DEPARTMENT OF ENERGY (DOE)
OFFICE OF INDIAN ENERGY POLICY AND PROGRAMS (IE)

DEPLOYMENT OF ENERGY EFFICIENCY AND CLEAN ENERGY ON INDIAN LANDS – 2017

Funding Opportunity Announcement (FOA)
Number: DE-FOA-0001660
FOA Type: 0000
CFDA Number: 81.087

FOA Issue Date:	November 14, 2016
Informational Webinar:	December 1, 2016 at 3:00 pm Eastern Time
Submission Deadline for Applications:	February 7, 2017 at 5:00 pm Eastern Time
Expected Date for DOE Selection Notifications:	May 2017
Expected Timeframe for Award Negotiations	90 days after receipt of any requested supplemental information

- To apply to this FOA, Applicants must register with and submit application materials through EERE Exchange at https://eere-Exchange.energy.gov, DOE's online application portal. Frequently asked questions for this FOA and the DOE application process can be found at https://eere-exchange.energy.gov/FAQ.aspx. A control number will be assigned while registering in EERE Exchange. Retain this number as it will be used as an identifier and required on all application documents.

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

TABLE OF CONTENTS

EXECUTIVE SUMMARY **1**

I. FUNDING OPPORTUNITY DESCRIPTION **2**

A. DESCRIPTION/BACKGROUND 2
B. TOPIC AREAS/TECHNICAL AREAS OF INTEREST 5
C. APPLICATIONS SPECIFICALLY NOT OF INTEREST 12
D. AUTHORIZING STATUTES 14

II. AWARD INFORMATION **14**

A. AWARD OVERVIEW 14
1. Estimated Funding 14
2. Period of Performance 14
3. New Applications Only 15
B. DOE FUNDING AGREEMENTS 15

III. ELIGIBILITY INFORMATION **15**

A. ELIGIBLE APPLICANTS 15
B. COST SHARING 18
1. Legal Responsibility 19
2. Cost Share Allocation 20
3. Cost Share Types and Allowability 20
4. Cost Share Contributions by FFRDCs and GOGOs 21
5. Cost Share Verification 21
6. Cost Share Payment 22
C. COMPLIANCE CRITERIA 22
D. RESPONSIVENESS CRITERIA 23
E. LIMITATION ON NUMBER OF APPLICATIONS ELIGIBLE FOR REVIEW 23
F. QUESTIONS REGARDING ELIGIBILITY 23

IV. APPLICATION AND SUBMISSION INFORMATION **23**

A. APPLICATION PROCESS 23
B. APPLICATION FORMS 25
C. CONTENT AND FORM OF THE APPLICATION 25
1. Application for Federal Assistance SF-424 (Required) 27
1. Summary/Abstract for Public Release (Required) 28
3. Summary Slide (Required) 28
4. Technical Volume (Required) 29
5. Workplan (Required) 38
6. Site and Resource Maps and Graphics File (Optional) 40
7. Project Metrics Data File (Required) 40
8. Energy Savings Calculations File (Required for Topic Area 1 Only, both 1.a and 1.b) 40
9. Energy Use Data (Required for Topic Area 1 Only, both 1.a and 1.b) 40
10. Energy Audits or Assessments (Required for Topic Area 1 Only, both 1.a and 1.b) 41
11. Design and Engineering File (Optional) 41

12. *Economics File (optional)* *41*
13. *Statement of Commitment and Cost Sharing File (Required)* *41*
14. *Subcontract Plan file (Optional)* *43*
15. *Resume File (Required)* *43*
16. *Budget Justification Workbook IE 335 (Required)* *43*
17. *Subaward Budget Justification IE 335 (Optional)* *44*
18. *Budget Support (Optional)* *44*
19. *SF-LLL: Disclosure of Lobbying Activities (Required)* *44*
20. *Waiver Requests: Performance of Work in the United States* *45*

D. POST-AWARD INFORMATION REQUESTS 45
E. DUN AND BRADSTREET UNIVERSAL NUMBERING SYSTEM NUMBER AND SYSTEM FOR AWARD MANAGEMENT 45
F. SUBMISSION DATES AND TIMES 46
G. INTERGOVERNMENTAL REVIEW 46
H. FUNDING RESTRICTIONS 46

1. *Allowable Costs* *46*
2. *Pre-Award Costs* *46*
3. *Performance of Work in the United States* *47*
4. *Construction* *49*
5. *Davis-Bacon Act or Related Acts* *49*
6. *Foreign Travel* *49*
7. *Equipment and Supplies* *49*
8. *Lobbying* *49*
9. *Invoice Review and Approval* *50*

V. APPLICATION REVIEW INFORMATION 51

A. TECHNICAL REVIEW CRITERIA 51
B. STANDARDS FOR APPLICATION EVALUATION 53
C. PROGRAM POLICY FACTORS 53
D. EVALUATION AND SELECTION PROCESS 54

1. *Overview* *54*
2. *Pre-Selection Clarification* *55*
3. *Recipient Integrity and Performance Matters* *55*
4. *Selection* *56*

E. ANTICIPATED NOTICE OF SELECTION AND AWARD DATES 56

VI. AWARD ADMINISTRATION INFORMATION 56

A. AWARD NOTICES 56

1. *Ineligible Submissions* *56*
2. *Application Notifications* *56*
3. *Successful Applicants* *57*
4. *Postponed Selection Determinations* *57*
5. *Alternate Selection Determinations* *57*
6. *Unsuccessful Applicants* *57*

B. ADMINISTRATIVE AND NATIONAL POLICY REQUIREMENTS 58

1. *Registration Requirements* *58*
2. *Award Administrative Requirements* *59*
3. *Foreign National Access to DOE Sites* *59*
4. *Subaward and Executive Reporting* *60*
5. *National Policy Requirements* *60*

6. Environmental Review in Accordance with the National Environmental Policy Act (NEPA) 60
7. Applicant Representations and Certifications 61
8. Statement of Federal Stewardship 62
9. Intellectual Property Provisions 63
10. Reporting 63
11. Conference Spending 63

VII. QUESTIONS/AGENCY CONTACTS 63

VIII. OTHER INFORMATION 64

A. FOA MODIFICATIONS 64
B. INFORMATIONAL WEBINAR 64
C. GOVERNMENT RIGHT TO REJECT OR NEGOTIATE 64
D. COMMITMENT OF PUBLIC FUNDS 64
E. TREATMENT OF APPLICATION INFORMATION 65
F. EVALUATION AND ADMINISTRATION BY NON-FEDERAL PERSONNEL 66
G. NOTICE REGARDING ELIGIBLE/INELIGIBLE ACTIVITIES 66
H. NOTICE OF RIGHT TO CONDUCT A REVIEW OF FINANCIAL CAPABILITY 66
I. NOTICE OF POTENTIAL DISCLOSURE UNDER FREEDOM OF INFORMATION ACT 66
J. REQUIREMENT FOR FULL AND COMPLETE DISCLOSURE 67
K. RETENTION OF SUBMISSIONS 67
L. RIGHTS IN TECHNICAL DATA 67
M. COPYRIGHT 68
N. PROTECTED PERSONALLY IDENTIFIABLE INFORMATION 68
O. ANNUAL COMPLIANCE AUDITS 68

APPENDIX A – DEFINITIONS 69

APPENDIX B – COST SHARE INFORMATION 79

APPENDIX C – CALCULATING ENERGY SAVINGS (TOPIC AREA 1 ONLY) 84

APPENDIX D – WORKPLAN FORMAT 93

APPENDIX E – SUMMARY SLIDE TEMPLATE 110

EXECUTIVE SUMMARY

FOA Summary	Under this Funding Opportunity Announcement (FOA), DOE's Office of Indian Energy is soliciting applications from Indian Tribes (including Alaska Native Regional Corporations and Village Corporations) and Tribal Energy Resource Development Organizations to: (1) install energy efficiency measures and clean energy systems on tribal buildings (Topic Area 1); and to (2) deploy clean energy systems on a community-scale on Indian Lands (Topic Area 2) (see Section III.A for eligibility definitions).
Total Amount to be Awarded	Approximately $4 million to $6 million in Federal funds. The actual level of funding will depend on Congressional appropriations. DOE anticipates making approximately 6 to 10 awards under this FOA. DOE may issue awards in one, multiple, or none of the Topic Areas.
Average Award Amount	DOE anticipates making awards that range from $50,000 to $500,000 for Topic Area 1 (Energy Efficiency Measures and Clean Energy Systems on Tribal Buildings) and from $250,000 to $1,000,000 for Topic Area 2 (Community-Scale Clean Energy Deployment).
Types of Funding Agreements	Grants
Period of Performance	DOE anticipates making awards with period of performances of approximately one (1) to two (2) years, but no longer than three (3) years including the 12 month verification period.
Eligible Applicants	Subject to the definitions and requirements in Section III.A, eligible entities include: (1) Indian Tribes (including Alaska Native Regional Corporations and Village Corporations) or (2) Tribal Energy Resource Development Organizations. Applications from a consortium of Indian Tribes (Tribal Consortium) will be accepted but must be submitted by a single Indian Tribe acting as the Applicant representing the Consortium. Applications may also be submitted on behalf of an Indian Tribe(s) by an authorized Tribal Organization or Inter-tribal Organization, provided evidence of that authority is supplied as part of the application. See Section III.A for eligibility requirements and definitions. **DOE will not make eligibility determinations for potential Applicants prior to the date on which applications to this FOA must be submitted.** The decision of whether to submit an application in response to this FOA lies solely with the Applicant.
Cost Share Requirement	A 50% cost share of the total allowable costs of the project (i.e., the sum of the DOE share, and the Recipient share of allowable costs equals the total allowable cost of the project) is required.
Means of Submission	Applications must be submitted through EERE Exchange at https://eere-Exchange.energy.gov, DOE's online application portal. DOE will not review or consider applications submitted through other means. The Users' Guide for Applying to the Department of Energy DOE Funding Opportunity Announcements is found at https://eere-Exchange.energy.gov/Manuals.aspx.
Submission of Multiple Applications	Applicants may submit more than one application to this FOA or more than one application for a particular Topic Area, provided each application is for a distinctively different project and addresses only one Topic Area. Each application must have a distinct title, unique Control Number as assigned by EERE Exchange during the registration process, and be readily distinguishable.
Application Forms	Required forms and templates for applications are available on EERE Exchange at https://eere-Exchange.energy.gov.

DEPLOYMENT OF ENERGY EFFICIENCY AND CLEAN ENERGY ON INDIAN LANDS – 2017

I. FUNDING OPPORTUNITY DESCRIPTION

A. DESCRIPTION/BACKGROUND

The Department of Energy's (DOE's) Office of Indian Energy Policy and Programs (Office of Indian Energy) is charged by Congress under the Indian Tribal Energy Development and Self Determination Act of 2005 (Energy Policy Act of 2005 (EPAct 2005), Title V, § 502, codified at 42 USC § 7144e and 25 USC § 3501 et seq.) , to "provide, direct, foster, coordinate, and implement energy planning, education, management, conservation, and delivery programs that –

(1) Promote Indian tribal energy development, efficiency, and use;
(2) Reduce and stabilize energy costs;
(3) Enhance and strengthen Indian tribal energy and economic infrastructure relating to natural resource development and electrification; and
(4) Bring electric power and service to Indian land and homes for tribal members located on Indian lands or acquired, constructed, or improved (in whole or in part) with Federal funds." 42 USC § 7144e(b)

For more information on the Office of Indian Energy Policy and Programs, see its website.

This Funding Opportunity Announcement (FOA) builds on efforts by DOE's Office of Energy Efficiency and Renewable Energy's (EERE's) Tribal Energy Program, and the authorities granted the Office of Indian Energy under EPAct 2005, to accelerate deployment of renewable energy and energy efficiency technology on Indian Lands. Between 2002 and 2016, DOE invested nearly $66.5 million in more than 200 tribal energy projects implemented across the contiguous 48 states and in Alaska, through funding provided by EERE's Tribal Energy Program and DOE's Office of Indian Energy. The projects, valued at approximately $126 million, are leveraged by nearly $60 million in Recipient cost share. See the Office of Indian Energy website for a map and summaries of these competitively funded projects.

Through this FOA, the Office of Indian Energy will continue its efforts to maximize the development and deployment of energy solutions for the benefit of American Indians and Alaska Natives and help build the knowledge, skills, and resources needed to implement those energy solutions. In support of these objectives, the Office of Indian Energy is soliciting applications to install energy efficiency measures and deploy clean energy systems on Indian

Lands. Through grants, DOE intends to provide financial support under the provisions of the Title V of the Energy Policy Act (EPAct) of 2005.

Specifically, the Office of Indian Energy is soliciting applications from Indian Tribes including Alaska Native Regional Corporations and Village Corporations (hereafter referred to as "Indian Tribe") and Tribal Energy Resource Development Organizations to:

(1) Install energy efficiency measures and clean energy systems on tribal buildings (Topic Area 1) through:
    a. Deep energy retrofits (Topic Area 1.a.), or
    b. Energy efficiency measures and clean energy systems (Topic Area 1.b.),
    and/or,
(2) Deploy clean energy systems on a community-scale (Topic Area 2).

See definitions below and in Appendix A.

Projects selected under this FOA are intended to reduce energy costs and increase energy security for Indian Tribes and tribal members. The potential energy savings or clean energy generation, level of commitment, and capabilities of the Applicant and project participants to accomplish the project objectives will be major factors in selecting projects for funding. Applications should also demonstrate the potential for economic and environmental benefits to the Indian Tribe and tribal community. The Indian Tribe or Tribal Energy Resource Development Organization must demonstrate the organizational and technical readiness and commitment to install energy efficiency measures or deploy clean energy systems.

Pursuant to its authorizing statute, the Office of Indian Energy will only consider applications from (1) Indian Tribes or (2) Tribal Energy Resource Development Organizations on whose (3) Indian Lands the project(s) will be located (see Section III, Eligibility Information, and Appendix A for further definition). Applications from a consortium of Indian Tribes (Tribal Consortium) will be accepted but must be submitted by a single Indian Tribe acting as the Applicant and representing the Consortium. Applications may also be submitted on behalf of an Indian Tribe(s) by an authorized Tribal Organization or Inter-Tribal Organization, provided evidence of that authority is provided as part of the application (see Section III.A. and Appendix A, for the definitions of Tribal Organization or Inter-Tribal Organization).

An executed Tribal Council Resolution from each participating Indian Tribe, a declaration (or resolution) from each Alaska Native Regional Corporation, Village Corporation, or Tribal Energy Resource Development Organization signed by an authorized representative, and a letter of commitment from all other project participants are required as a part of the application. If an Indian Tribe provides a commitment in a format other than a Tribal Council Resolution,

evidence of the statutory or other legal authority authorizing that form of commitment in lieu of a Tribal Council Resolution must accompany that commitment. The evidence must prove that the commitment submitted carries the same level of Tribal leadership commitment as a Tribal Council Resolution.

If an Application is being submitted on behalf of an Indian Tribe(s) by an authorized Tribal Organization or Inter-tribal Organization, evidence of that authority is required as part of the Application, along with a declaration (or resolution) from the Tribal Organization or Inter-tribal Organization, and a letter of commitment from all other project participants. Evidence of the authority to submit an application on behalf of an Indian Tribe(s) may include, but is not limited to, a constitution, resolution, ordinance, executive order, charter, P.L. 93-638 contract, self-governance compact, or other legal documentation (see full definitions under Section III.A., Eligible Applicants).

All Tribal Council Resolutions, resolutions, declarations, and letters of commitment must be specific to this Funding Opportunity Announcement and must include cost sharing commitments (see Statements of Commitment and Cost Sharing File under Part IV.C., Content and Form of Application).

A 50% cost share of the total allowable costs of the project (i.e., the sum of the DOE share, and the Recipient share of allowable costs equals the total allowable cost of the project) is required under this Funding Opportunity Announcement. All cost share must come from non-Federal sources unless otherwise allowed by law (see Section III.B for instances where Federal funds are permissible by statute, for use as cost share). Cost share may include cash or in-kind contributions (e.g., contribution of time, unrecovered indirect costs, unrecovered facilities and administrative costs, rental value of buildings or equipment, and the value of a service, other resource, or third party in-kind contribution) made during the period of performance of the grant. See Appendix B for more information on cost share.

Applicants may submit more than one application to this FOA or more than one application for a particular Topic Area, provided each application is for a distinctively different project and addresses only one Topic Area. Each application must have a distinct title, unique Control Number as assigned by EERE Exchange during the registration process, and be readily distinguishable. All applications must designate the specific Topic Area under which that application is being submitted on the Summary/Abstract, Summary Slide and on the cover of the Narrative file (see Section IV.C., Content and Form of Application).

Selected Applicants will be required to document progress in quarterly reports and the project results in a comprehensive final report, as well as present at an annual Program Review to be held each Fall in Denver, Colorado. For planning purposes, Applicants should plan to attend and

present grant activities each year during the period of performance of the grant, beginning in 2017. Travel costs for this annual review (one-week in duration plus travel days) must be included for each year of the grant in the proposed budget.

B. Topic Areas/Technical Areas of Interest

The FOA is soliciting applications under the following two Topic Areas:

(1) Energy Efficiency Measures and Clean Energy Systems on Tribal Buildings (Topic Area 1)

a. Deep Energy Retrofits (Topic Area 1.a.)
b. Energy Efficiency Measures and Clean Energy Systems (Topic Area 1.b.)

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

Topic Area 1: Energy Efficiency Measures and Clean Energy Systems on Tribal Buildings

Under Topic Area 1, DOE is soliciting applications for the deployment of the following energy efficiency measures and clean energy systems on tribal buildings:

(a) Deep energy retrofits (Topic Area 1.a.), or

(b) Energy efficiency measures and clean energy systems (Topic Area 1.b).

For purposes of this announcement, tribal buildings may include a single or multiple "Tribally-owned or controlled building(s)" located on Indian Lands.

All proposed installations must be for either:
(1) Existing "Tribally-owned or controlled building(s)"; or
(2) "Tribally-owned or controlled building(s)" that are currently being constructed or planned to be constructed during the proposed grant period.

Costs associated with the construction of a building or buildings or structures such as carports (unless integral to the clean energy system being proposed) will not be considered by DOE for reimbursement or as cost share; only the incremental costs associated with the installation of clean energy systems or energy efficiency measures will be considered allocable to the proposed DOE funded project.

"Tribally-owned or controlled building(s)," for purposes of this FOA, is a building or buildings where the eligible entity has the authority to retrofit the building and where the building is either owned by the eligible entity or tribal members, or the eligible entity has a long-term lease (at least 20 years). Buildings may include, but are not limited to, tribal member homes, schools, community buildings, clinics, tribal government buildings, utility facilities (such as water/waste water systems), tribal casinos, or tribal businesses.

(a) Deep Energy Retrofits (Topic Area 1.a.)

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

Only projects proposing multiple EEMs will be considered; if an application proposes only a single EEM under Topic Area 1.a., the application will be deemed nonresponsive and will not be reviewed or considered.

"Energy Efficiency Measures (EEMs)," for purposes of this FOA, means the implementation of (1) building efficiency or (2) industrial process efficiencies.

(1) Building efficiencies may include, but are not limited to, building envelope improvements (improvements to walls, roofs, foundation slab, ceiling, windows, doors, insulation), the installation of energy efficient equipment, high-efficiency lighting, efficient appliances, air sealing, moisture management, controlled ventilation, high R-value (high thermal resistance) insulation, high efficiency windows, efficient heating systems (furnaces, boilers, passive solar), efficient cooling systems (air conditioners, evaporative coolers), ground source heat pumps, energy saving building electrical equipment, and efficient mechanical systems and heat recovery ventilation units.
(2) Industrial process efficiencies may include, but are not limited to, insulating piping, tank walls and roofs, the installation of higher efficiency equipment (e.g., heat exchangers, compressors, blowers, pumps, and fans), minimizing air leaks, optimizing air systems through the use of variable speed drives, and adding or optimizing controls.

For purposes of this announcement, "energy efficiency" is not the same as "energy conservation", which is not eligible under this FOA. Specifically, "energy conservation," for purposes of this FOA, means decreasing energy consumption by using less of an energy service or going without an energy service to save energy. Energy conservation typically

involves a behavioral change and may include meters or other indicators to induce that behavioral change. If "energy conservation" is proposed in response to Topic Area 1.a, the application will be deemed nonresponsive and will not be reviewed or considered.

To be eligible, deep energy retrofits **must**:

(1) Be based on a prior energy audit(s) or industrial energy assessment(s) and those energy audits or industrial energy assessments **must** be provided as part of the application;
(2) Use commercially-proven warrantied technology (see the definition of "commercially-proven" and "warrantied" under Appendix A); and
(3) Demonstrate the potential of at least a 15% reduction in the **total** of all energy and fuel sources used (total of all energy and fuel sources combined, including but not limited to, electricity, propane, heating oil, diesel oil, natural gas, or any other energy or fuel used) in Tribally-owned or controlled building(s).

