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U.S. DEPARTMENT OF ENERGY

Office of **ENERGY EFFICIENCY & RENEWABLE ENERGY**

DE-LC-0000020 - FY23 AMMTO/IEDO/BTO Joint TCF Lab Call for Reducing Embodied Carbon and Operational Energy Across the Built Environment

Informational Webinar

May 23rd, 2023

Housekeeping

- All applicants are strongly encouraged to carefully read the entire lab call and adhere to the stated submission requirements.

- This presentation summarizes the contents of lab call. If there are any inconsistencies between the lab call and this presentation or statements from DOE personnel, the lab call is the controlling document and applicants should rely on the lab call language and **seek clarification at** jointFY23TCF@ee.doe.gov.

- Everyone has been placed on mute.

- **Please provide your questions through the Q&A feature.** All questions will go into the formal Q&A log and will be answered and publicly posted to Exchange.

- The Informational Webinar will be recorded and sent to all National Lab TTO POCs listed in Appendix D of the lab call.

Agenda

- Webinar Purpose
- Key Dates
- General Information
- Budget per Project
- Background
- Cost Share
- Eligibility
- Topics

- Partnering
- Diversity, Equity, Inclusion, and Accessibility (DEIA)
- Full Application Stage
- Selections and Notification
- Project Administration and Reporting
- Questions

Webinar Purpose

- The purpose of today's webinar is to:
  - Provide an overview of the lab call
  - Highlight specific areas in the lab call that are unique for FY23

- Please see the most up to date Lab Call document, **DE-LC-0000020**, at eere-exchange.energy.gov

Key Dates

KEY DATES	
Lab Call Release Date	April 17, 2023
Informational Webinar for Lab Call Overview	May 23, 2023, 2:00 p.m. (ET)
PROPOSAL DEADLINE AND DECISION DATES	
Full Application Submission Deadline	June 30, 2023, 5:00 p.m. (ET)
Expected Merit Review Completion Date	Topic 1–4: July 21 Topic 5: July 14
Expected Replies to Review Comments Due Date	Topic 1–4: July 26 Topic 5: July 19
Expected Date for EERE Selection Notifications	August 04, 2023, 5:00 PM (ET)
Expected Beginning Award Issue Date	September 01, 2023

General Information

Means of Submission for Applications	Exchange (DE-LC-0000020) DOE will not review or consider proposals submitted through other means.
Available Funding	There is approximately $6,200,000 in funding available to fund all projects solicited in this lab call, subject to appropriations and program direction considerations. DOE may issue one, multiple, or no awards.
Estimated Number of Projects: Estimated Project Duration:	0-9 12-36 months (dependent on topic area)
Eligible Entities	All DOE/National Nuclear Security Agency (NNSA) National Laboratories/Sites, are eligible to submit proposals as prime awardees, unless specified otherwise.
Partnering	All proposals must include a domestic industry partner.
Cost Share	This lab call is subject to Section 988 of the Energy Policy Act of 2005 regarding cost-share and thus a 50% cost share is required for topics 1–4. DOE has approved a Cost-Share Waiver to eliminate cost share for topic 5 of this lab call. The final cost-share requirements for each proposed project will be set at the time of selection and can only be adjusted following modification process and requires DOE approval. Cost-share requirements will be established on a budget period basis during project negotiations and prior to final project award. More information may be found in Appendix C of the Lab Call.
Submission of Multiple Proposals	Proposals that involve more than one laboratory are allowed. Applicants are eligible for multiple awards under this solicitation. Multiple DOE Facilities may partner together on a single proposal. There are no limits on the allowable number of applications submitted by a lab.
Questions	TCF lab call solicitation: jointFY23TCF@ee.doe.gov Using the online application portal: eere-exchangesupport@hq.doe.gov

Budget per Project

The table below reflects DOE's interest in funding multiple labs to address shared commercialization challenges for Topics 1 -- 4. Solutions responsive to a single office's mission space are of interest. However to be selected for larger funding amounts, as this table shows, labs should address mission spaces of multiple or all three offices, where possible.

| Number of Offices to which Project is Responsive	Maximum Project Budget
1	$400,000
2	$800,000
3	$1,200,000

Background

Background

- The Department of Energy (DOE) Technology Commercialization Fund (TCF) was established by Congress through the Energy Policy Act of 2005[1] and reauthorized by the recent Energy Act of 2020[2] to "promote promising energy technologies for commercial purposes."

- Within DOE, the Office of Technology Transitions (OTT) is charged with leading policy and programs related to technology commercialization.

