



# Welcome

## This webinar is being recorded and will be published on the EERE Exchange website

- If you do not wish to have your image recorded, please turn off your camera or participate by phone
- We will not take live Questions and Answers during the webinar, but you may submit questions electronically using the chat feature, and EERE will post responses on EERE Exchange.
  - ❖ Please note that questions submitted via the chat feature may be viewed by other webinar participants.

**We will begin momentarily**



Office of ENERGY EFFICIENCY  
& RENEWABLE ENERGY

SOLAR ENERGY TECHNOLOGIES OFFICE



# Solar Energy Technologies Office Fiscal Year 2019 Funding Program

## Topic Area 3: Balance of Systems Soft Costs Reduction

Questions? Email  
[SETO.FOA@ee.doe.gov](mailto:SETO.FOA@ee.doe.gov)  
[energy.gov/solar-office](https://energy.gov/solar-office)

April 5, 2019  
[DE-FOA-0002064](#)



# Notice

- NO NEW INFORMATION OTHER THAN THAT PROVIDED IN THE FOA WILL BE DISCUSSED IN THE WEBINAR.
- There are no particular advantages or disadvantages to the application evaluation process with respect to participating on the webinar today.
- Your participation is completely voluntary.



# Notice

- All applicants are strongly encouraged to carefully read the Funding Opportunity Announcement **DE-FOA-0002064 (“FOA”)** and adhere to the stated submission requirements.
- This presentation summarizes the contents of 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 at [SETO.FOA@ee.doe.gov](mailto:SETO.FOA@ee.doe.gov)



# FOA Schedule

<b>FOA Issue Date:</b>	<b>March 26, 2019</b>
Submission Deadline for Letter of Intent (MANDATORY):	<b>May 7, 2019, 5:00pm ET</b>
Submission Deadline for Concept Papers:	<b>May 14, 2019, 5:00pm ET</b>
Submission Deadline for Full Applications and SIPS Applications:	<b>July 25, 2019, 5:00pm ET</b>
Expected Submission Deadline for Replies to Reviewer Comments:	<b>September 6, 2019, 5:00pm ET</b>
Expected Timeframe for EERE Selection Notifications:	<b>November 2019</b>
Expected Timeframe for Award Negotiations:	<b>November 2019 - February 2020</b>



# Agenda

- 1) FOA Overview
- 2) Topic Area 3: Technical Areas of Interest
- 3) Award Information
- 4) Statement of Substantial Involvement
- 5) Eligibility and Teaming Partners
- 6) Cost Sharing
- 7) Letters of Intent
- 8) Concept Papers
- 9) Full Applications
- 10) Merit Review and Selection Process
- 11) Registration Requirements



# What's next *for* SOLAR?



Achieving SETO's priorities across the solar energy technology landscape requires sustained, multifaceted innovation. For our FY19 Funding Program, the office intends to support high-impact, early-stage research in the following areas:

- **Topic 1: Photovoltaics Research and Development**
- **Topic 2: Concentrating Solar-Thermal Power Research and Development**
- **Topic 3: Balance of Systems Soft Costs Reduction**
- **Topic 4: Innovations in Manufacturing: Hardware Incubator**
- **Topic 5: Advanced Solar Systems Integration Technologies**



