

## Contents

Cost Share Requirements .....	2
<b>Cost Sharing or Cost Matching</b> .....	2
<b>How Cost Sharing Is Calculated</b> .....	2
Project Team .....	3
Subrecipient Funding .....	3
Concept Paper Cover Sheet .....	3
Project Narrative in Full Proposal .....	3
Attachment 1 – NL Extended Field Work Proposal .....	4
Attachment 2 – Detailed Budget Justification .....	4
Eligible Collaborators and Partners .....	4
Proposals for multiple topic areas .....	4
Topic Area 2 .....	5
Topic Area 3 .....	5
Topic Area 5 .....	5
Topic Area 6 .....	6
Topic Area 7 .....	6
General for Topic Area 5-7 .....	6

## Cost Share Requirements

### Cost Sharing or Cost Matching

Non-federal entities (NFE) are defined as institutions of higher education, non-profit entities, or for-profit entities. Any NFE that is proposed on a project team must provide cost share in proportion to the federal funding that the entity will receive on the project in accordance with EAct 2005, §988.

The cost share must be at least 20% of the total allowable costs for the research and development phase and 50% of the total allowable costs for the demonstration and commercial application phase and must come from non-Federal sources unless otherwise allowed by law. The sum of the Government share, including FFRDC/NL costs if applicable, and the recipient share of allowable costs equals the total allowable cost of the project. (See 2 CFR part 200 as amended by 2 CFR part 910 for the applicable cost sharing requirements.)

Red team testing is not considered an R&D activity, therefore cost share is not required for red team testing.

### How Cost Sharing Is Calculated

As stated above, cost sharing is calculated as a percentage of the Total Project Cost. FFRDC/NL costs must be included in Total Project Costs.

The following example shows the math for calculating required cost share for a project partner with \$150,000 in Federal funds with two phases requiring different Non-federal cost share percentages:

Federal share (\$) divided by Federal share (%) = Phase Cost

Each Phase must be calculated individually as follows:

Phase 1

\$75,000 divided by 80% = \$93,750 (Phase 1 Cost)

Phase 1 Cost minus federal share = Non-federal share

\$93,750 - \$75,000 = \$18,750 (Non-federal share)

Phase 2

\$75,000 divided by 50% = \$150,000 (Phase 2 Cost)

Phase 2 Cost minus federal share = Non-federal share

\$150,000 - \$75,000 = \$75,000 (Non-federal share)

## RC-CEDS 2019 Frequently Asked Questions

The calculation may then be completed as follows:

Phases	Entity	\$ Federal Share	% Federal Share	\$ Non-Federal Share	% Non-Federal Share	Total Project Cost
Phase 1	FFRDC	\$400,000	100%	\$0	0%	\$400,000
	NFE 1	\$75,000	80%	\$18,750	20%	\$93,750
	NFE 2	\$60,000	80%	\$15,000	20%	\$75,000
	FFRDC	\$100,000	100%	\$0	0%	\$100,000
Phase 2	FFRDC	\$100,000	100%	\$0	0%	\$100,000
	NFE 1	\$75,000	50%	\$75,000	50%	\$150,000
	NFE 2	\$60,000	50%	\$60,000	50%	\$120,000
	FFRDC	\$100,000	100%	\$0	0%	\$100,000
<b>Totals</b>		<b>\$970,000</b>		<b>\$168,750</b>		<b>\$1,138,750</b>

### Project Team

Project teams consisting of multiple FFRDCs will be required to designate one FFRDC as the prime recipient of the project.

The independent third-party red-team may not participate in the research and development phase of the project. In addition, the applicant must demonstrate that controls and best practice will be in place to ensure impartiality and credibility of the red team activities.

### Subrecipient Funding

The recipient will receive funding through the an agreement between NETL and the prime recipient. The prime recipient will be responsible for funding subrecipients from the funds provided from DOE/NETL.

### Concept Paper Cover Sheet

The concept paper may have a cover sheet that includes the name of the applicant institution, the primary investigator, team members, project partners, topic area addressed, and proposed funding. The cover sheet will not be counted towards the number of pages in the 3-page concept paper.

The above referenced cover sheet information does not need to be present in the 3-page concept paper. If this information is present on the cover sheet, it will be counted as meeting the RC requirement.

### Project Narrative in Full Proposal

The content of the full proposal is described in the research call. The project narrative is limited to 25 pages. All other sections (including the Extended Field Work Proposal) are considered attachments in the full proposal.