1. Energy Policy Act of 2005, Public Law 109–58, 109th Cong. (August 8, 2005), *Improved technology transfer of energy technologies*, 42 U.S. Code § 16391 (a).
2. Consolidated Appropriations Act, 2021, Public Law 116–260, 116th Cong. (December 27, 2020), 134 Stat. 2597, Sec. 9003. https://www.congress.gov/116/plaws/publ260/PLAW-116publ260.pdf.

Technology Commercialization Fund (TCF) Overview

- Base Annual Appropriations TCF:
  Nearly $30M funding opportunity that leverages funding in the applied energy programs to mature promising energy technologies with the potential for high impact across DOE's RD&D and commercial application continuum.

- Bipartisan Infrastructure Law TCF:
  The BIL provided more than $62B to DOE for RD&D and commercial application. OTT seeks to cultivate a broader innovation network around the BIL provision activities to enable faster replication and scaling of demonstration projects.

Technology Commercialization Fund

Base Annual Appropriations TCF	Bipartisan Infrastructure Law TCF
Focus on National Lab developed technology commercialization	Enhance and accelerate BIL provision activities
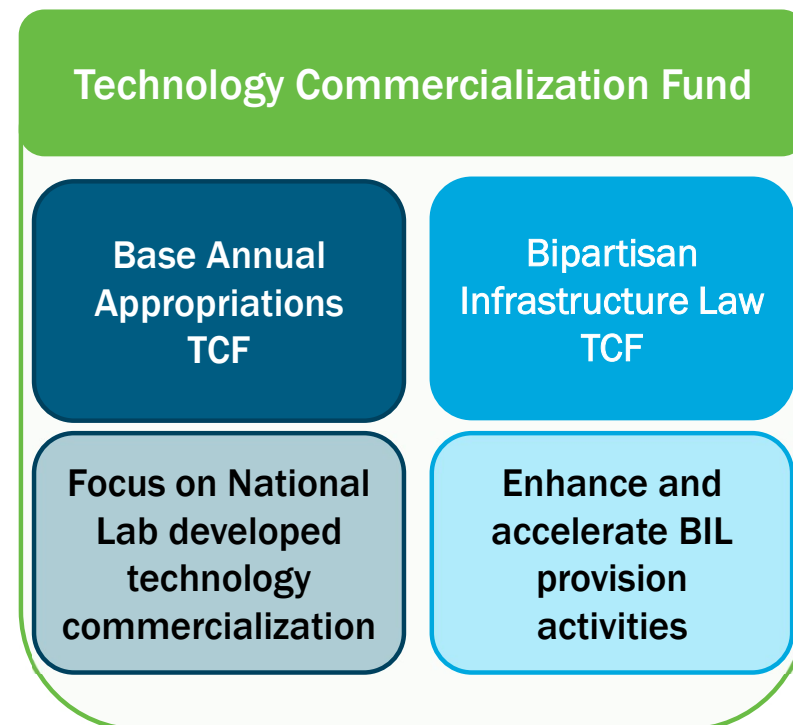
What is Base Annual Appropriations TCF?

- **The TCF uses 0.9 percent of the funding for DOE's applied energy research, development, demonstration, and commercial application budget for each fiscal year from the:**
  - Office of Electricity
  - Office of Energy Efficiency and Renewable Energy
  - Office of Fossil Energy and Carbon Management
  - Office of Nuclear Energy
  - Office of Cybersecurity, Energy Security, and Emergency Response.

- **For FY23, DOE's approach to the Base Annual Appropriations TCF offered applied energy programs two options for deciding how to obligate their funding:**
1) **Program-Led, Technology-Specific Commercialization Programs**
2) **Joint "Core Laboratory Infrastructure for Commercialization for Market Readiness (CLIMR)" Lab Call**

FY23 TCF Base Annual Appropriations Options

For FY23, program offices have two options for deciding how to obligate their FY23 TCF funding:

1. **Program-Led, Technology-Specific Commercialization Programs:**

   DOE program offices were given the opportunity to develop their own proposed use of TCF funding that meets the statutory requirements of TCF. These proposed activities can leverage or expand existing technology-specific commercialization programs or create new ones. However, programs must coordinate these activities with OTT, and the focus must remain on funding to National Laboratories to promote the commercialization of DOE-funded technologies.

2. **Joint "Core Laboratory Infrastructure for Commercialization for Market Readiness (CLIMR)" Lab Call:**

   DOE program offices were given the opportunity to work with OTT and develop a multiple program office joint lab call that combines available appropriated TCF funding to address systemic challenges, core barriers, and known gaps impeding National Laboratory commercialization of promising energy technologies. For FY23, the joint lab call will also solicit collaborative technology-specific partnerships between National Laboratories and private sector companies in a similar manner to previous years' iterations of the TCF.

