U.S. DEPARTMENT *of* ENERGY

Office of Electricity

Welcome to the *Speed to Power through Accelerated Reconductoring and other Key Advanced Transmission Technology Upgrades (SPARK)* Informational Webinar

DE-FOA-0003580

Webinar Notice

- None of the information presented herein is legally binding.
- The content included in this presentation is intended for informational purposes only relating to the Notice of Funding Opportunity (NOFO) DE-FOA-0003580.
- Any content within this presentation that appears discrepant from the NOFO language is superseded by the NOFO language.

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Agenda

- Welcome
- SPARK Priorities Overview
- Concept Papers Overview
- Topic Areas
- Q&A

DOE Prioritization: Speed to Power

- "Speed to Power" emphasizes rapid development timelines and early, measurable impact.
- Evaluation criteria allows DOE to evaluate and score project based on "near-term impact" and "ability to rapidly achieve technical objectives", among other things.
- DOE will prioritize projects that can be implemented quickly to accelerate delivery of durable physical upgrades and dynamic operational gains that together increase the value, performance, security, resilience, affordability, and reliability of the nation's electric grid.
- DOE intends to negotiate and award projects rapidly under this initiative.
- Recipients must be prepared for fast-paced negotiations and respond quickly to DOE requests to maintain momentum.

Grid Resilience and Innovation Partnerships (GRIP) - Program Overview

Program Goals & Objectives

- Stabilize - to address existing constraints on the system.
- Optimize - to improve performance of existing infrastructure.
- Grow - to access dispatchable resources needed to reliably serve forecasted power demand.

The NOFO was released as one funding opportunity but provides opportunities for various applications to various entities including utilities, academia, non-profits, states, and tribes.

- Topic Area 1 - Grid Resilience (IIJA Section 40401(c))
- Topic Area 2 - Smart Grid (IIJA Section 40107)
- Topic Area 3 - Grid Innovation Program (IIJA Section 40103(b))

SPARK Priority Areas of Investment

- Reconductoring with advanced conductors
  - These projects would increase the power-carrying capability of existing transmission corridors, thereby allowing more electric energy to reach load centers and deferring the need for costly new infrastructure.
- Advanced Transmission Technologies that can increase the usable capacity of existing assets in real time
  - These projects would reduce congestion charges, thereby minimizing the need for costly curtailments and potentially deferring the need for larger transmission projects.
- Large-scale, cross-regional transmission upgrades and coordinated planning
  - These projects would further lower electricity costs by opening pathways for power to flow between regions, allowing the grid to support new and existing loads.

Expected Performance Goals/Outcomes

Capacity Increase and Deliverability

- Demonstrated ≥ 50% increase in power-carrying or transfer capability for physical upgrades or ≥ 25% increase in transfer capability for operational and digital upgrades.
- Quantified increase in transfer capability to enable the deliverability of stranded or underused generation.
- Demonstrated ability to enable new or high-growth load areas, that may include data centers, industrial clusters, and manufacturing corridors.

Reliability and Resource Adequacy

- Measurable improvement in system reliability.
- Documented reduction in transmission congestion, losses, or curtailment during high-risk hours.
- Avoided capital costs to meet resource adequacy requirements in affected balancing area or planning region.
- Enhanced capability to share reserves or transfer across seams to strengthen regional reliability.

Affordability and Consumer Benefit

- Verified production or capital cost savings.
- Demonstrated cost-effectiveness relative to a new transmission build.
- Demonstrated mitigations and reductions to risk and uncertainty in operations.
- Demonstrated payback period ≤ 10 years.

Replicability and Scale-Up Framework (*if applicable*)

- Documented approach for replication and permitting acceleration.
- Demonstrated integration of data, models, or cost-benefit methods that can inform other DOE, state, or regional planning processes.

*Applications Specifically Not of Interest**

- Projects prioritizing connection to intermittent generation sources inconsistent with the Administration's goals of energy dominance.
- Applications falling outside the technical parameters specified in the Background and Context section and Topic Areas section.
- Applications for proposed technologies not based on sound scientific principles (e.g., violating the laws of thermodynamics).
- Applications dedicating a significant budget allocation towards funding customer rebate or incentive programs.
- Applications that do not have a minimum Technical Readiness Level (TRL) of at least 6 (out of 9).