Under Topic Area 1.a., either a single Tribally-owned or controlled building or multiple Tribally-owned or controlled buildings may be proposed, but a minimum of a 15% reduction in the **total** of all energy and fuel sources used **must** be demonstrated for either a single Tribally-owned building **or** the cumulative reduction in multiple Tribally-owned or controlled buildings.

NOTE: Only EEMs will be considered under Topic Area 1.a. However, clean energy systems (renewable energy systems or combined heat and power systems) may be proposed along with EEMs under Topic Area 1.b., and those clean energy systems must then meet the requirements specified under that section. Applications proposing a combination of EEMs and clean energy systems will only be accepted under Topic Area 1.b.; applications proposing such a combination under any other Topic Area will be deemed nonresponsive and will not be reviewed or considered.

The percentage of energy saved will be independently verified; therefore, the methodology described in Appendix C must be used. A Microsoft Excel template (Energy Saving Calculations File template) has been provided in EERE Exchange for calculating the amount of energy saved. The use of the Energy Savings Calculations File template is not required, however, the data included within the Energy Savings Calculations File template are required. Appendix C includes instructions on how to calculate the percentage of the **total** of all energy saved under this Topic Area, the conversion factors that must be used, and various examples.

For existing Tribally-owned or controlled building(s), the requirement for a 15% reduction in the **total** of all energy and fuel sources used in a building(s) must be based on the actual annual consumption of all energy and fuel sources used during a prior consecutive 12 month period as evidenced by utility bills (e.g., summary of electric utility consumption and costs as provided by the local utility (preferable), electric utility invoices or bills, fuel purchase invoices, or other comparable documentation for all energy and fuel sources used in the building or buildings). Provide annual energy consumption and cost data as an attachment under the Energy Use Data File (see Section IV.C.7.).

For Tribally-owned or controlled building(s) that are currently being constructed or planned to be constructed during the grant period, the requirement for a 15% reduction in the **total** of all energy and fuel sources used in a building(s) must be based on the projected annual energy and fuel use and those projections supplied as part of the application. Only the incremental costs associated with the installation of the energy efficiency measures will be considered, not the cost of the building.

The 15% reduction in the **total** of all energy and fuel sources used in a building(s) must occur during the period of performance of the grant. Verification of the actual annual reduction (amount, cost, and percentage) in the total of all energy used in a building(s) will be required for a minimum of 12 months after installation of the deep energy retrofits, and a description of those verification methods must be included as part of the Technical Volume (see Section IV.C., Content and Form of the Application).

(b) Energy Efficiency Measures and Clean Energy Systems (Topic Area 1.b)

Under Topic Area 1.b., a clean energy system(s) can be proposed in addition to a single or multiple EEMs (see definition above or under Appendix A).

To be eligible, the combination of a single or multiple EEMs and clean energy system(s) **must**:

(1) Use commercially-proven warrantied technology (see the definition of "commercially-proven" and "warrantied" under Appendix A); and
(2) Demonstrate the potential of at least a 20% reduction in the **total** of all energy and fuel sources used (total of all energy and fuel sources combined, including but not limited to, electricity, propane, heating oil, diesel oil, natural gas, or any other energy or fuel used) in Tribally-owned or controlled building(s).

Additionally:

(3) The energy efficiency measures **must** be based on a prior energy audit(s) or industrial energy assessment(s) and those energy audits or industrial energy assessments **must** be provided as part of the application; and

(4) The clean energy system **must** not only contribute toward meeting a 20% reduction in the **total** of all energy and fuel sources used in Tribally-owned or controlled building(s) , but **must** also be a minimum of 10 kW rated capacity (or Btu equivalent of 34,121 Btu/hr for heating and cooling).

Under Topic Area 1.b, either a single EEM or multiple EEMs may be proposed and either a single Tribally-owned or controlled building or multiple Tribally-owned or controlled buildings may be proposed, but a minimum of a 20% reduction in the **total** of all energy and fuel sources used, **must** be demonstrated for either a single Tribally-owned building **or** the cumulative reduction in multiple Tribally-owned or controlled buildings.

For purposes of this announcement, "energy efficiency" is not the same as "energy conservation", which is not eligible under this FOA. Specifically, "energy conservation," for purposes of this FOA, means decreasing energy consumption by using less of an energy service or going without an energy service to save energy. Energy conservation typically involves a behavioral change and may include meters or other indicators to induce that behavioral change. If "energy conservation" is proposed in response to Topic Area 1.b., the application will be deemed nonresponsive and will not be reviewed or considered.

The minimum system size (10 kW rated capacity or equivalent) may be for either a single individual clean energy system **or** the aggregate of multiple clean energy systems. However, for each building affected, both an energy efficiency measure(s) and a clean energy system(s) **must** be proposed.

"Clean energy systems" for purposes of this FOA include renewable energy systems and combined heat and power systems (see definitions below or under Appendix A).

"Renewable energy systems," for purposes of this announcement, include systems for: (1) electric power generation; and/or (2) heating or cooling systems. Renewable energy systems also include renewable energy fueled combined heat and power systems (see below).

(1) Renewable energy systems for electric power generation include, but are not limited to, photovoltaic (solar electric), biomass (including waste to energy), wind power, hydropower (diversion, run-of-river, small impoundment and incremental), or other renewable energy hybrid systems for electricity power generation. Note that for

purposes of this FOA, ground source heat pumps are considered an energy efficiency measure.

(2) Heating or cooling systems include, but are not limited to, the use of biomass for high efficiency combustion systems (i.e., stoves and boilers), active solar thermal systems for space or water heating, wind energy for heating, direct-use hydrothermal (geothermal) resources for water and space heating, or other renewable energy hybrid systems for heating and/or cooling.

"Combined heat and power systems," for purposes of this announcement, include, but are not limited to, integrated systems that simultaneously generate heat and power using energy efficient turbines, reciprocating engines, micro-turbines, fuel cells, and waste heat recovery systems (capturing heat discarded by an existing process and using that heat directly or to generate power). Eligible combined heat and power systems may only be fueled by either: (1) renewable energy resources, or (2) natural gas. Combined heat and power systems not fueled by either renewable energy resources or natural gas will not be considered.

NOTE: Clean energy systems will only be considered under Topic Area 1.b. and Topic Area 2. Projects proposing clean energy systems under Topic Area 1.a. will be deemed non-responsive and will not be reviewed or considered. Applications proposing a combination of EEMs and clean energy systems will only be accepted under Topic Area 1.b. Applications proposing such a combination under any other Topic Area will be deemed nonresponsive and will not be reviewed or considered.

The percentage of energy saved will be independently verified; therefore, the methodology described in Appendix C must be used. A Microsoft Excel template (Energy Saving Calculations File template) has been provided in EERE Exchange for calculating the amount of energy saved. The use of the Energy Savings Calculations File template is not required, however, the data included within the Energy Savings Calculations File template are required. Appendix C includes instructions on how to calculate the percentage of the **total** of all energy saved under this Topic Area, the conversion factors that must be used, and various examples.

For existing Tribally-owned or controlled building(s), the requirement for a 20% reduction in the **total** of all energy and fuel sources used in a building(s) must be based on the actual annual consumption of all energy and fuel sources used during the prior consecutive 12 month period as evidenced by utility bills (e.g., summary of electric utility consumption and costs as provided by the local utility (preferable), electric utility invoices or bills, fuel purchase invoices, or other comparable documentation for all energy and fuel source used

in the building or buildings). Provide annual energy consumption and cost data as an attachment under the Energy Use Data File (see Section IV.C.7.).

For Tribally-owned or controlled building(s) that are currently being constructed or planned to be constructed during the grant period, the requirement for a 20% reduction in the **total** of all energy used in a building(s) must be based on the projected annual energy and fuel use and those projections supplied as part of the application. Only the incremental costs associated with the installation of the energy efficiency measure(s) and clean energy system(s) will be considered, not the cost of the building.

The 20% reduction in the **total** of all energy and fuel sources used in a building(s) must occur during the period of performance of the grant. For combined heat and power systems proposed under Topic Area 1.b., the total of all fuel used at the central station power plant and both the thermal and electrical inputs and outputs of the system must be included in the calculation of the reduction in the total energy use (see Appendix C).

Verification of the actual annual reduction (amount, cost, and percentage) in the total of all energy and fuel used in a building(s) will be required for a minimum of 12 months after installation of the energy efficiency measure(s) and clean energy system(s), and a description of those verification methods **must** be included as part of the Technical Volume (see Section IV.C., Content and Form of the Application).

Topic Area 2: Community-Scale Clean Energy Deployment

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

For purposes of this FOA, “community-scale” means a project serving a substantial number of the total buildings within a community (no less than three buildings) and/or providing a substantial percentage of the total community energy load (minimum of 250 kW or Btu equivalent). For purposes of this FOA, “substantial” means of “ample or considerable amount”. See Appendix A for definition of community.

Any single clean energy system or the total of multiple systems proposed under this Topic Area **must**:

(1) Be a minimum of 250 kW rated capacity (or for heating or cooling the Btu equivalent of 170,607 Btu/hr); and

(2) Affect a substantial number of buildings within a tribal community (no less than three buildings); and
(3) Use commercially-proven warrantied technology (see the definition of "commercially-proven" and "warrantied" under Appendix A).

Note that as part of the Technical Volume, an explanation and rationale as to how the proposed project meets the community-scale requirement, specifically addressing the "substantial" element, will be required (see Section IV.C.4).

See definition of "clean energy systems", "renewable energy systems" and "combined heat and power systems" above or under Appendix A.

NOTE: As there is no requirement under Topic Area 2 that the proposed system(s) meet a percentage of energy use, energy savings calculations as addressed under Appendix C do not apply to Topic Area 2. Therefore, the Energy Savings Calculations File is not required.

Applications under Topic Area 2 must demonstrate the availability of the resource (renewable or natural gas), and applications proposing geothermal or biomass systems must also demonstrate the sustainability of the resource. The minimum system size (250 kW rated capacity or equivalent) may be for either a single individual clean energy system **or** the aggregate of multiple clean energy systems.

All proposed projects (or facilities on which systems are proposed) must be on Indian lands, must be "owned or controlled" by the eligible entity, and must benefit the eligible entity (Indian Tribe or Tribal Energy Resource Development Organization) and the tribal community; however, the substantial number of buildings within a tribal community (no less than 3) where the energy or heat is to be used, do not necessarily need to be "owned or controlled" by the eligible entity. See Appendix A for definitions.

Verification of the actual annual electric power generated and/or heating or cooling provided (amount) will be required for a minimum of 12 months after installation of the clean energy system(s), and a description of those verification methods **must** be included as part of the Technical Volume (see Section IV.C., Content and Form of the Application).

C. Applications Specifically Not of Interest

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

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

- Applications proposing the evaluation of product marketing opportunities, assessment of manufacturing opportunities, research, product development, or the construction of manufacturing facilities or buildings.

- Any application where the Applicant has already taken irreversible actions regarding the proposed DOE funded project, where the proposed DOE funded project consists of only the installation of clean energy system(s) and/or the installation and energy efficiency measures, but not the construction of a building(s) or structure(s) such as a carport. Irreversible actions relative to the proposed DOE funded project only (and not the Tribally-owned or controlled building or structure which is being constructed or planned to be constructed during the project period, if proposed) may include, but are not limited to, site clearing, ground breaking, equipment or system purchase or installation, building renovation, and building retrofits.

- Applications proposing the construction of a building(s) or structure(s) such as carports. Only the incremental costs associated with the installation of clean energy system(s) or energy efficiency measures will be considered allocable to the proposed DOE funded project and not the cost of constructing the building(s) or structure(s), unless those structures are integral to the clean energy system(s).

- Applications proposing ”energy conservation,” where ”energy conservation,” for purposes of this FOA, means decreasing energy consumption by using less of an energy service or going without an energy service to save energy. Energy conservation typically involves a behavioral change and may include meters or other indicators to induce that behavioral change.

- Applications proposing combined heat and power systems not fueled by either renewable energy resources or natural gas.

- Applications for commercial or utility-scale projects intended solely for profit through the export of electricity off Indian Lands for commercial sale.

- Applications proposing the use of materials, supplies, or equipment which are not commercially-proven and warrantied.

- Applications proposing studies or development (pre-construction) activities or any other activity which does not result in the generation of electricity and/or heating or cooling, or a reduction in energy use.

D. AUTHORIZING STATUTES

The programmatic authorizing statute is the Indian Tribal Energy Development and Self Determination Act of 2005 (Energy Policy Act of 2005 (EPAct 2005), Title V, § 502, codified at 42 USC § 7144e and 25 USC § 3501 et seq.).

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

II. AWARD INFORMATION

A. AWARD OVERVIEW

1. ESTIMATED FUNDING

DOE expects to make approximately $4 million to $6 million of Federal funding available for new awards under this FOA, subject to the availability of appropriated funds. The actual level of funding, if any, depends on Congressional appropriations. DOE anticipates making approximately 6 to 10 awards under this FOA. DOE may issue awards in one, multiple, or none of the following topic areas.

Under Topic Area 1, *Install Energy Efficiency Measures and Clean Energy Systems on Tribal Buildings*, DOE anticipates making three to five awards, with DOE funding per individual award varying from no less than $50,000 and a maximum of $500,000.

Under Topic Area 2, *Community-Scale Clean Energy Deployment*, DOE anticipates making three to five awards, with DOE funding per individual award varying from no less than $250,000 to a maximum of $1 million.

2. PERIOD OF PERFORMANCE

DOE anticipates making awards with period of performances of approximately one (1) to two (2) years, but no longer than three (3) years including the 12 month verification period.

For Topic Area 1 (Install Energy Efficiency Measures and Clean Energy Systems on Tribal Buildings), the period of performance of the grant must include the time (minimum of 12 months) to verify the annual reduction (amount, cost, and percentage) in the **total** of all energy and fuel used.

For Topic Area 2 (Community-Scale Clean Energy Deployment), the period of performance of the grant must include a minimum of 12 months after installation of the clean energy system(s) to verify the actual annual electric power generation and/or heating or cooling (amount).

3. New Applications Only

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

B. DOE Funding Agreements

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

As specified under Title V of EPAct 2005, DOE anticipates awarding grants under this FOA.

III. Eligibility Information

A. Eligible Applicants

Only the following types of Applicants are eligible to apply to this FOA. Applicants that do not meet the requirements of this subsection will be deemed ineligible and their applications will not be reviewed or considered.

In accordance with EPAct 2005 authorities and consistent with 2 CFR 910.126(b), eligibility for award under this Funding Opportunity Announcement is restricted to: (1) an Indian Tribe; or (2) Tribal Energy Resource Development Organization; and on whose (3) Indian Lands the project(s) will be located. More specifically,

1) "Indian Tribe," for purposes of this FOA, means any Indian tribe, band, nation or other organized group or community (see below for further definition), including any Alaska Native village, Alaska Native Regional Corporation, 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.], that is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

For purposes of this FOA, an eligible "Indian Tribe" (including Alaska Native villages, but not Alaska Native Regional Corporations or Village Corporations), must be federally recognized as listed in *Indian Entities Recognized and Eligible to Receive Services from the United States Bureau of Indian Affairs*, published by the Department of Interior's Bureau of Indian Affairs in the Federal Register on May 4, 2016, 81 FR 26827.

For the purposes of this FOA, "Alaska Native Regional Corporation" means one of the thirteen Alaska Native Regional Corporations, as defined in and established pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. §§ 1602(g)).

"Alaska Native Village Corporations" or "Village Corporation", for purposes of this FOA, are as defined in or established pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. §§ 1602(J)).

"Tribal Consortium" (plural consortia), for purposes of this FOA, means a group of Indian Tribes (as defined above), that have chosen to submit a single application. Under this announcement, a Tribal Consortium is eligible to submit an application provided the application is submitted by a single Indian Tribe representing the Consortium.

Applications may also be submitted on behalf of an Indian Tribe(s) by an authorized "Tribal Organization" or "Inter-Tribal Organization", provided evidence of that authority is provided as part of the application (see below or Appendix A for the definitions of Tribal Organization or Inter-Tribal Organization).

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

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

2) "Tribal Energy Resource Development Organization," for purposes of this FOA, means an "organization" of two or more entities, at least one of which is an Indian Tribe (see "Indian Tribe" above) that has the written consent of the governing bodies of all Indian Tribes participating in the organization to apply for a grant or loan, or other assistance under 25 U.S.C. § 3503, where "organization" means a partnership, joint venture, Limited Liability Company (LLC) or other unincorporated association or entity that is established to develop Indian energy resources."

3) "Indian Lands," for purposes of this Announcement, is defined as:
   (a) any land located within the boundaries of an "Indian reservation" (see definition below), pueblo, or rancheria;
   (b) any land not located within boundaries of an Indian reservation, pueblo, or rancheria, the title to which is held –
      (i) in trust by the United States for the benefit of an Indian Tribe or an individual Indian;
      (ii) by an Indian Tribe or an individual Indian, subject to restriction against alienation under laws of the United States; or
      (iii) by a dependent Indian community; and
   (c) land that is owned by an Indian Tribe and was conveyed by the United States to a Native Corporation pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. § 1601 et seq.), or that was conveyed by the United States to a Native Corporation in exchange for such land;

(d) lands held in fee simple (purchased or owned);

(e) lands under a long-term Federal land lease (at least 20 years); and

(f) land that was conveyed to a Native Corporation pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. § 1601 et seq.) and subsequently conveyed to another entity, provided that entity is either a Native village or Tribal governmental entity or the land is held, invested, managed for and on behalf of a Native village or Tribal governmental entity.

For purposes of this Announcement and as defined under Part 503 of EPAct 2005, the term "Indian Reservation" includes an Indian reservation in existence in any State or States as of the date of enactment of Title V of EPAct 2005; a public domain Indian allotment; and a dependent Indian community located within the borders of the United States, regardless of whether the community is on original or acquired territory of the community; or within or outside the boundaries of any State or States.

B. Cost Sharing

Under this Funding Opportunity Announcement, required cost share must be at least 50% of the total allowable costs of the project (i.e., the sum of the Government share, and the Recipient share of allowable costs equals the total allowable cost of the project). All cost share must come from non-Federal sources, unless otherwise allowed by law (see note below and Appendix B). See 2 CFR 200.306 and 2 CFR 910.130 for the applicable cost sharing requirements. Failure to meet the requirements of this subsection may result in your application not being reviewed or considered.

Except for pre-award costs with prior DOE approval, only cost share contributions made during the period of performance of the grant, if awarded, can be considered. Costs incurred prior to award selection cannot be considered as cost share or for reimbursement by DOE.

Costs associated with the construction of a building(s) or structure(s) such as carports (unless integral to the clean energy system being proposed) will not be considered by DOE for reimbursement or as cost share; only the incremental costs associated with the installation of energy efficiency measures or clean energy systems will be considered allocable to the proposed DOE funded project.

If the funds being proposed as non-Federal cost share against this announcement are from a Federal source, allowed to by law, the Applicant **must** specifically identify those funds and provide that authority as part of the application. The following are some instances where Federal funds are permissible for use as cost share.

To assist Applicants in calculating proper cost share amounts, DOE has included a cost share information sheet and sample cost share calculation as Appendix B to this Funding Opportunity Announcement.

NOTE: Per the Indian Self-Determination Act (Public Law 93-638) as codified and amended, funding under the Indian Self-Determination Act may be used as non-Federal cost share by Indian Tribes on Federal grants.

For Tribal self-governance funding agreements, see 25 U.S.C. § 458cc(j), Funds, "All funds provided under funding agreements entered into pursuant to this subchapter, and all funds provided under contracts or grants made pursuant to this subchapter, shall be treated as non-Federal funds for purposes of meeting matching requirements under any other Federal law."

For self-determination contract funding, see 25 U.S.C § 450h(c), Use as matching shares for other similar Federal grant programs, "The provisions of any other Act notwithstanding, any funds made available to a tribal organization under grants pursuant to this section may be used as matching shares for any other Federal grant programs which contribute to the purposes for which grants under this section are made."

For compact funding, see 25 U.S.C. § 450j-1(j), "Notwithstanding any other provision of law, a tribal organization may use funds provided under a self-determination contract to meet matching or cost participation requirements under other Federal and non-Federal programs."

Per the Native American Housing Assistance and Self-Determination Act (NAHASDA) of 1996 (25 U.S.C. 4101, et seq.) and its implementing regulation (24 CFR §1000.122): "There is no prohibition in NAHASDA against using grant funds as matching funds."

1. Legal Responsibility

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

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

2. *Cost Share Allocation*

Each Project Team is free to determine how best to allocate the cost share requirement among the team members. The amount contributed by individual Project Team members may vary, as long as the cost share requirement for the project as a whole is met.