   AMMTO, BTO, and IEDO have chosen to jointly release a lab call following option 1.

What will be discussed today

TCF Base Annual Appropriations Program-Led Lab Call for AMMTO/IEDO/BTO

This lab call represents the combined effort of DOE's OTT and EERE's Advanced Materials and Manufacturing Technologies Office (AMMTO), Industrial Efficiency and Decarbonization Office (IEDO), and Building Technologies Office (BTO).

- AMMTO inspires people and drives innovation to transform materials and manufacturing for America's energy future.
- IEDO supports innovation in technologies and the adoption of practices to enable the industrial sector to cost-effectively reduce greenhouse gas emissions.
- BTO develops, demonstrates, and accelerates the adoption of cost-effective technologies, techniques, tools and services that enable high-performing, energy-efficient and demand-flexible residential and commercial buildings in both the new and existing buildings markets, in support of an equitable transition to a decarbonized energy system by 2050, starting with a decarbonized power sector by 2035.

Through TCF, the DOE's applied energy technology offices (AMMTO, IEDO, and BTO) and the DOE National Labs can pursue a strategic, forward-looking, competitive approach to commercializing DOE National Lab-developed intellectual property (IP).

Cost Share

Cost Share

This lab call is subject to Section 988 of the Energy Policy Act of 2005 regarding cost-share and thus a 50% cost share is required for topics 1–4.

DOE has approved a Cost-Share Waiver to eliminate cost share for topic 5 of this lab call.

The final cost-share requirements for each proposed project will be set at the time of selection and can only be adjusted following modification process and requires DOE approval. Cost-share requirements will be established on a budget period basis during project negotiations and prior to final project award. More information may be found in Appendix C of the Lab Call.

See page 9 of the lab call.

Eligibility

Eligibility

All DOE/National Nuclear Security Agency (NNSA) National Laboratories/Sites, are eligible to submit proposals as prime awardees, unless specified otherwise.

See page 10 of the lab call.

- All TCF proposals must be routed through the respective lab's Technology Transfer Office (TTO).
- Proposals that involve more than one laboratory are allowed.
- Applicants are eligible for multiple awards under this solicitation.
- Multiple DOE Facilities may partner together on a single proposal.
- There are no limits on the allowable number of applications submitted by a lab.

Topics

Topic Areas

Topic Area	Topic Title	Brief Description	Estimated DOE Federal Funding per Award	Estimated Number of Projects Expected	Estimated Project Duration
1	Greener Buildings and Building Materials with Reduced Embodied Carbon	Reducing the embodied carbon of buildings through strengthening materials circularity and leveraging advanced materials and manufacturing processes.	$1.2M	0-2	12-36 months
2	Advanced Electronics, Sensors, and Controls for Lower-Energy Buildings	Improving the hardware for systems that can increase the flexibility and control of building operational energy, including residential, commercial, and industrial settings.	$1.2M	0-2	12-36 months
3	Thermal Energy Storage and Waste Heat Recovery Technologies	Commercializing technologies that improve the ability to manipulate and store thermal energy.	$1.2M	0-2	12-36 months
4	Advanced Heat Pump Component Technologies	Improvements to heat pump performance and applicability as well as lowering manufacturing costs.	$1.2M	0-2	12-36 months
5	National Lab Developed IP Technology Maturation and Commercialization Projects Utilizing the Lab Embedded Entrepreneurship Program	National lab developed IP technology maturation and commercialization projects leveraging the Lab Embedded Entrepreneurship Program (LEEP) Program to bring lab-developed IP to market.	$750k	0-1	12-24 months

Topic 1: Greener Buildings and Building Materials with Reduced Embodied Carbon

Reducing the embodied carbon of buildings through strengthening materials circularity and leveraging advanced materials and manufacturing processes.

Areas of Interest (AOIs) for this Topic include:

a) Use of recycled feedstock (concrete, cullet, etc.) and other circularity practices in the design of building materials/components/systems for re-use, repair, and remanufacturing, balanced with maximizing the energy savings performance of these materials/components/systems in the building.

b) Additive manufacturing or other more sustainable fabrication/construction practices (having a lower carbon/energy footprint) to produce buildings or building materials/components/systems.

c) Novel low-embodied carbon materials with lower direct (process) and/or indirect (energy) emissions to substitute for traditional materials with large carbon/energy footprints. The performance and durability of the new materials must be verified as equaling or exceeding those required in intended applications/uses. Example materials include (but are not necessarily limited to) nanocellulosics & other bio-based alternatives, cement & concrete, glass, plastics, and insulation.

d) Recycled materials for appliances/equipment (oven, furnaces, washers, dryers, icemakers, refrigerators, etc.), especially recycled reinforced composites from wind turbine clean energy generation materials, industrial materials.

