exempt from public disclosure. Such information shall be used or disclosed only for evaluation purposes or in accordance 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.

The header and footer of every page that contains confidential, proprietary, or privileged information must be marked as follows: “Contains Confidential, Proprietary, or Privileged Information Exempt from Public Disclosure.”

In addition, every line and paragraph containing proprietary, privileged, or trade secret information must be clearly marked with double brackets or highlighting.

E. Evaluation and Administration by Non-Federal Personnel

In conducting the merit review evaluation, 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.

F. Intellectual Property Developed under this Program

Patent Rights. The government will have certain statutory rights in an invention that is conceived or first actually reduced to practice under a DOE award. 42 U.S.C. 5908 provides that title to such inventions vests in the United States, except where 35 U.S.C. 202 provides otherwise for nonprofit organizations or small business firms. However, the Secretary of Energy may waive all or any part of the rights of the United States subject to certain conditions. (See “Notice of Right to Request Patent Waiver” in paragraph G below.)

Rights in Technical Data. Normally, the government has unlimited rights in technical data created under a DOE agreement. Delivery or third party licensing of proprietary software or data developed solely at private expense will not normally be required except as specifically negotiated in a particular agreement to satisfy DOE’s own needs or to insure the commercialization of technology developed under a DOE agreement.

Copyrights. For Topic 3, the awardee must request DOE's permission to assert copyright in any software developed under the award. The request must include a plan to disseminate the software as open-source.

G. Notice of Right to Request Patent Waiver

Applicants may request a waiver of all or any part of the rights of the United States in inventions conceived or first actually reduced to practice in performance of an agreement as a result of this announcement, in advance of or within 30 days after the effective date of the award. Even if such advance waiver is not requested or the request is denied, the recipient will have a continuing right under the award to request a waiver of the rights of the United States in identified inventions, i.e., individual inventions conceived or first actually reduced to practice in performance of the award. Any patent waiver that may be granted is subject to certain terms and conditions in 10 CFR 784.

Domestic small businesses and domestic nonprofit organizations will receive the patent rights clause at 37 CFR 401.14, i.e., the implementation of the Bayh-Dole Act. This clause permits domestic small business and domestic nonprofit organizations to retain title to subject inventions. Therefore, small businesses and nonprofit organizations do not need to request a waiver.

H. Notice Regarding Eligible/Ineligible Activities

Eligible activities under this program 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.

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

DOE 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).

J. Notice of Potential Disclosure under Freedom of Information Act

Applicants should be advised that identifying information regarding all applicants, including applicant names and/or points of contact, may be subject to public disclosure under the Freedom of Information Act, whether or not such applicants are selected for negotiation of award.

REFERENCE MATERIAL

Appendix A – Definitions

“**Amendment**” means a revision to a Funding Opportunity Announcement

“**Applicant**” means the legal entity or individual signing the Application. This entity or individual may be one organization or a single entity representing a group of organizations (such as a Consortium) that has chosen to submit a single Application in response to a Funding Opportunity Announcement.

“**Application**” means the documentation submitted in response to a Funding Opportunity Announcement.

“**Authorized Organization Representative (AOR)**” is the person with assigned privileges who is authorized to submit grant applications through Grants.gov on behalf of an organization. The privileges are assigned by the organization’s E-Business Point of Contact designated in the CCR.

“**Award**” means the written documentation executed by a DOE Contracting Officer, after an Applicant is selected, which contains the negotiated terms and conditions for providing Financial Assistance to the Applicant. A Financial Assistance Award may be either a Grant or a Cooperative Agreement.

“**Biomass**” for this FOA, using the Food and Agriculture Organization’s Unified Bioenergy Terminology, includes direct, indirect, and recovered woody and herbaceous biomass and agricultural by-products. The biomass fuels may be unprocessed or minimally processed (e.g. size or moisture content changes, densification, but not altered thermally, chemically, or biochemically). Charcoal, coal, animal by-products, and or solar as a primary fuel are not considered biomass for this FOA.

“**Budget**” means the cost expenditure plan submitted in the Application, including both the DOE contribution and the Applicant Cost Share.

“**Central Contractor Registration (CCR)**” is the primary database which collects, validates, stores and disseminates data in support of agency missions.

“**Collaborators**” means individuals or organizations that have chosen to submit a single Application in response to a Funding Opportunity Announcement.