*Please see Section III.F. of the NOFO for more information on applications specifically not of interest.

Funding Available Through SPARK

GRIP Program & IIJA Provision:	Anticipated Number of Awards	Anticipated Minimum Award Size	Anticipated Maximum Award Size**	FOA-3580 Approximate Funding (FY26)	Approximate Award Project Period**
Topic Area 1: Grid Resilience 40101(c)	5-10	$10 Million	$100 Million	$427 Million*	48 Months
Topic Area 2: Smart Grid 40107	25-40	$10 Million	$50 Million	$614 Million	48 Months
Topic Area 3: Grid Innovation Program 40103(b)	3-8	$100 Million	$250 Million	$862 Million	48 Months

*As required by law, 30% of the total funding available for Topic Area 1 must be set aside for small utilities (entities that sell no more than 4,000,000 MWh of electricity per year.) (42 U.S.C. § 18711[c][5]).
**Note the accelerated project performance period.

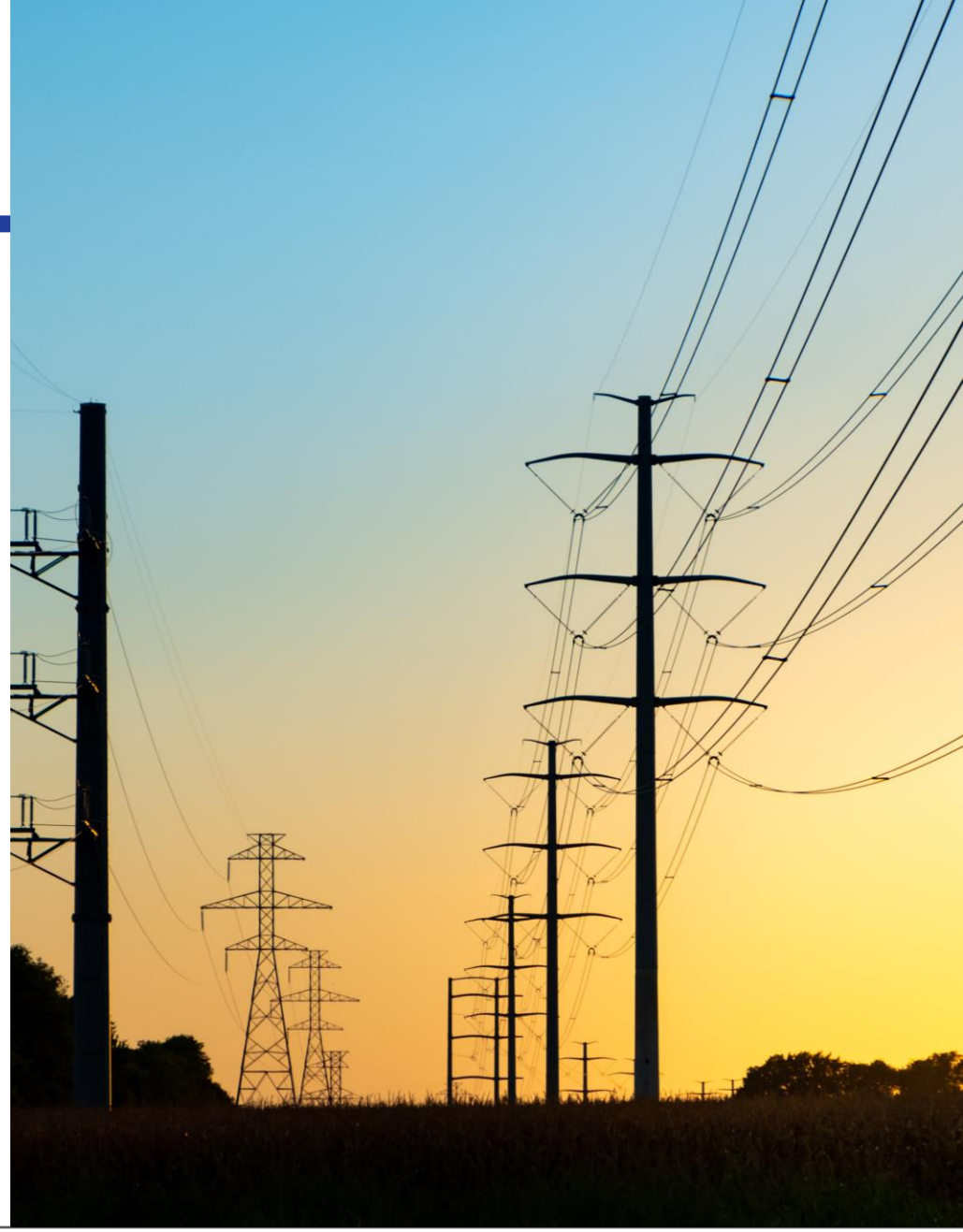
Application Submission Schedule

NOFO Released: March 12, 2026	
Concept Papers Due:	April 2, 2026
Response to Concept Papers:	Before end of April 2026
Full Applications Due:	May 20, 2026
Anticipated Selection Notification:	August 2026
Anticipated Award Date:	October 2026 – January 2027

Concept Papers Overview

Concept Papers - Submissions

- All FOA-3580 Concept Papers must be submitted on Exchange: https://infrastructure-exchange.energy.gov/.
- Regardless of Topic Area, all concept papers are evaluated using the same technical review criteria which can be found in section VI.C.2 of the NOFO.
- **An entity may submit only one concept paper and one associated application for each topic area of this NOFO.**
- Each concept paper will be assessed and receive a notification indicating DOE's encouragement or discouragement toward submitting full applications.
- All compliant Concept Papers may submit a full application, regardless of encourage/discourage notification.
- As a reminder, all concept papers are due by April 2, 2026.



Concept Papers - Compliance

- A Concept Paper is deemed compliant if it:
  - Complies with the content and form requirements in Section IV.C. of the NOFO;
  - Includes all required documents;
  - The Concept Paper is successfully uploaded in Exchange by the deadline stated in the NOFO.
- To be considered for substantive evaluation, an applicant's submission must meet the criteria set forth in the NOFO. If the application does not meet these eligibility requirements, it will be considered ineligible and removed from further evaluation.

Note: all applicants are strongly encouraged to submit their Concept Papers and Full Applications at least 48 hours in advance of the submission deadline.

