



**NM EPSCoR SMART GRID CENTER
INFRASTRUCTURE SEED AWARD PROGRAM
2021/2022**

Deadline: March 15, 2021

NM SMART GRID CENTER BACKGROUND

The New Mexico EPSCoR (Established Program to Stimulate Competitive Research) SMART Grid Center is a National Science Foundation–funded project that seeks to design a future electricity grid that is resilient, economic, and environmentally sustainable. The Center’s approach is to establish the architecture, networking, and decision-support elements to evolve existing distribution feeders into interconnected Distribution Feeder Microgrids (DFMs). Focus disciplines include power engineering, controls theory, optimization, machine learning, data analytics, knowledge representation and reasoning, economics and relevant social sciences, optoelectronics, high-performance computing, communications theory, and cybersecurity. The project also encompasses significant elements of workforce development and inclusion of under-represented groups (e.g., women and under-represented minorities) in the above-listed disciplines. For more information, please see nmepscor.org.

INFRASTRUCTURE SEED AWARD OBJECTIVES

The Infrastructure Seed Award program is designed to support transformative research and capacity building across New Mexico’s academic institutions in emerging smart grid areas (e.g., computer science, electrical and computer engineering, cyberinfrastructure, and workforce development). The awards can be used to purchase research and teaching equipment and to pay for student researcher salaries, research supplies, and student conference travel. The intent of these awards is twofold: 1) pursuing novel research thrusts that lead to increased research productivity and new external funding opportunities, and 2) increasing access to research experiences, particularly for undergraduate students from under-represented groups.

Infrastructure Seed Award proposals will be accepted on two tracks:

Track 1 – Research University: Faculty from New Mexico’s research universities (University of New Mexico, New Mexico State University, New Mexico Tech) are encouraged to submit applications to pursue novel research thrusts within the NM SMART Grid Center research areas and scope. Priority will be given to projects that will likely result in publications, research grants, and/or exceptional education or workforce development outcomes. Proposals will also be assessed for their impact on broadening participation in relevant research areas.

Track 2 – Primarily Undergraduate Institution: Faculty from primarily undergraduate institutions (PUIs, e.g., two-year colleges or four-year comprehensives) are encouraged to submit applications for projects that expand access to research experiences for diverse undergraduate students. Priority will be given to projects that pursue research thrusts relevant to the NM

SMART Grid Center and increase engagement of women and under-represented minority students, particularly undergraduates, to research experiences.

AWARD INFORMATION

Maximum Funding Per Award: \$50,000, including any allowable indirect costs (F&A)

Project Duration: 12 months

Estimated Number of Awards: Number of awards will be based on quality of proposals received and available funding; it is anticipated that one award will be made per year for Track 1 and one award will be made per year for Track 2.

Anticipated Start Date: June 1, 2021

ELIGIBILITY

Track 1: Any faculty member at a research university in New Mexico (University of New Mexico, New Mexico State University, or New Mexico Tech) is eligible to apply; current participation in an NM EPSCoR-funded project is not required. Faculty with currently funded Seed Awards are not eligible to apply.

Track 2: Any faculty member at any public (including Bureau of Indian Education) two or four-year New Mexico institution of higher education that does not grant PhDs is eligible to apply; current participation in an NM EPSCoR-funded project is not required. PIs are encouraged to establish connections to research university faculty and include faculty from research universities as collaborators or Co-PIs, but all funds will be awarded to the PUI. Faculty with currently funded Seed Awards are not eligible to apply.

FORMAT OF PROPOSAL

Proposals must be submitted in digital format in MS Word or as a PDF file, using a standard font in 11 point or larger, with one-inch margins. A maximum of 7 pages, excluding budget and appendices, is allowed and must include the information below. Proposals that exceed the page limit will not be reviewed.

Proposal Cover Page (1 page)	<ul style="list-style-type: none">• Proposal Title – Indicate if proposal is Track 1 or Track 2• Lead Investigator, Co-Investigator(s), primary affiliation, and all contact information• Date of Submission
Project Summary (1 page)	<ul style="list-style-type: none">• Half-page summary statement appropriate for general audiences (maximum 250 words)
Project Description (max 5 pages)	<ul style="list-style-type: none">• Objectives of proposed work and relevance: Outline objectives of the proposed work and how they relate to NM SMART Grid Center research priorities and goals.• Research plan: Describe the research framework, hypothesis, research questions, and methods and procedures for the work.

	<p>Describe the activities, and include a timetable for their completion. If relevant, include how any purchased equipment will be used for research and education.</p> <ul style="list-style-type: none"> • Outcomes and benefits: State anticipated outcomes and benefits (e.g., knowledge created, anticipated publications or proposals, number and type of undergraduate research opportunities created, number of students impacted, links to further STEM education opportunities created) and elaborate on how the proposed scope, activities, and/or equipment purchases will increase research capacity in NM. • If the investigator already receives support from the NM EPSCoR SMART Grid Center, explain how the Infrastructure Seed Award is different from other EPSCoR funding.
Budget and 1-page Justification (not included in 7 pages)	<ul style="list-style-type: none"> • Budgets are to be submitted in NSF format. Budgets may include: equipment; undergraduate or graduate student salaries, fees, and tuition; supplies; travel; and up to one week of summer salary support for one faculty member. The budgets must include appropriate fringe benefits on all personnel salary and must include allowable F&A. Proposers should use the approved F&A rate for their institution; F&A <i>cannot</i> be waived.
Appendices (not included in the 7 pages)	<ul style="list-style-type: none"> • References cited • Curriculum vitae (NSF biosketch style) of all investigators (maximum 2 pages per person) • Statement agreeing to provide a final report within 2 months of award completion as well as timely responses to additional requests for information from the NM EPSCoR State Office or External Evaluator • Catalog information on equipment to be purchased

INVOICING TERMS

For non-UNM entities, monthly invoices with supporting documentation will be submitted to the NM EPSCoR State Office for reimbursement of allowable costs, using a template provided by the NM EPSCoR State Office. All funds must be expended within one year from the start date of the award, unless written approval is obtained from the NM EPSCoR State Office. Awardees should ensure that costs incurred to the Seed Award are allowable, allocable, and reasonable.

REPORTING REQUIREMENTS

Grantees are required to submit a final report (1–3 pages) within 2 months of the end of the award period. The report should detail the activities, equipment purchased, publications, new courses developed, extramural grant application(s), and/or extramural grant awards arising from support. Include names, degrees, and demographic information for any students supported by the award. In addition, grantees are required to provide other information to the NM EPSCoR State Office when requested, and provide information on activities to the NM EPSCoR External Evaluator (The Mark).

PROPOSAL REVIEW

External reviewers will review proposals, using a process overseen by the NM EPSCoR State Office. Proposals will be reviewed for relevance to [NSF merit review criteria](#); the NM SMART Grid Center's goals and objectives, including a diversity of institutions engaged in the overall NM SMART Grid Center effort; justification of budget; and potential for increasing students' access to research experiences, especially for undergraduates, women, and underrepresented minority students.

PROPOSAL SUBMISSION

Proposals should be submitted as a single complete document with any graphics embedded in the document. Submit the proposal document via the NM EPSCoR website form:

<https://www.nmepscor.org/infrastructure-seed-award>

Proposals must be submitted electronically by 5:00 pm MDT March 15, 2021.

Proposers are encouraged to contact the New Mexico EPSCoR Associate Director with questions:

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