

EERE Tech-to-Market Innovative Pathways Funding Opportunity

U.S. DEPARTMENT OF
ENERGY

Energy Efficiency &
Renewable Energy

TECHNOLOGY-TO-MARKET PROGRAM



First Informational Webinar
DE-FOA-0001703
T2M@ee.doe.gov

January 4, 2017

- All applicants are strongly encouraged to carefully read the Funding Opportunity Announcement **DE-FOA-0001703 (“FOA”)** and to adhere to the stated submission requirements
- This presentation summarizes the contents of the FOA
- If there are any inconsistencies between the FOA and this presentation or statements from DOE personnel, the FOA is the controlling document and applicants should rely on the FOA language and seek clarification from EERE
- If you believe there is an inconsistency, please contact T2M@ee.doe.gov

- Questions about the Innovative Pathways FOA? E-mail T2M@ee.doe.gov
 - All Q&As about this FOA will be posted on EERE Exchange
 - You must select FOA number DE-FOA-0001703 in order to view the Q&As.
 - EERE will attempt to respond to questions within three business days, unless a similar Q&A has already been posted on the web site
- Problems logging into EERE Exchange or uploading and submitting application documents with EERE Exchange? E-mail EERE-ExchangeSupport@hq.doe.gov
- Include FOA name (Innovative Pathways FOA) and number (DE-FOA-0001703) in the subject line of all e-mail correspondence
- All questions asked during this presentation and the presentation will be posted on EERE Exchange

FOA Issue Date	12/20/2016
Submission Deadline for Letters of Intent	01/18/2017
Submission Deadline for Full Applications	02/15/2017
Expected Reviewer Comments Available to Applicants	03/01/2017
Expected Submission Deadline for Replies to Reviewer Comments	03/17/2017
Expected Date for EERE Selection Notifications	May 2017
Expected Timeframe for Award Negotiations	June to August 2017

Award Information

Total Amount to be Awarded	Up to \$4,200,000* in federal funds
Average Award Amount	EERE anticipates making the following awards: Phase 1: Up to seven awards at up to \$300K each Phase 2: Up to three awards at up to \$700K each**
Types of Funding Agreements	Cooperative Agreements or similar agreements
Period of Performance	Phase 1: 12 months Phase 2: 12 months
Cost Share Requirement	20% of total project costs

**Subject to the availability of appropriated funds*

***Subject to Down-Select Process*

- The Innovative Pathways FOA seeks to surface new testable and scalable ways to alleviate common structural challenges facing promising new energy technologies on the pathway to market
- This FOA will not fund individual technology solutions directly. It will fund the implementation of novel mechanisms that address common structural challenges
- EERE's intent is to pilot and evaluate new mechanisms, and position those that are successful for adoption by the private sector. Funding will help develop and test these new mechanisms for potential industry adoption
- The funding is intended to support the required work to evaluate the viability of new models (e.g., personnel time, legal services, financial modeling), the real-time testing of these models (e.g., partner involvement, personnel time, leverage for additional funds), and analysis of the outcomes)

- The FOA calls for proposals under two Topics:

Topic 1: Technical Community and Industry Collaboration

Area of Interest: Models for Industry-Startup Partnerships

Topic 2: Lowering Barriers to Resource Access

Area of Interest: New Investment Models

- **NOTE:**
 - Applicants may apply with concepts outside of the areas of interest if they are still within the scope of the overall Topics
 - Applicants may only submit one Full Application for each Topic. This limitation does not prohibit an applicant from collaborating on other applications (e.g., as a potential Sub-recipient or partner) so long as the entity is only listed as the prime applicant on one Full Application per Topic
 - To apply to both Topics applicants must have submitted one Letter of Intent for each Topic and a Full Application for each Topic

Topic 1: Technical Community and Industry Collaboration

- Input gathered by EERE has emphasized disconnects between the technical community and the market. New models for collaboration among technology developers, private industry, and other entities within the ecosystem could address these gaps.
- EERE seeks to support new models for collaboration between the technical community and industry so that innovations can be explored by the market.