Concept Paper - Description

Section	Page Limit	Description
Cover Page	1 page maximum	• The project title. • The specific Topic Area. • Both the technical and business points of contact. • Names of all team member organizations. • The project locations. • Confidentiality statement, if applicable.
Technology Description	4 pages maximum	• The proposed technology, including its basic operating principles and how it is unique and innovative. • The proposed technology's target level of performance. • How the project will deliver near-term impact and the metrics to be used for measuring the projected impact. • How the proposed technology will overcome the shortcomings, limitations, and specific problems the project addresses. • The degree to which the performance targets for the project directly addresses the topic area requirements.

*Please see Section IV.C. of the NOFO for further information on Concept Papers.

Concept Paper - Description

Section	Page Limit	Description
Technology Description (continued)	4 pages maximum	• The expansion of the transfer capability and system flexibility improvements. • The ability of the project to improve the delivered power (MW) during critical hours by optimizing the existing infrastructure (if applicable). • The potential impact the proposed project would have on the existing service territory or system. • How the proposed location of the proposed project will support technology development and long-term success. • The key technical risks or issues associated with the proposed technology development plan. • The impact that DOE funding would have on the proposed project. • Any potential impacts on Indian Tribes, including potential impacts on Tribal resources not on Tribal lands, and how the applicant would engage with a potentially impacted Indian Tribe.
Addendum	1 page maximum	• Applicants must succinctly describe the qualifications, experience, and capabilities of the proposed project team.

*Please see Section IV.C. of the NOFO for further information on Concept Papers.


SPARK TOPIC AREAS

Topic Area 1: Grid Resilience, IIJA-40101(c)

- Projects must replace or supplement existing hardening or reliability efforts and reduce the likelihood and consequences of disruptive events through reconductoring and other Advanced Transmission Technologies.
- Cost Share*: minimum of 50% of the total project costs.
- Exception for small utilities***, cost share is 25% of total project costs.
  - 30% of the Topic Area 1 funding will be set aside for small utilities.
- Award maximum is capped at the amount the entity has spent over the last 3 years of resilience investments or $100 million.