3. *Cost Share Types and Allowability*

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

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

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

The Recipient may not use the following sources to meet its cost share obligations including, but not limited to:

- Revenues or royalties from the prospective operation of an activity beyond the project period;
- Proceeds from the prospective sale of an asset of an activity;
- Federal funding or property (e.g., Federal grants, equipment owned by the Federal Government);
- Renewable Energy Credits (RECs) or other green attribute monetization funds;

- Any form of cost sharing received after the DOE grant period or those received prior to being selected for award under this Funding Opportunity Announcement (FOA);

- Independent research and development (IR&D) funds to meet their cost share obligations;

- The same cash or in-kind contributions to meet cost share requirements for more than one project or program; or

- Expenditures that were reimbursed under a separate Federal Technology Office.

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

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

4. Cost Share Contributions by FFRDCs and GOGOs

Because Federally Funded Research and Development Centers (FFRDCs) and Government-owned and Government-operated (GOGOs) laboratories are funded by the Federal Government, costs incurred by FFRDCs and GOGOs generally may not be used to meet the cost share requirement. FFRDCs may contribute cost share only if the contributions are paid directly from the contractor's Management Fee or another non-Federal source.

5. Cost Share Verification

Applicants are required to provide written assurance (See Statement of Commitment and Cost Sharing File under Section IV.C.) of their proposed cost share contributions in their applications.

Upon selection for award negotiations, Applicants may be required to provide additional information and documentation regarding their cost share contributions. Please refer to Appendix B of the FOA for guidance on the requisite cost share information and documentation.

6. *Cost Share Payment*

All proposed cost share contributions must be reviewed in advance by the Contracting Officer and incorporated into the project budget before the expenditures are incurred.

DOE requires Recipients to contribute the cost share amount incrementally over the life of the award. Specifically, the Recipient's cost share for each billing period must always reflect the overall cost share ratio negotiated by the parties (i.e., the total amount of cost sharing on each invoice when considered cumulatively with previous invoices must reflect, at a minimum, the cost sharing percentage negotiated).

In limited circumstances, and where it is in the government's interest, the DOE Contracting Officer may approve a request by the Recipient to meet its cost share requirements on a less frequent basis, such as by budget period or grant period. Regardless of the interval requested, the Recipient must be up-to-date on cost share at each interval. Such requests must be sent by email to the Contracting Officer during award negotiations and include the following information: (1) a detailed justification for the request; (2) a proposed schedule of payments, including amounts and dates; (3) a written commitment to meet that schedule; and (4) such evidence as necessary to demonstrate that the Recipient has complied with its cost share obligations to date. The Contracting Officer must approve all such requests before they may go into effect.

C. Compliance Criteria

To be considered for substantive evaluation, an Applicant submission must meet the compliance criteria set forth below. Applications must meet all compliance criteria listed below or they will be considered noncompliant. DOE will not review or consider noncompliant submissions, including applications: submitted through means other than EERE Exchange; submitted after the applicable deadline; and/or submitted incomplete. DOE will not extend the submission deadline for Applicants that fail to submit required information due to server/connection congestion.

Applications are deemed compliant if:

- The application complies with the content and form requirements in Section IV.C of the FOA;

  and

- The Applicant successfully uploaded all required documents and clicked the "Submit" button in EERE Exchange by the deadline stated in the FOA.

D. Responsiveness Criteria

DOE performs an initial eligibility review and any "Applications Specifically Not of Interest," as described in Section I.C of the FOA, will be deemed nonresponsive and not reviewed or considered.

E. Limitation on Number of Applications Eligible for Review

Applicants may submit more than one application to this FOA or under a Topic Area, provided each application is for a distinctively different project and addresses only one Topic Area. Each application must have a distinct title, unique Control Number as assigned by EERE Exchange during the registration process, and be readily distinguishable.

F. 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 of whether to submit an application in response to this FOA lies solely with the Applicant.

IV. Application and Submission Information

A. Application Process

DOE will perform an initial eligibility review of the Applicant submissions to determine whether they meet the eligibility requirements of Section III.C of the FOA. DOE will not review or consider noncompliant and/or nonresponsive or otherwise ineligible submissions (see Section III.D).

All submissions must conform to the following form and content requirements, including maximum page lengths, described below and must be submitted via EERE Exchange at https://eere-exchange.energy.gov/, unless specifically stated otherwise.

DOE will not review or consider submissions submitted through means other than EERE Exchange, submissions submitted after the applicable deadline, and incomplete submissions. DOE will not extend deadlines for Applicants who fail to submit required information and documents due to server/connection congestion.

A control number will be issued when an Applicant begins the Exchange application process. This control number must be included with all application documents, as described below.

The application must conform to the following requirements:

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

Applicants are responsible for meeting the submission deadline. Applicants are strongly encouraged to submit their applications at least 48 hours in advance of the submission deadline. Under normal conditions (i.e., at least 48 hours in advance of the submission deadline), Applicants should allow at least 1 hour to submit an application. Once the application is submitted in EERE Exchange, Applicants may revise or update their application until the expiration of the applicable deadline. **DOE urges Applicants to carefully review their applications and to allow sufficient time for the submission of required information and documents.**

All applications that pass eligibility and compliance reviews will undergo comprehensive technical merit review according to the criteria identified in Section V.A.2 of the FOA.

Additional Information on EERE Exchange

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

Applicants that experience issues with submission PRIOR to the FOA deadline (in the event that an Applicant experiences technical difficulties with a submission), the Applicant should contact the Exchange helpdesk for assistance (EERE-ExchangeSupport@hq.doe.gov). The Exchange helpdesk and/or the EERE Exchange system administrators (EERE-ExchangeSupport@hq.doe.gov) will assist Applicants in resolving issues. However, those Applicants who are unable to submit their applications because they waited until the last minute, when network traffic is at its heaviest, will not be able to seek assistance from the EERE Exchange helpdesk and/or the EERE Exchange system.

B. Application Forms

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

C. Content and Form of the Application

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

- All application documents must be marked with the Control Number issued to the Applicant.
- DOE will not review or consider ineligible applications (see Section III of the FOA).
- Each application must be limited to a single unique and distinct project. Unrelated projects should not be consolidated in a single application.
- Each file must be submitted in Adobe PDF format, unless stated otherwise.

Applications must conform to the following requirements:

Note: During the submittal of your application in EERE Exchange, files are denoted as "Required" or "Optional". Files designated as "Optional" below and in EERE Exchange may actually be necessary to complete your application and to fully address the merit review criteria.

#	COMPONENTS	FILE NAME (IF NECESSARY)
1	Application for Financial Assistance SF-424 **(Required and must be signed by an authorized representative, Adobe PDF format, Form provided)**	ControlNumber_LeadOrganization_App424
2	Summary/Abstract for Public Release **(Required, 1 page limit, Adobe PDF format**)	ControlNumber_LeadOrganization_Summary
3	Summary Slide (**Required**, **1 page limit**, **Microsoft PowerPoint format, Template provided**)	ControlNumber_LeadOrganization_Slide
4	Technical Volume (**Required, 15 page limit, excluding the Cover Page and Table of Contents**, **Adobe PDF format**). See Section IV.C.4 for content.	ControlNumber_LeadOrganization_TechnicalVolume
5	Workplan (**Required, 5 page limit, excluding milestone table**, **Microsoft Word format, Template provided**)	ControlNumber_LeadOrganization_Workplan
6	Site and Resources Maps and Graphics **(Optional, Adobe PDF format)**	ControlNumber_LeadOrganization_MapsResources
7	Project Metrics Data File (**Required, Microsoft Excel format, Template provided**)	ControlNumber_LeadOrganization_ProjectData
8	Energy Savings Calculations File (**Required only for Topic Area 1, Microsoft Excel format, Template provided)**. See Appendix C for the methodology that must be used. A Microsoft Excel template is available in EERE Exchange.	ControlNumber_LeadOrganization_EnergySavingsTopicArea1Only
9	Energy Use Data (**Required only for Topic Area 1**)	ControlNumber_LeadOrganization_EnergyUseData
10	Energy Audits or Assessments (**Required only for Topic Area 1**)	ControlNumber_LeadOrganization_EnergyAudits
11	Design and Engineering File (**Optional**)	ControlNumber_ LeadOrganization_Engineering
12	Economics File (**Optional**)	ControlNumber_ LeadOrganization_Economics
13	Statements of Commitment and Cost Sharing File (**Required, Adobe PDF format**)	ControlNumber_LeadOrganization_Commitments
14	Subcontract Plan File, if applicable (**Optional, Adobe PDF format**)	ControlNumber_LeadOrganization_SubcontractPlan
15	Resume File (**Required, Adobe PDF format, 2 pages each**)	ControlNumber_LeadOrganization_Resumes

#	COMPONENTS	FILE NAME (IF NECESSARY)
16	Budget Justification Workbook IE 335 (**Required, Microsoft Excel format, Form provided**). Applicants must use the template available in EERE Exchange	ControlNumber_LeadOrganization_Budget_Justification
17	Subaward Budget Justification Workbook IE 335, if applicable (**Required only if thresholds met, Microsoft Excel format, Form provided**) Applicants must use the template available in EERE Exchange	ControlNumber_LeadOrganization_Subawardee_Budget_Justification
18	Budget Support (**Optional, Adobe PDF format**)	ControlNumber_LeadOrganization_Budget_Support
19	SF-LLL Disclosure of Lobbying Activities (**Required, Adobe PDF format, Form provided**)	ControlNumber_LeadOrganization_SF-LLL
20	Waiver Request: Performance of Work in the United States (**Optional, Adobe PDF format**)	ControlNumber_LeadOrganization_Waiver

Note: The maximum file size that can be uploaded to the EERE Exchange website is 10MB. Files in excess of 10MB cannot be uploaded, and hence cannot be submitted for review. If a file exceeds 10MB but is still within the maximum page limit specified in the FOA it must be broken into parts and denoted to that effect. For example:
ControlNumber_LeadOrganization_Project_Part_1
ControlNumber_LeadOrganization_Project_Part_2, etc.

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

Detailed guidance on the content and form of each component of the application is included below.

1. Application for Federal Assistance SF-424 (Required)

Complete all required fields in accordance with the instructions on the form and have them signed by an authorized representative. 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 proposed project and not just the first project year, first phase or other subset of the period of performance of the grant, if one is awarded. This form is available under the announcement (Required Application Documents) on EERE Exchange at https://eere-Exchange.energy.gov/.

Sign and save the SF-424 in a single PDF file using the following convention for the title "ControlNumber_LeadOrganization_App424".

2. *Summary/Abstract for Public Release (Required)*

Applicants are required to submit a one-page summary/abstract of their project. The project summary/abstract must contain a summary of the proposed activity suitable for dissemination to the public. It should be a self-contained document that identifies the name of the Applicant, the Applicant's Project Manager (otherwise known as the Technical Contact), the project title, Topic Area under which the application is being submitted, the objectives of the project, a description of the project, 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 after selections are made. The project summary **must not exceed 1 page** when printed using standard 8.5 x 11 paper with 1" margins (top, bottom, left, and right) with font not smaller than 11 point. Save the Summary for Public Release in a single PDF file using the following convention for the title "ControlNumber_LeadOrganization_Summary".

3. *Summary Slide (Required)*

Applicants are required to provide a single PowerPoint slide summarizing the proposed project. The slide must be submitted in Microsoft PowerPoint format. This slide is used during the evaluation process. The summary slide **must not exceed 1 slide** when printed using standard 8.5 x 11 paper with font not smaller than 11 point. This template is available under the announcement (Required Application Documents) on EERE Exchange at https://eere-Exchange.energy.gov/. The use of the PowerPoint slide template is not required, but the information included within the template are required. Save the Summary Slide in a single Microsoft PowerPoint file using the following convention for the title "ControlNumber_LeadOrganization_Slide".

A Microsoft PowerPoint template has been provided as Appendix E and on EERE Exchange.

The single Summary Slide requires the following information:

- Proposed project summary including project goals and objectives, technology type, system(s) size (kW), project location, number of buildings affected and square footage, and how the project integrates into the long-term energy goals/vision of the Applicant;
- A description of the project's impact (energy saved in kBtu, % energy saved, $ saved, jobs created, payback period, # of buildings affected, environmental and economic benefits, or any other outcomes, such as replicability, environmental stewardship, helps meet specific energy goal, or step towards energy independence);

- Key milestones and deliverables;
- Key milestones and deliverables;
- A graphic or illustration (picture, chart, table);
- Project title, Applicant, Topic Area, and Key Participant information; and
- Requested DOE funds and proposed Applicant cost share.

4. TECHNICAL VOLUME (REQUIRED)

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

The Technical Volume to the application **must not be more than 15 pages**, excluding the cover page, table of contents, and any separate attachment files.

The Technical Volume must include all of the information in the table below. **Applicant should consider the weighting of each of the evaluation criteria (see Section V.A.2 of the FOA) when preparing the Technical Volume.**

SECTION/PAGE LIMIT	DESCRIPTION
Cover Page **(Approximately 1 page: Not counted against page limit)**	The cover page should include the following: (1) Funding Opportunity Announcement title and number, specifically: FOA Title: Deployment of Clean Energy and Energy Efficiency on Indian Lands–2017, Number DE-FOA-0001660; (2) Specific FOA Topic Area under which the application is being submitted: a. Install energy efficiency measures and clean energy systems on tribal buildings (Topic Area 1); i. Deep Energy Retrofits (Topic Area 1.a.), or ii. Energy Efficiency Measures and Clean Energy Systems (Topic Area 1.b.) or, b. Deploy clean energy systems on a community-scale (Topic Area 2). (3) Name of the Applicant (Indian Tribe, Tribal Energy Resource Development Organization, Indian Tribe submitting on behalf of a Tribal Consortium, or

SECTION/PAGE LIMIT	DESCRIPTION
	authorized Tribal Organization or Inter-Tribal Organization submitting on behalf of an eligible Indian Tribe); (4) Project Title (Applicant specified); (5) Both the "Technical Contact" and the 'Business Contact" (see below for description) for the Applicant, including their names, titles, addresses, telephone numbers, and electronic mail addresses; (6) Name and type of organization of each key participating organization including the name, title, address, telephone number, and electronic mail addresses of participant contacts; and (7) Any statements regarding privileged or confidential information (see Section VIII.E). The Applicant's "Business Contact" and "Technical Contact" <u>must</u> be representatives of the Indian Tribe, Tribal Energy Resource Development Organization, or authorized Tribal or Inter-tribal Organization, if applicable. The Applicant's "Business Contact" <u>must</u> be a representative of the Applicant authorized to act on behalf of the Applicant in the daily administration of the grant and to negotiate the agreement (not necessarily the signatory). Note that all DOE official written correspondence related to this announcement, or agreement, if one is awarded, would be addressed to the "Business Contact". The Applicant's "Technical Contact" is one authorized to act as project manager on behalf of the Applicant and would be the prime point of contact for DOE's Project Officer during the period of performance of the grant, if an agreement is awarded.
Table of Contents **(Approximately 1 page: <u>Not</u> counted against the page limit)**	The Table of Contents should include a list of the elements of the Technical Volume organized in the order in which the parts appear, and page numbers.
Executive Summary **(Approximately 2 pages)**	The Executive Summary should contain the following information: • Project Overview: The Applicant should provide a concise overview of the proposed project , including the following for the applicable Topic Area: ○ For Topic Area 1 (Install Energy Efficiency Measures and Clean Energy Systems on Tribal Buildings) include the project location(s), number of

SECTION/PAGE LIMIT	DESCRIPTION
	building(s) affected, type of technology being proposed (energy efficiency measures, and for Topic Area 1.b clean energy system(s)), description of the building(s) to be affected by the proposed project, current energy use of the affected existing building(s) and projected energy use for any new buildings being constructed or to be constructed, and the projected reduction in energy use (amount, cost, and percentage) as a result of the proposed project. ○ For Topic Area 2 (Community-Scale Clean Energy Deployment) include the project location(s), number of buildings affected (minimum of 3), type of technology proposed (renewable energy system(s) or renewable or natural gas fueled combined heat and power system), rated capacity of the proposed clean energy system(s), the amount and use of the power and/or heat or cooling generated, and provide an brief explanation and rationale as to how the project meets the community-scale requirement, specifically addressing the "substantial" element. • Applicant Description: Provide a description of the Applicant including the Applicant's long-term energy goals and/or vision, location (maps or graphics should be included as an attachment, see Site and Resources Maps and Graphics file), organizational structure, and demographics. If an authorized Tribal Organization or Inter-tribal Organization is applying on behalf of an Indian Tribe, also provide a description of the Tribal Organization or Inter-tribal Organization and the authority under which you are applying on behalf of an Indian Tribe. Attachments do not count against the page limit of the Technical Volume. • Project Goal: The Applicant should provide a brief discussion of the project goals and objectives and how the project integrates into the long-term energy goals/vision of the Applicant. • Benefits: The Applicant should provide a brief description of the anticipated benefits to the Indian Tribe(s) and tribal members as a result of the project, quantifying those benefits to the maximum extent practical. Benefits should include, as a minimum, the economic (e.g., money saved, money generated, jobs created, people trained, etc.) and environmental benefits (e.g., reduction in fossil fuel used, less emissions, etc.). Also include any other benefits (e.g., replicability, step towards energy independent, environmental stewardship, helps meet specific energy goal etc.). • Impact of DOE Funding: The Applicant should discuss the need for and impact of DOE funding to the proposed project, and the implications if not funded.

SECTION/PAGE LIMIT	DESCRIPTION
Project Description and Outcomes **(Approximately 10 pages)**	The Project Description and Outcomes should contain the following information: • Detailed Project Description: The Applicant should provide a detailed description of the proposed project, including: ○ A description of the relevance of the proposed project to the goals and objectives of the FOA and those of the Applicant, and the specific need or goal the proposed effort is intended to address. ○ A detailed description of the proposed project location and current energy use (or projected annual energy use if the building(s) are being constructed or to be constructed during the proposed project period). – For Topic Area 1, identify: the building(s) affected by the proposed project, including the number of building(s), age of the building(s) (date the building was constructed), building(s) type (e.g., homes, schools, community buildings, clinics, or tribal government buildings), size of each building (square footage); whether the buildings are on trust land, fee land, or leased land and the land owner; identify whether they are existing buildings or buildings being constructed or to be constructed during the proposed project period, and identify the location of each building. For any roof-mounted applications provide the building orientation and address whether the building can structurally accommodate the proposed system. Maps, photographs, or other visuals may be included as an attachment, if needed, under the Site and Resource Map and Graphics File (Attachments do not count towards the page limit of the Technical Volume). – For Topic Area 2, identify: the project site; interconnection point; the number of buildings affected (minimum of 3); the total number of buildings within the community; describe the user of the energy and/or heat or cooling generated; whether the project site is on trust land, fee land, or leased land and the land owner; and a detailed explanation and rationale as to how the project meets the community-scale requirement, specifically addressing the "substantial" element. For any roof-mounted applications provide the building orientation and address whether the building can structurally accommodate the proposed system. Maps, photographs, or other visuals may be included as an attachment, if needed, under the Site and Resource Map and Graphics File (Attachments do not count towards the page limit of the Technical Volume).