## Topic 3 – Balance of Systems Soft Costs Reduction

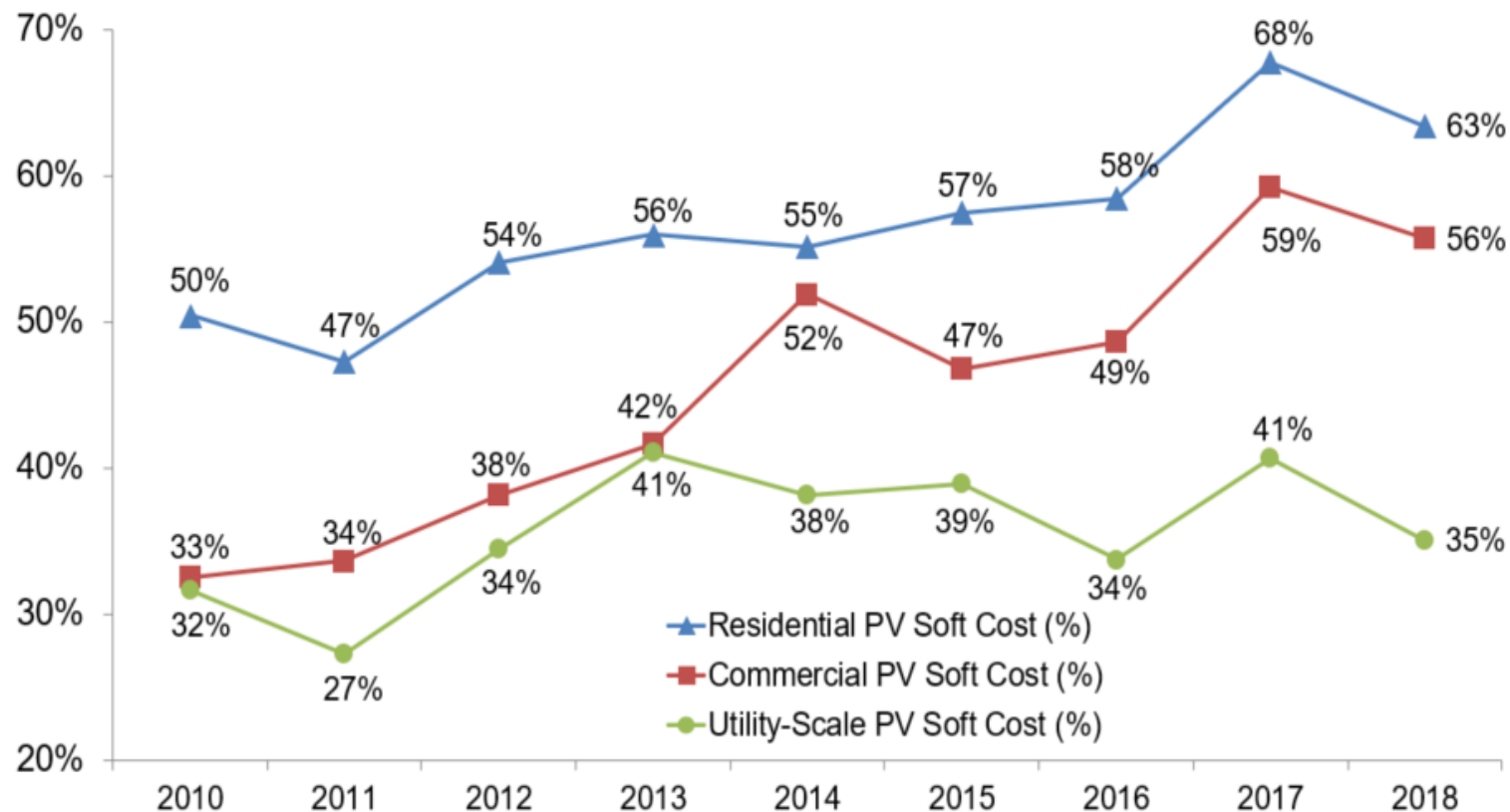
The balance of systems soft costs program works to reduce the costs associated with the non-hardware components of a solar system, which include costs associated with:

- Siting
- Permitting
- Contracts
- Capital costs
- Grid interconnection
- Compliance with local codes, rules and regulations
- Installation labor; and
- Operations and maintenance.



## Topic 3 – Balance of Systems Soft Costs Reduction

### Modeled trend of soft costs as a proportion of total cost by sector, 2010–2018



SOURCE: National Renewable Energy Laboratory. *U.S. Solar Photovoltaic System Cost Benchmark: Q1 2018*. November 2018.

NOTE: The increasing soft cost proportion in this figure indicates that soft costs declined more slowly than hardware costs over the period. It does not indicate that soft costs increased on an absolute basis.



## Topic 3 – Balance of Systems Soft Costs Reduction

To address these challenges, this topics intends to support projects that fall under the following topics:

- Topic Area 3.1: Collaborative Partnerships to Address Regulatory Burdens
- Topic Area 3.2: Data Collection Methods to Assess Avian Impacts
- Topic Area 3.3: Increasing Solar Affordability through Innovative Solar Finance
- Topic Area 3.4: Rapid Solar Software Development



# 3.1 Collaborative Partnerships to Address Regulatory Burdens

This topic area encourages collaborative work between various jurisdictions and private-sector facilitators to develop comprehensive, sustainable solutions that enable the country's new and developing solar markets to tackle financing and permitting issues and implement best practices and lessons learned. Approaches may involve the development and validation of innovative public-private partnership models, accelerator concepts, or other mechanisms.