Eligible Entities Include**:

- Electric grid operators
- Electric storage operators
- Electricity generators
- Transmission owners or operators
- Distribution providers

*Please see Section II.C.1 of the NOFO for cost sharing requirements.
**Please see Section II.A. of the NOFO for eligibility information.
*** Sells no more than 4,000,000 megawatt hours (MWh) of electricity per year

Topic Area 1 - Technical Approaches of Interest

Transmission System Expansion and Upgrades

- Reconductor existing transmission lines using conventional or advanced conductors to achieve at least a 50% increase in transfer capability.
- Ancillary Hardening Upgrades: Incorporate reconductoring and system upgrades as part of hardening initiatives that enhance overall reliability and resilience.

Advanced Transmission Technologies and Advanced Solutions

- Use dynamic line rating, modular power flow control, flexible transformers, topology optimization, and software-controlled power flow devices to optimize the grid, increase operational efficiency, and improve resilience without new rights-of-way.
- Projects that use advanced technologies or reconductoring to identify, minimize, or mitigate the risk of specific hazards (such as, but not limited to, wildfires), that improve overall reliability and resilience.

Topic Area 2: Smart Grid, IIJA-40107

- Projects must demonstrate how digitalization, automation, and data-driven technologies improve existing transmission and sub-transmission systems while delivering measurable affordability benefits to ratepayers through reduced congestion costs, deferred capital investment, and improved efficiency of existing assets.
- Projects should provide quantifiable improvements in grid performance, situational awareness, and resilience through modernization and smart control.
- Standalone reconductoring projects that do not include smart grid integration are not of interest under this Topic Area.
- Cost Share*: minimum of 50% of the total project costs.

Eligible Entities Include**:

- For-profit entities
- Non-profit and not-for-profit entities
- State and local governmental entities
- Tribal nations
- Institutions of higher education

*Please see Section II.C.1 of the NOFO for Cost Sharing Requirements.
**Please see Section II.A. of the NOFO for Eligibility Information.

Topic Area 2 - Technical Approaches of Interest

Advanced Transmission Technologies

- DLR and real-time thermal rating systems, such as ambient adjusted line ratings.
- Topology optimization and advanced power flow control technologies that dynamically reroute power.
- Flexible AC Transmission Systems (FACTS) or modular flow controllers.
- Digital substation automation to integrate and control ATTs across multiple assets.

Reconductoring as a Smart Grid Enabler*

- Integrate optical ground wire or embedded sensors to enable data collection and communications for grid monitoring.
- Perform targeted reconductoring that unlocks the full potential of ATT deployments.
- Upgrade associated protection, communication, or substation equipment required to realize the benefits of digital operations and automated power flow control.

Communications and Cybersecurity Integration

- Projects should incorporate or use advanced communication systems, optical fiber, secure wireless or equivalent to enable real-time operation of the Smart Grid.

*Reconductoring is eligible under Section 40107 only when it directly supports smart grid functionality.

Topic Area 3: Grid Innovation Program, IIJA-40103(b)

- DOE will concentrate on projects that use reconductoring, other Advanced Transmission Technologies, and advanced coordination tools to alleviate system constraints and enable measurable, affordable expansion of transfer capability.
- Applications that offer novel technical, planning, or organizational approaches that are replicable and can be scaled to support the efficient integration of new large loads will take priority.
- Successful applications must demonstrate replicable approaches that accelerate permitting and interconnection processes, thereby improving overall system reliability and affordability.
- Cost Share*: minimum of 50% of the total project costs.

Eligible Entities Include**:

- a State
- a combination of 2 or more States
- an Indian Tribe
- a unit of local government
- a public utility commission

*Please see Section II.C.1 of the NOFO for Cost Sharing Requirements.
**Please see Section II.A. of the NOFO for Eligibility Information.

Topic Area 3 - Technical Approaches of Interest

Transmission Expansion and Upgrades

- Upgrade transmission lines and associated facilities to achieve at least a 50% increase in transfer capability, with an emphasis on supporting power delivery to new large loads and expanding transfer capability between planning regions.

Advanced Transmission Technologies

- Dynamic line rating, advanced power flow control, and digital automation to optimize real-time transfer capability and manage operational complexities.