SECTION/PAGE LIMIT	DESCRIPTION
	○ A description of previous work done, prior results, or relevant background information. Relevant past studies, reports, or any supplemental data may be included as attachments under the Site and Resource Map and Graphics File. • Technical Viability: The Applicant should demonstrate the technical viability of the proposed project, including as a minimum: ○ For energy efficiency measures (EEMs) (Topic Area 1.a and 1.b) – For proposed energy efficiency measures (Topic Area 1), summarize the results of the mandatory energy audit or industrial energy assessments for each building affected by the proposed project and provide the energy audit or industrial energy assessments report(s) as attachments under the Energy Audits or Assessments File. – Provide a detailed description of the EEMs to be implemented and provide a material and/or equipment list(s). Include a material and/or equipment list(s) and other supplemental design and engineering information as an attachment under the Design and Engineering File. As only commercially-proven warrantied technology will be considered, address the commercial nature of the EEMs and associated warranties. ○ For Clean Energy Systems (Topic Area 1.b. or Topic Area 2) – If clean energy (renewable energy systems or combined heat and power systems) are being proposed under either Topic Area 1.b. or Topic Area 2, describe the technologies to be installed and the rationale for choosing those technologies. As only commercially-proven warrantied technology will be considered, address the Technology Readiness Level of the proposed equipment and associated warranties. Describe the design, hardware specifications and warranties associated with that hardware. Performance specifications and warranties, engineering drawings, and any other supplemental data should be included as an attachment under the Design and Engineering File. Also include a discussion of the interconnection or net metering arrangements and include copies of any agreements, if obtained, under the Agreement File). – If a renewable energy or combined heat and power system(s) are being proposed (Topic Area 1.b. or Topic Area 2), describe the availability and sustainability of the renewable energy resource(s) or natural gas supply. Provide evidence including resource maps,

SECTION/PAGE LIMIT	DESCRIPTION
	and/or quantitative resource data documenting those resources and include as an attachment under the Site and Resource Map and Graphics File. Evidence may also be in the form of a previously completed feasibility study. Include any agreements, such as for biomass feedstock supply, under the Agreements File (see the Roles, Responsibilities, Resources, Capabilities, and Commitments section of the Technical Volume). If the proposed project includes feedstock supply, provide information that demonstrates the sustainability of the forest or other resource proposed, quantify the available biomass feedstock (tons per year), and describe the land ownership and the harvesting and/or delivery plan. In purchasing equipment or services, Applicants are encouraged to explore the applicability of the U.S. General Services Administration (GSA) purchasing programs. For more on the eligibility of Indian Tribes and Tribal organizations to use GSA programs, see the GSA National Desk Reference for Tribes and Tribal Organizations (May 2015). ○ Describe the methodology to be used to implement energy efficiency measures and/or install the clean energy systems. ○ Identify any barriers or obstacles that could impede the project and describe plans to overcome those barriers or obstacles. Examples of barriers or obstacles might include permitting or approval delays, suppliers/vendor contracts, pending net metering or interconnection agreements, equipment delivery delays, or project financing/funding. ○ Describe how the energy savings (amount, cost, and percentage) or the electric power generated and/or heating or cooling (amount and cost) will be verified (12 month minimum). ○ Describe the long-term (life of the system) system(s) operation and maintenance (O&M) plan including whether a service contract is to be purchased, the duration of that service contract (if any), types of maintenance to be performed and the frequency, and plan for O&M after a service contract (if any). • Economic Viability: The Applicant should demonstrate the economic viability of the proposed project by providing an economic analysis and address the financial sustainability of the proposed project. As a minimum, include: (1) Current energy costs including a breakdown of the energy or fuel costs per unit (kWh, therms, gallon, etc.) including specifically the generation

SECTION/PAGE LIMIT	DESCRIPTION
	charge. Copies of actual utility or fuel bills (one for each season) must be provided under the Economic File. (2) Total installed cost. (3) Installed cost per unit energy generated or saved converted to kBtu using conversion factors in Appendix C. (4) Life of the clean energy system(s) or average life of the EEMs (e.g., 20, 25, 30 years). (5) Payback period in years (time it takes for an investment to generate an amount of income or cash equal to the cost of the investment). (6) Sources of financing (e.g., grant, loans, investor financing) and the terms associated with use of those funds. (7) Summarize the cash flow analysis and provide the analysis either: (1) within the Technical Volume; or (2) as an attachment under the Economics File. Supplemental information to support the economic analysis should be included as an attachment under the Economics File. NOTE: Evidence of funding sources and commitments is required as part of the Statement of Commitment and Cost Sharing File. • Outcomes: The Applicant should describe and quantify to the maximum extent practical the projected outcomes of the proposed project. Specifically, ○ Amount of energy generated or saved (amount, cost, and percentage) or amount of electric power generated and/or heating or cooling (amount and cost) will be verified (12 month minimum). For Topic Area 1: – The current annual energy use (or projected annual energy use if the building(s) are being constructed or to be constructed during the proposed project period). Evidence of utility bills (e.g., summary of electric utility consumption and costs as provided by the local utility (preferable), electric utility invoices or bills, fuel purchase invoices, or other comparable documentation for <u>all</u> energy source used in the building or buildings) for a preceding 12-month period <u>must</u> be provided as an attachment under the Energy Use Data File. – The estimated energy savings (reduction in the **total** of <u>all</u> energy and fuel sources). **For Topic Area 1 only, energy savings calculations <u>must</u> be provided using the methodology in Appendix C. A Microsoft Excel template is available in EERE Exchange.**

SECTION/PAGE LIMIT	DESCRIPTION
	For Topic Area 2: – The estimated amount of clean energy generated or heating and/or cooling provided as a result of the proposed community-scale clean energy project. – Percentage of the energy generated or heating and/or cooling provided relative to the total community energy load. ○ Economic Benefits, including: – Amount of money saved/generated over the project life (e.g., life of the clean energy system(s) or EEMs); – Number of people trained; and – Number of jobs created during installation and over the life of the system(s); ○ Environmental Benefits, including – Reduction in greenhouse gas emissions including SO_2, NO_x, and CO_2 in tons (see Environmental Protection Agency, Power Profiler at http://oaspub.epa.gov/powpro/ept_pack.charts). – Any equivalency such as gallons of gasoline burned, carbon sequesters by acres of forest per year, number of homes' energy use for one year, etc. (see Greenhouse Gas Equivalencies Calculator at http://www.epa.gov/cleanenergy/energy-resources/calculator.html). ○ Any other outcomes, such as – Replicability – Environmental stewardship – Helps meet specific energy goal – Step towards energy independence
Roles, Responsibilities, Capabilities, and Commitment **(Approximately 3 pages)**	The Roles, Responsibilities, and Capabilities section should contain the following information: • Identify who will represent the Applicant as the "Business Contact" and the "Technical Contact" for the Applicant under the DOE agreement, if one is awarded. The Applicant's "Business Contact" and "Technical Contact" must be representatives of the Indian Tribe, Tribal Energy Resource Development Organization, or authorized Tribal or Inter-tribal Organization, if applicable. See above under Cover Page for a description of "Business Contact" and "Technical Contact". • Describe the project management approach, including the following:

SECTION/PAGE LIMIT	DESCRIPTION
	○ Description of the organizational and individual roles and responsibilities. ○ Description of the organizational relationships (e.g., subcontractors, vendors, partners, etc.), including any existing agreements between the Applicant and project participants (contract, Memorandum of Understanding, or other). ○ Description of the capabilities of the Applicant, each participating organization, and key individuals, including with a brief summary of experience and qualifications. Attach resumes (2-page limit each) for key individuals and participating team members under the Resume File. Resumes do not count towards the page limit of the Technical Volume. If consultants, contractors, or vendors have not been selected, indicate that in the Technical Volume and provide a Subcontract Plan as an attachment. The Subcontract Plan should include a description of the selection process to be employed, statement of work, and criteria for selection (see Subcontract Plan File). Note that if your application is selected for negotiation towards an award, any sole source contracts will need to be approved by DOE. • Demonstrate the level of commitment to the proposed project, including: ○ Describe any past energy efficiency or clean energy projects or efforts undertaken (e.g., development of a long-term vision; strategic energy plan, establishment of an energy committee, office, or department; or other formal commitments to reduce energy consumption or emissions); ○ Describe the level of commitment to the proposed project which may include: – Evidence of the commitments of the Applicant and each participant (Tribal Council Resolutions, declarations, and letters of commitment). Note that Letters of support by anyone not participating in the proposed project are not required or desired, and should not be provided as part of the application. – Level of involvement and amount of cost sharing by the Applicant and each participant involved in the project. Supply evidence of commitments of time, resources, or financial contributions in the form of Tribal Council Resolutions, declarations, or letters of commitment as part of the Statement of Commitment and Cost Sharing File.

5. *WORKPLAN (REQUIRED)*

The Workplan **may not be more than 5 pages, excluding the milestone table.** The Workplan must include all the information in the table below, must **include** the information described in the Appendix D format, and must be submitted in Microsoft Word format. The Workplan must conform to the following content and form requirements, including maximum page lengths. **If Applicants exceed the maximum page length, DOE will review only the authorized number of pages and disregard any additional pages.** The Workplan must address the Merit Review Criteria as discussed in Section V.A.2 of the FOA. A Microsoft Word template (Workplan template) has been provided in EERE Exchange (under Required Application Documents) Exchange at https://eere-Exchange.energy.gov/. The use of the Workplan template is not required, but the information included within the workplan template is required. Save the Workplan in a single Microsoft Word file using the following convention for the title: "ControlNumber_LeadOrganization_Workplan". See Appendix D for the format and examples.

SECTION/PAGE LIMIT	DESCRIPTION
Workplan **(Maximum of 5 pages excluding the Milestone Table)** **See Appendix D for the Workplan Format and a Workplan Template in EERE Exchange**	The Workplan should contain the following information: • Project Objectives: The Applicant should provide a clear and concise (high-level) statement of the goals and objectives of the project as well as the expected outcomes. • Project Summary: The Applicant should provide a summary description of the overall work scope and approach to achieve the objective(s). The Applicant should describe the specific expected outcomes (measureable results or end-products). **Note**: As the Workplan is a stand-alone document, the project objectives and project summary may duplicate some of the information provided in the Project Overview or Project Description and Outcomes sections of the Technical Volume. • Work Breakdown Structure (WBS) and Narrative Task Descriptions: The Workplan should fully describe the work to be accomplished and how the Applicant will achieve the milestones, will accomplish the final project goal(s), and will produce all deliverables. The Workplan is to be structured with a hierarchy of performance period (approximately annual), task and subtasks, which is typical of a standard work breakdown structure (WBS) for any project (see Appendix D for an example). **The Workplan shall contain a concise detailed narrative description of the specific activities to be conducted over the life of the project.** "Detailed" is defined as a full explanation and disclosure of the project being proposed (i.e., a statement such as "we will then complete

SECTION/PAGE LIMIT	DESCRIPTION
	a proprietary process" is unacceptable). It is the Applicant's responsibility to prepare an adequately detailed task plan to describe the proposed project and the plan for addressing the objectives of this FOA. To this end, each task and subtask is to have a unique number and title and an indication of the duration of the task or subtask in months. Each task and subtask is to have a narrative task summary that describes the objectives, what work is to be accomplished, and relationship to project deliverables or expected results. Appropriate milestones should be incorporated into the task and subtask structure. Each task and subtask is to have a details section, as appropriate, to discuss how the work will be done, anticipated problems or uncertainties, and any further clarification, such as why a specific approach is being taken. An example Work Breakdown Structure is provided in Appendix D and a Workplan Template in EERE Exchange. • Milestones: The Applicant should provide appropriate milestones throughout the project to demonstrate success, where success is defined as technical achievement rather than simply completing a task. To ensure that milestones are relevant, Applicants should follow the SMART rule of thumb, which is that all milestones should be **S**pecific, **M**easurable, **A**chievable, **R**elevant, and **T**imely. The Applicant should also provide the means by which the milestone will be verified. In addition to describing milestones in the Workplan text and including them in the schedule, the Applicant is required to complete the Milestone Summary Table included in Appendix D. • Project Management: The Applicant should discuss the team's proposed management plan, including the following: ○ The overall approach to and organization for managing the work ○ The roles of each Project Team member ○ Any critical handoffs/interdependencies among Project Team members ○ The technical and management aspects of the management plan, including systems and practices, such as financial and project management practices ○ The approach to project risk management ○ A description of how project changes will be handled ○ If applicable, the approach to Quality Assurance/Control ○ How communications will be maintained among Project Team members • Project Schedule and Milestones: The Applicant should provide a detailed schedule (by month) for the entire project, including task and subtask durations, and milestones. See Appendix D for samples.

6. *Site and Resource Maps and Graphics File (Optional)*

Supply any graphics to supplement the Technical Volume including maps, photographs, or other visuals of the project location or building(s) affected by the proposed project. Include evidence of the availability and sustainability of the renewable energy resource or natural gas supply (if applicable) including resource maps and quantitative resource data. Evidence may be in the form of a previously completed resource or feasibility study. Any supplemental information or supporting studies should be included here. Save this information in a single PDF file titled "ControlNumber_LeadOrganization_MapsResources".

7. *Project Metrics Data File (Required)*

Provide specific project related data including the type of technology, type of buildings, number of buildings, installed capacity of clean energy systems, cost per installed watt for clean energy systems, square feet of building space affected, electricity reliability data, environmental impacts, and possible jobs created., A Microsoft Excel template has been provided in EERE Exchange. Save this information as a single Microsoft Excel file titled "ControlNumber_LeadOrganization_ProjectData".

8. *Energy Savings Calculations File (Required for Topic Area 1 Only, both 1.a and 1.b)*

For applications being submitted under Topic Area 1, provide the list of buildings affected and for each building, identify the energy sources and quantify the amount (e.g., kWh, therms, cubic feet, Btu, gallon, lb.) of each energy source by month. The monthly energy and fuel usage (12 consecutive months) must be supported by evidence (see energy use data below). Calculations for the amount and percentage of the **total** reduction in all energy sources (Topic Area 1) must be provided. See Appendix C for instructions on how to calculate the reduction in the **total** of all energy (Topic Area 1) for this FOA, the conversion factors that **must** be used, and various examples. A Microsoft Excel template (Energy Saving Calculations File template) has been provided for calculating the amount of energy saved in EERE Exchange (under Required Application Documents) Exchange at https://eere-Exchange.energy.gov/. The use of the Energy Savings Calculations File template is not required, however, the data included within the Energy Savings Calculations File template are required. Save this information as a single Microsoft Excel file titled "ControlNumber_LeadOrganization_EnergySavings".

9. *Energy Use Data File (Required for Topic Area 1 Only, both 1.a and 1.b)*

For applications being submitted under Topic Area 1, provide a summary and evidence of all energy and fuel sources (e.g., electricity, propane, heating oil, diesel oil, natural gas, or any other energy or fuel used) used in the building(s) by month for 12 consecutive months for each building affected. Include the amount and cost by energy source or fuel type. Supply evidence

in the form of utility bills (e.g., summary of electric utility consumption and costs as provided by the local utility (preferable), electric utility invoices or bills, fuel purchase invoices, or other comparable documentation for all energy source used in the building or buildings). For affected buildings being constructed, or to be constructed during the project period, supply the methodology, calculations, and assumptions used to project the annual energy use. Save this information in a single PDF file titled "ControlNumber_LeadOrganization_EnergyUseData".

10. Energy Audits or Assessments File (Required for Topic Area 1 Only, both 1.a and 1.b)

For applications being submitted under Topic Area 1, energy audits or industrial energy assessments for each building affected are required to support the estimated energy savings and those reports must be provided as part of the application. Save the energy audit(s) or assessment(s) in a single PDF file titled "ControlNumber_LeadOrganization_EnergyAudits".

11. Design and Engineering File (Optional)

Supply copies of any hardware performance specifications, warranties, engineering drawings, and any other design or engineering data to supplement the Technical Volume. The requisite material and/or equipment lists for any proposed energy efficiency measures should be included here. Save this information in a single PDF file titled "ControlNumber_LeadOrganization_Engineering".

12. Economics File (optional)

Provide supplemental data to support the economic analysis including as a minimum, a cash flow analyses (unless included as part of the Technical Volume) and copies of actual utility or fuel bills (one for each season). Save this information in a single file PDF titled "ControlNumber_LeadOrganization_Economics".

13. Statement of Commitment and Cost Sharing File (Required)

A Statement of Commitment by the Applicant and all other project participants (excluding vendors) is required as part of the application. For Indian Tribes, that Statement of Commitment must be in the form of an executed Tribal Council Resolution. If an Indian Tribe provides a commitment in a format other than a Tribal Council Resolution, evidence of the statutory or other legal authority authorizing that form of commitment in lieu of a Tribal Council Resolution must accompany that commitment. The evidence must prove that the commitment submitted carries the same level of Tribal leadership commitment as a Tribal Council Resolution. For Tribal Energy Resource Development Organizations, Alaska Native Regional Corporations, or Village Corporations, the Statement of Commitments may be in the

form of a declaration (or resolution) signed by an authorized representative able to commit the entity. For all other participants, a letter of commitment must be provided as part of the application.

All Tribal Council Resolution(s), declarations, resolutions, and letters of commitment must be specific to this Funding Opportunity Announcement and include a statement of the level and type of cost share commitments. Failure to submit the appropriate Tribal Council Resolution(s), declarations, resolutions, and letters of commitment with your application may result in your application not being reviewed or considered.

Statements of Commitment by Applicants must:

1) Authorize the submittal of the application;
2) Commit to the proposed project;
3) Identify the amount and source of cost share; and
4) Include a statement of commitment for the requisite cost share (see below).

Letters of support by anyone not participating in the proposed project are not required or desired, and should not be provided as part of the application.

The Statements of Commitment by any entity contributing cost share must include statements of cost share commitment. Statements of cost share commitment should include a detailed estimate of the cash value (basis of and the nature of) of all contributions to the project by project participants.

Note that "Cost Sharing" is not limited to cash investment. In-kind contributions (e.g., contribution of time, services, or property; donated equipment, buildings, or land; donated supplies; or unrecovered indirect costs) incurred as part of the project may be considered as all or part of the cost share. Only cost share contributions made during the period of performance of the grant can be considered.

The "Cost Sharing" definition is contained in 2 CFR 200.306 as amended by 2 CFR 910.130, and OMB Circular A-110. Foregone fee or profit by the Applicant shall not be considered Cost Sharing under any resulting award.

Reimbursement of actual costs will only include those costs that are reasonable, allowable and allocable to the project as determined in accordance with the applicable cost principles prescribed in FAR Part 31 for For-Profit entities; and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.

See Section III.B and Appendix B for additional information on Cost Share. Save this information in a single PDF file titled "ControlNumber_LeadOrganization_Commitments".

14. Subcontract Plan file (Optional)

A Subcontract Plan is required if project participants (i.e., consultants, contractors, or vendors) have not been selected. The Subcontract Plan should include a description of the selection process to be employed, statement of work, and criteria to be used for selection. The Subcontract Plan may be supplemented by excerpts of the Applicant's procurement policy and procedures document. Any project participants not competitively selected must be approved by DOE. Save this information in a single file titled "ControlNumber_LeadOrganization_SubcontractPlan".

15. Resume File (Required)

Provide a resume for each key person proposed (Technical Contact, Business Contact, tribal staff, consultants, subcontractor representatives, etc.) as part of the project. A key person is any individual who contributes in a substantive, measurable way to the execution of the project. Save all resumes in a single file titled "ControlNumber_LeadOrganization_Resume".

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.

16. Budget Justification Workbook IE 335 (Required)

Applicants are required to complete the Budget Justification Microsoft Excel Workbook. This form is available under the announcement (Required Application Documents) on EERE Exchange at https://eere-Exchange.energy.gov/. Recipients must complete the summary and each tab of the Budget Justification Workbook for the project as a whole (**all project costs regardless of whether requested from DOE or proposed as cost share**), including all work to be performed by the Recipient (if an award is made), its subrecipients, contractors, and vendors, and provide all requested documentation (e.g., a Federally-approved forward pricing rate agreement, Defense Contract Audit Agency or Government Audits and Reports, if available) as part of the Budget Support file (see below). Applicants should include costs associated with required annual audits and incurred costs proposals in their proposed budget documents.

The "Instructions and Summary" and the "Budget Information - Non Construction Programs" (Standard form SF-424A) included as part of the Budget Justification Workbook will "auto-populate" as information is entered into the Workbook. Applicants must complete the header information and carefully read the "Instructions and Summary" tab provided within the Budget Justification Workbook. Save the Budget Justification Workbook in a single Microsoft Excel file

using the following convention for the title "ControlNumber_LeadOrganization_Budget_Justification".

17. Subaward Budget Justification IE 335 (Optional)

Applicants must also provide a separate budget justification, IE 335 for each subawardee (subrecipient or subcontractor, excluding vendors) that is expected to perform work estimated to be more than $250,000 or 25 percent of the total work effort (whichever is less). The budget justification must include the same justification information described in the "Budget Justification" section, above. See Section IV.C.18, Budget Support, below for information needed for any selected vendors. This form is available under the announcement (Required Application Documents) on EERE Exchange at https://eere-Exchange.energy.gov/. Save each subaward budget justification in a Microsoft Excel file using the following convention for the title "ControlNumber_LeadOrganization_Subawardee_Budget_Justification".

18. Budget Support (Optional)

Include any additional supporting documentation such as an Indirect Rate Agreements, breakdown of fringe costs, vendor quotes (required for any vendor whose costs exceed $250,000), or other relevant supplemental budget information. Save this information in a single PDF file titled "ControlNumber_LeadOrganization_Budget_Support".

19. SF-LLL: Disclosure of Lobbying Activities (Required)

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

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

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

If no non-Federal funds have been paid or will be paid to any person for influencing or attempting to influence any of the above in connection with your application, indicate "none"

and sign and date the form. This form is available under the announcement (Required Application Documents) on EERE Exchange at https://eere-Exchange.energy.gov/. Save the SF-LLL in a single PDF file using the following convention for the title "ControlNumber_LeadOrganization_SF-LLL".

20. Waiver Requests: Performance of Work in the United States

All work under DOE funding agreements must be performed in the United States. This requirement does not apply to the purchase of supplies and equipment, so a waiver would not be required for foreign purchases of these items. However, the Recipient (if an award is made) should make every effort to purchase supplies and equipment within the United States. Section IV.I.3 lists the necessary information that must be included in a request to waive the Performance of Work in the United States requirement.

D. Post-Award Information Requests

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

- Indirect cost information;
- Other budget information;
- 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;
- Accounting System and Financial Systems Information; and
- Environmental Questionnaire.