“**Consortium (plural consortia)**” means the group of organizations or individuals that have chosen to submit a single Application in response to a Funding Opportunity Announcement.

“**Contracting Officer**” means the DOE official authorized to execute Awards on behalf of DOE and who is responsible for the business management and non-program aspects of the Financial Assistance process.

“Controlled Cooking Test (CCT)” means a field test that measures stove performance in comparison to traditional cooking methods when a cook prepares a local meal. The CCT is designed to assess stove performance in a controlled setting using local fuels, pots, and practice. <http://www.pciaonline.org/node/1050>.

“Cooperative Agreement” means a Financial Assistance instrument used by DOE to transfer money or property when the principal purpose of the transaction is to accomplish a public purpose of support or stimulation authorized by Federal statute, and Substantial Involvement (see definition below) is anticipated between DOE and the Applicant during the performance of the contemplated activity.

“Cost Sharing” means the respective share of Total Project Costs to be contributed by the Applicant and by DOE. The percentage of Applicant Cost Share is to be applied to the Total Project Cost (i.e., the sum of Applicant plus DOE Cost Shares) rather than to the DOE contribution alone.

“Data Universal Numbering System (DUNS) Number” is a unique nine-character identification number issued by Dun and Bradstreet (D&B). Organizations must have a DUNS number prior to registering in the CCR. Call 1-866-705-5711 to receive one free of charge.

“Dissemination” of cookstoves includes both distribution and sales with no or any level of financing mechanisms.

“Domestic Entity” means a legal entity established pursuant to United States Federal or State laws, with operations in the United States or its Territories.

“E-Business Point of Contact (POC)” is the individual who is designated as the Electronic Business Point of Contact in the CCR registration. This person is the sole authority of the organization with the capability of designating or revoking an individual’s ability to conduct CCR transactions.

“E-Find” is a Grants.gov webpage where you can search for Federal Funding Opportunities in FedGrants. <http://www.grants.gov/search/searchHome.do>

“EERE Exchange” is the Department of Energy, Energy Efficiency and Renewable Energy’s web system for posting Federal Funding Opportunity Announcements and receiving applications. <https://eere-exchange.energy.gov/FileContent.aspx?FileID=e10b8886-1826-447d-b1bf-8d9f0bf06f8e>

“Financial Assistance” means the transfer of money or property to an Applicant or Participant to accomplish a public purpose of support authorized by Federal statute through Grants or Cooperative Agreements and sub-awards. For DOE, it does not include direct loans, loan guarantees, price guarantees, purchase agreements, Cooperative Research and Development Agreements (CRADAs), or any other type of financial incentive instrument.

“**FedConnect**” is where Federal agencies make awards via the web.

<https://www.fedconnect.net/FedConnect/>

“**Federally Funded Research and Development Center (FFRDC)**” means a research laboratory as defined by Federal Acquisition Regulation 35.017.

“**Funding Opportunity Announcement (FOA)**” is a publicly available document by which a Federal agency makes known its intentions to award discretionary grants or cooperative agreements, usually as a result of competition for funds. Funding opportunity announcements may be known as program announcements, notices of funding availability, solicitations, or other names depending on the agency and type of program.

“**Grant**” means a Financial Assistance instrument used by DOE to transfer money or property when the principal purpose of the transaction is to accomplish a public purpose of support or stimulation authorized by Federal statute, and no Substantial Involvement is anticipated between DOE and the Applicant during the performance of the contemplated activity.

“**Grants.gov**” is the “storefront” web portal which allows organizations to electronically find grant opportunities from all Federal grant-making agencies. Grants.gov is THE single access point for over 900 grant programs offered by the 26 Federal grant-making agencies.

<http://www.grants.gov>

“**Implementers**” include organizations that are conducting research; designing, manufacturing, testing or disseminating stoves; monitoring and evaluating clean cookstove programs; or understanding and motivating the cookstove users.

“**Indian Tribe**” means any Indian tribe, band, nation, or other organized group or community, including Alaska Native village or regional or village corporation, as defined in or established pursuant to the Alaska Native Claims Settlement Act (85 Stat. 688) [43 U.S.C. § 1601 et seq.], which are recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

“**Key Personnel**” mean the individuals who will have significant roles in planning and implementing the proposed Project on the part of the Applicant and Participants, including FFRDCs.