## Attachment 1 – NL Extended Field Work Proposal

Prospective applicants will submit a three (3) page concept paper electronically no later than May 6, 2019 PM Eastern Daylight time. DOE will review all Concept Papers submitted before the published deadline. Each Concept Paper offeror will receive notice to proceed or not to proceed with a full proposal no later than May 24, 2019, at 11:59:59 PM EST. Notification to proceed or not to proceed will be communicated from [CEDSLabCall@netl.doe.gov](mailto:CEDSLabCall@netl.doe.gov). Upon notification to proceed, the NL Extended Field Work Proposal attachment will be made available.

## Attachment 2 – Detailed Budget Justification

Prospective applicants will submit a three (3) page concept paper electronically no later than May 6, 2019 PM Eastern Daylight time. DOE will review all Concept Papers submitted before the published deadline. Each Concept Paper offeror will receive notice to proceed or not to proceed with a full proposal no later than May 24, 2019, at 11:59:59 PM EST. Notification to proceed or not to proceed will be communicated from [CEDSLabCall@netl.doe.gov](mailto:CEDSLabCall@netl.doe.gov). Upon notification to proceed, the Detailed Budget Justification attachment will be made available.

Each sub-awardee that is expected to perform work estimated to be more than \$100,000 must provide a detailed budget justification. The contribution of each sub-awardee must be seen in the contractual and cost share section of the prime recipient's detailed budget justification.

## Eligible Collaborators and Partners

Applicants may partner with other federal departments or agencies provided the applicant follows the primary guideline for collaboration.

Collaboration must involve one or more energy sector stakeholders, such as, but not limited to, the following, as a team member sub-awardee:

- suppliers and integrators of energy delivery control systems and components;
- energy utilities;
- energy asset owners and operators;
- providers of cybersecurity services for energy delivery control systems; and/or
- educational institutions.

Letters of commitment are strongly encouraged for all collaboration partners, but not required for the Concept Paper. Details of cost share are not required for letters of commitment at the concept paper stage.

## Proposals for multiple topic areas

Applicants may submit concept papers that address multiple topic areas.

The page requirements for concept papers and proposals as stated in the research call will still apply to concept papers and proposals that address multiple topic areas.

## Topic Area 2

DOE CESER funds cybersecurity research for a variety of topics. This Research Call covers electricity generation, transmission and distribution as well as the production, refining, storage and distribution of oil and gas. Topic Area 2 specifically focuses on making energy storage technologies more resilient, because of the recognition that growing R&D and use cases for energy storage will result in these technologies becoming more prevalent and integrated components of the future grid.

Both the security of energy storage system and its interaction with the grid are within scope of this Topic Area.

The Topic Area is not focused on a specific attack vector. The objective of the topic area is to enable energy storage systems to survive cyber or physical attacks while sustaining critical functions. An attack may directly impact the functions of an energy storage system or may use the grid as a vector to impact the functions of the energy storage system.

## Topic Area 3

For this topic area, anonymization is defined as a processed version of the data set in which some information is removed or made general so that information is not attributable to organizations/individuals, or a group of organizations/individuals. This can include hashing or masking the essential data. If it is not essential to the analysis, the data should be removed.

The anonymization includes but not limited to personally identifiable information (PII), device identifiable information (DII), and enterprise identifiable information (EII). Data that must be kept for context should be masked to protect the data but preserve context.

It is acceptable to include data pertaining to cybersecurity that is not collected over OT networks but this is not required. Data is collected solely from the IT networks out of scope. Data collected from the IT networks must pertain to OT networks.

The application , developed in this topic area, is not expected to run in BDP. The proposed solution should operate in AWS.

Projects addressing topic 3 do not need to include data protection as a part of their solution.

Proposed solutions can include additional methods to keep data confidential.

The scope of this topic area is limited to methods and techniques to allow processing data while also protecting the identity of customers, devices, and enterprises possibly found available in that data.

## Topic Area 5

DOE is not providing data. It is expected that the applicant will ingest standard formatted geospatial data.

The applicant is expected to choose an industry standard API from what is currently available. Whatever standard is selected by the applicant should be capable of integration for multiple tools/applications with geospatial capabilities.

## RC-CEDS 2019 Frequently Asked Questions

It is expected that all applicants responding to this topic area are aware of currently available energy sector visualization tools and can present proposals on how these tools can be leveraged or advanced to improve situational awareness.

### Topic Area 6

DOE is not providing the data or the tools. It is expected that FFRDCs will utilize collaborations with vendors and asset owner(s)/operator(s) to get access to the data and tools integrated into the BDP.

### Topic Area 7

DOE is not providing data. The applicant is expected to develop application(s) that can operate in the BDP.

### General for Topic Area 5-7

The transition to practice criteria for applications addressing topic areas 5-7 will include potential compliance with the Department of Energy (DOE) Office of the Chief Information Officer (OCIO) compliance requirements. Concept papers for topic areas 5-7 will not be required to address CIO compliance.

Applicants addressing topic areas 5-7 can assume that OT data will be put into BDP.