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

Each Applicant (unless the Applicant is an individual or Federal awarding agency that is exempt from the requirements under 2 CFR §25.110(b) or (c), or has an exception approved by the Federal awarding agency under 2 CFR §25.110(d)) is **required** to:

i. Be registered in the System for Award Management (SAM) at https://www.sam.gov before submitting its application;

ii. Provide a valid Dun and Bradstreet Universal Numbering System (DUNS) number in its application; and

iii. Continue to maintain an active SAM registration with current information at all times during which it has an active Federal award or an application or plan under consideration by a Federal awarding agency.

DOE may not make a Federal award to an Applicant until the Applicant has complied with all applicable DUNS and SAM requirements and, if an Applicant has not fully complied with the requirements by the time DOE is ready to make a Federal award, the DOE may determine that the Applicant is not qualified to receive a Federal award and use that determination as a basis for making a Federal award to another Applicant.

F. Submission Dates and Times

Applications must be submitted no later than 5:00 p.m. Eastern on the date specified on the cover page of this FOA.

G. Intergovernmental Review

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

H. Funding Restrictions

1. Allowable Costs

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

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

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

2. Pre-Award Costs

Selectees may not incur pre-award costs without prior approval of DOE. Pre-award costs are those incurred prior to the effective date of the Federal award directly pursuant to the negotiation and in anticipation of the Federal award where such costs are necessary for efficient and timely performance of the scope of work. Such costs are allowable **only** to the extent that they would have been allowable if incurred after the date of the Federal award and **only** with the written approval of the Federal awarding agency, through the Contracting Officer assigned to the award.

Pre-award costs cannot be incurred prior to the Selection Official making selections.

All pre-award expenditures are made at the Selectee's risk; DOE is not obligated to reimburse costs: (1) in the absence of appropriations; (2) if an award is not made; or (3) if an award is made for a lesser amount than the Selectee anticipated. All costs must be allowable, allocable, and reasonable in accordance with the applicable cost principles (For for-profit entities, FAR Part 31; 2 CFR Part 200 Subpart E - Cost Principles, for all other non-federal entities).

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

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

DOE does not guarantee or assume any obligation to reimburse costs where the Applicant incurred the costs prior to receiving written authorization from the Contracting Officer. If the Applicant elects to undertake activities that may have an adverse effect on the environment or limit the choice of reasonable alternatives prior to receiving such written authorization from the Contracting Officer, the Applicant is doing so at risk of not receiving Federal funding and such costs may not be recognized as allowable cost share.

Likewise, if a project is selected for negotiation of award, and the Selectee elects to undertake activities that are not authorized for Federal funding by the Contracting Officer in advance of DOE completing a NEPA review, the Selectee is doing so at risk of not receiving Federal Funding and such costs may not be recognized as allowable cost share.

Nothing contained in the pre-award cost reimbursement regulations or any pre-award costs approval letter from the Contracting Officer override these NEPA requirements to obtain the written authorization from the Contracting Officer prior to taking any action that may have an adverse effect on the environment or limit the choice of reasonable alternatives.

3. PERFORMANCE OF WORK IN THE UNITED STATES

a. Requirement.

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

b. Failure to Comply.

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

c. Waiver.

There may be limited circumstances where it is in the interest of the project to perform a portion of the work outside the United States. To seek a waiver of the Performance of Work in the Unites States requirement, the Recipient must submit a written waiver request to DOE, which includes the following information:

- The countries in which the work is proposed to be performed;
- A description of the work to proposed to performed outside the U.S.;
- Proposed budget of work to be performed; and
- The rationale for performing the work outside the U.S.

For the rationale, the Applicant must demonstrate to the satisfaction of DOE that a waiver would further the purposes of the FOA that the award was selected under and is otherwise in the interests of DOE and the United States.

For the rationale, please address, as applicable:

- The associated benefits to be realized and the contribution to the project from the foreign work;
- How the foreign work will benefit U.S. research, development and manufacturing, including contributions to employment in the U.S. and growth in new markets and jobs in the U.S.;
- How the foreign work will promote domestic American manufacturing of products and/or services;
- Evidence that there will be no significant infringement upon or unfair competition with American-owned companies by including foreign work;
- A description of the plan to ensure adequate and effective protection of the IP rights; and
- How the foreign work or participation is essential to the project.

DOE may require additional information before considering a waiver request. The Applicant does not have the right to appeal DOE's decision concerning a waiver request.

Save the waiver request(s) in a single PDF file titled "ControlNumber_PerformanceofWork_Waiver" and submit as part of the application (see Section IV.C.20)

4. *Construction*

DOE generally does not fund projects that involve major construction (i.e., construction of new buildings, major renovations, or additions to existing buildings). Note that installation of energy efficiency and/or clean energy systems is not considered major construction. Recipients are required to obtain written authorization from the Contracting Officer before incurring any major construction costs.

5. *Davis-Bacon Act or Related Acts*

The requirements of the Davis-Bacon Act, or Related Acts, are not applicable to grants awarded under this FOA.

6. *Foreign Travel*

Foreign travel will not be considered as part of projects selected under this FOA.

7. *Equipment and Supplies*

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

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

8. *Lobbying*

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

All Applicants are required to complete and submit SF-LLL, "Disclosure of Lobbying Activities" (http://www.whitehouse.gov/sites/default/files/omb/grants/sflllin.pdf) and disclose if any non-

Federal funds have been paid or will be paid to any person for influencing or attempting to influence any of the following in connection with your application:

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

If no non-Federal funds have been paid or will be paid to any person, indicate "none" on the form. See Section IV.C.19.

8. Risk Assessment

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

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

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

9. Invoice Review and Approval

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

- Summary of costs by cost categories;
- Timesheets or personnel hours report;
- Invoices/receipts for all travel, equipment, supplies, contractual, and other costs;
- Uniform Commercial Code (UCC) filing proof for equipment acquired with project funds; by for-profit recipients and subrecipients;

- Explanation of cost share for invoicing period;
- Analogous information for some subrecipients; and/or
- Other items as required by DOE.

V. APPLICATION REVIEW INFORMATION

A. TECHNICAL REVIEW CRITERIA

Applications under both Topic Areas will be evaluated against the merit review criteria shown below. The sub-criteria under each criterion are of equal weight, unless otherwise specified.

Criterion 1: Goals and Objectives (10%)

- Clarity and completeness of the Executive Summary including:
  - Concise overview of the proposed project;
  - Description of the Indian Tribe or Tribal Energy Resource Development Organization and if applicable, a description of the Tribal Organization or Inter-Tribal Organization submitting the application on behalf of the Indian Tribe, or Tribal Consortium, including the:
    - long-term energy goals and/or vision;
    - organizational structure; and
    - demographics;

    and,
  - Discussion of the project goals and objectives, and how the project integrates into the vision and long-term goals of the Applicant.

- Extent to which the proposed project provides economic (e.g., money saved, jobs, etc.) and environmental benefits (e.g., reduction in fossil fuel, less emissions, etc.) to the Indian Tribe(s) and tribal community.

- Soundness of the discussion of the need for and impact of DOE funding to the proposed project and the implications if not funded.

Criterion 2: Project Description and Outcomes (40%)

- Clarity and completeness of the detailed project description

- Technical viability of the proposed project, including
  - Adequacy of the

    1) Energy audit(s) or energy industrial energy assessments (s); and/or
    2) Available clean energy resource(s);
  - Viability of the
    1) Energy efficiency measures and completeness of the materials or equipment list(s).
    2) Design and availability of commercially-proven clean energy technologies; and/or
  - Reasonableness of the methodology to be used to implement energy efficiency measure(s) and/or install renewable energy system(s) or combined heat and power system(s);
  - Clarity and completeness of the discussion of barriers that could impede the project and reasonableness of the plan to overcome those barriers;
  - Reasonableness of the plan to verify the reduction in **total** energy from all sources (amount, cost, and percentage) or to verify the actual annual electric power generation and/or heating or cooling; and
  - Reasonableness of the operation and maintenance plan.

- Economic viability of the proposed project, including
  - Quality of the economic assessment;
  - Reasonableness of the payback period; and
  - Financial sustainability of the proposed project.

- Outcomes, including:
  - Amount of energy generated or saved;
  - Economic benefits (e.g., money saved, people trained, jobs created);
  - Environmental benefits (reduction in greenhouse gases and the equivalency); and
  - Other outcomes (e.g., replicability, environmental stewardship, helps meet a specific energy goal, step towards energy independence).

Criterion 3: Roles, Responsibilities, Capabilities and Commitment (30%)

- Soundness of the project management approach, including:
  - Organizational and individual roles and responsibilities;
  - Organizational relationships as evidenced by existing business or other agreements, if applicable.
  - Capabilities of the Applicant and participants to comprehensively address all aspects of the proposed project, including the reasonableness of any plan to obtain qualified consultants, contractors, or vendors.

- Demonstrated level of commitment of the Applicant and each participating organization as evidenced by:
  (1) Past energy-related efforts; and,
  (2) Commitments to the proposed project as evidenced by Letters of Commitment.

Criterion 4: Workplan (20%)

- Clarity and completeness of the narrative description of each activity necessary to complete the project; and
- Likelihood of achieving project objectives through logical task structure.

B. Standards for Application Evaluation

Applications that are determined to be eligible will be evaluated in accordance with this FOA, by the standards set forth in DOE's Notice of Objective Merit Review Procedure (76 Fed. Reg. 17846, March 31, 2011) and the guidance provided in the "Department of Energy Merit Review Guide for Financial Assistance," which is available at: http://energy.gov/sites/prod/files/PF2013-38a.pdf.

C. Program Policy Factors

In addition to the above criteria, the Selection Official may consider the following program policy factors (in no particular order) in determining which applications to select for award negotiations:

- The degree to which the proposed project, including proposed cost share, optimizes the use of available DOE funding to achieve programmatic objectives;
- Geographic diversity;
- Technology diversity;
- Whether the proposed project will advance the goals of the Climate Action Champion program, as committed to by the designated Champion pursuant to its designation agreement. The Climate Action Champion program goals include improving climate resilience and reducing greenhouse gas emissions; and/or
- Whether the proposed project will advance the goals of the Promise Zone Initiative which partners with high-poverty communities to develop job training for 21st century industries; improve educational opportunities; increase access to safe, affordable housing; and promote community safety.

Note: The Climate Action Champion initiative program policy factor is only applicable to (1) projects proposed by Climate Action Champions[1] as designated under DOE's Request for Applications (DE-FOA-0001189); (2) projects proposed by a member of a regional collaboration or consortium designated as a Champion; and (3) projects proposed in a Climate Action Champion community where the Applicant submits a letter from the Champion confirming the proposed project would further the Champion's goals under the Climate Action Champion initiative. If an Applicant is seeking to receive consideration under (3), the Applicant must contact the applicable Champion to obtain a letter of support.

Note: The Promise Zone Initiative program policy factor is only applicable to (1) Indian Tribes designated under the program[2] and (2) projects proposed in a designated Indian Tribe community where the Applicant submits a letter from the designee confirming that the proposed project would further goals under the Promise Zone initiative.

D. Evaluation and Selection Process

1. Overview

The evaluation process consists of multiple reviews including an initial eligibility review and a thorough technical review. Rigorous technical reviews are conducted by reviewers that are experts in the subject matter of the FOA. Ultimately, the Selection Official considers the recommendations of the reviewers, along with other considerations such as program policy factors, in determining which applications to select for negotiation toward an award.

[1] In recognition of the importance of the dual policy goals of reducing greenhouse gas emissions and enhancing climate resilience, the U.S. Department of Energy (DOE) – in close collaboration with other Federal agencies – launched the Climate Action Champion initiative to identify and showcase U.S. local and tribal governments that have proven to be climate leaders through pursuing opportunities to advance both of these goals in their communities. Recently, DOE selected sixteen (16) U.S. local governments and tribal governments – or regional collaborations or consortia thereof – that demonstrated a strong and ongoing commitment to implementing strategies that both reduce greenhouse gas emissions and enhance climate resilience, with a particular emphasis on strategies that further both goals. Specifically, Champions eligible under this specific FOA are: (1) Blue Lake Rancheria Tribe (CA); and (2) the Sault Ste. Marie Tribe of Chippewa Indians (MI). http://www.whitehouse.gov/blog/2014/12/03/announcing-first-class-climate-action-champions

[2] In recognition of the U.S. Department of Agriculture (USDA), U.S. Department of Housing and Urban Development (HUD) and the White House's Promise Zone Initiative, which pairs Federal government partners with local leaders to streamline resources across agencies and deliver comprehensive support. Specifically, designees eligible include: (1) Spokane Tribe of Indians, Washington, (2) Turtle Mountain Band of Chippewa Indians, Rolette County, North Dakota, (3) The Choctaw Nation of Oklahoma, and (4) Pine Ridge Indian Reservation of the Oglala Sioux Tribe, South Dakota. http://www.usda.gov/wps/portal/usda/usdahome?navid=promisezones

2. *Pre-Selection Clarification*

DOE may determine that pre-selection clarifications are necessary from one or more Applicants. These pre-selection clarifications will solely be for the purposes of clarifying the application, and will be limited to information already provided in the application documentation. The pre-selection clarifications may occur before, during or after the evaluation process. Information provided by an Applicant that is not necessary to address the pre-selection clarification question will not be reviewed or considered. Typically, a pre-selection clarification will be carried out through either written responses to DOE's written clarification questions or video or conference calls with DOE representatives.

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

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

3. *Recipient Integrity and Performance Matters*

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

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

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

4. *Selection*

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

E. Anticipated Notice of Selection and Award Dates

DOE anticipates notifying Applicants selected for negotiation of award on the date specified on the cover page of this FOA and making awards approximately 90 days after receipt of any requested supplemental information.

VI. Award Administration Information

A. Award Notices

1. *Ineligible Submissions*

Ineligible applications will not be reviewed or considered for award. If determined ineligible, the Contracting Officer will send a notification letter by email to the technical and administrative points of contact designated by the Applicant in EERE Exchange. The notification letter will state the basis upon which the application is ineligible and not considered for further review.

2. *Application Notifications*

DOE will notify all Applicants of applications deemed eligible of its determination via a notification letter by email to the technical and administrative points of contact designated by the Applicant in EERE Exchange. The notification letter will inform the Applicant that its application was selected for award negotiations, or not selected for award. Alternatively, DOE may notify one or more Applicants that a final selection determination on particular applications may be made at a later date, subject to the availability of funds or other factors.

Written feedback on all applications not deemed ineligible, will also be provided at the time of notification.

3. *Successful Applicants*

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

The award negotiation process is estimated to take approximately 90 days. The Applicant must be responsive during award negotiations (e.g., provide requested documentation) and meet the negotiation deadlines. If the Applicant fails to do so or negotiations are otherwise unsuccessful, DOE may cancel award negotiations and rescind the Selection. DOE reserves the right to terminate award negotiations at any time for any reason.

Please refer to Section IV.I.2 of the FOA for guidance on pre-award costs.

4. *Postponed Selection Determinations*

A notification letter postponing a final selection determination until a later date does not authorize the Applicant to commence performance of the project As DOE may ultimately decide to not select the application for award negotiations.

5. *Alternate Selection Determinations*

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

6. *Unsuccessful Applicants*

DOE shall notify in writing each Applicant whose application has not been selected for award or whose application cannot be funded because of the unavailability of appropriated funds. If the application was not selected, the written notice shall explain why the application was not selected.

B. Administrative and National Policy Requirements

1. *Registration Requirements*

There are several one-time actions required before submitting an application in response to this Funding Opportunity Announcement (FOA), and it is vital that Applicants address these items as soon as possible as some actions may take several weeks, and **failure to complete them could interfere with an Applicant's ability to apply to this FOA, or to meet the negotiation deadlines and receive an award if the application is selected for negotiation of award**.

These requirements are as follows:

i. EERE Exchange

Register and create an account on EERE Exchange at https://eere-Exchange.energy.gov. This account will then allow the user to register for any open EERE FOAs that are currently in EERE Exchange. It is recommended that each organization or business unit, whether acting as a team or a single entity, use only one account as the contact point for each submission. Applicants should also designate backup points of contact so Applicants may be easily contacted if deemed necessary. **This step is required to apply to this FOA.**

A control number will be assigned while registering in EERE Exchange. Retain this number as it will be used as an identifier and required on all application documents.

The EERE Exchange registration does not have a delay; however, **the remaining registration requirements below could take several weeks to process and are necessary for a potential Applicant to receive an award under this FOA**. 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 SAM or FedConnect should complete those registrations as soon as possible.

ii. DUNS Number

Obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number (including the plus 4 extension, if applicable) at http://fedgov.dnb.com/webform. DUNS Number assignment is FREE for all entities required to register with the US Federal government for contracts or grants.

iii. System for Award Management

Register with the System for Award Management (SAM) at https://www.sam.gov. Designating an Electronic Business Point of Contact (EBiz POC) and obtaining a special password called an MPIN are important steps in SAM registration. SAM registration must be updated annually.

iv. FedConnect

Register in FedConnect at https://www.fedconnect.net. To create an organization account, your organization's SAM MPIN (see above) is required. For more information about the SAM MPIN or other registration requirements, review the FedConnect Ready, Set, Go! Guide at https://www.fedconnect.net/FedConnect/Marketing/Documents/FedConnect_Ready_Set_Go.pdf.

v. Grants.gov

Register in Grants.gov (http://www.grants.gov) to receive automatic updates when Amendments to this FOA are posted. **However, please note that applications will not be accepted through Grants.gov. Applications will only be accepted in EERE Exchange.**

vi. Electronic Authorization of Applications and Award Documents

Submission of an application, acceptance of an award, and submittal of supplemental information under this FOA through electronic systems used by DOE, including EERE Exchange and fedconnect.net, constitutes the authorized representative's approval and electronic signature.

2. AWARD ADMINISTRATIVE REQUIREMENTS

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

3. FOREIGN NATIONAL ACCESS TO DOE SITES

All Applicants that ultimately enter into an award resulting from this FOA will be subject to the following requirement concerning foreign national involvement. Upon DOE's request, Recipients must provide information to facilitate DOE's responsibilities associated with foreign national access to DOE sites, information, technologies, and equipment. Foreign national is defined as any person who was born outside the jurisdiction of the United States, is a citizen of a foreign government, and has not been naturalized under U.S. law. If the Recipient or subrecipients, contractors or vendors under the award, anticipate utilizing a foreign national

person in the performance of an award, the Recipient is responsible for providing to the Contracting Officer specific information of the foreign national(s) to satisfy compliance with all of the requirements for access approval.

4. *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. Recipients must register with the new FFATA Subaward Reporting System database and report the required data on their first tier Subrecipients. Recipients must report the executive compensation for their own executives as part of their registration profile in SAM.

5. *National Policy Requirements*

The National Policy Assurances that are incorporated as a term and condition of award are located at: http://energy.gov/management/downloads/national-policy-assurances-be-incorporated-award-terms. By signing and submitting the application for Financial Assistance (SF-424), the Applicant is providing the required assurances and agreeing to comply with the resulting terms if an award is made.

6. *Environmental Review in Accordance with the National Environmental Policy Act (NEPA)*

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

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

7. *Applicant Representations and Certifications*

i. Lobbying Restrictions

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

ii. Corporate Felony Conviction and Federal Tax Liability Representations (March 2014)

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

(1) It is **not** a corporation that has been 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.

For purposes of these representations the following definitions apply:

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

iii. Nondisclosure and Confidentiality Agreements Representations

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

(1) It **does not and will not** require its employees or contractors to sign internal nondisclosure or confidentiality agreements or statements prohibiting or otherwise restricting its employees or contactors from lawfully reporting waste, fraud, or abuse to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information.

(2) It **does not and will not** use any Federal funds to implement or enforce any nondisclosure and/or confidentiality policy, form, or agreement it uses unless it contains the following provisions:

a. *''These provisions are consistent with and do not supersede, conflict with, or otherwise alter the employee obligations, rights, or liabilities created by existing statute or Executive order relating to (1) classified information, (2) communications to Congress, (3) the reporting to an Inspector General of a violation of any law, rule, or regulation, or mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety, or (4) any other whistleblower protection. The definitions, requirements, obligations, rights, sanctions, and liabilities created by controlling Executive orders and statutory provisions are incorporated into this agreement and are controlling.''*

b. The limitation above shall not contravene requirements applicable to Standard Form 312, Form 4414, or any other form issued by a Federal department or agency governing the nondisclosure of classified information.

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

8. STATEMENT OF FEDERAL STEWARDSHIP

DOE will exercise normal federal stewardship in overseeing the project activities performed under DOE awards. Stewardship activities include, but are not limited to, conducting site visits; reviewing performance and financial reports, providing assistance and/or temporary intervention in usual circumstances to correct deficiencies that develop during the project;

assuring compliance with terms and conditions; and reviewing technical performance after project completion to ensure that the project objectives have been accomplished.