“**Kitchen Performance Test (KPT)**” means a field test used to evaluate stove performance in real-world settings. It is designed to assess actual impacts on household fuel consumption.

<http://www.pciaonline.org/node/1049>.

“**Marketing Partner Identification Number (MPIN)**” is a very important password designated by your organization when registering in CCR. The E-Business Point of Contact will need the MPIN to assign privileges to the individual(s) authorized to perform CCR transactions on behalf of your organization. The MPIN must have 9 digits containing at least one alpha character (must be in capital letters) and one number (no spaces or special characters permitted).

“Open Source” refers to models, tools and software that are freely accessible to users and that, through sharing source code, a wide community of researchers and developers can collaboratively develop further.

“Participant” for purposes of this Funding Opportunity Announcement only, means any entity, except the Applicant substantially involved in a Consortium, or other business arrangement (including all parties to the Application at any tier), responding to the Funding Opportunity Announcement.

“Partners” means individuals or organizations that are working in coordination with the Global Alliance for Clean Cookstoves. Partners may also include individuals or organizations that will work collaboratively with the Applicants but not be a Recipient of funds awarded by this FOA.

“Principal Investigator” refers to the technical point of contact/Project Manager for a specific project award.

“Project” means the set of activities described in an Application, State plan, or other document that is approved by DOE for Financial Assistance (whether such Financial Assistance represents all or only a portion of the support necessary to carry out those activities).

“Proposal” is the term used to describe the documentation submitted in response to a Funding Opportunity Announcement. Also see Application.

“Recipient” means the organization, individual, or other entity that receives a Financial Assistance Award from DOE, is financially accountable for the use of any DOE funds or property provided for the performance of the Project, and is legally responsible for carrying out the terms and condition of the award.

“Selection” means the determination by the DOE Selection Official that negotiations take place for certain Projects with the intent of awarding a Financial Assistance instrument.

“Selection Official” means the DOE official designated to select Applications for negotiation toward Award under a subject Funding Opportunity Announcement.

“Small Business” please see SBA for a complete definition:

<http://www.sba.gov/category/navigation-structure/contracting/contracting-officials/eligibility-size-standards>

“Solid Biomass” for the purposes of this FOA, is defined as direct, indirect, and recovered woody and herbaceous biomass and biomass from fruits and seeds. The biomass fuels may be unprocessed or minimally processed (e.g. size or moisture content changes, densification, but not altered thermally, chemically, or biochemically).

“Substantial Involvement” means involvement on the part of the Government. DOE's involvement may include shared responsibility for the performance of the Project; providing technical assistance or guidance which the Applicant is to follow; and the right to intervene in

the conduct or performance of the Project. Such involvement will be negotiated with each Applicant prior to signing any agreement.

“Technology Investment Agreement (TIA)” is a type of assistance instrument used to support or stimulate research projects involving for-profit firms, especially commercial firms that do business primarily in the commercial marketplace. TIAs are different from grants and cooperative agreements in that the award terms may vary from the Government-wide standard terms (See DOE TIA regulations at 10 CFR Part 603). The primary purposes for including a TIA in the type of available award instruments are to encourage non-traditional Government contractors to participate in an R&D program and to facilitate new relationships and business practices. A TIA can be particularly useful for awards to consortia (See 10 CFR 603.225(b) and 603.515, Qualification of a consortium).

“Total Project Cost” means all the funds to complete the effort proposed by the Applicant, including DOE funds (including direct funding of any FFRDC) plus all other funds that will be committed by the Applicant as Cost Sharing.

“Tribal Energy Resource Development Organization” means an “organization” of two or more entities, at least one of which is an Indian Tribe (see “Indian Tribe” above) that has the written consent of the governing bodies of all Indian Tribes participating in the organization to apply for a grant or loan, or other assistance under 25 U.S.C. § 3503.

“Volunteers in Technical Assistance (VITA) Water Boiling Test (WBT) 4.1 Protocol” means a laboratory test that evaluates stove performance while completing a standard task (boiling and simmering water) in a controlled environment to investigate the heat transfer and combustion efficiency of the stove. <http://www.pciaonline.org/node/1048>.

