



**CALL FOR PROPOSALS FOR
2017-18 UVM FEDERAL RESEARCH GRANTS**

RFP Issued: December 7, 2017

There is no Specific Proposal Due Date

(proposals are reviewed as received and awarded subject to funding availability and cost share)

INTRODUCTION

The National Center for Sustainable Transportation (NCST) is a United States Department of Transportation (USDOT) National University Transportation Center. The Institute of Transportation Studies, University of California, Davis (ITS-Davis) leads the NCST in partnership with:

- University of California, Riverside (UCR),
- University of Southern California (USC),
- California State University, Long Beach (CSULB),
- Georgia Institute of Technology (Georgia Tech), and
- University of Vermont (UVM).

The NCST is committed to advancing the sustainability of transportation through cutting edge research, direct policy engagement, and education of our future leaders.

ELIGIBLE APPLICANTS

Project awards will be made to individuals or teams of researchers at UVM. **You must be approved to serve as a Principal Investigator (PI) at UVM to apply for an NCST faculty research grant.** Other UVM researchers may be included in the proposal as well; however, the PI remains responsible for the project and submission of the final report. PIs may submit only two proposals in any 6-month period, though they may participate in other proposals as a co-investigator.

ELIGIBLE PROJECTS

The goal of the NCST is to produce research that directly supports the efforts of policy makers and professionals to improve the sustainability of the transportation system. Proposed research projects, SEED projects and white paper projects at UVM must fall under one or more of the following NCST research foci:

- Environmentally Responsible Infrastructure and Operations
- Multi-Modal Travel and Sustainable Land Use
- Zero-Emission Vehicle and Fuel Technologies
- Institutional Change

Within the NCST team, UVM contributes specifically to the following topics as advised by our external advisers as the NCST was formed in 2013:

- Adaptation planning and resiliency
- Long distance or intercity travel
- Non-motorized transportation
- Vehicle tailpipe emissions
- Workforce development

Proposals in these areas are particularly encouraged from UVM, but topics beyond these that fit within NST themes will also be eligible for funding. Proposers are encouraged to send and discuss a short description of their research project idea with Dr. Aultman-Hall, NCST's Associate Director at UVM.

Within the new grant, starting in 2016, across all campuses of the NCST there is a particular interest in funding research in the following emphasis areas.

- **New Mobility** (Including connected, shared, and/or automation of vehicles)– Examples of projects include but are not limited to behavioral implications of new mobility (who will use it and under what conditions); the potential for new mobility to meet the needs of rural areas and mobility disadvantaged travelers, as well as interregional travel needs; the potential to reduce vehicle use (by increasing load factors in cars, vans, buses, and rail); future funding scenarios that address new technologies and mobility services; and the potential synergies between ride-sharing, automation, and electrification that could lessen environmental impacts and improve access for disadvantaged riders while reducing transportation costs.
- **Environmental Review** – Examples of projects include more proactive approaches to identifying environmental justice issues and an understanding of what types of data should be collected; and strategies for incorporating environmental analysis and mitigation early in the planning process.

Applicants are encouraged to review NCST's current portfolio of research projects ([link](#)) and white papers ([link](#)) to gain a better understanding of the type of projects the NCST is interested in funding. Proposed projects may be in any discipline and multidisciplinary topics are encouraged when appropriate. Note that UVM's research foci are only a portion of the full sustainability topics covered by the broader research consortium.

Three types of proposals will be considered:

- **Seed grant proposals** for new ideas that are not well developed but address an important topic with potentially large impact, for a maximum of \$15,000 (direct costs)
- **White paper** proposals to synthesize existing evidence and identify research gaps for critical policy questions, for a maximum of \$25,000 (direct costs). White papers are aimed at a broad audience of professionals and policy-makers. The proposal should include a meeting with policy-makers, researchers, and/or practitioners as part of the white paper development process.

