

## **NOTICE OF FUNDING OPPORTUNITY FOR FISCAL YEAR 2023 RESEARCH PARTNERSHIP ON CLIMATE CHANGE AND TRANSPORTATION**

**AGENCY:** U.S. Department of Transportation (U.S. DOT)

**ACTION:** Notice of Funding Opportunity for a Research Initiative on Climate Change and Transportation

**FUNDING OPPORTUNITY NUMBER: CLIMATEANDTRANS**

**ASSISTANCE LISTING NUMBER: 20.946**

**TOTAL AMOUNT AVAILABLE:** This NOFO will result in the award of one (1) cost-reimbursable cooperative agreement for three years, with the opportunity for extension up to five years total. U.S. DOT anticipates Federal funding in the amount of \$2,500,000 for year one and up to \$2,500,000 for years two and three, subject to availability of funds.

**DEADLINE FOR APPLICATIONS:** November 27, 2023, at 11:59 PM Eastern Time.

**WEBINAR:** U.S. DOT plans to conduct outreach regarding this program in the form of a virtual meeting on Friday, October 27, 2023, at 2:30 PM Eastern Time. To join the Webinar, RSVP at [https://usdot.zoomgov.com/webinar/register/WN\\_8xEHjvy5RqabkEo5PIMQ5w](https://usdot.zoomgov.com/webinar/register/WN_8xEHjvy5RqabkEo5PIMQ5w). Access to the audio portion of the Webinar can be accessed upon registration. The Webinar will be recorded and posted on U.S. DOT's Website at <https://www.transportation.gov/priorities/climate-and-sustainability/dot-climate-change-center>. A Telephone Device for the Deaf (TDD) is available for individuals who are deaf or hard of hearing at TBD.

**QUESTIONS DUE DATE:** Any questions regarding this NOFO are due to U.S. DOT via [ClimateResearch@dot.gov](mailto:ClimateResearch@dot.gov), no later than November 20, 2023, at 11:59 PM (Eastern). Questions and responses will be posted to <https://www.transportation.gov/priorities/climate-and-sustainability/dot-climate-change-center> and grants.gov.

**SUBMIT APPLICATIONS TO:** U.S. DOT uses [www.grants.gov](http://www.grants.gov) for receipt of all applications. Applicants must register and use the system to submit applications electronically. Applicants are encouraged to register in advance of the submission deadline and to register to receive notifications of updates/amendments to this Notice. Approval of user registrations for the site may take multiple weeks. It is the Applicant's responsibility to monitor for any updates to this Notice.

### **U.S. DOT POINT OF CONTACT:**

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Each section of this notice contains information and instructions relevant to the application process. Applicants should read this notice in its entirety so that they have the information they need to submit eligible and competitive applications.

U.S. DOT will not review applications in advance, but technical questions and assistance may be submitted to [ClimateResearch@dot.gov](mailto:ClimateResearch@dot.gov). U.S. DOT will post answers to questions and requests for clarifications at [Grants.gov](https://www.dhs.gov/grants) under this NOFO's page.

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NOTE: This notice contains collection-of-information requirements subject to the Paperwork Reduction Act. The collection of information through the use of Standard Forms 424, 424A, 424B, 424C, 424D, and SF-LLL has been approved by OMB under 2105-0520. Notwithstanding any other provision of law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the Paperwork Reduction Act, unless that collection displays a currently valid OMB control number.

## SECTION A. PROGRAM DESCRIPTION

### 1. STATEMENT OF PURPOSE

U.S. DOT hereby requests applications to result in the award of a new Cooperative Agreement, that will establish a research initiative on climate change and transportation. This opportunity is being issued under assistance listing number 20.946.

### 2. LEGISLATIVE AUTHORITY

This funding opportunity will provide extramural research support for the existing DOT Climate Change Center (implementing 49 USC 102(g), which is a coordinating body internal to DOT led by OST-R and the Office of the Assistant Secretary for Policy.

49 U.S.C. 102(g), “Office of Climate Change and Environment,” establishes an office to conduct “department-wide research” on climate change. The DOT Climate Change Initiative is implementing this requirement.