Appendix B – Personally Identifiable Information

In responding to this Announcement, Applicants must ensure that Protected Personally Identifiable Information (PII) is not included in the following documents: Project Abstract, Project Narrative, Biographical Sketches, Budget or Budget Justification. These documents will be used by the Merit Review Committee in the review process to evaluate each application. PII is defined by the Office of Management and Budget (OMB) and DOE as:

Any information about an individual maintained by an agency, including but not limited to, education, financial transactions, medical history, and criminal or employment history and information that can be used to distinguish or trace an individual's identity, such as their name, social security number, date and place of birth, mother's maiden name, biometric records, etc., including any other personal information that is linked or linkable to an individual.

This definition of PII can be further defined as: (1) Public PII and (2) Protected PII.

- a. **Public PII:** PII found in public sources such as telephone books, public websites, business cards, university listing, etc. Public PII includes first and last name, address, work telephone number, email address, home telephone number, and general education credentials.
- b. **Protected PII:** PII that requires enhanced protection. This information includes data that if compromised could cause harm to an individual such as identity theft.

Listed below are examples of Protected PII that Applicants must not include in the files listed above to be evaluated by the Merit Review Committee.

- Social Security Numbers in any form
- Place of Birth associated with an individual
- Date of Birth associated with an individual
- Mother's maiden name associated with an individual
- Biometric record associated with an individual
- Fingerprint
- Iris scan
- DNA
- Medical history information associated with an individual
- Medical conditions, including history of disease
- Metric information, e.g. weight, height, blood pressure
- Criminal history associated with an individual
- Employment history and other employment information associated with an individual
- Ratings
- Disciplinary actions

- Performance elements and standards (or work expectations) are PII when they are so intertwined with performance appraisals that their disclosure would reveal an individual's performance appraisal
- Financial information associated with an individual
- Credit card numbers
- Bank account numbers
- Security clearance history or related information (not including actual clearances held)

Listed below are examples of Public PII that Applicants may include in the files listed above to be evaluated by the Merit Review Committee:

- Phone numbers (work, home, cell)
- Street addresses (work and personal)
- Email addresses (work and personal)
- Digital pictures
- Medical information included in a health or safety report
- Employment information that is not PII even when associated with a name
- Resumes, unless they include a Social Security Number
- Present and past position titles and occupational series
- Present and past grades
- Present and past annual salary rates (including performance awards or bonuses, incentive awards, merit pay amount, Meritorious or Distinguished Executive Ranks, and allowances and differentials)
- Present and past duty stations and organization of assignment (includes room and phone numbers, organization designations, work email address, or other identifying information regarding buildings, room numbers, or places of employment)
- Position descriptions, identification of job elements, and those performance standards (but not actual performance appraisals) that the release of which would not interfere with law enforcement programs or severely inhibit agency effectiveness
- Security clearances held
- Written biographies (e.g. to be used in a program describing a speaker)
- Academic credentials
- Schools attended
- Major or area of study
- Personal information stored by individuals about themselves on their assigned workstation or laptop unless it contains a Social Security Number

Appendix C – 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, 10 CFR Part 600, use both of the terms in the titles specific to regulations applicable to cost sharing. DOE 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 Part 420.12, and 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. 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%

See the sample cost share calculation for a blended cost share percentage below. **Keep in mind that FFRDC funding is DOE funding.**

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 a DOE 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:

- Institutions of Higher Education, Hospitals, and Other Nonprofit Organizations are found at

10 CFR600.123;

- State and Local Governments are found at 10 CFR600.224;
- For-profit Organizations are found at 10 CFR600.313.

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, DOE 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, DOE generally does not allow pre-award costs prior to the signing of the Selection Statement by the DOE Selection Official.

Following is a link to the DOE Financial Assistance Regulations. You can click on the specific section for each Code of Federal Regulations reference mentioned above.

DOE Financial Assistance Regulations:

<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=98a996164312e8dcf0df9c22912852b0&rgn=div5&view=text&node=10:4.0.1.3.9&idno=10>

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 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 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 is determined in accordance with the for-profit costs 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.