## Areas of Interest Include:

- ✓ Rooftop solar and solar-plus-energy-storage permitting, inspection and interconnection challenges.
- ✓ Large-scale ground-mounted solar PV and CSP siting, permitting, and environmental impact.
- ✓ Addressing solar cybersecurity challenges through strategic plans, road maps, best practices, and other decision-making tools.
- ✓ Other soft cost drivers for challenging market segments and opportunities to leverage public-private partnerships.
- ✓ Partnerships involving multiple stakeholders are specifically encouraged.

## Areas of NOT of Interest Include:

- ❖ Applications that include the use of award funds for lobbying activities at the federal, state, or local level



## 3.2: Data Collection Methods to Assess Avian Impacts

Projects in this topic will develop and validate innovative methods or technologies that can reduce the cost of collecting and sharing data necessary for assessing avian-solar interactions or mitigation strategies at utility-scale PV and/or CSP plants.

### Areas of Interest Include:

Projects that:

- Develop and validate novel data collection methods or technologies that can cost-effectively assess avian-solar interactions
- Develop and validate novel data collection methods or technologies that can cost-effectively assess the effectiveness of avian impact mitigation technologies and techniques
- Establish a data-sharing mechanism for avian data collected at utility-scale solar PV and CSP plants

### Areas of NOT of Interest Include:

Projects using a method or technology commonly used at solar plants to collect avian data, such as surveying transects for carcasses or feather spots

## 3.3 Increasing Solar Affordability through Innovative Solar Finance

This topic will support stakeholder and analytical approaches to increase solar affordability and expand solar access by developing new financing tools and/or mechanisms to help deploy capital toward solar energy projects.

### Areas of Interest Include:

#### Projects that:

- Support stakeholder and analytical approaches to increase solar affordability and expand solar access by developing new financing tools and/or mechanisms to help local financial institutions deploy their capital toward solar energy projects in their communities.
- Involve the development of collaborative public-private partnership models and may address topics such as community solar design, community economic development and reinvestment, revolving infrastructure fund development, or incentive program design.
- Include a description of a new financial mechanism, the relevant stakeholders, a plan for a pilot study, and its evaluation. Solutions should be replicable and scalable, and recipients should include a dissemination strategy for translating these solutions to similar entities and peers during the award period.



## 3.4: Rapid Solar Software Development

This topic provides seed funding needed to research, develop, and validate new software products or tools that address critical challenges associated with solar soft costs for residential, commercial, and industrial solar-energy customers.

### Areas of Interest Include:

#### Projects that:

- Have a clear and compelling case for how it will help drive down solar soft costs using new technological and data-driven pathways.
- Clearly identify the soft costs to be reduced and show an understanding of how that soft cost impacts overall system costs.

### Areas of NOT of Interest Include:

- Concepts proposing standard tools relating to conventional lead generation and customer acquisition
- Concepts proposing end-to-end platform development for system design and sales
- Concepts proposing products and solutions that are not significantly different from those already established in the market



# Award Information - Topic 3

<b>Total Amount to be Awarded for Topic 3</b>	<b>\$17 million*</b>
<i>Topic 3.1</i>	<i>\$8 million</i>
<i>Topic 3.2</i>	<i>\$4 million</i>
<i>Topic 3.3</i>	<i>\$3 million</i>
<i>Topic 3.4</i>	<i>\$2 million</i>
<b>Maximum Award Amount for Topic 3</b>	<b>\$2 million max/award</b>
<i>Topic 3.1</i>	<i>\$1.5 million</i>
<i>Topic 3.2</i>	<i>\$2 million</i>
<i>Topic 3.3</i>	<i>\$1.5 million</i>
<i>Topic 3.4</i>	<i>\$350 thousand</i>
<b>Anticipated Period of Performance for Topic 3</b>	<b>Up to 3 years</b>
<i>Topic 3.1</i>	<i>\$Up to 3 years</i>
<i>Topic 3.2</i>	<i>\$Up to 3 years</i>
<i>Topic 3.3</i>	<i>\$Up to 3 years</i>
<i>Topic 3.4</i>	<i>\$Up to 1 year</i>

\* All subject to the availability of appropriated funds

[energy.gov/solar-office](https://energy.gov/solar-office)



# Award Information - Topic 3

<b>Anticipated Number of Awards for Topic 3</b>	15 to 21 awards
Topic 3.1	5-8 awards
Topic 3.2	2-3 awards
Topic 3.3	2-3 awards
Topic 3.4	6-7 awards
<b>Types of Funding Agreements for Topic 3</b>	Cooperative Agreements**
<b>Cost Share Requirement for Topic 3</b>	20% of Total Project Costs

\*\* Although other funding types are available, EERE will generally fund cooperative agreements





# Statement of Substantial Involvement

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

- EERE shares responsibility with the Recipient for the management, control, direction, and performance of the Project.
- EERE may intervene in the conduct or performance of work under this award for programmatic reasons. Intervention includes the interruption or modification of the conduct or performance of project activities.
- EERE may redirect or discontinue funding the Project based on the outcome of EERE's evaluation of the Project at the Go/No Go decision point.
- EERE participates in major project decision-making processes.