9. Intellectual Property Provisions

The standard DOE financial assistance intellectual property provisions applicable to the various types of Recipients are located at http://energy.gov/gc/standard-intellectual-property-ip-provisions-financial-assistance-awards.

10. Reporting

Reporting requirements are identified on the Federal Assistance Reporting Checklist, DOE F 4600.2, attached to an award agreement. A sample checklist can be accessed at http://energy.gov/management/downloads/updated-reporting-requirement-checklists-and-research-performance-progress.

11. Conference Spending

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

VII. Questions/Agency Contacts

Upon the issuance of a FOA, DOE personnel are prohibited from communicating (in writing or otherwise) with Applicants regarding the FOA except through the established question and answer process as described below. Specifically, questions regarding the content of this FOA must be submitted to: tribal@ee.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 in order to view questions specific to this FOA you must first select this specific FOA Number and then "Frequently Asked Questions (FAQS).** DOE will attempt to respond to a question within 3 business days, unless a similar question and answer has already been posted on EERE Exchange.

Questions related to the registration process and use of the EERE Exchange website must be submitted to: EERE-ExchangeSupport@hq.doe.gov as DOE is unable to assist with EERE Exchange issues. For general questions, see Questions and Answers at https://eere-exchange.energy.gov/FAQ.aspx.

VIII. OTHER INFORMATION

A. FOA MODIFICATIONS

Amendments to this FOA will be posted on the EERE Exchange website and the Grants.gov system. **However, you will only receive an email when an amendment 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 FOAs.

B. INFORMATIONAL WEBINAR

DOE will conduct one informational webinar during the FOA process. It will be held after the initial FOA release but before the due date for applications. Specifically, the webinar will be held on the date specified on the cover page of this FOA. See EERE Exchange for any updates or how to register for the webinar.

The purpose of this webinar is to cover the basic aspects of the Funding Opportunity Announcement and highlighting essential details about the application process. Attendance is not mandatory and will not positively or negatively impact the overall review of any Applicant submissions.

C. GOVERNMENT RIGHT TO REJECT OR NEGOTIATE

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

D. COMMITMENT OF PUBLIC FUNDS

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

E. Treatment of Application Information

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

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

Applications containing trade secrets or commercial or financial information that is privileged or confidential, which the Applicant does not want disclosed to the public or used by the Government for any purpose other than application evaluation, must be marked as described in this section. The use of protective markings such as "Do Not Publicly Release – Trade Secret" or "Do Not Publicly Release – Confidential Business Information" is encouraged. However, applicants should be aware that the use of protective markings is not dispositive as to whether information will be publicly released pursuant to the Freedom of Information Act (FOIA) 5 U.S.C. §552, et. seq., as amended by the OPEN Government Act of 2007, Pub. L. No. 110-175. (See Section I of this document, "Notice of Potential Disclosure Under the Freedom of Information Act (FOIA)" for additional information regarding the public release of information under the Freedom of Information Act.

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

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

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

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

F. Evaluation and Administration by Non-Federal Personnel

In conducting application evaluations, the Government may seek the advice of qualified non-federal personnel as reviewers. The Government may also use non-federal personnel to conduct routine, nondiscretionary administrative activities. The Applicant, by submitting its application, consents to the use of non-federal reviewers/administrators. Non-federal reviewers must sign conflict of interest and non-disclosure agreements prior to reviewing an application. Non-federal personnel conducting administrative activities must sign a non-disclosure agreement.

G. Notice Regarding Eligible/Ineligible Activities

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

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

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).

I. Notice of Potential Disclosure Under Freedom of Information Act

Under the Freedom of Information Act, (FOIA), 5 U.S.C. §552, et. seq., as amended by the OPEN Government Act of 2007, Pub. L. No. 110-175, any information received from the Applicant is considered to be an agency record, and as such, subject to public release under FOIA. The purpose of the FOIA is to afford the public the right to request and receive agency records unless those agency records are protected from disclosure under one or more of the nine FOIA exemptions. Decisions to disclose or withhold information received from the Applicant are based upon the applicability of one or more of the nine FOIA exemptions, not on the existence or nonexistence of protective markings or designations. Only the agency's designated FOIA Officer may determine if information received from the Applicant may be withheld pursuant to one of the nine FOIA exemptions. All FOIA requests received by DOE are processed in accordance with 10 CFR Part 1004.

J. Requirement for Full and Complete Disclosure

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

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

K. Retention of Submissions

DOE expects to retain copies of all applications and other submissions. No submissions will be returned. By applying to DOE for funding, Applicants consent to DOE's retention of their submissions.

L. Rights in Technical Data

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

"Limited Rights Data": The U.S. Government will not normally require delivery of confidential or trade secret-type technical data developed solely at private expense prior to issuance of an award, except as necessary to monitor technical progress and evaluate the potential of proposed technologies to reach specific technical and cost metrics.

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

M. Copyright

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

N. Protected Personally Identifiable Information

All information provided by the Applicant must to the greatest extent possible exclude Personally Identifiable Information (PII). The term "personally identifiable information" refers to information which can be used to distinguish or trace an individual's identity, such as their name, social security number, biometric records, etc. alone, or when combined with other personal or identifying information which is linked or linkable to a specific individual, such as date and place of birth, mother's maiden name, etc. (See OMB Memorandum M-07-16 dated May 22, 2007, found at:
https://www.whitehouse.gov/sites/default/files/omb/memoranda/fy2007/m07-16.pdf

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

O. Annual Compliance Audits

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

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

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

APPENDIX A – DEFINITIONS

"**Alaska Native Regional Corporation**" for the purposes of this FOA, means one of the thirteen Alaska Native Regional Corporations, as defined in and established pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. §§ 1602(g)).

"**Alaska Native Village Corporations**" or "**Village Corporation**" for purposes of this FOA, are as defined in or established pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. §§ 1602(J)).

"**Amendment**" means a revision to a Funding Opportunity Announcement or a Financial Assistance Agreement. Also see Modification.

"**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 FOA.

"**Application**" means the documentation submitted in response to a FOA.

"**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 SAM.

"**Award**" means the written documentation executed by a 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 a grant, cooperative agreement, or technology investment agreement.

"**Budget**" means the cost expenditure plan submitted in the application, including both the DOE contribution and the Applicant cost share.

"Business Contact" means a representative of the Applicant authorized to act on behalf of the Applicant in the daily administration of the grant and to negotiate the agreement, as all DOE official correspondence related to this announcement, or agreement if one was awarded, would be addressed to the business point of contact.

"**Clean Energy Systems**" for purposes of this FOA include renewable energy systems and combined heat and power systems (see definition of renewable energy systems and combined heat and power system).

"**Combined Heat and Power (CHP) Systems**", for purposes of this announcement, include, but are not limited to, integrated systems that simultaneously generate heat and power using energy efficient turbines, reciprocating engines, micro-turbines, fuel cells, and waste heat recovery systems (capturing heat discarded by an existing process and using that heat directly or to generate power). Eligible combined heat and power systems may only be fueled by either: (1) renewable energy resources, or (2) natural gas.

"Commercially-proven" for purposes of this FOA, means the technology must be at least a Technology Readiness Level (TRL) of 9, where TRL 9 is "Commercial-Scale Production/Application" and represents an in-service application of the technology in its final form and under mission condition and at TRL 9, the actual, commercial-scale system is proven through successful mission operations, whereby it is fielded and being used in commercial application. Information relative to the technology and its TRL should be provided as part of the application. For more on TRL, see http://en.wikipedia.org/wiki/Technology_readiness_level.

"**Community**" for purposes of this FOA, means a group of any size whose members reside in a specific locality, share government, and often have a common cultural and historical heritage.

"Community-scale project" for purposes of this FOA, means a project serving a substantial number of the total buildings within a community (minimum of three buildings) and/or providing a substantial percentage of the total community energy load (minimum of 250 kW or Btu equivalent). For purposes of this FOA, "substantial" means of "ample or considerable amount".

"**Compliance**" is an eligibility determination that refers to the non-technical requirements outlined in a FOA (e.g., formatting, timeliness of submission, or satisfaction of prerequisites).

"**Consortium (plural consortia)**" means the group of organizations or individuals that have chosen to submit a single application in response to a FOA.

"**Contracting Officer**" means the DOE official authorized to execute awards on behalf of DOE and who is responsible for the business management and non-technology/program office aspects of the financial assistance process.

"**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. Refer to 2 CFR 200.24 for additional information regarding cooperative agreements.

"**Cost Sharing**" means that portion of the project or program's costs not borne by the federal government. The percentage of Applicant cost share is to be applied to the total project cost (i.e., the sum of Applicant plus DOE cost share) rather than to the DOE contribution alone. Cost sharing information can be found in the Code of Federal Regulations at 2 CFR 200.306 as amended by 2 CFR 910.130.

"**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 SAM. Call 1-866-705-5711 to receive one free of charge.

"**Deep Energy Retrofit**" for purposes of Topic Area 1.a., is a whole-building approach involving a comprehensive renovation or remodeling strategy which combines multiple energy efficiency measures (EEM), so that significant energy savings are achieved, and the comfort, durability, health, and indoor air quality of the building or buildings is improved.

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

"**EERE Exchange**" is the Department of Energy, Energy Efficiency and Renewable Energy's web system for posting Federal FOAs and receiving applications. EERE Exchange may be found at https://eere-exchange.energy.gov.

"**Energy Conservation**" for purposes of this FOA, means decreasing energy consumption by using less of an energy service or going without an energy service to save energy. Energy conservation typically involves a behavioral change and may include meters or other indicators to induce that behavioral change..

"**Energy Efficiency Measures (EEM)**" for purposes of this FOA, means the implementation of (1) building efficiency or (2) industrial process efficiencies, that use less energy to provide the same service.

(1) Building efficiencies may include, but are not limited to, building envelope improvements (improvements to walls, roofs, foundation slab, ceiling, windows, doors, insulation), the installation of energy efficient equipment, high-efficiency lighting, efficient appliances, air sealing, moisture management, controlled ventilation, high R-value (high thermal resistance) insulation, high efficiency windows, efficient heating

systems (furnaces, boilers, passive solar), efficient cooling systems (air conditioners, evaporative coolers), ground source heat pumps, energy saving building electrical equipment, and efficient mechanical systems and heat recovery ventilation units.

(2) Industrial process efficiencies may include, but are not limited to, insulating piping, tank walls and roofs, the installation of higher efficiency equipment (e.g., heat exchangers, compressors, blowers, pumps, and fans), minimizing air leaks, optimizing air systems through the use of variable speed drives, and adding or optimizing controls.

"**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. It can be found at https://www.fedconnect.net/FedConnect/.

"**Federally Funded Research and Development Center (FFRDC)**" means a government-sponsored operation that exists for the purpose of carrying out various functions related to both basic and applied research and development on behalf of the Government. Typically, most or all of the facilities utilized in an FFRDC are owned by the Government, but the operations are not always managed by the Government; an FFRDC may be managed by a University or consortium of Universities, other not-for-profit or nonprofit organization, or a for-profit organization, with the Government performing an oversight function.

"**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. FOAs may be known as FOAs, notices of funding availability, solicitations, or other names depending on the agency and type of program. See 2 CFR 200.203 for more information.

"**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 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. It can be accessed at http://www.grants.gov.

"Indian Lands," for purposes of this Announcement, is defined as:

(a) any land located within the boundaries of an "Indian reservation" (see definition below), pueblo, or rancheria;

(b) any land not located within boundaries of an Indian reservation, pueblo, or rancheria, the title to which is held –

(i) in trust by the United States for the benefit of an Indian Tribe or an individual Indian;

(ii) by an Indian Tribe or an individual Indian, subject to restriction against alienation under laws of the United States; or

(iii) by a dependent Indian community; and

(c) land that is owned by an Indian Tribe and was conveyed by the United States to a Native Corporation pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. § 1601 et seq.), or that was conveyed by the United States to a Native Corporation in exchange for such land;

(d) lands held in fee simple (purchased or owned);

(e) lands under a long-term Federal land lease (at least 20 years); and

(f) land that was conveyed to a Native Corporation pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. § 1601 et seq.) and subsequently conveyed to another entity, provided that entity is either a Native village or Tribal governmental entity or the land is held, invested, managed for and on behalf of a Native village or Tribal governmental entity.

"Indian Reservation," for purposes of this Announcement and as defined under Part 503 of EPAct 2005, the term "Indian Reservation" includes an Indian reservation in existence in any State or States as of the date of enactment of Title V of EPAct 2005; a public domain Indian allotment; and a dependent Indian community located within the borders of the United States, regardless of whether the community is on original or acquired territory of the community; or within or outside the boundaries of any State or States.

"**Indian Tribe,**" for purposes of this FOA, means any Indian tribe, band, nation or other organized group or community (see Indian Tribe below for further definition), including any Alaska Native village, Alaska Native Regional Corporation, 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.], that is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

For purposes of this FOA, an eligible "Indian Tribe" (including Alaska Native villages, but not Alaska Native Regional Corporations or Village Corporations), must be federally recognized as listed in *Indian Entities Recognized and Eligible to Receive Services from the United States Bureau of Indian Affairs*, published by the Department of Interior's Bureau of Indian Affairs in the Federal Register on May 4, 2016, 81 FR 26827.

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

"**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.

"**Marketing Partner Identification Number (MPIN)**" is a very important password designated by your organization when registering in SAM. The E-Business Point of Contact will need the MPIN to assign privileges to the individual(s) authorized to perform SAM 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).

"**Modification**" means a revision to a FOA. Also see Amendment.

"**Owned or Controlled,**" for purposes of this FOA, is where the eligible entity has or has been given certain rights and duties, specifically the ability to exercise authority, direction and control over the project. Note that ownership may be private, collective, or common and some of those rights and duties may be held by different parties.

"**Participant,**" for purposes of this FOA, 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 FOA.

"**Principal Investigator**" means a representative authorized to act as the Technical Contact or Project Manager on behalf of the Applicant and would be the prime point of contact for DOE's Project Officer during the period of performance of the grant, if an agreement is awarded. See Technical Contact and Project Manager.

"**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).

"Project Manager" means a representative authorized to act as the Technical Contact or Principal Investigator on behalf of the Applicant and would be the prime point of contact for DOE's Project Officer during the period of performance of the grant, if an agreement is awarded. See Principal Investigator and Technical Contact.

"**Project Team**" means the team which consists of the Recipient, subrecipients, and others performing or otherwise supporting work under a DOE funding agreement.

"**Proposal**" is the term used to describe the documentation submitted in response to a FOA. Also see Application.

"**Recipient**" means the organization, individual, or other entity that receives a financial assistance award from DOE (i.e., is the signatory on the award), 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.

"**Renewable Energy System,**" for purposes of this announcement, includes systems for: (1) electric power generation; and/or (2) heating or cooling systems. Renewable energy systems also include renewable energy fueled combined heat and power systems (see Combine Heat and Power).

1) Renewable energy systems for electric power generation include, but are not limited to, photovoltaic (solar electric), biomass (including waste to energy), wind power, run-of-the-river hydropower, incremental hydropower, or other renewable energy hybrid systems for electricity power generation. Note that for purposes of this FOA, ground source heat pumps are considered an energy efficiency measure.
2) Heating or cooling systems include, but are not limited to, the use of biomass for high efficiency combustion systems (i.e., stoves and boilers), active solar thermal systems for space or water heating, wind energy for heating, direct-use hydrothermal (geothermal) resources for water and space heating, or other renewable energy hybrid systems for heating and/or cooling.

"**Responsiveness**" is an eligibility determination that refers to the objective technical requirements (not goals or targets) outlined in a FOA, such as a technology type or technical parameters. For example, submission of a photovoltaic solar panel design in response to a FOA calling for innovative geothermal drilling technologies should be found nonresponsive. Likewise, an application with a design that incorporates rare earth materials to a FOA that prohibits the use of rare earth materials should be found nonresponsive. Conversely, the belief that a technology will not achieve the technical targets of the FOA will never be used as a proper basis for a rejection as nonresponsive.

"**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 FOA.

"Source Energy" represents the total amount of raw fuel that is required to operate the building and as determined by the U.S. Environmental Protection Agency is the most equitable unit of evaluation, and enables assessment of energy efficiency. *Source energy* traces the heat and electricity requirements of the building back to the raw fuel input, thereby accounting for any losses (transmission, delivery, and production) enabling a complete thermodynamic assessment. For more, see the Energy Protection Agency (EPA) Energy Star website or Portfolio Manager Technical Reference on *Source Energy*.

"**Subawardee, Subrecipient, or Subcontractor**" (excludes vendors) means the legal entity to which a subaward is made and which is accountable to the Recipient for the use of the funds or property provided under a Financial Assistance Award.

"**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 cooperative agreement.

"**System for Award Management (SAM)**" is the primary database which collects, validates, stores and disseminates data in support of agency missions. It can be accessed at https://www.sam.gov.

"Technical Contact" means a representative of the Applicant authorized to act as the Project Manager or Principal Investigator on behalf of the Applicant and would be the prime point of

contact for DOE's Project Officer during the period of performance of the grant, if an agreement is awarded. See Principal Investigator and Project Manager.

"**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 Consortium**" (plural consortia), for purposes of this FOA, means a group of Indian tribes (see Indian Tribe), that have chosen to submit a single application. Under this announcement, a Tribal Consortium is eligible to submit an application provided the application is submitted by a single Indian tribe representing the Consortium.

"**Tribal Energy Resource Development Organization,**" for purposes of this FOA, means an "organization" of two or more entities, at least one of which is an Indian Tribe (see "Indian Tribe" above) that has the written consent of the governing bodies of all Indian Tribes participating in the organization to apply for a grant or loan, or other assistance under 25 U.S.C. § 3503, where "organization" means a partnership, joint venture, Limited Liability Company (LLC) or other unincorporated association or entity that is established to develop Indian energy resources."

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

"**Tribally-Owned or Controlled Building,**" for purposes of this FOA, is one where the eligible entity has the authority to retrofit the building and where the building is either owned by the eligible entity or tribal members, or the eligible entity has a long-term lease (at least 20 years). Buildings may include, but are not limited to, tribal member homes, schools, community buildings, clinics, tribal government buildings, utility facilities (such as water/waste water systems),tribal casinos, or tribal businesses.

"**Warrantied,**" for purposes of this FOA, is to have a guarantee or promise which provides assurance by one party to the other party that specific facts or conditions are true or will happen. This factual guarantee may be enforced, regardless of materiality, and allows for a legal remedy, if that promise is not true or followed. For purposes of this FOA, DOE expects that a warranty will cover defects in materials and workmanship and potentially the replacement of parts and labor for the failed components (or a portion thereof) for a specified period of time. The warranty should also describe the conditions under which the warranty will be honored. Additionally, depending on the type of energy efficiency measure and/or clean energy system, performance, function and/or degradation may be included as part of the warranty and thereby the warranty guarantees minimum standards of quality such as availability or amount of power production, and includes the terms under which those standards are honored.

APPENDIX B – COST SHARE INFORMATION

Cost Sharing or Cost Matching

The terms "cost sharing" and "cost matching" are often used synonymously. Even the DOE Financial Assistance Regulations, 2 CFR 910.130, 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 420.12, State Matching Contribution. Here "cost matching" for the non-federal share is calculated as a percentage of the Federal funds only, rather than the Total Project Cost.

How Cost Sharing Is Calculated

As stated above, cost sharing is calculated as a percentage of the Total Project Cost. 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 provide a single definition that applies in all situations, 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:

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

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

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

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

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

(A) Acceptable contributions. All contributions, including cash contributions and third party in-kind contributions, must be accepted as part of the 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 cost principles in 48 CFR Part 31 in the Federal Acquisition Regulation, except that patent prosecution costs are not allowable unless specifically authorized in the award document. (v) Commercial Organizations. FAR Subpart 31.2—Contracts with Commercial Organizations.

b. Other types of organizations. 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 Part 200 Subpart E - Cost Principles for all other non-federal entities.

ii. Other nonprofit organizations. Allowability is determined in accordance with: 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.

iii. Hospitals. Allowability is determined in accordance with the provisions of: 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.

iv. Governmental organizations. Allowability for State, local, or federally recognized Indian tribal government is determined in accordance with: 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities

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

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

(B) Valuing and documenting contributions

(1) Valuing Recipient's property or services of Recipient's employees. Values are established in accordance with the applicable cost principles, which mean that amounts chargeable to the project are determined on the basis of costs incurred. For real property or equipment used on the project, the cost principles authorize depreciation or use charges. The full value of the item may be applied when the item

will be consumed in the performance of the award or fully depreciated by the end of the award. In cases where the full value of a donated capital asset is to be applied as cost sharing or matching, that full value must be the lesser or the following:

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

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

(3) Valuing volunteer services. Volunteer services furnished by professional and technical personnel, consultants, and other skilled and unskilled labor may be counted as cost sharing or matching if the service is an integral and necessary part of an approved project or program. Rates for volunteer services must be consistent with those paid for similar work in the Recipient's organization. In those markets in which the required skills are not found in the Recipient organization, rates must be consistent with those paid for similar work in the labor market in which the Recipient competes for the kind of services involved. In either case, paid fringe benefits that are reasonable, allowable, and allocable may be included in the valuation.