(b) *Other types of organizations.* Allowability of costs incurred by other types of organizations that may be subrecipients under a prime award is determined as follows:

(i) *Institutions of higher education.* Allowability is determined in accordance with [2 CFR 220 Cost Principles for Educational Institutions](#)

(ii) *Other nonprofit organizations.* Allowability is determined in accordance with [2 CFR 220 Cost Principles for Educational Institutions](#)

(iii) *Hospitals.* Allowability is determined in accordance with the provisions of 45 CFR Part 74, [Appendix E, Principles for Determining Costs Applicable to Research and Development Under Grants and Contracts with Hospitals](#)

(iv) *Governmental organizations.* Allowability for State, local, or Federally recognized Indian tribal government is determined in accordance with [OMB Circular No. A-87, Cost Principles for State, Local, and Indian Tribal Governments](#)

(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 of 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 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.

**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:

<u>Task</u>	<u>Proposed Federal Share</u>	<u>Required Federal Share %</u>	<u>Non-federal Cost Share %</u>
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)	<u>100,000</u>	100%	0%
	\$2,000,000		

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)**

The calculation may then be completed as follows:

<u>Task</u>	<u>Proposed Federal Share</u>	<u>Federal Share %</u>	<u>Required Non-Federal Cost Share \$</u>	<u>Required Non-Federal Cost Share %</u>	<u>Total Project Cost</u>
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	<u>100,000</u>	100%	<u>0</u>	0%	<u>100,000</u>
	<u>\$2,000,000</u>		<u>\$775,000</u>		<u>\$2,775,000</u>

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)

Appendix D – Statement of Project Objectives

STATEMENT OF PROJECT OBJECTIVES

[Recipient Name]

[Project Title]

All of the information to be included in the SOPO should be consistent with the Application upon which the award is based. The SOPO should be written for public disclosure, and, generally, the total length should not exceed 4-5 pages.

The following items should not be included in the SOPO:

- *Dollar amounts.*
- *Specific dates.*
- *Subcontractors by name. The award is with the prime and, as such, the SOPO should not reference the subcontractors.*
- *Intellectual property information or data.*

A. PROJECT OBJECTIVES

[Enter a clear and concise statement of the goals and objectives of the project as well as the expected outcomes.]

B. PROJECT SCOPE

[Include a general overview description of the project. Refer to the DOE Biomass Program objectives and the FOA Goals that the project is addressing. This section should be only 1-2 paragraphs long.]

C. TASKS TO BE PERFORMED

[For each Task and Subtask, enter 1-2 paragraphs describing the purpose, approach, and expected outcomes. Include project milestones (do not include dates), where appropriate. If applicable, the Tasks should be organized by project phases/budget periods which correspond to major project milestones or go/no-go decision points.]

Below is an example of the type of Task structure desired:

PHASE 1 [TITLE OPTIONAL]

Task 1.0 [Insert Title]

[Insert Description]

Task 2.0 [Insert Title]

[Insert Description]

Subtask 2.1 [Insert Title]

[Insert Description]

Subtask 2.2 [Insert Title]
[Insert Description]

PHASE 2 [TITLE OPTIONAL]

Task 3.0 [Insert Title]
[Insert Description]

Task X.0 Project Management and Reporting [Include this as the last Task and number it consecutively with the other Tasks. As part or all of the Task Description, include language along the lines of: “Reports and other deliverables will be provided in accordance with the Federal Assistance Reporting Checklist following the instructions included therein.” Additional deliverables (for example, hardware delivered for testing or Peer Review Meetings / Project Review Meetings) not specified in the Reporting Checklist should be included in this Task Description.]

Appendix E – Performance Targets

For Applicants for Topics 1 and 2, the tables are provided below to facilitate applicants in proposing performance and cost baselines and targets. Complete these tables as they apply to the proposed project. It is expected that all relevant data will be provided where possible. The tables are available in Excel format as an attachment to the FOA.

Applicants should use the protocols described by the Partnership for Clean Indoor Air (<http://www.pciaonline.org/testing>) – the Water Boiling Test version 4.1, Controlled Cooking Test version 2.0, the Kitchen Performance Test version 3.0, and the Iowa State Stove Safety Protocol – or justify any modifications or the use of alternate protocols.

Baseline and Target Performance Metric Tables:

Table A1 – Clean Cookstove Emissions, Efficiency, and Cost Baseline Performance Summary

Table A2 – Clean Cookstove Emissions, Efficiency, and Cost Performance Targets Summary

Table A1: Clean Cookstove Emissions, Efficiency, and Cost Baseline Performance Summary

Complete ALL relevant sections or indicate plan to obtain data

Provide data for traditional open fires or stoves in use in geographical region of focus and current performance of proposed clean stoves.