# Who is Eligible to Apply?

## Eligible applicants for Topic Area 3 include:

1. U.S. citizens and lawful U.S. permanent residents
2. For-profit entities
3. Educational institutions
4. Nonprofits
5. State, local, and tribal government entities
6. DOE/National Nuclear Security Administration (NNSA)/Federally Funded Research and Development Centers (FFRDCs)

### **Note:**

- TOPIC AREA 1 and TOPIC AREA 4 HAVE ELIGIBILITY RESTRICTIONS
- Prime Recipients must be incorporated (or otherwise formed) under the laws of a State or territory of the United States and have a physical location for business operations in the United States.
- For more detail about eligible applicants, please see Section III.A of the FOA

# Teaming Partner List

- To facilitate the formation of new project teams for this FOA, a Teaming Partner List is available at [EERE Exchange](#).
- Any organization that would like to be included on this list should submit the following information to [SETO.FOA@ee.doe.gov](mailto:SETO.FOA@ee.doe.gov).
  - Organization name, contact name, contact address, contact email, and contact phone number
  - Organization type, area of technical expertise, topic area, and a brief description of capabilities
- By submitting this information, you consent to the publication of the above-referenced information.
- EERE expects to update the Teaming List at least every week
- **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.**



# Cost Sharing Requirements

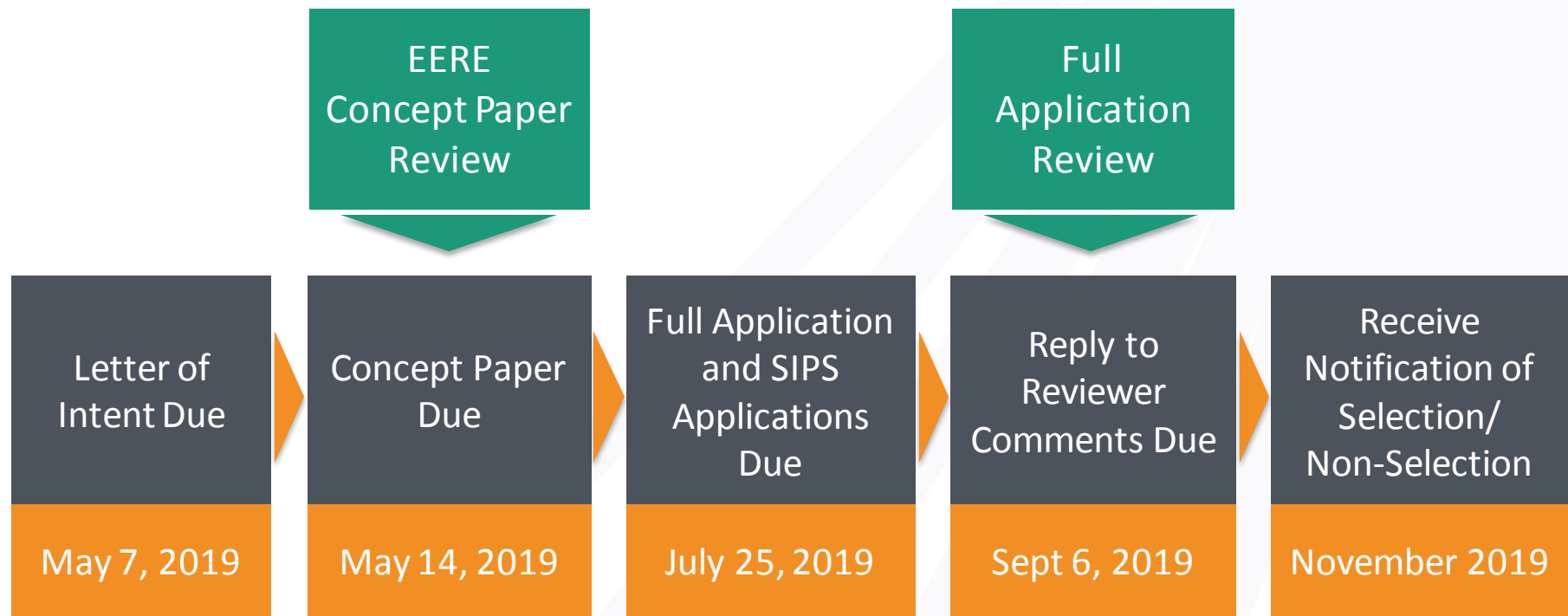
- Cost share must be at least 20% of the total allowable costs for R&D projects and 50% of the total allowable costs for demonstration and commercial application projects and must come from non-federal sources unless otherwise allowed by law.\*
- **All projects in Topic 3 must have 20% cost share.**
- Contributions must be:
  - Specified in the project budget
  - Verifiable from the Prime Recipient's records
  - Necessary and reasonable for proper and efficient accomplishment of the project
- If you are selected for award negotiations, 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