Area of Interest: Models for Industry-Startup Partnerships

- While many programs assist technology developers with business plan and early prototype development, far fewer help technology developers obtain the knowledge needed to develop commercially relevant, industry-ready prototypes and integrate into a complex industry.
- Of specific interest are proposals that facilitate better industry-startup collaboration. Proposals should:
 - Present feasible ways to overcome barriers currently preventing effective collaboration.
 - Have a method by which to “stress-test” their proposed collaboration model (e.g., within existing industry business development cycles) to evaluate its viability by the end of Year 1.
 - Articulate a pathway to private sector adoption of the model, in the case that it is shown to be validated in Year 1.

Topic 2: Lowering Barriers to Resource Access

- The U.S. innovation system is a cornerstone of American competitiveness, but barriers prevent the optimal alignment of these resources. New models to lower barriers and align incentives could enable capital and physical resources to be used more effectively.
- EERE seeks to support new models that optimize access to the capital and physical resources needed to develop technologies into products.

Area of Interest: New Investment Models

- Conventional venture capital support for early-stage energy innovation has declined, while new capital sources have emerged that have the potential to be unlocked.
- Of specific interest are proposals that develop and test new investment models. Proposals should:
 - Present feasible ways to overcome the barriers that currently prevent investment.
 - Have a method by which to “stress-test” and validate their proposed investment model by the end of Year 1, e.g. by simulating the results of a theoretical investment portfolio or developing a structured financing instrument.
 - Articulate a pathway to private sector adoption of the model, in the case that the model is shown to be validated in Year 1.
- EERE is **NOT** providing funds for investment into clean energy companies as part of this funding opportunity. This funding opportunity would support the required work to evaluate the viability of new investment models, the real-time testing of these models, and analysis of the outcomes.

- The following types of applications will be deemed nonresponsive and **will not** be reviewed or considered:
 - Applications that fall outside the technical parameters specified in Topic Areas/Technical Areas of Interest of the FOA, including but not limited to direct technology research or company funding —this FOA is not seeking proposals directly from entities that are seeking to progress their single technology solution from one stage of commercialization to the next
 - Technology demonstration or deployment (unless the proposed activities facilitate more efficient, productive, or cost-effective mechanisms for demonstration or deployment)
 - Policy changes
 - Incremental improvements to existing solutions, entities, or programs
 - Entities or programs which require continued government support

- EERE seeks approaches that are extremely high-leverage, with the potential to effect significant improvements within the innovation ecosystem with limited capital.
- Applicants should clearly demonstrate the ability to create scalable solutions that can be adopted by the broader clean energy industry.
- Proposed models should have the potential to unlock significant additional capital and/or change *how* clean energy technologies achieve market entry, if they are shown to be successful and were to be adopted at scale.
- Partnership with entities directly involved in industry and investment, including private-sector subject matter experts and practitioners, is strongly encouraged.
- Proposals must present a plan to test the viability of the proposed approach by the end of Year 1, and to quantify the value of the approach to private sector partners. Relevant partners should be integrated into the proposed approach in a manner that guarantees their direct involvement.
- New mechanisms or models should be tested with technology developers and startups of greatest interest to the market, rather than with pre-selected developer/startups. Applicants should articulate how solutions of greatest interest to the market will be selected.

- EERE is inviting interested parties to submit the information below to populate a Teaming Partner List to facilitate the formation of new project teams.
- Organizations may optionally submit the following information to T2M@ee.doe.gov (with the subject line “Teaming Partner Information”):
 - Organization Name
 - Contact Name
 - Contact Address
 - Contact E-mail
 - Contact Phone
 - Organization Type (e.g., For-Profit Corporation, Nonprofit Corporation, Educational Institution, State/Local Government, Research Lab, Utility)
 - Area(s) of Expertise (e.g., Corporate/strategic partner in energy supply chain; Capital provider; Financial or insurance services; Testing, validation, or demonstration services; Manufacturing or product design services; Intermediary/connector organization)
 - Brief Description of Capabilities

**Note that by submitting the above Teaming Partner Information, you consent to the publication of the above-referenced information as part of the Teaming Partner List. By facilitating this Teaming Partner List, EERE does not endorse or otherwise evaluate the qualifications of the entities that self-identify themselves for placement on the Teaming Partner List.*

Eligible applicants for this FOA include:

- Individuals
- Domestic Entities
- Foreign Entities
- Incorporated Consortia
- Unincorporated Consortia

For more detail about eligible applicants, please see Section III.A of the FOA.