See page 13 of the lab call.

Topic 2: Advanced Electronics, Sensors, and Controls for Lower-Energy Buildings

Improving the hardware for systems that can increase the flexibility and control of building operational energy, including residential, commercial, and industrial settings.

Areas of Interest (AOIs) for this Topic include:

a) Innovations in microelectronics processers, sensors, controls, and wide bandgap (WBG) semiconductor-based power electronic systems with reduced size, complexity, weight, cost, and cooling requirements plus increased functionalities that support building energy management by enabling building energy loads (equipment, plug, lighting) to 1) operate more efficiently/"smartly"; 2) charge faster; 3) self-diagnose performance and functioning; 4) forecast energy needs; 5) characterize available flexibility; and/or 6) have embedded tools that provide capacity, energy, and ancillary services to the grid and/or system owner.

b) Adjustable speed industrial motor drives: more efficient variable frequency/speed drives, or VFDs/VSDs (inverters), for accurate speed and torque control and improved efficiency of AC electric motors and compressors in building systems such as heating, ventilation, and air conditioning (HVAC)/refrigeration systems, water management system pumps, elevators, fume hoods, machine tools, and other electrical equipment. This AOI excludes proposals involving improvements to the motor itself. Rather, this AOI is concerned with the power electronics and other electrical components that make up the controller and/or interface between the control signals and the motor.

c) Higher-reliability WBG power inverters/converters for distributed energy resources (i.e., grid-tied solar, micro-combined heat and power (CHP)) in residential, commercial, and industrial buildings, as well as distributed power systems (LLC converters) for data center power supplies to consume less energy and generate much less heat, which are Smart (two-way flow; can provide grid services; self-optimize performance; have millisecond response times; programmable; modular; adaptable; able to handle widely varying loads). Additionally of interest are power electronic hub systems to better control/manage bidirectional power flow between the various building subsystems (e.g., renewables, emergency generators, or energy storage systems) and the grid for improved energy efficiency and to assist in preventing supply and demand fluctuations.

See page 14 of the lab call.

Topic 3: Thermal Energy Storage and Waste Heat Recovery Technologies

Commercializing technologies that improve the ability to manipulate and store thermal energy, which has typically been generated on demand from fuel combustion and/or rejected to the environment as waste heat. Applicants should make clear if the proposed technology will be applicable for low-temperature (< 100°C), medium-temperature (100 to 400°C), or high-temperature (> 400°C) grade systems.

Areas of Interest (AOIs) for this Topic include:

a) Waste Heat Recovery (WHR) – technologies focused on recovering, storing, and utilizing heat that is otherwise wasted in buildings or manufacturing operations. Example application areas include 1) Pod design and manufacturing for integrated heat pumps; 2) Materials and designs for recovering waste heat from high-temperature industrial processes; 3) Advanced technologies for more efficient electric generation from waste heat (low, medium, and high temperature); and 4) waste heat recovery to thermal energy storage in the building and/or integrate with HVAC and/or used for process heating.

b) Thermal Energy Storage (TES) - Materials that enable greater TES and/or thermal energy flow in buildings or in manufacturing or industrial processes. Example application areas include 1) Equipment & Envelope Integrated Thermal Energy Storage, particularly around thermal switches and phase change material storage; 2) Thermally Anisotropic Building Elements (TABE); 3) advanced manufacturing processes to lower assembly costs and incorporating novel, low cost materials for improved heat transfer, including low-cost conductive polymers; 4) Industrial process heating integrated with TES, which may avoid inefficient conversion between thermal and electrical sources of energy; and 5) TES systems that can enable the utilization of low-cost, intermittent renewable electricity by converting it into thermal energy (e.g., through resistive heating), store, and deploy as thermal energy (e.g., building heat) when needed, without requiring significant disruption of process operation.

See page 15 of the lab call.