## NOTE:

\*The sum of the government share, including FFRDC costs if applicable, and the recipient share of allowable costs equals the total allowable cost of the project. See 2 CFR 200.306 and 2 CFR 910.130 for the applicable cost sharing requirements



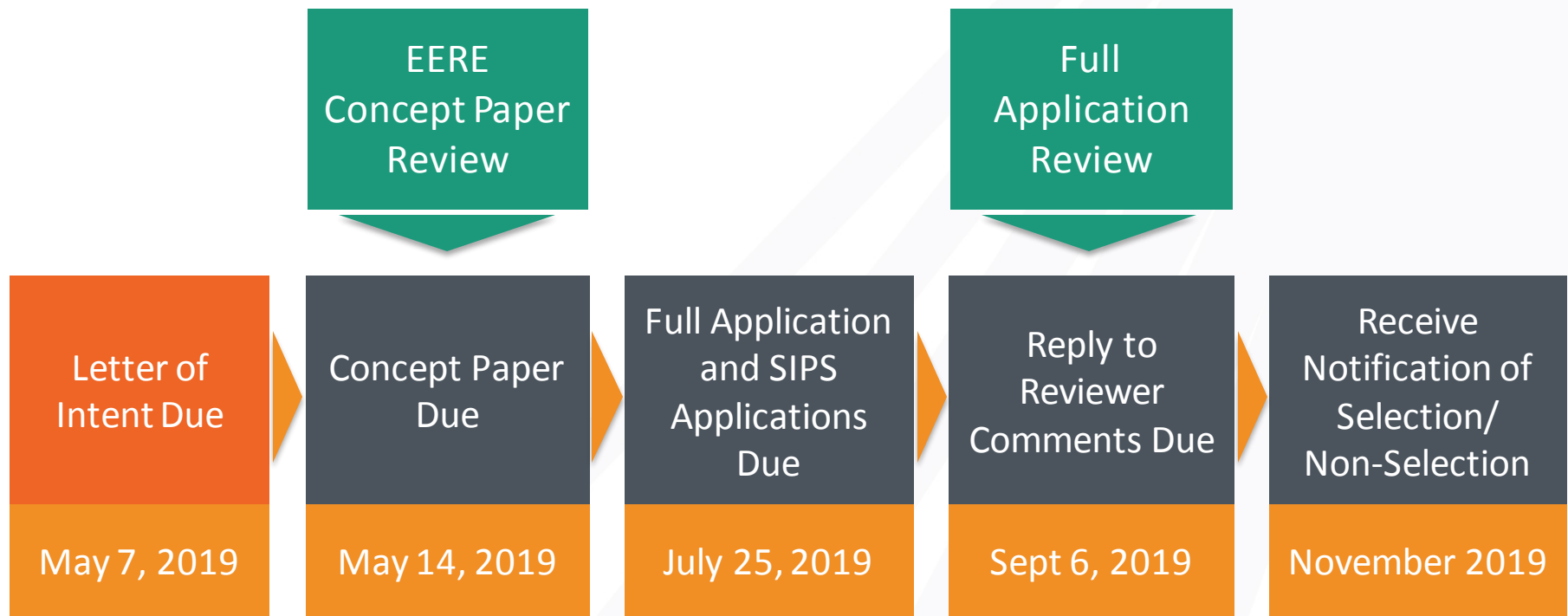
# FOA Timeline



Expected Timeframe for Award Negotiations: November 2019 - February 2020



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Expected Timeframe for Award Negotiations: November 2019 - February 2020