- Check entries in EERE Exchange
 - Submissions could be deemed ineligible due to an incorrect entry
- Applicants are strongly encouraged to submit their Letters of Intent and Full Applications at least 48 hours in advance of the submission deadline (in order to allow for full upload of application documents and to avoid any potential technical glitches with EERE Exchange).
- Make sure you hit the submit button.
 - Any changes made after you hit submit will un-submit your application and you will need to hit the submit button again.
- For your records, print out the EERE Exchange Confirmation page at each step, which contains the application's Control Number.

Applicants must submit a Letter of Intent (LOI) by 3 pm ET on January 18, 2017 to be eligible to submit a Full Application.

- Letters of Intent do not commit an applicant to submit a Full Application.
- Letters of Intent will be used by EERE to plan for the merit review process (i.e. the number of applying organizations)

Eligible Letters of Intent:

- Will be submitted via EERE Exchange by January 18, 2017 at 3:00pm ET
- Will include:
 - Project Title
 - Lead Organization
 - Organization Type (Business < 500 Employees; Business > 1000 Employees; Business 500–1000 Employees; FFRDC; Government-Owned, Government Operated; Nonprofit)
 - Percent of effort to be contributed by the Lead Organization
 - The Project Team, including:
 - Technical Point of Contact
 - Key Participants (i.e., individuals who will contribute in a substantive, measurable way to the execution of the proposed project)
 - Technical Topic or Area
 - Abstract – The abstract provided should be not more than 200 words in length, and should provide a truncated explanation of the proposed project.

NOTE: All Letters of Intent must be submitted via the relevant form on Exchange, which contains the above required fields. Emailed, mailed, or uploaded documents will not be accepted as Letters of Intent.

Registration Requirements

- To submit an LOI, Applicants must register with and submit through EERE Exchange: <https://eere-Exchange.energy.gov>.
- Use the “control number” associated with the Letter of Intent submission for the Full Application documents.
- The following registrations must be complete to receive an award under this FOA. Some registrations are required to submit a Full Application, and may take several weeks to obtain.

Registration Requirement	Website
DUNS Number (Required to submit Full Application)	http://fedgov.dnb.com/webform
System for Award Management (SAM)	https://www.sam.gov
FedConnect	https://www.fedconnect.net
Grants.gov	http://www.grants.gov

Applicants must submit a Full Application by 3pm ET on February 15, 2017.

- Full Applications are eligible for review if:
 - The Applicant is an eligible entity per Section III.A of FOA.
 - The Applicant submitted a Letter of Intent.
 - The Cost Share requirement is satisfied per Section III.B of FOA.
 - The Full Application is compliant per Section III.C of FOA.
 - The proposed project is responsive to Section III.D of FOA.
 - The Full Application meets any other eligibility requirements listed in Section III.E of the FOA.

The Full Application includes:

- Technical Volume: The key technical submission, with information relating to the technical content, project team members, etc.
- SF-424 Application for Federal Assistance.
- Summary Slide.
- Administrative Documents: E.g., Authorization from cognizant Contracting Officer for FFRDC (if applicable) and Foreign Entity and Performance of Work in the United States waiver requests (if applicable).

Technical Volume (limit 7 pages):

The key technical component of the Full Application

Content of Technical Volume	Approximate Pages
Cover Page	1 Page
Project Overview	1 Page
Program Description, Innovation and Impact (Components include: Relevance and Outcomes, Feasibility, and Innovation and Impact)	2 Pages
Workplan (Components include: Scope Summary, Quarterly Milestones, One Year Continuation and End- of-Project Goals, Project Schedule, and High-level overview of estimated project budget)	2 Pages
Technical Qualifications and Resources	1 Page

Cost Share - 20%

- The cost share must be at least 20% of the total allowable costs for projects funded under this FOA and must come from non-federal sources, unless otherwise allowed by law.
- To assist Applicants in calculating proper cost share amounts, EERE has included a cost share information sheet and sample cost share calculation as Appendices A and B in the FOA.
 - Cost Share Formula:
 - $\text{Federal Share (\$)} / \text{Federal Share (\%)} = \text{Total Project Cost}$
 - $\text{Total Project Cost (\$)} - \text{Federal Share (\$)} = \text{Non-federal share (\$)}$
 - $\text{Non-federal Share (\$)} / \text{Total Project Cost (\$)} = \text{Non-federal share (\%)}$

Merit Review and Selection Process: Full Applications

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

Criterion 1: Innovation and Impact (33%)

- *Innovative*: Extent to which the proposed project or solution is innovative.
- *Impactful*: Extent to which the proposed project or solution, if successful, impacts the core goals outlined in the FOA in Topics and Areas of Interest.
- *Differentiated*: Extent of differentiation with respect to existing commercial products or solutions.
- *Scalable*: Likelihood the proposed solution, if successful, could be scaled to have a broader impact.
- *Sustainable*: Likelihood the proposed solution, if successful, will be able to continue without additional support from DOE beyond the project period.