The Legislative Text and Explanatory Statement, Division L-Transportation, Housing and Urban Development, and Related Agencies Appropriations Act, 2022 (H. Comm. Print 47-048; April 2022) accompanying the Consolidated Appropriations Act, 2022 (P.L. 117-103; March 15, 2022), provides funding for this activity.

Under 49 U.S.C. 330, “Research Activities,” at 49 U.S.C. 330(e)(2)(a)A-(C), “the Secretary may . . . carry out, on a cost-shared basis, collaborative research and development to encourage innovative solutions to multimodal transportation problems and stimulate the deployment of new technology with - non-Federal entities, including State and local governments, foreign governments, institutions of higher education<sup>2</sup>, corporations, institutions, partnerships, sole proprietorships, and trade associations that are incorporated or established under the laws of any State.” These authorities are to be executed in support of this research activity.

### 3. BACKGROUND

The climate crisis poses a significant threat to life on the planet, with impacts on human health, ecosystems, infrastructure, and economies globally. It is critical that greenhouse gas emissions be reduced dramatically and quickly to avoid the worst impacts of climate change. Transportation is a leading source of greenhouse gas emissions globally and accounts for the largest portion (one-third) of U.S. greenhouse gas emissions. Thus, it is essential to prioritize rapid decarbonization of the transportation sector across all modes. The carbon emissions associated with the extraction and manufacture of construction materials and the construction and maintenance of infrastructure must also be reduced.

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<sup>2</sup> The *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Grants*, Title 2 of the Code of Federal Regulations, Part 200 defines “institution of higher education” as that term is established in 20 U.S.C. § 1001(a).

At the same time, the transportation sector itself is vulnerable to the impacts of climate change, including sea level rise; increased storm surge and flooding events; changes to extreme weather frequency, geography, and severity; and increased wildfire frequency and extent. As a result, transportation infrastructure, networks, and operations must be made more sustainable and resilient in order to minimize loss of life and disruptions to the movement of people and goods.

Further, American transportation systems have disproportionately and adversely affected underserved or overburdened communities. Effects include air, heat, and noise pollution, increased roadway fatalities, underinvestment in transportation infrastructure, and discriminatory housing and land-use practices that impede access to safe and reliable transportation options. Climate change stands to worsen these inequities through its impacts on air pollution, heat island effects, extreme weather, and other effects. As the transportation sector is decarbonized and made more resilient, it is critical that we ensure our future transportation infrastructure results in better outcomes for everyone.

Meeting these challenges necessitates research and development of new and emerging technologies in the transportation sector, including novel environmental monitoring and modeling, digitalization, artificial intelligence and machine-learning, integrated multimodal transportation systems, innovative design solutions, and other advances. Such technologies are poised to revolutionize our ability to assess and mitigate transportation's contributions to, and impacts from, climate change. Research, development, demonstration, and deployment of such technologies are critical for the United States to reach its goal of a zero-emission transportation sector by 2050. We are beginning to see a world where the boundaries between traditional transportation domains are blurring and blending into a more integrated holistic transportation system. This trend presents a key opportunity to ensure policies and technologies that enable such a system are developed and deployed in ways that reduce and eliminate greenhouse gas emissions and other environmental impacts of the transportation section, alleviate disproportionate burdens of transportation on overburdened and underserved communities, and deliver a cleaner, healthier, and more sustainable transportation system for all.

U.S. DOT seeks to advance research and technologies that support the Nation's goals to decarbonize the transportation sector by 2050, strengthen resilience of the Nation's transportation infrastructure, networks, and operations and at the same time addressing adverse environmental impacts created by the transportation system, as guided by the strategic goals and priorities documented in the following U.S. DOT and U.S. Government plans:

- [\*FY 2022-26 U.S. DOT Strategic Plan\*](#) Climate and Sustainability Strategic Goal
- [\*U.S. DOT Research Development & Technology \(RD&T\) Strategic Plan, FY 2022-26\*](#) Climate and Sustainability research priorities and grand challenge
- [\*U.S. National Blueprint for Decarbonization of the Transportation Sector\*](#)
- [\*U.S. DOT Equity Action Plan\*](#)
- [\*U.S. DOT Climate Action Plan for Resilience\*](#)