(4) Valuing property donated by third parties.

a. Donated supplies may include such items as office supplies or laboratory supplies. Value assessed to donated supplies included in the cost sharing or matching share must be reasonable and must not exceed the fair market value of the property at the time of the donation.

b. Normally only depreciation or use charges for equipment and buildings may be applied. However, the fair rental charges for land and the full value of equipment or other capital assets may be allowed, when they will be consumed in the performance of the award or fully depreciated by the end of the award, provided that the Contracting Officer has approved the charges. When use charges are

applied, values must be determined in accordance with the usual accounting policies of the Recipient, with the following qualifications:

i. The value of donated space must not exceed the fair rental value of comparable space as established by an independent appraisal of comparable space and facilities in a privately-owned building in the same locality.

ii. The value of loaned equipment must not exceed its fair rental value.

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

a. Volunteer services must be documented and, to the extent feasible, supported by the same methods used by the Recipient for its own employees.

b. The basis for determining the valuation for personal services and property must be documented.

APPENDIX C – CALCULATING ENERGY SAVINGS (TOPIC AREA 1 ONLY)

Energy savings is the difference between the total energy usage before the project and the projected energy usage after the project. The equation for calculating the percentage of energy savings is shown in Equation 1.

Equation 1

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

Table 1 provides a list of typical forms of energy that are used in buildings.

To simplify the analysis and to provide an equivalent basis of comparison, all Applicants **must** use a common set of conversion factors (see Table 1 below). The common conversion factors (multipliers in Table 1) not only convert energy values to a common unit (kBtu), but also account for the effects of inefficiencies in energy conversion and distribution by converting site energy to *source energy*[3].

Methodology:

The general process for calculating energy savings is as follows:

1. Identify all energy and fuel sources used (total of all energy and fuel sources combined, including but not limited to, electricity, propane, heating oil, diesel oil, natural gas, or any other energy or fuel used) in Tribally-owned or controlled building(s).
2. Establish a baseline of the energy currently used by the building or buildings (referred to as "energy usage before project" in Equation 1).
3. Determine projected energy usage of the building(s) after the proposed project is completed (referred to as "projected energy usage after project" in Equation 1).
4. Convert energy values to the common unit of thousand British thermal units (kBtu) using the unit conversion multipliers provided in Table 1 below.
5. Sum energy usage values together for the before-project case and sum the energy usage values together for the after-project case.
6. Calculate the projected percentage of energy savings using Equation 1.

[3] *Source energy* represents the total amount of raw fuel that is required to operate the building and as determined by the U.S. Environmental Protection Agency is the most equitable unit of evaluation, and enables assessment of energy efficiency. Source energy traces the heat and electricity requirements of the building back to the raw fuel input, thereby accounting for any losses (transmission, delivery, and production) enabling a complete thermodynamic assessment. For more, see the Energy Protection Agency (EPA) Energy Star website or Portfolio Manager Technical Reference on *Source Energy*.

Conversion Factors:

All Applicants **must** use the common set of conversion factors below.

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

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

* Conversion source https://portfoliomanager.energystar.gov/pdf/reference/Thermal%20Conversions.pdf?191a-e2c5 and U.S. Energy Information Administrations (EIA) Energy Conversation Calculators at http://www.eia.gov/energyexplained/index.cfm?page=about_energy_conversion_calculator.

Guidance:

1) When renewable energy systems, including renewable-fueled combined heat and power systems are proposed, the "energy usage projected after project" would be

reduced by the amount of energy projected to be generated for and used in the building or buildings (i.e., energy displaced by the renewable energy system).

2) For purposes of this FOA, biomass fuel shall have zero source energy when calculating energy inputs after the proposed project (see Examples #2 and #3 below).
3) If steam and chilled water are generated in the building(s) using energy sources already included in the utility totals (e.g. electricity to generate chilled water), do not double count their usage. If steam or chilled water are purchased separately from a utility provider, their usage needs to be included in the building(s) totals.

The following examples are used to demonstrate how to apply these factors and calculate the percentage of all energy saved in a building or buildings.

Example #1: Topic Area 1.a. (Deep Energy Retrofits)

Demonstrates how to calculate the reduction in the **total** of all energy sources if energy efficiency measures are implemented.

Proposed Project: A 20,000 ft^2 building is projected to save 20% of its electricity usage (68,000 kWh) by replacing old inefficient light bulbs with light-emitting diode (LED) light bulbs and reducing 40% of its natural gas usage (2,560 therms) after implementing a number of Energy Efficiency Measures (EEMs). The total annual energy usage for the building in 2015 was 340,000 kWh/year of electricity, 6,400 therms of natural gas, and 15,000 gallons of fuel oil (No. 5).

Find: Percentage of energy savings resulting from the proposed project.
Method: The general steps described above are followed in this example.

1. Identify all sources of energy and fuel that are used in the building or buildings.
2. Establish the baseline energy usage before the proposed project is implemented ("energy usage before project").
3. Determine projected energy usage after the project ("energy usage projected after project").

Table 2 shows the building energy usage for this example before and after the proposed project is implemented. The figures in the table are provided in the typical units for these forms of energy, kWh and therms.

Table 2. Example #1 building energy usage

	Before	After	Savings	% Savings
Electricity (kWh)	340,000	272,000	68,000	20%
Natural Gas (therms)	6,400	3,840	2,560	40%
Fuel Oil (No. 5)	15,000	15,000	0	0%

Note: The requirement under Topic Area 1.a. is the reduction in the **total** of all energy and fuel used (total of all energy and fuel sources combined, including but not limited to, electricity, propane, heating oil, or any other energy or fuel used) in the building; therefore, all energy sources including the fuel oil used in the building but not affected by the proposed installations, are included in the calculation regardless of whether it is being affected by the proposed installations.

4. Convert the various forms of energy values to the common unit of kBtu using the multipliers provided in Table 1. The energy values with mixed units of kWh and therms are multiplied by the unit conversion factors for the given form of energy to get the energy values in the common units of kBtu.

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

	Energy Usage (Mixed Units)			Units conversion factor	Energy Usage (Common Units)		
	Before	After	Units		Before	After	Units
Electricity	340,000	272,000	kWh	10.7	3,638,000	2,910,400	kBtu
Natural Gas	6,400	3,840	therms	105	672,000	403,200	kBtu
Fuel Oil (No. 5)	15,000	15,000	gallons	151.5	2,272,500	2,272,500	kBtu
Total					6,582,500	5,586,100	kBtu

5. Sum the energy usage values for the before-project case and sum the energy usage values for the after-project case as shown for this example in Table 14 below.

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

	Building Energy Usage		
	Before	After	Units
Electricity	3,638,000	2,910,400	kBtu
Natural gas	672,000	403,200	kBtu
Fuel Oil	2,272,500	2,272,500	kBtu
Sum	6,582,500	5,586,100	kBtu

6. Calculate the projected percentage of energy savings using Equation 1.

For this example, the building used 6,582,500 kBtu of energy in 2015. The proposed energy efficiency measures are projected to reduce the annual energy usage to 5,586,100 kBtu after the project is implemented. The percent of energy savings is calculated as:

$$\text{Energy Savings (\%)} = \frac{6{,}582{,}500 \text{ kBtu} - 5{,}586{,}100 \text{ kBtu}}{6{,}582{,}500 \text{ kBtu}} \times 100 = 15.1\%$$

Note: In this example, the reduction in the **total** of <u>all</u> energy meets the 15% requirement under Topic Area 1.a.

Example #2: Topic Area 1.b. (Energy Efficiency Measures plus Solar Electric System)

Demonstrates how to calculate the reduction in the **total** of <u>all</u> energy sources if energy efficiency measures (EEMs) are implemented, along with a solar electric system.

Proposed Project: A 20,000 ft^2 building is projected to save 20% of its electricity usage (68,000 kWh) by replacing old inefficient light bulbs with light-emitting diode (LED) light bulbs and reducing 40% of its natural gas usage (2,560 therms) after implementing a number of Energy Efficiency Measures (EEMs). Additionally, a 10kW photovoltaic (solar electric) system projected to produce 15,000 kWh will be installed. The total annual energy usage for the building in 2015 was 340,000 kWh/year of electricity and 6,400 therms of natural gas. In this example, no other energy or fuel is being used in the building.

Find: Percentage of energy savings resulting from the proposed project.
Method: The general steps described above are followed in this example.

1. Identify all sources of energy and fuel that are used in the building or buildings.
2. Establish the baseline energy usage before the proposed project is implemented ("energy usage before project").
3. Determine projected energy usage after the project ("energy usage projected after project").

Table 5 shows the building energy usage for this example before and after the proposed project is implemented. The figures in the table are provided in the typical units for these forms of energy, kWh and therms. Note that the electricity usage after the project is reduced by the amount of energy projected to be generated by the photovoltaic (solar electric) system (15,000 kWh) and an additional 20% from the energy efficiency measures (20% of 340,000 kWh/year is 68,000 kWh/year) for a total reduction of 83,000 kWh (or 24%).

Table 5. Example #2 building energy usage

	Before	After	Savings	% Savings
Electricity (kWh)	340,000	257,000	83,000	24%
Natural gas (therms)	6,400	3,840	2,560	40%

Note: The requirement under Topic Area 1.b. is the reduction in the **total** of all energy and fuel used (total of all energy and fuel sources combined, including but not limited to, electricity, propane, heating oil, or any other energy or fuel used) in the building; therefore, if any other sources of energy or fuel were used in the building even if those sources were unaffected by the proposed installation, they would be included in the calculation.

4. Convert the various forms of energy values to the common unit of kBtu using the multipliers provided in Table 1. The energy values with mixed units of kWh and therms are multiplied by the unit conversion factors for the given form of energy to get the energy values in the common units of kBtu.

Table 6. Example #2 conversion of energy values from mixed units to common units of kBtu

	Energy Usage (Mixed Units)			Units conversion factor	Energy Usage (Common Units)		
	Before	After	Units		Before	After	Units
Electricity	340,000	257,000	kWh	10.7	3,638,000	2,749,900	kBtu
Natural gas	6,400	3,840	therms	105	672,000	403,200	kBtu
Total					4,310,000	3,153,100	kBtu

5. Sum the energy usage values for the before-project case and sum the energy usage values for the after-project case as shown for this example in Table 7 below.

Table 7. Example #2 summation of before and after project energy usage in common units of kBtu

	Building Energy Usage		
	Before	After	Units
Electricity	3,638,000	2,747,900	kBtu
Natural gas	672,000	403,200	kBtu
Sum	4,310,000	3,153,100	kBtu

6. Calculate the projected percentage of energy savings using Equation 1.

For this example, the building used 4,310,000 kBtu of energy in 2015. The proposed systems are projected to reduce the annual energy usage to 3,153,100 kBtu after the project is implemented. The percent of energy savings is calculated as:

$$\text{Energy Savings (\%)} = \frac{4{,}310{,}000\ \text{kBtu} - 3{,}153{,}100\ \text{kBtu}}{4{,}310{,}000\ \text{kBtu}} \times 100 = 26.8\%$$

Note: In this example, the reduction in the **total** of <u>all</u> energy meets the 20% requirement under Topic Area 1.b.

Example #3: Topic Area 1.b. (Energy Efficiency Measures plus Renewable-Fueled Heating System)

Demonstrates how to calculate the reduction in the **total** of <u>all</u> energy sources if energy efficiency measures (EEM) are implemented, along with a biomass-fueled boiler for heat.

Proposed Project: A 20,000 ft^2 building is projected to save 20% of its electricity usage (68,000 kWh) by replacing old inefficient light bulbs with light-emitting diode (LED) light bulbs and reducing 40% of its natural gas usage (2,560 therms) after implementing a number of Energy Efficiency Measures (EEMs) and the remaining 60% of its natural gas usage saved (3,480 therms) by replacing a natural gas boiler with a biomass-fueled boiler. The total annual energy usage for the building in 2015 was 340,000 kWh/year of electricity and 6,400 therms of natural gas. In this example, no other energy or fuel is being used in the building.

Find: Percentage of energy savings resulting from the proposed project.
Method: The general steps described above are followed in this example.

1. Identify all sources of energy and fuel that are used in the building or buildings.
2. Establish the baseline energy usage before the proposed project is implemented ("energy usage before project").
3. Determine projected energy usage after the project ("energy usage projected after project").

Table 8 shows the building energy usage for this example before and after the proposed project is implemented. The figures in the table are provided in the typical units for these forms of energy, kWh and therms. Note that the electricity usage after the project is reduced by the amount of energy projected to be saved by using LED light bulbs (20%) and 100% of its natural gas is displaced by the combination of the EEMs and the biomass-fueled boiler, thereby, reducing the therms to be used after the project to 0.

Table 8. Example #3 building energy usage

	Before	After	Savings	% Savings
Electricity (kWh)	340,000	272,000	68,000	20%
Natural gas (therms)	6,400	0	6,400	100%

Note: The requirement under Topic Area 1.b. is the reduction in the **total** of all energy and fuel used (total of all energy and fuel sources combined, including but not limited to, electricity, propane, heating oil, or any other energy or fuel used) in the building; therefore, if any other sources of energy or fuel were used in the building even if those sources were unaffected by the proposed installation, they would be included in the calculation.

4. Convert the various forms of energy values to the common unit of kBtu using the multipliers provided in Table 1. The energy values with mixed units of kWh and therms

are multiplied by the unit conversion factors for the given form of energy to get the energy values in the common units of kBtu.

Table 9. Example #3 conversion of energy values from mixed units to common units of kBtu

	Energy Usage (Mixed Units)			Units conversion factor	Energy Usage (Common Units)		
	Before	After	Units		Before	After	Units
Electricity	340,000	272,000	kWh	10.7	3,638,000	2,910,400	kBtu
Natural gas	6,400	0	therms	105	672,000	0	kBtu
Total					4,310,000	2,910,400	kBtu

5. Sum the energy usage values for the before-project case and sum the energy usage values for the after-project case as shown for this example in Table 10 below.

Table 10. Example #3 summation of before and after project energy usage in common units of kBtu

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

6. Calculate the projected percentage of energy savings using Equation 1.

For this example, the building used 4,310,000 kBtu of energy in 2015. The proposed renewable energy systems are projected to reduce the annual energy usage to 2,910,000 kBtu after the project is implemented. The percent of energy savings is calculated as:

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

Note: In this example, the reduction in the **total** of <u>all</u> energy meets the 20% requirement under Topic Area 1.b.

APPENDIX D – WORKPLAN FORMAT

[Control Number]
[Recipient Organization Name]
[Project Title]

[The instructional red and blue text and attachments below should be removed in the final version of the Workplan]

The Workplan should fully describe the work to be accomplished and how the Applicant will achieve the milestones, will accomplish the final project goal(s), and will produce all deliverables.

The following items should not be included in the Workplan:

- *Dollar amounts.*
- *Specific dates (only include general time frames (i.e. Demonstrate XYZ result by Month 3, not Demonstrate XYZ by June 8th, 2013).*
- *Subcontractors, vendors or individuals by name. The award is with the prime and, as such, the Workplan should not generally reference the subcontractors.*

Intellectual property information and other aspects of the project that could be considered proprietary or business confidential should be clearly marked. The Workplan 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 with a financial assistance 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.

A. PROJECT SUMMARY

Provide a clear and concise (high-level) statement of the goals and specific objectives of the project (e.g., install approximately 162 kW of solar photovoltaic systems) as well as the expected outcomes (measureable results or end-products) (e.g., reduce 80% of the electricity usage in the buildings, saving $6 million over the life of the system, reduce carbon footprint). Additionally, provide any applicable Vision Statement and/or long-term energy goals (e.g., energy sufficient, protect the environment, reduce electricity costs).

The Project Summary is expected to be concise overview statements and only a few of paragraphs long.

B. BACKGROUND

Provide any relevant background related to the proposed project, such as a description of past studies, previous energy projects or initiatives, existing strategic energy plan, tribal energy portfolio standard or other similar regulations or codes, or other relevant background.

The Background is expected to limited to only a few paragraphs.

C. PROJECT APPROACH

Provide a description of the overall work scope and approach to achieve the objective(s) and the specific expected end results of the project.

Additionally, this section should include a general description of the project management plan, including the following:

- The overall approach to and organization for managing the work
- The roles of each Project Team member
- Any critical handoffs/interdependencies among Project Team members
- The approach to project risk management
- A description of how project changes will be handled

D. TASKS TO BE PERFORMED

The section should describe the specific activities to be conducted over the life of the project. This section provides a substantive description of the planned approach to this project and should clearly articulate what work must be accomplished to execute the project scope and thus meet the established project objectives.

The task descriptions should be structured with a hierarchy of performance period separated by milestones. In other words, tasks should be organized in a logical sequence and may be divided into performance periods of the project, as appropriate.

Each task and subtask is to have a unique number and title and an indication of the approximate duration of the task or subtask. Each task and subtask is to have a substantive description of the objectives, what work is to be accomplished, and relationship to project deliverables or expected results. Appropriate milestones should be incorporated into the task and subtask structure.

Milestones: The Workplan should identify appropriate milestones throughout the project to demonstrate success, where success is defined as technical achievement rather than simply completing a task. Milestones should follow the SMART rule of thumb, which is that all milestones should be **S**pecific, **M**easurable, **A**chievable, **R**elevant, and **T**imely. Unless otherwise specified in the FOA, the minimum requirement is that each project must have at least one milestone per quarter for the duration of the project (depending on the project, more milestones may be necessary to comprehensively demonstrate progress). The Applicant should also provide the means by which the milestone will be verified. In addition to describing milestones in the Workplan text, the milestones should be included in the Milestone Summary Table below.

Below is an example of a typical task structure. While the example illustrates three tasks, the specific project work scope will dictate the appropriate tasks and subtasks:

Task 1.0: Distinctive Title

Task Details: Explicitly describe what work is to be accomplished, identify the project objectives/outcomes being addressed and provide a substantive description of the objectives of that task. In addition, the description should indicate the project deliverables or expected results that this task will help achieve.

Milestone 1.1 (if applicable)
Milestone 1.2 (if applicable)
Etc.

Subtask 1.1: Title, Subtask Description
Subtask Details: Describe the specific and detailed work efforts that go into achieving the higher-level tasks.

Milestone 1.1.1 (if applicable)
Milestone 1.1.2 (if applicable)
Etc.

Subtask 1.2: Title, Subtask Description
(Continue until all Task 1 subtasks are listed)

Task 2.0: Distinctive Title

Subtask 2.1: Title, Subtask Description
Subtask 2.2: Title, Subtask Description

Task 3.0: Distinctive Title

(Continue in the format above until all tasks and subtasks are listed)

E. REPORTING

Progress and financial status will be documented in quarterly reports. A separate comprehensive Final Report will be submitted that will include the project results, data collected and other documentation as provided in the guidance. Reports and other deliverables will be provided in accordance with the Federal Assistance Reporting Checklist following the instructions included therein.

Further, progress shall also be presented at annual Program Reviews to be held each year in Denver, Colorado.

F. PROJECT SCHEDULE AND MILESTONES

The following milestone table summarizes the schedule and milestones associated with the project activities.

The Applicant's milestone table should provide a detailed schedule for the entire project, including task and subtask durations, and milestones.

Milestone Summary Table							
Recipient Name:							
Project Title:							
Task Number	Task or Subtask (if applicable) Title	Milestone Type (Milestone)	Milestone Number*	Milestone Description	Milestone Verification Process (What, How, Who, Where)	Anticipated Date (Months from Start of the Project)	Anticipated Quarter (Quarters from Start of the Project)

See Milestone Summary Table examples below

** Milestone numbering convention should align with Task and Subtask numbers, as appropriate. For example, M1.1, M3.2, etc.*

*Note 1: All milestones should follow the SMART rule of thumb: **S**pecific, **M**easurable, **A**chievable, **R**elevant, and **T**imely*

Example Milestone Summary Tables

Below are three examples of Milestone Summary Tables.

Example 1 is a milestone table for an R&D project with parallel efforts for material development, tool design and reliability testing.

Example 2 is a milestone table for an offshore wind demonstration project that will complete the initial engineering design, as well as initiation of all permitting or studies required for regulatory compliance and the NEPA review process, with a DOE down-select of funded projects at the end of the first budget period.

Example 3 is a milestone table for an Integrated Bio-Refinery (IBR) demonstration project.

Example 1: Milestone Summary Table for an R&D project with parallel efforts for material development, tool design and reliability testing.