Topic 4: Advanced Heat Pump Component Technologies

Improvements are needed to heat pump performance and applicability as well as lowering manufacturing costs. Components of interest include high- efficiency heat exchangers and compressors and potentially new materials, refrigerants, and non-refrigerant-based solutions (e.g., non-vapor compression solutions, functional materials):

Areas of Interest (AOIs) for this Topic include:

a) Non-metallic heat exchangers – applicable for use in cooling electronics and other electrical appliances, as well as additive manufacturing processes.

b) Compressors and vaporizers for low-global warming potential (GWP) and natural refrigerants - materials and components that can replace or eliminate the need for hazardous materials with high global warming potential. Example innovation areas include non-vapor compressors.

c) Heat pump dehumidification - dehumidification is essential to comprehensive comfort cooling and reducing the energy demand of HVAC systems. By directly addressing dehumidification, HVAC systems can save energy by avoiding overcooling needed to overcome the delta-T of the ambient temperature. Example innovation areas include membrane development, ionic liquid desiccants and latent cooling systems.

d) Thermoelectric heat pumps - improving the maximum heat loads of thermoelectric heat pumps for residential and/or commercial appliances. For example, hybrid thermoelectric (TE) clothes dryers, TE refrigeration systems that use DC electricity, and thermoelectric heat pump dishwasher with heat recovery.

e) Industrial heat pumps - integration of IHP technology into existing industrial process heating systems, supplying heat at or below 200°C. Integration of IHPs in existing industrial processes with a systems approach. Research advances are required in all heat pump components, including better heat exchangers and compressors and potentially new materials, refrigerants, and non-refrigerant-based solutions (e.g., non-vapor compression solutions, functional materials).
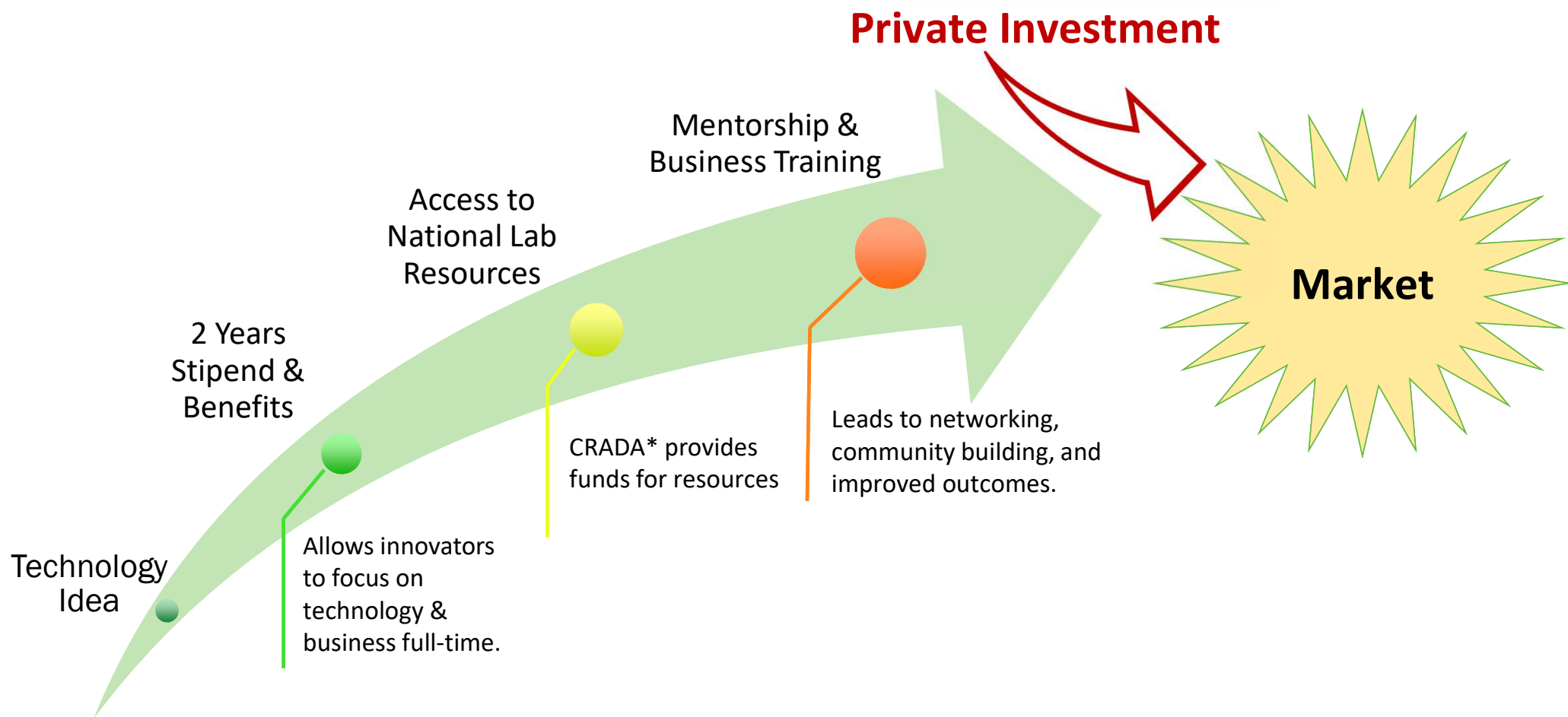
See page 16 of the lab call.