Parameter	Traditional		Proposed stove		Units	Plan to obtain data
	Avg.	Std. Dev.	Avg.	Std. Dev.		
Efficiency and Fuel Consumption of Baseline Technology						
Water Boiling Test (High power-cold start)						
Volume of water (5 or 2.5 liters are recommended)					liters	
Time to boil					min	
Temp-corrected time to boil Pot # 1					min	
Burning rate					g/min	
Thermal efficiency					%	
Specific fuel consumption					g/liter	
Temp-corrected specific consumption					g/liter	
Firepower					watts	
Water Boiling Test (High power-hot start)						
Volume of water (5 or 2.5 liters are recommended)					liters	
Time to boil					min	
Temp-corrected time to boil					min	

Pot # 1						
Burning rate					g/min	
Thermal efficiency					%	
Specific fuel consumption					g/liter	
Temp-corrected specific consumption					g/liter	
Firepower					watts	
Water Boiling Test (Low power)						
Burning rate					g/min	
Specific fuel consumption					g/liter	
Specific Consumption					MJ/min/ L	
Firepower					watts	
Turn down ratio					--	
Controlled Cooking Test						
Specific fuel consumption					g/kg	
Total cooking time					min	
Kitchen Performance Test						
Daily energy use					MJ	
Energy use per capita					MJ/pers on	
Emissions of Baseline Technology						
CO emissions (WBT cold start)					g/MJ delivered (to cooking pot)	
CO emissions (WBT hot start)					g/MJ delivered (to cooking pot)	
CO emissions (WBT low power)					g/min/L	
PM2.5 emissions (WBT cold start)					mg/MJ delivered (to cooking pot)	
PM2.5 emissions (WBT hot start)					mg/MJ delivered (to cooking pot)	
PM2.5 emissions (WBT low power)					mg/min/ L	
Total hydrocarbon					g/MJ	

emissions					delivered (to cooking pot)	
Costs and Safety						
Stove cost		NA		NA	US\$	
Safety		NA		NA	points	

**Table A2: Clean Cookstove Emissions, Efficiency, and Cost Initial Performance and Targets
Summary**

Complete ALL relevant sections or indicate plan to obtain data

Parameter	Units	Initial (from Table A1)	Year 1 End	Year 2 End	Year 3 End
Efficiency and Fuel Consumption of Technology					
Water Boiling Test (High power-cold start)					
Volume of water (5 or 2.5 liters are recommended)	liters	0			
Time to boil	min	0			
Temp-corrected time to boil Pot # 1	min	0			
Burning rate	g/min	0			
Thermal efficiency	%	0			
Specific fuel consumption	g/liter	0			
Temp-corrected specific consumption	g/liter	0			
Firepower	watts	0			
Water Boiling Test (High power-hot start)					
Volume of water (5 or 2.5 liters are recommended)	liters	0			
Time to boil	min	0			
Temp-corrected time to boil Pot # 1	min	0			
Burning rate	g/min	0			
Thermal efficiency	%	0			
Specific fuel consumption	g/liter	0			
Temp-corrected specific consumption	g/liter	0			
Firepower	watts	0			
Water Boiling Test (Low power)					
Burning rate	g/min	0			
Specific fuel consumption	g/liter	0			
Firepower	watts	0			
Turn down ratio	--	0			
Controlled Cooking Test					
Specific fuel consumption	g/kg	0			
Total cooking time	min	0			
Kitchen Performance Test					
Daily energy use	MJ	0			
Energy use per capita	MJ/person	0			
Emissions of Baseline Technology					
CO emissions (WBT cold start)	g/MJ delivered (to cooking pot)	0			

	g/MJ delivered (to cooking pot)	0			
CO emissions (WBT hot start)					
CO emissions (WBT low power)	g/min/L	0			
	mg/MJ delivered (to cooking pot)	0			
PM2.5 emissions (WBT cold start)					
PM2.5 emissions (WBT hot start)	mg/MJ delivered (to cooking pot)	0			
PM2.5 emissions (WBT low power)	mg/min/L	0			
	g/MJ delivered (to cooking pot)	0			
Total hydrocarbon emissions					
Costs and Safety					
Stove cost	US\$	0			
Safety	points	0			