Further, programs managed by U.S. DOT and other Federal agencies are charged with

supporting and complying with Presidential Executive Orders and Memoranda. The following Executive Orders (EO) and Memorandum are relevant to this NOFO:

- [EO 13985. Advancing Racial Equity and Support for Underserved Communities Through the Federal Government](#)
- [EO 14008. Tackling the Climate Crisis at Home and Abroad](#)
- [Presidential Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking](#)
- [EO 14091. Further Advancing Racial Equity and Support for Underserved Communities Through The Federal Government](#)
- [EO 14096. Revitalizing Our Nation's Commitment to Environmental Justice for All](#)

U.S. DOT seeks to fund a climate and transportation research center that advances research to support Administration efforts to reduce greenhouse gas emissions in the transportation sector, incorporate evidence-based climate resilience and adaptation measures and features, reduce the lifecycle greenhouse gas emissions from the project materials, avoid adverse environmental impacts to air or water quality, wetlands, and endangered species, and address the disproportionate negative environmental impacts of transportation on disadvantaged communities, consistent with Executive Order 14008, Tackling the Climate Crisis at Home and Abroad (86 FR 7619).<sup>3</sup> Further, U.S. DOT seeks to fund a climate and transportation research center that will advance research to support Administration efforts to create proportional impacts to all populations in a project area, remove transportation related disparities to all populations in a project area, and increase equitable access to project benefits, consistent with Executive Order 13985, Advancing Racial Equity and Support for Underserved Communities Through the Federal Government (86 FR 7009).

#### 4. GOALS

The climate and transportation research center shall advance the following research and technology goals: (1) support decarbonization of the transportation sector; (2) build resilience of transportation infrastructure, networks, and operations; (3) address adverse climate and environmental impacts related to transportation; and (4) otherwise advance understanding of solutions to the nation's climate change and transportation challenges.

Priority research and technology development topics with high potential to serve these goals include, but are not limited to, the following:

- Data and tools to reduce trips and to shift trips to climate-friendly vehicles and modes, including shift to electric vehicles, transit, micromobility services, and active transport, combined with integrated transportation and land-use planning, including transit-oriented development, such that people are less dependent on personal vehicles and more likely to walk, bike, or use transit.
- Transformative approaches to understanding, predicting, and addressing via

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<sup>3</sup> See U.S. Department of Transportation Strategic Framework FY 2022–2026 (Dec. 2021) at <https://www.transportation.gov/administrations/office-policy/fy2022-2026-strategic-framework>

technology, design, behavior, and policy interventions, the induced demand and associated greenhouse gas emissions from roadway improvement projects. Methods for better incorporating induced demand into travel demand models. Evidence-based approaches and tools for decision makers for assessing the greenhouse gas emissions effects of transportation investments, policies, and practices.

- Cutting-edge technologies that have the potential to leverage the climate-tech industry to transform the United States to be a world leader in sustainable transportation, such as innovations in data-driven insights, automation, and integrated system-of-systems that significantly reduce greenhouse gas emissions from transportation.
- Innovative applications of social and behavioral sciences for transportation demand management and other policy interventions that support lower-carbon consumer transportation choices, mode shift, seamless modal connectivity, and reductions in transportation greenhouse gas emissions overall. Research supporting state and local governments considering policy options to realign consumer incentives and disincentives to encourage lower-carbon consumer choices.
- Innovative use of new and emerging environmental sensors to support the assessment and early detection of pollutants, helping public agencies reduce climate and environmental impacts of transportation and respond to environmental emergencies, and integration of such analyses into policy decisions.
- The development and deployment of methods to assess and reduce the risks to transportation system performance posed by climate change and related natural hazards that are exacerbated by climate change (e.g., extreme heat, pluvial flooding, slope stability concerns, permafrost thaw) Incorporation of nature-based solutions. Research and deployment of innovative resilient infrastructure, networks, and operations, especially in underserved and overburdened communities.
- Innovative adaptation strategies and standards for the new resilient transportation networks that will be needed in vulnerable areas and for climate-driven relocation, such as new passenger rail lines and resilient access for coastal locations (e.g., transition from surface roads to waterways, elevated transportation corridors, alternate road surfaces that are environmentally friendly if damaged and can be rapidly repaired).
- Innovative research on policy solutions to tackle challenges around deployment of transportation decarbonization technologies at the local level, such as research on balancing priorities, recognizing the need for rapid deployment and adoption while centering underserved communities and prioritizing community engagement.
- Research approaches for substantially lowering the levels of embodied greenhouse gas emissions associated with all relevant stages of production, use, and disposal of materials used in transportation infrastructure projects, as well as strategies for increasing the use of low-carbon materials in projects nationwide.