LEEP Program Goals

① **Recruit** the best energy technology innovators

② **Leverage** expert mentorship and world-class facilities at the national labs on a win-win basis

Accelerate access to follow-on funding

③ **Position** people and technology for market

https://www.energy.gov/eere/amo/lab-embedded-entrepreneurship-programs

How does the program accelerate progress to market?

Private Investment

Mentorship & Business Training

Access to National Lab Resources

2 Years Stipend & Benefits

Technology Idea

Market

Allows innovators to focus on technology & business full-time.

CRADA* provides funds for resources

Leads to networking, community building, and improved outcomes.

*CRADA – Cooperative research & development agreement

Topic 5: National Lab Developed IP Technology Maturation and Commercialization Projects Utilizing the Lab Embedded Entrepreneurship Program

National lab developed IP technology maturation and commercialization projects leveraging the Lab Embedded Entrepreneurship Program (LEEP) Program to bring lab-developed IP to market must be directed at technology development and not yet at demonstration stage. Cost-share is not required for funds awarded under this topic alone. To be considered eligible for TCF funds, lab developed IP must be utilized as a core part of the technology project and must be relevant to the mission spaces of IEDO, AMMTO, or BTO. Lab IP must be identified in submitted applications to be funded under this lab call. Cross-Office overlap is highly preferred. The proposed activities should integrate with and leverage the existing LEEP node programs, located at LBNL, ANL, ORNL, and NREL.

This Topic include 2 Areas of Interest (AOIs):

AOI 1 (of 2)

Base Project -- Base projects focus on National lab developed IP technology maturation and commercialization leveraging the LEEP Program. Project can include funds for a maximum of two fellowships to fund the innovator's time executing the project and for lab staff time and resources to promote the promising energy technology toward commercialization. The fellowships will be funded via the Oak Ridge Institute for Science and Education (ORISE). Proposals must include consideration for handling two possible scenarios for new LEEP projects:

1) all relevant IP being commercialized through the LEEP project is owned by one or more national laboratories, in which case project activities and funding will be specified through an AOP; and

2) some portion of relevant IP being commercialized through the LEEP project is owned by an outside entity, in which case a CRADA between the national lab and the innovator's associated start-up for completing the project as part of LEEP will be required. TCF funds can only be used to fund the national lab and cannot be used to fund the innovator's associated start-up company. TCF funding provided for the CRADA must be of equal value to funding provided by DOE offices (i.e., excluding any matching funds provided by the labs) for standard CRADAs in the LEEP program.

The project must focus on bringing lab-developed IP to market. These projects do not include support for and TCF funds cannot be used for existing fellows, overall LEEP program management or individual node program operation activities. AMMTO, IEDO, BTO and the Office of Technology Transitions (OTT) will collaboratively select any new projects that receive funding under this Topic.

Topic 5: National Lab Developed IP Technology Maturation and Commercialization Projects Utilizing the Lab Embedded Entrepreneurship Program (Continued)

National lab developed IP technology maturation and commercialization projects leveraging the Lab Embedded Entrepreneurship Program (LEEP) Program to bring lab-developed IP to market must be directed at technology development and not yet at demonstration stage. Cost-share is not required for funds awarded under this topic alone. To be considered eligible for TCF funds, lab developed IP must be utilized as a core part of the technology project and must be relevant to the mission spaces of IEDO, AMMTO, or BTO. Lab IP must be identified in submitted applications to be funded under this lab call. Cross-Office overlap is highly preferred. The proposed activities should integrate with and leverage the existing LEEP node programs, located at LBNL, ANL, ORNL, and NREL.

This Topic include 2 Areas of Interest (AOIs):

AOI 2 (of 2)

b) Supplemental Project Funds – Supplemental funding for projects to aid specifically in the continued development of a previously funded, base National lab developed IP technology maturation and commercialization project leveraging the LEEP Program. A new merit review and selection process for awarding additional funding for these projects can be proposed as well. The process and all applications for new funds must focus on how the project will further the commercialization of lab-developed IP, ideally through new scope beyond the base project. Proposals to the AOI must include a timeline and major decision points for such a process. An award made for this AOI will include a pre-positioning of funds for such supplemental awards and for process management. No more than 10% of TCF funds awarded under this AOI can be used to execute the proposed process with at least 90% of the TCF funds awarded going to the projects.

Partnering

Partnering

- AMMTO, IEDO, and BTO strongly encourage projects that bring together multiple DOE National Labs in a consortia-based approach to meet a high-level strategic goal, leveraging multiple lab capabilities with strong, centralized leadership.