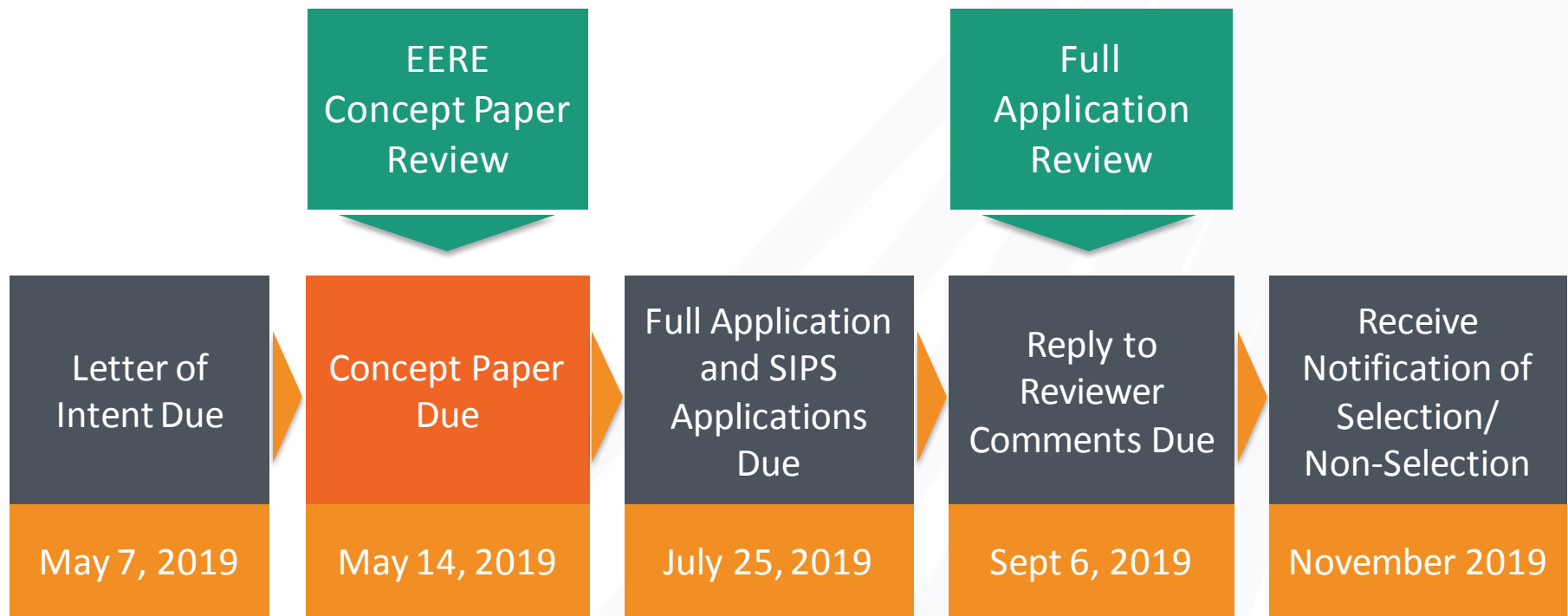


# Required Letters of Intent

- Letters of Intent (“LOIs”) are **REQUIRED to be submitted in EERE Exchange by May 7<sup>th</sup>** in order to be eligible to submit a Concept Paper and Full Application.
- To be considered:
  - The LOI must comply with the content and form requirements of Section IV.B.1 of the FOA, and
  - The applicant must enter all required information and click the “Create Submission” button in EERE Exchange by the deadline stated in the FOA.
- The LOIs should not contain any proprietary or sensitive business information.
- EERE will not provide notification of acceptance for Letters of Intent.



# FOA Timeline



Expected Timeframe for Award Negotiations: November 2019 - February 2020





# Concept Papers

- Applicants must submit a Concept Paper
  - Each Concept Paper must be limited to a single concept or technology
- Section IV.D of the FOA states what information a Concept Paper should include and the page limits.
  - Failure to include the required content could result in the Concept Paper receiving a “discouraged” determination or the Concept Paper could be found to be ineligible
- Concept Papers must be submitted by May 14, 2019, through EERE Exchange
- EERE provides applicants with an “encouraged” or “discouraged” notification and the reviewer comments.
- Please note that regardless of the date applicants receive the Encourage/Discourage notifications, the submission deadline for the Full Application remains the date stated on the FOA cover page.

Concept Papers are evaluated based on consideration of the following factor. All sub-criteria are of equal weight.