- Other innovative approaches proposed by applicants that have the potential to solve climate and sustainability challenges within the U.S. transportation sector.

In concert with U.S. DOT, the climate and transportation research center shall publish and release research results and tools that empower communities, state, local, Tribal and territorial (SLTT) governments, metropolitan planning organizations, and commercial operators to make informed decisions.

## 5. STATEMENT OF WORK

### **Task 1: Administration and Reporting**

Task 1 involves non-technical, regular planning, tracking, and reporting. The Recipient will engage in the following: an initiative kick-off meeting within four weeks of award, monthly scheduled and *ad-hoc* status conference calls, quarterly progress reports detailing work accomplished in the past quarter and work expected in the next quarter, quarterly financial reports with labor/cost/expenditure tracking, and monthly invoicing.

**Task 1.1:** The Recipient shall schedule and facilitate an initiative kick-off meeting (either virtually or in-person) with the Office of the Assistant Secretary for Research and Technology (OST-R) within four (4) weeks of this agreement's effective date. The location of the kick-off meeting will be determined by OST-R within one week of the agreement effective date. The Recipient shall be responsible for providing a final approved meeting agenda no later than three (3) business days prior to the kickoff meeting as well as providing full meeting minutes within ten (10) business days after the kick-off meeting.

**NOTE:** The kick-off meeting may be virtual (e.g., teleconference, webinar), in-person, or hybrid format.

**Task 1.2:** The Recipient shall furnish an electronic copy of quarterly progress reports to the Agreement Officer (AO), Agreement Officer's Representative (AOR), and any other Office of the Secretary (OST) personnel, as instructed by the AO, on or before the 15th of the next month in accordance with the instructions in Section F.3 QUARTERLY PROGRESS REPORTS. Each report shall contain concise statements covering the activities relevant to the statement of work including, but not limited to:

- a. A clear and complete account of the work performed during the period.
- b. An outline of the work to be accomplished during the next reporting period.
- c. A description of any problem encountered or anticipated that will affect the completion of the work within the time and fiscal constraints as set forth in the agreement, together with recommended solutions to such problems.
- d. Preliminary or interim results, conclusions, trends, or other items of information that may be of timely interest to OST-R.
- e. A comparison of current and completed activities against planned schedule of activities.
- f. A tabulation of the current and cumulative labor expended by the personnel, compared against planned labor expenditures.

- g. A tabulation of the current and cumulative costs expended by cost element (labor, travel, indirect costs, subcontractors, etc.) versus budgeted costs, for the Federal share and the cost share.

**Task 1.3:** The Recipient shall facilitate monthly conference calls with OST-R to discuss the status of the projects and products of the Initiative. The Recipient shall submit a summary of the topics discussed during each monthly conference call to the AOR and any other OST personnel as instructed by the AOR within five (5) business days following each call.

*Task 1 Deliverables:*

- *Kick-Off Meeting Agenda and Minutes.*
- *Facilitation of Monthly Calls.*
- *Conference Call Notes/Summaries (as performed).*
- *Quarterly Progress Reports.*

**Task 2: Define research agenda**

In collaboration with OST-R, the Recipient shall define a research agenda based on a preliminary literature review and assessment of research gaps. OST-R will review and concur with the climate and transportation research center's proposed research agenda and may modify the research agenda in subsequent years on an as-needed basis to address shifting and emerging priorities. The research agenda should support the U.S. DOT research priorities and grand challenges on climate and sustainability, detailed in the [FY22-26 U.S. DOT Research, Development, and Technology Strategic Plan](#) (starting p. 41) and the three strategies to decarbonize transportation, detailed in the [U.S. National Blueprint for Transportation Decarbonization](#).