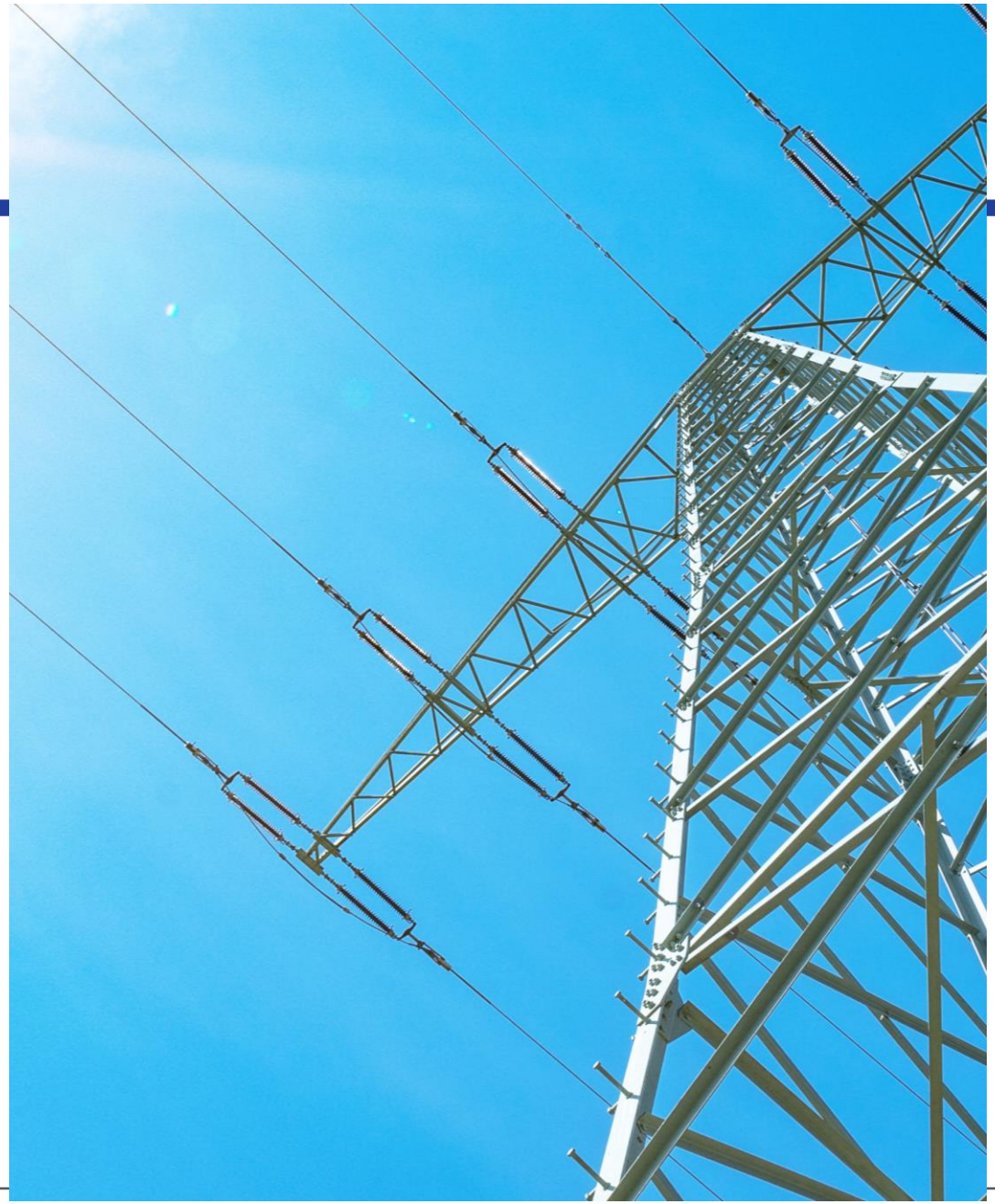
Cross-Regional Coordination and Planning

- Develop shared modeling, cost allocation mechanisms, and streamlined permitting frameworks across RTO/ISO boundaries to facilitate efficient planning, operation, and reconductoring of transmission infrastructure for new large loads.


Q&A

Q&A Feedback

- Questions regarding this NOFO must be submitted to: DE-FOA-0003580@NETL.DOE.GOV
- Questions regarding specific project/concept papers cannot be addressed.
- All questions and answers related to this NOFO will be posted on Exchange at: https://infrastructure-exchange.energy.gov/.



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Thank You!