Criterion 2: Quality and Likelihood of Completion of Stated Goals (33%)

- *Measurable*: Extent to which the Applicant shows a clear understanding of the importance of SMART verifiable milestones and proposes milestones that demonstrate clear progress, are aggressive but achievable, and are quantitative.
- *Risks Mitigated*: Extent to which the Applicant understands and discusses the project risks and challenges the proposed work will face, and the soundness of the strategies and methods that will be used to mitigate risks.
- *Validated*: Level of validation (letters of support/interest, partners, customer trials, data from prior work, report references etc.).
- *Reasonable Assumptions*: Reasonableness of the assumptions used to form the execution strategy, (e.g., market size, customer participation, costs, throughput at full scale, speed of proposed scale-up or adoption, and mode of funding).
- *Reasonable Budget*: The reasonableness of the overall funding requested to achieve the proposed project and objectives.

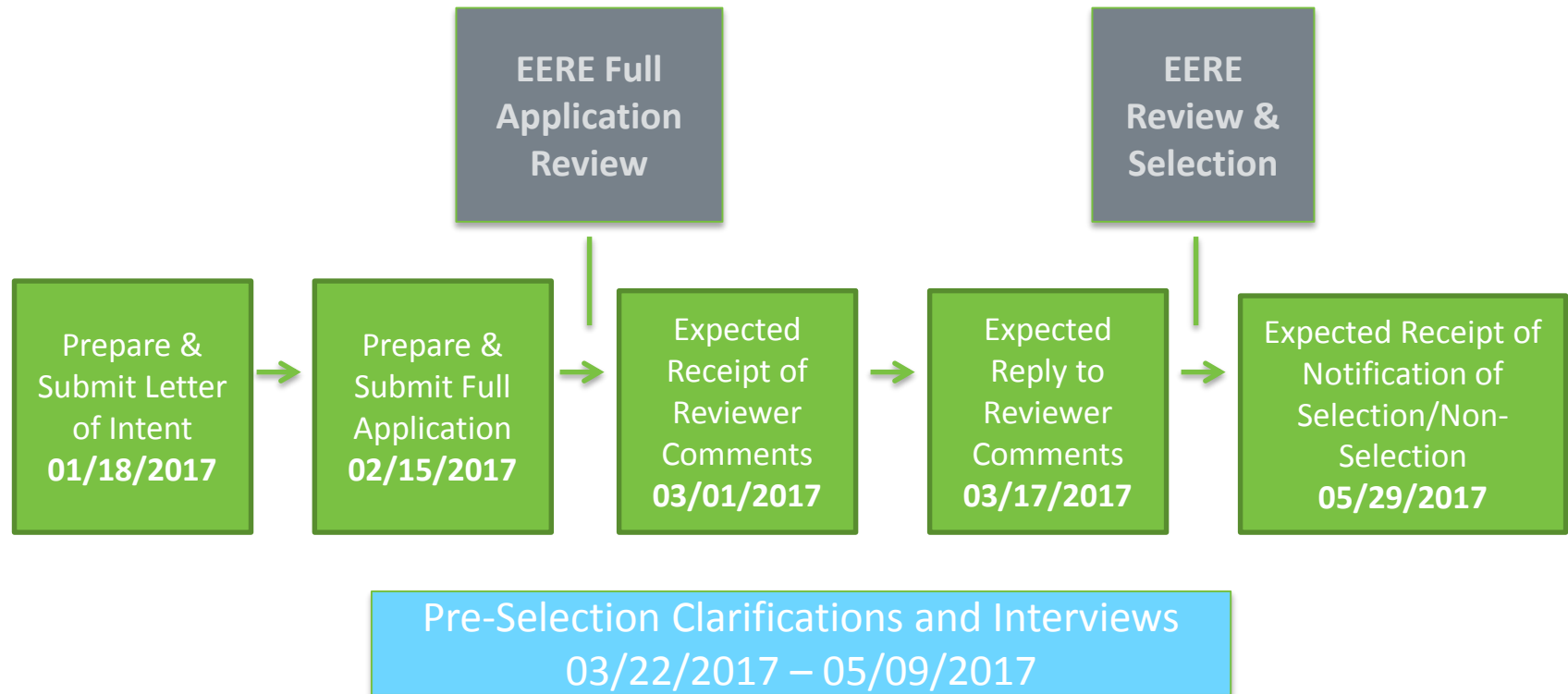
Criterion 3: Capability and Resources of the Applicant/Project Team (34%)