- **Research Project** proposals by one or more PIs for a particular project, for \$50,000 (direct costs) each for one year (2017-2018). In addition to one-year, one-campus proposals, the following proposals are also encouraged:
 - Two-year proposals: Proposals for two-year projects may be submitted, but funding for a second year will be contingent on the availability of funding and performance on the project in the first year. Two-year proposals must specify a stand-alone deliverable due at the end of Year 1. Prepare separate budgets for Year 1 and Year 2.
 - Collaborative proposals: Proposals involving collaborations with researchers at NCST partner institutions (listed in the top paragraph of page 1) may be submitted. The same proposal should be submitted by the PI at each institution. The proposal should outline which work will be completed at each institution and whether components could be completed independently. Separate budgets for each institution should be submitted. Non-UVM researchers should not be included in the UVM budget. Proposal review will be coordinated between institutions, and the decision to fund the collaborative proposal in its entirety or in part will be made by the NCST Executive Committee.

BUDGET, FUNDING LEVELS, GUIDELINES, AND RESTRICTIONS

Funding levels for project proposals will typically range up to \$50,000 (direct costs) per year, though larger amounts may be awarded in special circumstances. Budgets for project proposals may include salary for one tenure track faculty member for one half month, staff researchers for up to four months per year; teams of investigators may receive pro-rated shares of these salary levels (e.g. 0.25 months for two tenured faculty with 2 months for each of two staff researchers). Project proposals that include funding for one graduate student researcher for 12-months and the associated UVM tuition will be given preference. If a graduate student is not funded, the PI should discuss other types of student involvement or the reason why student involvement is not appropriate.

An amount not to exceed \$4,000 may be included for office/lab supplies and travel support necessary for the conduct of the research and presentation of research findings at one academic or professional meeting. Permanent equipment is not allowed. International travel requires special permission from US DOT and will be approved only in cases where it is essential to the project.

Funding levels for white papers are limited to \$25,000 in direct costs, and the full amount will be awarded only if clearly justified by the proposal. White paper proposals should not include travel; travel for dissemination of white papers will be funded through the engagement program of the NCST. Limited research expenses may be included in white paper proposals if clearly justified.

As described below, all proposals must include a policy and practice impact plan, and PIs are expected to actively participate in the Center's engagement activities. **Project budgets must include researcher time associated with these activities.**

As described below, all funded projects will be subject to federal data management requirements and the NCST data management plan. **Project budgets must include research time associated with preparing data according to these requirements.**

Full UVM federal indirect charges, at 56% for the main grant award's start date in fiscal year 2018, are applied to all projects.

ALL PROJECTS MUST MEET THE REQUIRED 1:1 NON-FEDERAL COST SHARE OF THE USDOT PROGRAM. Both the Direct and Indirect grant funding must be cost shared.

PERIOD OF PERFORMANCE

Successful applicants for project proposals receive **one-year grants**, with funding provided for the fall term or earlier, pending the release of federal funds. Project completion dates will be one year from the start date. As discussed in more detail in the "Reporting Requirements" Section below, **each annual grant must produce useful products** including a final research report for the work and a 2-page Policy Brief ([here are examples of completed policy briefs](#)). **Failure of the PI to submit final products on schedule will weigh heavily on the consideration of future applications from this PI.**

PROPOSAL CONTENT

Proposals must include the following:

- 1) Cover page – see attached.
- 2) Title page and abstract (not to exceed 200 words)
- 3) A description of proposed research - **not to exceed five pages, single-spaced, with minimum 11-pt font and 1" margins**. Include page numbers on each page. The description of the research **must** include the following subheadings:
 - **Project Purpose:** Give a brief description (no more than 1 page) of the problem the project will address and state the goals of the project in relation to this problem. For collaborative projects, explain the purpose and value of the collaboration.
 - **Relevance to Sustainable Transportation:** Briefly describe (no more than ½ page) how achieving the goals of the project will help to enhance the sustainability of the transportation system.
 - **Methodology:** Give an overview (2-2 ½ pages) of the methodology to be employed and key features of the approach in sufficient detail that reviewers can evaluate your approach. In particular:
 - If the study relies on existing data, describe the data to be used and its sources.
 - If the study involves original data collection, explain the methods for collecting data, including site selection, sampling, and measurement methods (e.g. observations, surveys).
 - If the study involves the development of a model, explain the process for developing as well as validating the model.