**Task 2.1:** For year 1, the Recipient shall synthesize, in a white paper or equivalent, the existing research on the gaps and needs.

**Task 2.2:** Define a three-year research agenda based on research gaps and USDOT needs. Develop performance metrics to gauge success of research.

*Task 2 Deliverables:*

- *Draft research agenda with performance metrics, for U.S. DOT feedback, due within 3 months of signed agreement.*
- *Final three-year research agenda, incorporating U.S. DOT feedback within 4 months of signed agreement.*
- *Annual report and presentation on updates to research agenda.*

**Task 3: Select, conduct, and/or fund research**

To produce research that creates novel insights, the climate and transportation research center is encouraged to establish strong, creative, and unique initiatives that leverage multiple organizations' expertise and capabilities in the themes of addressing climate change challenges of the transportation sector.

**Task 3.1:** The Recipient and its core partners shall conduct research in alignment with the research agenda defined under Task 2.

**Task 3.2:** For research needs outside the expertise of the Recipient and its partnering institutions, the Recipient is encouraged to select and fund research by other organizations based on the research agenda defined under Task 3. The selection process may be competitive.

*Task 3 Deliverables:*

- *Initiation of at least 2 research projects (and their technical leads) in the first year.*
- *Initiate and conduct research.*

#### **Task 4: Publish research and engage with stakeholders**

##### **Task 4.1: Reports**

Task 4.1.1: The Recipient shall write and publish annual reports describing progress on the research agenda.

Task 4.1.2: The Recipient shall write and publish final reports for research funded or performed by the climate and transportation research center within three (3) months of the conclusion of each research project and, as appropriate, peer-reviewed scientific publications.

**Task 4.2:** The Recipient shall hold and/or participate in public events and conferences in which research products are discussed and publicized to stakeholders.

*Task 4 Deliverables*

- *Publish annual reports summarizing climate and transportation research center progress.*
- *Publish final reports for research projects funded or performed by the climate and transportation research center.*
- *Publish peer-reviewed scientific articles, as appropriate.*

## SECTION B. FEDERAL AWARD INFORMATION

### 1. FUNDING AND NUMBER OF AWARDS

U.S. DOT anticipates making an initial award of \$2,500,000 for year one and up to \$2,500,000 for years two and three, under this Notice of Funding Opportunity, subject to availability of funds. Additional Federal funding may be made available for this Agreement to continue up to five years in total, subject to the availability of funds. In the application, applicants must identify at least one partnering organization to fully cover the breadth of research topics.

### 2. TYPE OF AWARD

The planned award type is a cost reimbursement **Cooperative Agreement** with 50% funding match to the Federal share, equating to a non-federal share of no less than 33.3% of overall project costs.

### 3. PERIOD OF PERFORMANCE

The period of performance will be up to 36 months. Funding beyond the first twelve months is subject to availability of funds, and DOT may elect not to continue the agreement at any time. The period of performance will begin on the effective date of the award, as stated in the resulting grant agreement, and end on the period of performance end date that is listed in the signed grant agreement, unless extended.

### 4. DEGREE OF FEDERAL INVOLVEMENT

U.S. DOT anticipates substantial Federal involvement between it and the Recipient during the course of this initiative. The anticipated Federal involvement will include:

- Technical assistance and guidance to the Recipient;
- Close monitoring of performance;
- Review and selection of appropriate research topics;
- Review and comment on draft and final documents, as appropriate;
- Involvement in technical decisions; and
- Participation in status meetings including kick off meeting, monthly conference calls, and annual technical and budget reviews.

Federal involvement is not expected to include responsibility for the day-to-day management of the climate and transportation research center or its associated research projects.

## SECTION C. ELIGIBILITY INFORMATION

### 1. ELIGIBLE APPLICANTS

This competition is open to all eligible parties and their partnering organizations. Eligible parties include, but are not limited to, institutions of higher education, public research entities (e.g., University Affiliated Research Initiatives (UARCs), Federally Funded Research and Development Initiatives (FFRDCs), national laboratories, and similar entities), and private and 501(c)3 nonprofit research entities.

