



U.S. NATIONAL SCIENCE FOUNDATION
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NSF 24-115

Dear Colleague Letter: Research Coordination Network for a University-Community Climate Action Network (RCN-UCCAN)

August 9, 2024

Dear Colleagues:

With this Dear Colleague Letter (DCL), the U.S. National Science Foundation's Directorate for Technology, Innovation and Partnerships (TIP) and the Department of Energy's Advanced Materials and Manufacturing Technologies Office (AMMTO) within the Office of Energy Efficiency and Renewable Energy (EERE) announce their intent to together establish a strategic leadership network on climate action engagement aimed at the transition from the linear economy of today to a circular economy of tomorrow, including one that will better integrate university research and community needs. With this investment, NSF and DOE aim to organize "Climate Action Ambassadors" into an effective national network of professionals to develop evidence-based models, program concepts and recommendations that share, implement, and scale university-community partnerships in this national priority area.

BACKGROUND

The expertise of the Ambassadors will span climate action strategies across all areas of science and engineering for mitigation (including circular design and circular economy principles), resiliency, and/or adaptation, resulting in a new multi-disciplinary, multi-sector Research Coordination Network (RCN) called a **University-Community Climate Action Network (UCCAN)**. Ambassadors will be geographically distributed and represent the diverse range of communities (e.g., cities, towns, tribal nations) as well as U.S. Institutions of Higher Education (IHEs), referred to in this DCL as colleges and universities (e.g., Land Grant, public, private, community, technical, Minority Serving Institutions) across the nation.

NSF and DOE will invest in one **RCN** proposal to develop new connections and collaborations to accelerate and elevate climate action through university-community partnerships and identify untapped resources to ensure environmental justice for unserved

and under-served communities. This RCN-UCCAN will provide a framework for engaging students and participating local communities to co-create and scale successful proof-of-concept projects. The RCN-UCCAN also will create the "connective tissue" to build upon existing efforts and support collaborations and communication between campuses with governments, industry, and their surrounding communities to enable fast response, replication, and scaling of climate mitigation, resilience, and/or adaptation solutions nationally.

Ambassadors will build upon the momentum and findings of an initial meeting convened by NSF together with other federal departments, agencies, and offices on March 8-9, 2023. Specifically, that [forum](#) was a first step in an inclusive effort to marshal the strengths of campuses, including the **nearly 20 million students** enrolled in the U.S. post-secondary education system, to help address climate mitigation, resilience, and/or adaptation, environmental sustainability, and environmental justice, and encourage and support their innovation and entrepreneurship. Students seek access to the translational knowledge and skills to address issues related to climate and environment in their communities, which this RCN-UCCAN aims to uniquely make possible.

PROPOSAL GUIDANCE AND SUBMISSION REQUIREMENTS

The RCN-UCCAN should aim to develop a national strategy connecting our colleges and universities with their communities to share knowledge and resources across a network that spans a range of institution types. Of particular interest is ensuring that everyone, regardless of location or affiliation, has the opportunity to address the goals outlined in this DCL. Researchers and practitioners across their communities are especially encouraged to communicate, collaborate and exchange information for action on climate mitigation, resilience and adaptation through the RCN, including with international partners.

Proposals responding to this DCL should be prepared in accordance with the guidance contained in the [RCN solicitation](#) including the seven guidance items outlined in Section II. Program Description. When submitting the proposal, select the RCN solicitation and then direct the proposal to the Special Projects Program in the Division of Innovation and Technology Ecosystems (ITE) within the TIP directorate. Proposal titles should begin with "RCN-UCCAN:" followed by a substantive title. RCN-UCCAN proposals should be received by November 15, 2024 (due by 5 p.m. submitting organization's local time).

Proposals should include a network of named Ambassadors who will contribute a substantial portion (minimum of 20% with a greater commitment preferred) of their time to the RCN-UCCAN. For instance, coordinating sabbatical or other similar time away from normal duties is encouraged. Each Ambassador who is either a faculty or practitioner (such as a Director or Vice President of Sustainability) should form a substantive collaboration with a community Ambassador focused on climate action and facilitating interactions with students. Each

named Ambassador should also enlist the help of one or more undergraduate students, graduate students, and/or post-doctoral fellows for a minimum of 10 hours per week. Additionally, to ensure co-design and co-creation of solutions, specific funding to support a community leader to serve as an Ambassador alongside the university Ambassador for a minimum of 20% of their time should be included. Further, proposals that show substantive reach and collaboration with K-12 networks in the participating communities/regions are highly encouraged.

For purposes of this DCL, any RCN-UCCAN proposal should address the proposer's ability to contribute to the following **deliverables** envisioned for the RCN-UCCAN:

1. A connected university-community climate action network bringing together multiple universities, or regional groups of universities, with their local communities to develop climate action solutions;
2. An implementation governance structure to coordinate the multi-sector effort that will create a self-sustaining effort;
3. Development and implementation of a coordinated plan for linking/utilizing existing test beds to support on-campus experimentation and experiential learning as an important step towards real-world deployment and validation in the following areas:
 - a. Campus as a Living Lab/Testbed: activities would include assessing campus-generated climate solutions, piloting commercial innovations, refining models and tools through campus and community testing, and importantly, empowering student-led innovation for climate solutions. Galvanizing the innovative and problem-solving capabilities of our nation's 20 million students and supporting their entrepreneurial efforts and continued contributions to all fields of STEM through a lens of environmental sustainability will be encouraged.
 - b. Campus Sustainability and Resilience: activities would include decarbonizing the built campus environment, modernizing transportation, considering the campus as a functioning ecosystem and making campuses more resilient.
 - c. Climate Action in the Classroom: activities would include engaging in climate across the curriculum such as circular design and circular economy, programs and majors for climate action leaders, skilled workforce development and public engagement, and informal science education.
 - d. Providing Climate Services to Communities: with emphasis in mitigation/prevention, activities would include local transitions to clean energy and renewable technologies, development of climate-resilient agriculture and ecosystems, building capacity for community-based climate research and action, and partnerships for mitigation, resilience and adaptation.
4. New models for implementation and scaling of pilots across institutions of higher education and from those institutions to their communities and their states for the four themes.

The essential work of the Ambassadors will be to leverage existing and future climate solutions and strengthen the ties between the Universities and their respective communities as well as create a strategic network across all institutions to leverage best practices, build new collaborations, and share resources. The RCN-UCCAN thus formed will be the result of the efforts of the Ambassadors. It is further anticipated that the RCN-UCCAN network would grow each year with external funding from sources beyond NSF. Such growth can lead to a new set of Ambassadors to build upon, update, and/or execute the strategy to mitigate further climate change and build capacity for resilience and adaptation. In this way, the reach of coordination and cooperation across the US and internationally can be extended and sustained.

REVIEW AND AWARD INFORMATION

Proposals should be prepared and submitted to NSF as described above. NSF will manage and conduct the review process of proposals in accordance with standard NSF policies and procedures. If selected for funding by NSF, the award will be made and managed by NSF with funds transferred from DOE. NSF anticipates issuing one cooperative agreement for up to two years for up to \$2 million, subject to the quality of proposals and availability of funds.

QUESTIONS

For questions about this DCL, please contact Linda Molnar, program director in TIP/ITE, at lmolnar@nsf.gov.

Sincerely,

Erwin Gianchandani
Assistant Director for Technology, Innovation and Partnerships