- *Capable*: Extent to which the training, capabilities and experience of the assembled team will result in the successful completion of the proposed project. Extent to which this team (including proposed Sub-recipients) will be able to achieve the final results on time and to specification.
- *Participation*: The level of participation by project participants as evidenced by letter(s) of commitment and how well they are integrated into the Workplan.
- *Commitment*: Extent to which the final team required to complete this project is fully assembled and committed to the project (e.g., Are there any key members that are “to be hired at a later date?”).
- *Past Performance*: Extent to which the assembled team has shown success in the past. (Note: new performers will not be penalized.) DOE encourages new entrants and new ideas, but past successes and/or failures will be noted.
- *Access*: Extent to which the team has access to facilities, equipment, people, expertise, data, knowledge, and any other resources required to complete the proposed project.

- EERE provides applicants with reviewer comments.
- Applicants should anticipate having approximately three business days to submit Replies to Reviewer Comments.
 - Page limit: three pages, including charts, graphs, etc.
- Applicants are **not** required to submit a Reply. It is optional.
- To be considered by EERE, a Reply must be submitted by the deadline and submitted through EERE Exchange.
 - Expected Reviewer Comments Available to Applicants on 03/01/2017
 - Expected Submission Deadline for Replies to Reviewer Comments on 03/17/2017
- Please see Sections IV.D. and V.A.ii of the FOA for additional information regarding Replies to Reviewer Comments.

- EERE may invite one or more applicants to participate in Pre-Selection Interviews.
- All interviews will be conducted in the same format.
- EERE will not reimburse applicants for travel and other expenses relating to the Pre-Selection Interviews, nor will these costs be eligible for reimbursement as pre-award costs.
- EERE will arrange to meet with the invited applicants in person at EERE's offices or a mutually agreed upon location. EERE may also arrange site visits at certain applicants' facilities. As an alternative, EERE may invite certain applicants to participate in a one-on-one conference with EERE via webinar, videoconference, or conference call.
- Participation in Pre-Selection Interviews with EERE does not signify that applicants have been selected for award negotiations.

FOA Review Timeline



EERE anticipates making awards by **09/15/2017**

This FOA will utilize a down-select process:

- Approximately seven pilot projects will be selected and provided with up to \$300,000 each for a one year activity.
- After one year, each of the pilot projects will undergo a continuation review. This review will evaluate the progress made to date, potential future activities, and impact, if the project were to continue for a second year.
- Up to three of the pilot projects will be granted project continuation at up to an additional \$700,000 in federal funds each, for total federal funding of up to \$1,000,000 per project.
- Continuation will largely be based on the viability of the proposed model, as determined by initial testing performed within the first year, i.e. Workplan milestones met or exceeded.
- All projects granted continuation will be expected to illustrate a pathway toward sustainability beyond the period of federal funding.
- Subject matter experts from the public and private sectors may be used as reviewers, subject to conflict of interest and non-disclosure considerations. These reviewers will utilize the scoring criteria as a basis for their reviews.

Upcoming FOA Deadlines



- Questions about the Innovative Pathways FOA? E-mail T2M@ee.doe.gov.
 - All Q&As about this FOA will be posted on EERE Exchange.
 - You must select FOA number DE-FOA-0001703 in order to view the Q&As.
 - EERE will attempt to respond to questions within three business days, unless a similar Q&A has already been posted on the web site.
- Problems logging into EERE Exchange or uploading and submitting application documents with EERE Exchange? E-mail EERE-ExchangeSupport@hq.doe.gov
- Include FOA name (Innovative Pathways FOA) and number (DE-FOA-0001703) in the subject line of all e-mail correspondence.
- All questions asked during this presentation will be posted on EERE Exchange.