- All proposals must include a domestic industry partner.

- All partnerships between the labs and outside partners, CRADAS and otherwise, must comply with individual lab requirements under their management and operating (M&O) contracts.

Teaming Partner List

EERE is compiling a "teaming" partner list to facilitate widespread participation in this lab call. This list allows organizations with expertise in the topics to express their interest to potential applicants and to explore potential partnerships. The Teaming Partner List is available on https://eere-Exchange.energy.gov under this lab call (DE-LC-0000020). Any organization that would like to be included on this list should submit the following information to the lab call email box (jointFY23TCF@ee.doe.gov) with the subject line "FY23 IEDO/AMMTO/BTO Joint TCF Lab Call: Teaming Partner Information":

See page 18 of the lab call.

- Organization Name
- Contact Name
- Contact Email
- Contact Phone #
- Contact Website/Social Media
- Organization Type
- Lab Call Topic Area(s) of Interest
- Area of Technical Expertise (bulleted list)
- Brief Description of Capabilities
- Description of Need in a Teaming Partner
- Optional DEI Strengths/Best Practices
- Optional Demonstration/Field Validation Site Offering. Please include the Quantity of Properties, Location of Properties, Property Type, Climate Zone(s), Area of Interest and Any Additional Notes

Diversity, Equity, Inclusion, and Accessibility (DEIA)

Diversity, Equity, Inclusion, and Accessibility (DEIA)

It is the policy of the Biden Administration that:

[T]he Federal Government should pursue a comprehensive approach to advancing equity[1] for all, including people of color and others who have been historically underserved, marginalized, and adversely affected by persistent poverty and inequality. Affirmatively advancing equity, civil rights, racial justice, and equal opportunity is the responsibility of the whole of our government. Because advancing equity requires a systematic approach to embedding fairness in decision-making processes, executive departments, and agencies (agencies) must recognize and work to redress inequities in their policies and programs that serve as barriers to equal opportunity.

By advancing equity across the Federal Government, we can create opportunities for the improvement of communities that have been historically underserved, which benefits everyone[2].

1 The term "equity" means the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment, such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality. E.O. 13985.

2 Executive Order 13985, "Advancing Racial Equity and Support for Underserved Communities Through the Federal Government" (Jan. 20, 2021).

See page 10 of the lab call.

Diversity, Equity, Inclusion, and Accessibility (DEIA)

As part of this whole of government approach, **this lab call seeks to encourage the participation of underserved communities and underrepresented groups.** Applicants are highly encouraged to include individuals from groups historically underrepresented, in STEM on their project teams.

Specifically, applicants are required to reference, if available, the existing laboratory DEIA Plan and describe within the technical volume the actions the applicant will take to:

- foster a welcoming and inclusive environment,
- support people from underrepresented groups in STEM,
- advance equity,
- encourage the inclusion of individuals from these groups in the project;
- and the extent the project activities will be in, or benefit underserved communities

Because a diverse set of voices at the table in research design and execution has an illustrated impact on innovation, this implementation strategy for the lab-wide plan will be evaluated as part of the technical review process.

See page 10 of the lab call.

Full Application Requirements

The Project Diversity, Equity, Inclusion, and Accessibility Implementation activities should be integrated into the technical volume. As part of the application, applicants are required to describe how DEIA objectives will be incorporated in the project. Specifically, applicants are required to submit:

- a description of how the project will support or implement the lab wide DEIA plan and;
- describe the actions the applicant will take to foster a welcoming and inclusive environment, support people from groups underrepresented in STEM, advance equity, and encourage the inclusion of individuals from these groups in the project, as well as;
- the extent to which the project activities will be located in or benefit underserved communities.
- The plan should include at least one SMART milestone per budget period supported by metrics to measure the success of the proposed actions, which will be incorporated into the award if selected.

The DEIA section should contain the following information:

- Equity Impacts: the impacts of the proposed project on underserved communities, including social and environmental impacts.

- Benefits: The anticipated overall benefits of the proposed project, if funded, to underserved communities

- How DEIA objectives will be incorporated in the project.

See the non-exhaustive list of actions that can serve as examples of ways the proposed project could incorporate DEIA elements on pages 27-28 of the lab call.

Full Application Stage

Full Applications

- Please read the lab call in its entirely for all full application requirements.

- EERE will only review Full Applications.

- For Topics 1–4, DOE encourages multi-lab teams to address more than one topic in an interwoven, holistic approach. In this case, all topics, and subtopics the team believes are addressed by the proposal should be listed on the title page and the interconnectedness should be highlighted in the proposal itself. The proposal will be reviewed and evaluated under all respective topics indicated.