### 2. COST SHARING OR MATCHING

Cost sharing or matching is required.

The Federal Share of the cost of activities carried out by the climate and transportation research center is based on a 2 to 1 cost share ratio (2 Federal to 1 Non-federal match). Stated differently, of all total eligible project costs, the Federal share will be 66.6 percent and the recipient non-federal matching share will be 33.3 percent. For an expected award of \$2.5 million in federal funds under this program, recipients must provide a non-federal match of no less than \$1.25 million. Applicants must include evidence of their ability to match the Federal Share at this level. Program income must be managed in accordance with Section F.

Cost sharing or matching means the portion of project costs not paid by Federal funds (unless otherwise authorized by Federal statute). For a more complete definition, please see the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards at 2 CFR Part 200, including section 200.306 on Cost Sharing or matching. Other Federal funds using their appropriate matching share may be leveraged for the deployment but cannot be considered as part of the recipient's matching funds, unless otherwise supported by statute. Applicants should refer to section D.2 of this opportunity for more information about submission requirements concerning cost sharing under this program.

U.S. DOT will not consider previously incurred costs or previously expended or encumbered funds towards the matching requirement for any project. Matching funds are subject to the same Federal requirements as awarded funds.

The matching requirements will be monitored by U.S. DOT over the life of this effort. At the conclusion of the Agreement, U.S. DOT will determine whether the cost sharing percent matching requirement has been achieved in accordance with closeout and post-closeout requirements in 2 CFR 200.344 and 200.345.

## **SECTION D. APPLICATION AND SUBMISSION INFORMATION**

### **1. ADDRESS TO REQUEST APPLICATION PACKAGE**

Applicants may obtain application forms at [grants.gov](https://www.grants.gov) under the Notice of Funding Opportunity Number cited herein.

The Applicant must complete and submit all forms included in the application package for this Notice as contained at [www.grants.gov](https://www.grants.gov).

### **2. CONTENT AND FORM OF APPLICATION SUBMISSION**

U.S. DOT may share application information within the Department or with other Federal agencies if U.S. DOT determines that sharing is relevant to the respective program's objectives. Project budgets should show how different funding sources will share in each activity and present those data in dollars and percentages. The budget should identify other Federal funds the applicant is applying for or has been awarded, if any, that the applicant intends to use. Funding sources should be grouped into three categories: non-Federal, Climate and Transportation Research Initiative, and other Federal with specific amounts from each funding source.

Applicants must address how the research proposal will consider climate change and environmental justice in the planning stage and in research delivery. In particular, applicants must address how the research proposal informs or supports greenhouse gas emissions deduction in the transportation sector, incorporates evidence-based climate resilience measures and/or features, and reduces the lifecycle greenhouse gas emissions from the project materials. Applicants also must address the extent to which the research proposal avoids adverse environmental impacts to air or water quality, wetlands, and endangered species, as well as address disproportionate negative impacts of climate change and pollution on disadvantaged communities, including natural disasters, with a focus on prevention, response, and recovery. Further, Applicants must address how their research proposal will include an equity assessment which evaluates whether the proposal will create proportional impacts and remove transportation related disparities to all populations in a project area. Applicants should demonstrate how meaningful public engagement will occur throughout a project's life cycle. Applicants should address how the research proposal informs or supports USDOT efforts to increase affordable transportation options, improve safety, connect Americans to good-paying jobs, fight climate change, and/or improve access to resources and quality of life.

Proposals that do not meet the stated requirements will not be considered for review or award.

#### **2.1 Content of Application**

The proposal must:

- Include the signature of the principal investigator/manager of the initiative on the first page of the proposal.
- Addresses the goals and objectives of this funding opportunity.

- Indicate budgets and financial information in U.S. dollars.
- Provide documents on 8 ½ x 11 paper format; all pages must be numbered sequentially.
- Be submitted in either Microsoft Word or PDF format. Technical proposal shall be single-spaced, 12- point Times New Roman font, with a minimum of 1-inch margins.