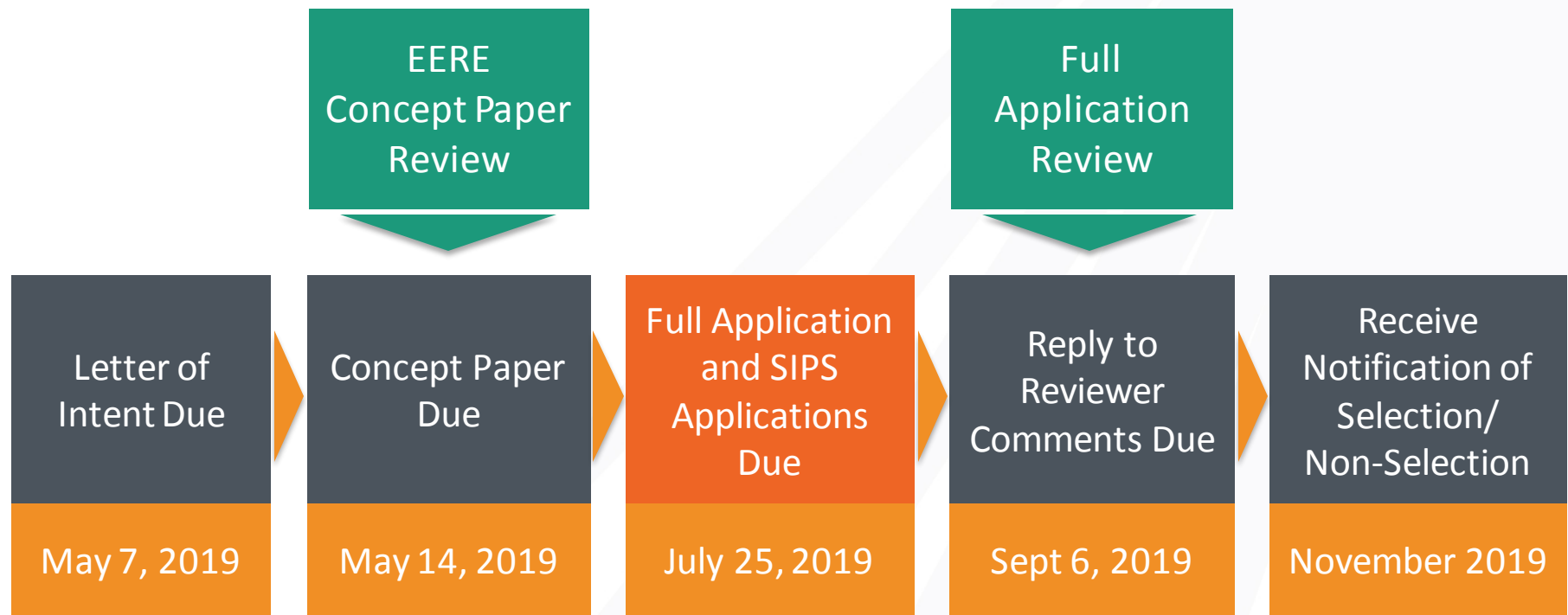
- **Overall FOA Responsiveness and Viability of the Project** *(Weight: 100%).*

This criterion involves consideration of the following sub-criteria:

- The applicant clearly describes the proposed technology, describes how the technology is unique and innovative, and how the technology will advance the current state-of-the-art
- The applicant has identified risks and challenges, including possible mitigation strategies, and has shown the impact that EERE funding and the proposed project would have on the relevant field and application
- The applicant has the qualifications, experience, capabilities and other resources necessary to complete the proposed project
- The proposed work, if successfully accomplished, would clearly meet the objectives as stated in the FOA



# FOA Timeline



Expected Timeframe for Award Negotiations: November 2019 - February 2020



## The Full Application for Topic 3 includes:

- **Technical Volume**
- **SF-424 Application for Federal Assistance**
- **SF-424A Budget & Budget Justification**
- **Summary for Public Release**
- **Summary Slide**
- **Other Administrative Documents:**
  - **Subrecipient Budget Justification**, if applicable
  - **DOE WP for FFRDC**, if applicable
  - **Authorization from cognizant Contracting Officer for FFRDC**, if applicable
  - **SF-LLL Disclosure of Lobbying Activities**
  - **Foreign Entity and Performance of Work in the United States waiver requests**, if applicable



# Full Application Eligibility Requirements

➤ **Applicants must submit a Full Application by July 25, 2019**

## **Full Applications are eligible for review if:**

- ✓ The Applicant is an eligible entity Section III.A of FOA;
- ✓ The Applicant submitted an eligible Concept Paper;
- ✓ The Cost Share requirement is satisfied Section III.B of FOA;
- ✓ The Full Application is compliant Section III.C of FOA;
- ✓ The proposed project is responsive to the FOA Section III.D of FOA
- ✓ The Full Application meets any other eligibility requirements listed in Section III of the FOA.