- If the study involves the application of a model, explain the nature of the model in terms of inputs and outputs as well as its internal workings (briefly, in easily understandable terms).
 - If the study involves scenario testing, explain the process for defining the scenarios.
 - Task Descriptions: Provide detailed descriptions of each of the distinct tasks of the project (½ – 1 page) and include a Task Schedule using the template provided. For collaborative proposals, provide a brief explanation of the relationship of the tasks to the tasks being proposed by collaborators. For two-year proposals, indicate which tasks will be completed by the end of year one and provide a clear justification for a two-year request.
 - Products and Deliverables: Products and deliverables must include but are not limited to a final research report and 2-page Policy Brief. Two-year proposals must specify a stand-alone deliverable due at the end of Year 1.
 - References (not included in the 5 page limit)
- 4) A policy and practice impact plan – **not to exceed one page, single-spaced, with minimum 11-pt font and 1" margins**. The plan must include the following subheadings:
- Relevant Policies and Agency Activity: Provide a brief description of the policy landscape and current or anticipated government agency activity relevant to your research here (including regulations, pending legislation/decisions, specific federal agency plans/initiatives, protocols or standards, etc.). Describe the need, opportunity, and/or urgency for science-based input to inform policy or practice development, and the probable impacts your research will have.
 - Engagement Strategy: Provide description of how you will communicate the research and engage with policy-makers and /or practitioners to maximize the impact and understanding of your research. Description should include: target audience (e.g. public agencies, industry, environmental NGOs, etc.); engagement activities (e.g. providing briefing(s) to state and/or federal policymakers, presenting via NCST webinar, establishing an external advisory board for your project, presenting at practitioner-focused conferences (please name specific conference), etc.); expected use of the research by decision makers and/or practitioners; and desired outcomes. It is expected PIs will include funding in their budget to support engagement activities.
- 5) Project Budget – use the UVM InfoEd template; proposal routing is required but will be conducted outside of InfoEd as these projects are sub-grants to an existing grant. Budgets must show approval of cost share funding by the PIs chair and dean, the external agency and other individuals as needed. For two-year projects, include separate Year 1 and Year 2 budgets. For collaborative projects, include only costs to be incurred at UVM; do not include non-UVM researchers. Sylvie Butel at CEMS will review these internal budgets.
- 6) Staffing and Collaboration Plan – not to exceed one page. The plan must include the following:
- Describe the proposed role of each of the research participants, including student participants, including both budgeted and pro bono time on the project.

- Describe project-related collaborations with other NCST researchers, researchers at the partner institutions of the NCST, and/or other organizations.
- 7) 2-page CV for the Principal Investigator
 - 8) Letters of participation, or match funding commitment (if applicable, attached, any number and length). Letters of participation are required for any project that involves data collection from private or public entities, access to private or public facilities, or cooperation of private or public entities.

PROPOSAL SUBMISSION

Proposals may be submitted at any time. Proposals must be emailed as a single pdf file with file name “NCST_Proposal_<last-name>”. Email your single PDF proposal file with the correct file name and final budget to: laultman@uvm.edu and sbutel@uvm.edu.

The NCST program will reject proposals that: (1) do not conform to eligibility requirements, (2) are incomplete, (3) do not conform to thematic requirements, (4) do not have committed matching / cost share funds.

REVIEW PROCESS AND SELECTION CRITERIA

Projects selection will be competitive and based on a peer-review evaluation, programmatic priorities, and prior performance of the PI. Proposals will compete both within topics and across topics. The NCST does not guarantee that proposals will be funded in all topic areas, or that any proposal will be funded. **The UVM total budget per year is limited and only 1-3 sub-projects per year are expected.**

Proposals will be reviewed by at least two qualified individuals, including university researchers, senior research professionals with expertise broadly relevant to the topic addressed by the proposal, and/or transportation practitioners. The NCST will be building a list of reviewers with expertise in a variety of fields related to the NCST’s research tracks and will draw upon this list in selecting reviewers. In addition, each applicant is required to submit names of four potential external reviewers from four different institutions with their proposal. In view of the diversity of potential topics and the diverse backgrounds of the reviewers, **it will be important for the proposal to make its case in terms that can be understood by non-specialists.**