See pages 21-30 of the lab call.

Full Application Requirements

Full Applications must conform to the following requirements:

- Technical Volume

- Resumes

- Letters of Commitment

- Summary/Abstract for Public Release

- Summary Slide

- ~~DOE Work Proposal for FFRDC, if applicable (see DOE O 412.1A, Attachment 3)~~

- ~~Authorization from cognizant Contracting Officer for FFRDC~~

  - The Lab Call will be modified to remove both the DOE Work Proposal for FFRDC and Authorization from cognizant Contracting Office for FFRDC as Full Application Requirements.

- Diversity, Equity, Inclusion, and Accessibility (DEIA) Implementation Plan

Full details on the requirements of each section are found on pages 21-30 of the lab call.

Full Application Merit Review Criteria

- Criterion 1: Innovation and Impact (45%) : How innovative and impactful is the project, assuming the stated outcomes can be achieved as written?

Innovative	Impactful	Accelerates Speed of Commercialization
Long-Term Viability	Differentiated	Scalable
Commercialization Outcomes	Cost-share Commitment	Evidence of Commercial Potential

- Criterion 2: Quality and Likelihood of Completion of Stated Goals (35%): Are the stated goals of the project SMART, and are they likely to be accomplished within the scope of this project? Is there a likelihood of success for the proposed project?

Measurable	Risks mitigated	Validated
Reasonable assumptions	Reasonable budget	

- Criterion 3: Collaboration and Capability of the Applicant and Holistic Project Team (20%) Is the team well-qualified and positioned to successfully complete this project?:

Collaboration	Capable	Participation
Team Quality	Past Performance	

The merit review criteria are described in detail beginning on page 30 of the lab call.

Selections and Notification

Selections and Notification

- **Merit Review and Selection Process:** Upon receipt and review for initial compliance with requirements, all proposals received in Exchange by the deadline will undergo a thorough technical review. The BTO, AMMTO, and IEDO program offices will use expert reviewers familiar with the office's portfolios, goals, and objectives. The offices will collect and collate review scores and comments for use in making final project selections. The Program Office Selection Officials will consider the merit review results, alignment with current portfolios, available funding, and effectively leveraging resources across the national laboratory complex to make the final project selections.
- **Selection for Award Negotiation:** The project offices carefully consider all the information obtained through the proposal process and make an independent assessment of each compliant and responsive proposal based on the criteria set forth in this lab call. The project offices may select or not select a proposal for negotiations. They may also postpone a final selection determination on one or more proposals until a later date, subject to availability of funds and other factors. The project offices will notify applicants if they are, or are not, selected for award negotiation.
- **Selection Notification:** The project offices anticipate completing the project selection process and notifying DOE National Labs of selections during Q4 FY2023. The project team will notify lab leads of selection results and will provide lab leads with summaries of anonymized review comments for each proposal submitted

Project Administration and Reporting

Project Administration and Reporting

- For selected proposals in all topic areas, the successful DOE Lab will be expected to work closely with the AMMTO, IEDO, and/or BTO Technology Manager(s) that oversee the program to: 1) develop a work plan that meets the technology offices' priorities; 2) define specific milestones for engagement activities; and 3) outline strategic research areas. Once awarded, the DOE Lab will set up monthly meetings with program office staff to review the previous month's activities and plan for activities to be carried out in the coming month. At the end of each quarter the laboratory will submit a quarterly report with consolidated information on all program activities and current budget status.

- AMMTO, IEDO and BTO have collaborated with OTT in developing this solicitation and will continue to provide information to OTT on status and selections. For all proposals selected for awarding, the negotiated statement of work (SOW) or Statement of Program Objectives (SOPO) and budget will be provided to OTT. Throughout the life of these projects, semi-annual (at the end of both FY Q2 and FY Q4) reporting with high-level project technical performance and budget status, as well as any project changes (scope, cost-share, period of performance, partners) will be provided to OTT for awareness or concurrence. Additionally, impact metrics will be tracked and shared with OTT over a 5-year period, which includes the up-to-3-year award period. A final report summarizing the overall accomplishments will be provided to OTT at the end of the project.

Questions?

Specific questions about this lab call should be submitted via e-mail to jointFY23TCF@ee.doe.gov.

To ensure fairness across all labs, individual DOE staff cannot answer questions while the lab call remains open.

To keep all DOE National Labs informed, the project team will post all questions and answers on EERE Exchange.

Questions about Exchange: https://eere-exchange.energy.gov/FAQ.aspx

Problems with Exchange: Email EERE-ExchangeSupport@hq.doe.gov