# Multiple Applications

- An entity may submit more than one LOI, Concept Paper, and Full Application to this FOA, provided that each application describes a unique, scientifically distinct project and provided that an eligible LOI and Concept Paper was submitted for each Full Application.



# Merit Review and Selection Process (Full Applications)

- The Merit Review process consists of multiple phases that each include an 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, to make the selection decisions

# Technical Merit Review Criteria

Full Applications will be evaluated against the merit review criteria shown below:

## **Criterion 1: Innovation and Impact (50% weight)**

The project is innovative and impactful, assuming the stated outcomes can be achieved as written. The project is differentiated with respect to existing commercial products, solutions, or technologies. If successful, the project is scalable to have a broader impact and maintained at a sufficiently large scale after project completion.

## **Criterion 2: Quality and Likelihood of Completion of Stated Goals (30% weight)**

The application demonstrates an understanding and appreciation of project risks and challenges the proposed work will face and incorporates reasonable assumptions related to the execution of the project (i.e. market size, customer participation, costs, speed of proposed scale-up or adoption). The information included for the project is validated through customer trials, data from prior work, report references, technical baselines established, etc. The stated goals of the project are SMART (Specific, Measurable, Achievable, Relevant, and Timely) and likely to be accomplished within the scope of this project. The proposed budget is reasonable to achieve the objectives proposed.

## **Criterion 3: Capability and Resources of the Applicant/Project Team (20% weight)**

The team is well qualified and has the capability and resources necessary to successfully complete the project. The team (including proposed subrecipients) have the training and experience to achieve the final results on time and to specification. The project team is fully assembled and committed to the project (verified through letters of support) and has a demonstrated record of successful past performance.





# Selection Factors

The Selection Official may consider the merit review recommendation, program policy factors, and the amount of funds available in arriving at selections for this FOA



# Registration Requirements

- To apply to this FOA, Applicants must register with and submit application materials through EERE Exchange: <https://eere-Exchange.energy.gov>
- Obtain a “control number” at least 24 hours before the first submission deadline at <https://eere-Exchange.energy.gov>
- Although not required to submit an Application, the following registrations must be complete to received an award under this FOA:

Registration Requirement	Website
DUNS Number	<a href="http://fedgov.dnb.com/webform">http://fedgov.dnb.com/webform</a>
SAM	<a href="https://www.sam.gov">https://www.sam.gov</a>
FedConnect	<a href="https://www.fedconnect.net">https://www.fedconnect.net</a>

- Applicants are also welcome to register in Grants.gov to receive automatic updates about the FOA

# Means of Submission

- Letters of Intent, Concept Papers, Full Applications, and Replies to Reviewer Comments must be submitted through EERE Exchange at <https://eere-Exchange.energy.gov>
- EERE will not review or consider applications submitted through other means
- The Users' Guide for Applying to the Department of Energy EERE Funding Opportunity Announcements can be found at <https://eere-Exchange.energy.gov/Manuals.aspx>



# Key Submission Points

- Check entries in EERE Exchange
  - Submissions could be deemed ineligible due to an incorrect entry
- EERE strongly encourages Applicants to submit 1-2 days prior to the deadline 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



# Applicant Points-of-Contact

- Applicants must designate primary and backup points-of-contact in EERE Exchange with whom EERE will communicate to conduct award negotiations
- It is imperative that the Applicant/Selectee be responsive during award negotiations and meet negotiation deadlines
  - Failure to do so may result in cancellation of further award negotiations and rescission of the Selection

- All questions submitted electronically during this presentation will be posted on EERE Exchange
- Please email additional questions about this FOA to:  
[SETO.FOA@ee.doe.gov](mailto:SETO.FOA@ee.doe.gov)
- All Q&As related to this FOA will be posted on EERE Exchange
  - You must select this specific FOA Number in order to view Q&As
  - EERE will attempt to respond to a question within 3 business days, unless a similar Q&A is already posted on the website
- Problems logging into EERE Exchange or uploading and submitting application documents with EERE Exchange? Email  
[EERE-ExchangeSupport@hq.doe.gov](mailto:EERE-ExchangeSupport@hq.doe.gov)
  - Include FOA name and number in subject line



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