Milestone Summary Table							
Recipient Name:							
Project Title:							
Task Number	**Task or Subtask (if applicable) Title**	**Milestone Type (Milestone**	**Milestone Number***	**Milestone Description**	**Milestone Verification Process (What, How, Who, Where)**	**Anticipated Date (Months from Start of the Project)**	**Anticipated Quarter (Quarters from Start of the Project)**
1.0	Material synthesis						
1.1	Batch Quality	Milestone	1.1.1	Demonstrate a 1L batch size with a >1.5% absolute performance improvement over a non-coated device	Send 5 slides to NREL for transmission test, 3 must meet pass over 350~1000nm ASTM173 spectrum	1	1
1.1	Batch Quality	Milestone	1.1.2	Demonstrate a 1L batch size with a >2.0% absolute performance improvement over a non-coated device	Send 5 slides to NREL for transmission test, 3 must meet pass over 350~1000nm ASTM173 spectrum	6	2
1.1	Batch Quality	Milestone	1.1.3	Demonstrate a 1L batch size with a >2.5% absolute performance improvement over a non-coated device	Send 5 slides to NREL for transmission test, 3 must meet pass over 350~1000nm ASTM173 spectrum	14	5
1.2	Batch Volume	Milestone	1.2.1	Demonstrate a 100L batch size with a >2.0% absolute performance improvement over a non-coated device	Send 5 slides to NREL for transmission test, 3 must meet pass over 350~1000nm ASTM173 spectrum	10	4
1.2	Batch Volume	Milestone	1.2.2	Demonstrate a 1000L batch size with a >2.5% absolute performance improvement over a non-coated device	Send 5 slides to NREL for transmission test, 3 must meet pass over 350~1000nm ASTM173 spectrum	16	6
2.0	Coating Area & Uniformity						
2.0	Coating Area & Uniformity	Milestone	2.1	Demonstrate a 1x1 cm coating with a >1.5% absolute performance improvement for entire device over a non-coated device	Send 5 slides/sheets to NREL for transmission test measured at the center and 4 corners, 3 must meet pass over 350~1000nm ASTM173 spectrum	1	1

Milestone Summary Table							
Recipient Name:							
Project Title:							
Task Number	Task or Subtask (if applicable) Title	Milestone Type (Milestone	Milestone Number*	Milestone Description	Milestone Verification Process (What, How, Who, Where)	Anticipated Date (Months from Start of the Project)	Anticipated Quarter (Quarters from Start of the Project)
2.0	Coating Area & Uniformity	Milestone	2.2	Demonstrate a 10x10 cm batch size with a >2.0% absolute performance improvement for entire device over a non-coated device	Send 5 slides/sheets to NREL for transmission test measured at the center and 4 corners, 3 must meet pass over 350~1000nm ASTM173 spectrum	9	3
2.0	Coating Area & Uniformity	Milestone	2.3	Demonstrate a 1x1 m2 batch size with a >2.5% absolute performance improvement for entire device over a non-coated device	Send 5 slides/sheets to NREL for transmission test measured at the center and 4 corners, 3 must meet pass over 350~1000nm ASTM173 spectrum	15	5
3.0	Tool development						
3.1	Pilot Tool	Milestone	3.1.1	Pilot Tool - Design, Fabrication, Debug Complete, Switch-On	Video of tool operation, including full sequence of glass panel from input to output. Uploaded to DOE web site	18	6
3.1	Pilot Tool	Milestone	3.1.2	Demonstrate Pilot-Tool cycling of material through coat & dry process steps with IPA as simulated coating fluid	Video of tool operation, including full sequence of glass panel from input to output. Uploaded to DOE web site	18	6
3.1	Pilot Tool	Milestone	3.1.3	Demonstrate air handling system, VOC abatement systems operational	Video includes sequence showing HVAC & VOC Oxidizer systems in operation	18	6
3.1	Pilot Tool	Milestone	3.1.4	Demonstrate safety systems & interlocks operational	Video includes sequence showing operation of safety interlocks	18	6
3.1	Pilot Tool	Milestone	3.1.5	Demonstrate ability to coat 2x1m glass panel in Pilot tool.	Coating process documented by video, uploaded to DOE web site	18	6
3.1	Pilot Tool	Milestone	3.1.6	Achieve average 2% absolute performance improvements 6 sample points	Send 6 coupons to NREL cut according to 2x1m test grid, 4/6 must meet	21	7

Milestone Summary Table							
Recipient Name:							
Project Title:							
Task Number	Task or Subtask (if applicable) Title	Milestone Type (Milestone	Milestone Number*	Milestone Description	Milestone Verification Process (What, How, Who, Where)	Anticipated Date (Months from Start of the Project)	Anticipated Quarter (Quarters from Start of the Project)
					requirement over 350~1000nm ASTM173 spectrum		
3.1	Pilot Tool	Milestone	3.1.7	Coat, assembly and test full size 1x2m panels	Coating process documented by video, Confirm assembly success by providing post assembly flash test data to DOE	24	8
3.1	Pilot Tool	Milestone	3.1.8	Achieve at least 75% yield against defect spec.	No significant visible defect detected by eye at a distance of 2m with optimal lighting for defect detection	24	8
3.2	Production Tool	Milestone	3.2.1	Production Tool - Design, Fabrication, Debug Complete, Switch-On	Video of tool operation, including full sequence of glass panel from input to output. Uploaded to DOE web site	25	9
3.2	Production Tool	Milestone	3.2.2	Demonstrate air handling system, VOC abatement systems operational	Video includes sequence showing HVAC & VOC Oxidizer systems in operation	26	9
3.2	Production Tool	Milestone	3.2.3	Demonstrate safety systems & interlocks operational	Video includes sequence showing operation of safety interlocks	27	9
3.2	Production Tool	Milestone	3.2.4	Produce 1st articles of coated glass to full design spec.	Panels tested with hand-held Konica 2600d reflectometer, using 5-point pattern in 2x1m test grid	27	9
3.2	Production Tool	Milestone	3.2.5	Demonstrate operation at design through-put (at least 50 units per hour).	Video of tool operation, including full sequence of glass panel from input to output. Uploaded to DOE web site	28	10
3.2	Production Tool	Milestone	3.2.6	Demonstrate coating of one or more glass panels to customer agreed coating spec.	Panels tested with hand-held Konica 2600d reflectometer, using 5-point pattern in 2x1m test grid	32	11
3.2	Production Tool	Milestone	3.2.7	Sign-off on safety systems & Ready to ship	Provide copy of release to ship paperwork to DOE	34	12

Milestone Summary Table							
Recipient Name:							
Project Title:							
Task Number	Task or Subtask (if applicable) Title	Milestone Type (Milestone	Milestone Number*	Milestone Description	Milestone Verification Process (What, How, Who, Where)	Anticipated Date (Months from Start of the Project)	Anticipated Quarter (Quarters from Start of the Project)
4.0	Customer Engagement						
4.1	LOI	Milestone	4.1.1	Provide LOI from prospective customer for delivery of a production tool	Copy of letter provided to DOE	16	6
4.1	LOI	Milestone	4.1.2	Provide LOI from 2 additional prospective customer for delivery of a production tool	Copy of letters provided to DOE	30	10
4.2	Customer Acceptance	Milestone	4.2.1	Tool acceptance specification agreed and signed by customer	Provide copy of signed document to DOE	33	11
4.2	Customer Acceptance	Milestone	4.2.2	Sign-off of tool acceptance specification by customer. Verification & agreement that all performance metrics have been met or exceeded.	Provide copy of release to ship paperwork to DOE	34	12
4.3	Customer Sales	Milestone	4.3.1	Customer sign-off on supply agreement for high volume manufacturing supply chain and quality assurance process	Provide copy of signed supply agreement to DOE	36	12
5.0	Reliability						
5.1	Outdoor Testing	Milestone	5.1.1	Coat 6 units send coated units to NREL with 6 uncoated units to perform outdoor testing	Letter from NREL verifying receipt and installation will be sent to DOE.	1	1
5.2	Initial Lifetime Testing	Milestone	5.2.1	Submit 6 coated units to NREL for lifetime testing	Report from NREL documenting testing results will be sent to the DOE	1	1
5.2	Pass lifetime Test	Milestone	5.2.2	Submit 6 coated units to NREL lifetime testing with 5 units passing	Report from NREL documenting testing results will be sent to the DOE	21	7

Milestone Summary Table							
Recipient Name:							
Project Title:							
Task Number	Task or Subtask (if applicable) Title	Milestone Type (Milestone	Milestone Number*	Milestone Description	Milestone Verification Process (What, How, Who, Where)	Anticipated Date (Months from Start of the Project)	Anticipated Quarter (Quarters from Start of the Project)
5.3	Initial Abrasion Test	Milestone	5.3.1	Submit 6 coated units to NREL abrasion testing	Report from NREL documenting testing results will be sent to the DOE	1	1
5.3	Pass Abrasion Test	Milestone	5.3.2	Submit 6 coated units to NREL abrasion testing with 5 units passing with 5 units passing	Report from NREL documenting testing results will be sent to the DOE	21	7

Example 2: Milestone Summary Table for an offshore wind demonstration project that will complete the initial engineering design, as well as initiation of all permitting or studies required for regulatory compliance and the NEPA review process, with a DOE down-select of funded projects at the end of the first budget period.

Milestone Summary Table							
Recipient Name:	ABC Wind Company						
Project Title:	Offshore Wind Demonstration Project						
Task Number	**Task or Subtask (if applicable) Title**	**Milestone Type**	**Milestone Number***	**Milestone Description**	**Milestone Verification Process (What, How, Who, Where)**	**Anticipated Date (Months from Start of the Project)**	**Anticipated Quarter (Quarters from Start of the Project)**
1	Engineering Design	Milestone	M1.1	Selection of foundation type, support structure and tower design.	Verification of the foundation selection process and selected foundation will be reviewed by DOE and NREL personnel. If DOE project manager deems it necessary, a critical design review with DOE and third party experts will be convened.	4	2
1	Engineering Design	Milestone	M1.2	Complete scale model testing of platform in wind/wave basin to verify model performance/results.	Verify data collection and experiment execution through testing report and/or site visit during test period.	4	2
1	Engineering Design	Milestone	M1.3	Foundation certification	Achieve type certification for foundation design from third party verification agency (i.e. ABS or DNV). Verify certificate from third party agency.	9	3
2	Site Characterization	Milestone	M2.1	Complete geotechnical studies of site to inform anchor/mooring design. Identify at least 3 viable anchor sites per turbine.	DOE project manager to verify collection and analysis of at least 1 core sample at each potential turbine site to inform foundation/anchor design. Verification completed through report review.	2	1

Milestone Summary Table							
Recipient Name:	ABC Wind Company						
Project Title:	Offshore Wind Demonstration Project						
Task Number	**Task or Subtask (if applicable) Title**	**Milestone Type**	**Milestone Number***	**Milestone Description**	**Milestone Verification Process (What, How, Who, Where)**	**Anticipated Date (Months from Start of the Project)**	**Anticipated Quarter (Quarters from Start of the Project)**
2	Site Characterization	Milestone	M2.2	Complete geophysical mapping of potential mooring corridor obstructions	DOE project manager to verify that side-scan sonar of entire field, with focus and higher resolution for mooring corridors completed. Verify that a complete geophysical map of entire wind turbine site to appropriate resolution to document seabed conditions and identify any objects of interest. Verification conducted through report review and site visits.	2	1
3	Metocean and Environmental Monitoring	Milestone	M3.1	Collection of site specific data including wind, current, wave data	DOE project manager to verify that instrumented buoy(s) are deployed at project site through quarterly reporting or site visit.	5	2
3	Metocean and Environmental Monitoring	Milestone	M3.2	Complete Avian Monitoring study	Traditional thermal imaging (FLIR) and near infra-red (NIR) video systems will be used to assess the presence and behavior of avian and bat species around offshore wind turbine site. Verify that instruments are deployed and collecting data.	9	3
4	Turbine testing	Milestone	M4.1	Certification of turbine	Verify testing will be performed in accordance with International Electrotechnical Commission (IEC) 61400-22 through review of type certification report.	12	4

Milestone Summary Table							
Recipient Name:	ABC Wind Company						
Project Title:	Offshore Wind Demonstration Project						
Task Number	**Task or Subtask (if applicable) Title**	**Milestone Type**	**Milestone Number***	**Milestone Description**	**Milestone Verification Process (What, How, Who, Where)**	**Anticipated Date (Months from Start of the Project)**	**Anticipated Quarter (Quarters from Start of the Project)**
5	Regulatory Approvals and Permitting	Milestone	M5.1	Initiate process for all required permits and regulatory approvals for wind farm site, interconnection, rights of way.	DOE project manager reviews report on progress towards permitting and regulatory compliance, verifying that all requirements have been initiated.	12	4
6	Vendor Request for Proposals	Milestone	M6.1	Vendor quotes received	DOE personnel review vendor quotes and verify for legitimacy.	11	4
7	Economic Analysis	Milestone	M7.1	Refine levelized cost of energy (LCOE) estimates based on engineering design. The proposed design must meet the local hurdle price of $0.10/kWh.	Verify submitted LCOE estimates through third party independent review during down select review process.	11	4
8	Budget Period 2 Tasks and milestones to be negotiated after down selection process completed.			TBD	TBD	15	5

Example 3: Milestone Summary Table for an Integrated Bio-Refinery (IBR) demonstration project.

Milestone Summary Table							
Recipient Name:	Biofuels Maker						
Project Title:	250 Ton/Day Biofuel Demonstration Facility						
Task Number	**Task or Subtask (if applicable) Title**	**Milestone Type**	**Milestone Number***	**Milestone Description**	**Milestone Verification Process (What, How, Who, Where)**	**Anticipated Date (Months from Start of the Project)**	**Anticipated Quarter (Quarters from Start of the Project)**
1	Budget Period 1 Planning Activities	Milestone	M1.1	Critical Decision-2 Approve Performance Baseline (DOE Core)	DOE (with consultation from DOE's Independent Engineer) and Recipient Agree to Performance Baseline for Project		
2.1	Engineering and Environmental-NEPA	Milestone	M2.1	NEPA Approval to Proceed Detailed Design and Construction (DOE Core)	NEPA decision issued. Current schedule assumes Environmental Assessment with associated Finding of No Significant Impact Issued by DOE. If determined that an EIS is required, NEPA scope and associated baseline will be revised through change control process.		
2.6	Engineering and Environmental-Equipment Specification	Milestone	M2.6	Completion of Equipment Specification Data Sheets	Equipment Data Sheets will be provided to DOE's Independent Engineer for verification of completion and adequacy. Data sheets must meet the requirements of Recipients data sheet definitions, as defined in the PMP.		
2.8	Engineering and Environmental-Building Design	Milestone	M2.8	Completion of building design specifications.	Building design, specifications, and detailed costing data will be provided to DOE's Independent Engineer for review and verification against all applicable building codes and architectural standards.		

Milestone Summary Table							
Recipient Name:	Biofuels Maker						
Project Title:	250 Ton/Day Biofuel Demonstration Facility						
Task Number	**Task or Subtask (if applicable) Title**	**Milestone Type**	**Milestone Number***	**Milestone Description**	**Milestone Verification Process (What, How, Who, Where)**	**Anticipated Date (Months from Start of the Project)**	**Anticipated Quarter (Quarters from Start of the Project)**
2.12	Engineering and Environmental-Permitting	Milestone	M2.12	Approval of Construction Permit	All required construction permits will be obtained and verified on site by DOE's Independent Engineer		
2.12	Engineering and Environmental-Permitting	Milestone	M2.13	Approval of Operating Permit	All required operating permits (including Title V, water use, and sewer discharge) will be obtained and verified on site by DOE's Independent Engineer.		
2.14	Engineering and Environmental-External Independent Review, Detailed Review	Milestone	M2.14	Submission to and Approval by the DOE (EIR-2)	Recipient will submit all detailed engineering, design, cost models, sites studies, etc. to DOE's Independent Engineer as defined in the EIR-2 guidelines. The Independent Engineer will submit an independent report to DOE. Recipient must adequately address all deficiencies and risk items to DOE's satisfaction before the project will be authorized to continue.		
3	Final Optimization of Operating Parameters at Pilot Scale	Milestone	M3.1	Hydrolysis, Fractionation & Purification Optimization (xx C5 and XX C6 sugar yield per lb/feedstock with contamination levels below those specified in the lab data report x-x). Process set points are determined.	Recipient will conduct triplicate reproduction of data for a minimum of xx hours. All data will be provided to DOE. DOE will be on site for at least one run.		

Milestone Summary Table							
Recipient Name:	Biofuels Maker						
Project Title:	250 Ton/Day Biofuel Demonstration Facility						
Task Number	**Task or Subtask (if applicable) Title**	**Milestone Type**	**Milestone Number***	**Milestone Description**	**Milestone Verification Process (What, How, Who, Where)**	**Anticipated Date (Months from Start of the Project)**	**Anticipated Quarter (Quarters from Start of the Project)**
3.4	Biocatalyst operation optimization	Milestone	M3.4	x % v/v fuel titer at xx hours with a x% weight yield. Process setpoints are determined.	DOE's National Laboratory Designee will be on site for minimum of 2 runs. Data for at least 3 runs will be provided to National Lab for review.		
3.5	Co-product catalyst optimization	Milestone	M3.5	Demonstration of x cycles with x% original catalyst activity. Process setpoints are determined.	Full data report will be provided to DOE's technical expert for review and validation.		
4.6	Pre-construction: Risk Mitigation Plan Refinement	Milestone	M4.6	DOE Approval of final risk mitigation plan.	Recipient will provide final risk mitigation plan to DOE for review and approval.		
4.7	Pre-construction: EPC	Milestone	M4.7	EPC Contract Finalized and Signed - (DOE Core)	DOE's Independent Engineer will verify that the EPC contract is fully executed.		
4.8	Pre-construction: Finances	Milestone	M4.8	Financial Closing or Financial Commitment Letter - (DOE Core)	Recipient will send to DOE all financial closing documentation.		
4.11	Pre-construction: Operations Definitions	Milestone	M4.11	Define Commissioning Criteria (DOE Core)	DOE (with consultation from its Independent Engineer) and Recipient agree to final commissioning criteria		
5.2	Pilot Plant Construction	Milestone	M5.2	Construction Contractors Selected by Recipient and Approved by DOE	All major contractors are selected and budgets and scopes of work submitted to DOE for approval.		

Milestone Summary Table							
Recipient Name:	Biofuels Maker						
Project Title:	250 Ton/Day Biofuel Demonstration Facility						
Task Number	**Task or Subtask (if applicable) Title**	**Milestone Type**	**Milestone Number***	**Milestone Description**	**Milestone Verification Process (What, How, Who, Where)**	**Anticipated Date (Months from Start of the Project)**	**Anticipated Quarter (Quarters from Start of the Project)**
5.7	Commission and Start-up	Milestone	M5.7	Commissioning complete. All criteria in commissioning plan achieved.	DOE's Independent Engineer performs site visit and reviews Recipient's logs and data to verify.		
6.4	Operations-Performance Test	Milestone	M6.4	Performance Test Completed	Recipient runs demonstration facility in accordance with performance test plan (approved by DOE) for a minimum of 40 hours. DOE and DOE's Independent Engineer are on site for portions of the test and Recipient delivers all data logs outlined in the performance test plan.		
6.5	Operations-Continued Long Term Optimization	Milestone	M6.5	Recipient completes 1500 hours of continuous operation with x% uptime, x conversion of biomass to fuel, at a minimum of 250 tons/day of feedstock.	Recipient provides summary reports as defined in deliverables requirements. DOE and DOE's Independent Engineer randomly sample data logs at Recipient site.		
7	Final Economic and Commercial Validation	Milestone	M7	Final Report Delivered to DOE	After xxx months of operation, Recipient provides final report which includes updated economic models, life cycle analysis, and plant performance (inputs, outputs, yields, etc.) as defined in the deliverable requirements		

APPENDIX E – SUMMARY SLIDE TEMPLATE

Title

TRIBE / ORGANIZATION

Insert Control Number

Project Summary

Summary of the proposed project, including project goals and objectives, technology type, system(s) size (kW), project location, number of buildings affected and square footage, and how the project integrates into the long-term energy goals/vision of the Applicant.

Insert a picture or chart summarizing key project milestones and outcomes.

Key Personnel/Organizations

Applicant description and list of key personnel and project partners

Budget and Timeline

Federal funds: $ **Cost-share: $** **Total: $**

Key Milestones & Deliverables

Year 1:	Insert key milestones and deliverables for each year as appropriate.
Year 2:	

Project Outcomes

Description of the project's impact (energy saved in kBtu, % energy saved, $ saved, jobs created, payback period, # of buildings affected, environmental and economic benefits, or any other outcomes, such as replicability, environmental stewardship, helps meet specific energy goal, or step towards energy independence).

Insert one sentence summarizing the main idea(s) of the proposed project.

U.S. DEPARTMENT OF ENERGY | Office of Indian Energy