Reviewers will be asked to rate each proposal as “definitely should be funded”, “fund if possible”, or “lower priority funding”, or “do not fund” based on ratings on the following criteria, each evaluated on a five point scale from “poor” to “excellent”:

1. Is the topic addressed by the proposal important for environmental sustainability?
2. Does the proposed project fill an important gap in the research?
3. Is the proposed research methodology scientifically sound as well as feasible?
4. Will the research advance professional practice and/or inform decision making related to current policy opportunities?

The NCST Director and Associate Directors will make final project selections, taking into account reviewer evaluations, programmatic priorities, prior project performance, and funding availability. Other criteria that will also be considered include:

- Student Involvement: Every research project ideally should include funding for at least one graduate student researcher.
- Commitments of participation (if applicable): Any project that involves data collection, access to facilities, or cooperation of a private or public entity must include a letter of participation from the entity.
- Collaboration: The NCST encourages interdisciplinary proposals, proposals involving collaborations across NCST partner institutions, and proposals that involve outside organizations. Such proposals will receive priority consideration.

Some proposals may be funded at a reduced level or funding may be contingent on a revision to the proposal. The external review comments will be provided to the applicant after the announcement of the awards. Grants will not be awarded to PIs with outstanding deliverables (draft or final report; research brief) on prior NCST grants.

LOGISTICS FOR AWARDS

Funding decisions are expected to take 1-3 months. Once the budget has been approved by NCST and a start date established, work on the project may commence. It is expected that the project will be completed within a year of the start date. PIs must provide a reasonable justification for any delays in the use of the funds, or the funds may revert to the NCST.

All funds will be administered by the subproject's PI's department with a peoplesoft account assigned for every project for its grant funds and its cost share. Any expenditures, such as payroll, purchase orders, and/or reimbursements, will be processed through the Awardee's home department following established university policies and procedures. Subproject PIs are responsible for ensuring expenditures and cost share requirements of the federal grant. Subproject expenditures will be reviewed by the main grant PI and the grant administration team at CEMS. **Expenditures that are deemed unallowable are the responsibility of the subproject PIs' home department. The main grant PI will review the sub-project expenditure reports as provided by the CEMS grant team routinely to ensure adequate spending flow and discuss expenditures with the subproject PI as needed.**

ADDITIONAL NCST POLICIES

Researchers supported by the NCST are expected to actively participate in the Center's engagement activities. In addition to activities outlined in a project's policy and practice engagement plan PIs may be called upon to participate in workshops, forums, webinars, briefings, and other events sponsored by the NCST.

Researchers must acknowledge the support provided by the NCST in all presentations and publications resulting from the research, per instructions to be provided to PIs after the grants have been awarded. *A suggested acknowledgment is "This research was funded by the USDOT thru the UTC program, the National Center for Sustainable Transportation, led by UC Davis in partnership with the University of Vermont."*

Results of the project may not be provided to other funding agencies or firms without full disclosure of NCST funding. In turn, the NCST will not knowingly support research that is being funded or proposed for funding in whole or in part by other agencies or organizations without a specific agreement for joint funding. Failure to disclose other proposed or in-hand research funding for a project substantially similar to an NCST project is grounds for termination of an NCST grant. Multiple sponsors are encouraged, but full disclosure is required.

Graduate student contributions to research projects must be acknowledged in any publication resulting from research using NCST funds. Acknowledgment is generally expected to take the form of co-authorship of reports and articles, but could be by footnote depending upon the nature and extent of student contributions. For further information please contact the NCST Director or Associates Directors.

REPORTING REQUIREMENTS

The NCST must submit annual mid-year and year-end reports to USDOT. Each report includes a status update on all research projects. The year-end report also must provide data on all

students funded by the NCST, and all publications and conference presentations stemming from NCST research. Accordingly, in accepting an NCST grant, the PI agrees to the following:

- **Project Information:** At the outset of the project, the PI agrees to review and approve a Project Information Sheet prepared by NCST staff.
- **Quarterly Progress Reports:** The PI agrees to submit brief quarterly progress reports until the project is completed, as per the progress report template to be provided. The PI must submit the quarterly progress report to the NCST Program Manager. Progress reports are due on Jan. 15, April 15, July 15, Oct. 15 of each year in which the project is in progress or producing associated publications.
- **Final Research Report:** The PI agrees to complete a final research report using the template provided by the project end date in addition to any other products specified. This report will be posted on the NCST website and submitted to the federal database.
- **Policy Brief:** The PI agrees to prepare a 2-page policy brief that summarizes the findings and policy implications of the project, using the NCST template. The policy brief will be posted on the NCST website. You can view examples of completed policy briefs via this [link](#).
- **Follow-up Reports:** The PI agrees to submit brief follow-up reports for the project every six months until presentations, publications, and indications of use from the research cease.
- **Papers and Reports Produced with NCST funding:** The PI agrees to provide the NCST with copies of all papers and reports produced with NCST funding, including project-related items that are completed after the grant has ended. The PI is encouraged to forward copies of any media produced about the project, include magazine articles and blog coverage, as these can contribute to outreach efforts by the NCST.
- **Student Information:** The PI agrees to provide information on all students engaged on NCST-sponsored projects, whether funded or unfunded.

The NCST will provide information on the required format for progress reports and final summary reports on its web page or via email, and will send reminders to PIs prior to report deadlines. PIs must be current on all of their reporting requirements before subsequent NCST grants will be awarded to the PI.

DATA MANAGEMENT REQUIREMENTS

All UTC programs, including the NCST, are now required to comply with federal data management requirements. Final data from all federally funded NCST projects must be submitted to a data repository that provides public access to that data. As a condition of funding, PIs are required to prepare their data for the repository, including the removal of all personal identifiers as per the requirements of the Institutional Review Board (IRB), conversion to non-proprietary formats, and preparation of meta-data. PIs are directed to the main NCST data management plan.

FURTHER INFORMATION

For further information, UVM NCST Associate Director Lisa Aultman-Hall can be reached at laultman@uvm.edu and NCST Director Susan Handy can be reached at slhandy@ucdavis.edu.

For further information on NCST engagement and outreach activities, contact NCST Policy Director Laura Podolsky at (530) 752-7248 or lpodolsky@ucdavis.edu.

Visit www.ncst.ucdavis.org for information on current projects, center organization, and more.



COVER PAGE FOR UVM NCST RESEARCH GRANT PROPOSALS

PROJECT TITLE:

PRINCIPAL INVESTIGATOR

Name

Dept.

Phone / Fax

E-mail

OTHER KEY ACADEMIC PARTICIPANTS

Name

Dept.

Phone / Fax

E-mail

ABSTRACT (200 word max)

Key Words (provide 5):

Contribution to Sustainable Transportation (1 sentence):

UVM NCST Research Foci Addressed (check all that apply):

- Environmentally Responsible Infrastructure and Operations
- Multi-Modal Travel and Sustainable Land Use
- Zero-Emission Vehicle and Fuel Technologies
- Institutional Change
- Adaptation planning and resiliency
- Long distance or intercity travel
- Non-motorized transportation
- Vehicle tailpipe emissions
- Workforce development
- New Mobility
- Environmental Review

Total Direct Cost: \$ _____

Is this a two-year proposal? ___ yes ___ no

Type of Proposal: ___ White Paper Proposal ___ Seed Grant ___ Research Project Proposal

Is this a collaborative proposal? If yes, list collaborators and schools:

Other Funding for the Proposed Research:

Source(s):

Proposal(s) status: ___ funded ___ under review ___ to be submitted

Potential Reviewers: Reviewers cannot have direct involvement in proposed research and cannot be former students or advisors of the PI(s). Include at least two from academia; other reviewers can be practitioners from industry, public sector, or non-governmental organizations:

Name	Title	Institution/Orgn	e-mail address