## 2.2 Proposal Format

The **Technical Proposal** must include the following sections:

- **Proposal Summary:** Provide a one-page narrative that outlines the proposed program, including program objectives and anticipated impact.
- **Activities and Deliverables:** Describe the research center activities and deliverables and how they will help achieve the objectives.
- **Milestones and Timeline:** Discuss and describe proposed performance metrics and milestones. Provide a table listing all proposed milestones and deliverables and estimated dates, based on time from award.
- **Introduction to the organization applying:** Provide a description of past and present operations, showing ability to carry out the research center, including summary information on past research work with similar requirements or activities as this funding opportunity.
- **Key Personnel:** Include the names, titles, roles, and experience/qualifications of key personnel involved in the program. Also include a brief description of proportion of key personnel time that will be devoted to this initiative.
- **Partners:** List the names and type of involvement of key partner organizations, universities, and sub-awardees.
- **Monitoring and Evaluation Plan:** Indicate how activities will be monitored to ensure they are executed in a timely manner, and how the program performance will be evaluated to make sure performance is meeting the goals of the grant, throughout the duration period of the grant.
- **Future Funding or Sustainability** Describe how the results and developments in this initiative can be sustained in future efforts either by the government or by industry, by transfer to the private sector, or by other long-term outcomes.

**The total number of pages of the technical proposal/application** (including the cover page and attachments, if any) **shall not exceed 25 pages.**

The **Cost Proposal** must include the following documents:

1. Details of cost breakdown for each year to perform the activities of the research center, indicated for each task in the technical proposal, including professional time, direct and indirect costs, negotiated indirect cost rate (per any agreement with government audit agency), travel and other direct expenses, etc. The cost breakdown should also include cost share/match details.
2. **Mandatory application forms**
  - SF-424 (*Application for Federal Assistance – organizations*) or SF-424-I (*Application for Federal Assistance – individuals*)
  - SF-424A (*Budget Information for Non-Construction programs*)

- SF-424B (*Assurances for Non-Construction programs*). Note: the SF-424B is only required for individuals and for organizations not registered in SAM.gov.
- Form SF-LLL: *Disclosure of Lobbying activities*.

### 3. **Attachments**

- A statement regarding Conflicts of Interest. The Applicant must disclose in writing any actual or potential personal or organizational conflict of interest in its application that describes in a concise manner all past, present or planned organizational, contractual or other interest(s), which may affect the Applicant's ability to perform the proposed agreement in an impartial and objective manner. Actual or potential conflicts of interest may include but are not limited to any past, present or planned contractual, financial, or other relationships, obligations, commitments or responsibilities, which may bias the Applicant or affect the Applicant's ability to perform the agreement in an impartial and objective manner. All such information, and any other relevant information known to U.S. DOT, will be used to determine whether an award to the Applicant may create an actual or potential conflict of interest. If any such conflict of interest is found to exist, U.S. DOT may (a) disqualify the Applicant, or (b) determine that it is otherwise in the best interest of the United States to contract with the Applicant and include appropriate provisions to mitigate or avoid such conflict in the agreement pursuant to 2 CFR 200.112.
- Any other information of relevance to the cost proposal.

There are no limits placed on the number of pages or the format for the cost proposal. However, reasonableness is to be exercised in the submitted document size.

### 3. UNIQUE ENTITY IDENTIFIER AND SYSTEM FOR AWARD (SAM)

The Applicant is required to: (i) be registered in SAM before submitting its application; (ii) provide a valid unique entity identifier in its application; and (iii) continue to maintain an active SAM registration with current information at all times during which it has an active Federal award or an application or plan under consideration by a Federal awarding agency.

The Federal awarding agency may not make a Federal award to an Applicant until the Applicant has complied with all applicable unique entity identifier and SAM requirements. If an Applicant has not fully complied with the requirements by the time the Federal awarding agency is ready to make a Federal award, the Federal awarding agency may determine that the Applicant is not qualified to receive a Federal award and use that determination as a basis for making a Federal award to another Applicant.

### 4. SUBMISSION DATES AND TIMES

The application must be received electronically through [www.grants.gov](http://www.grants.gov) by the application due date/time listed on page 1 of this Notice of Funding Opportunity.

The deadline stated on page 1 is the date and time by which U.S. DOT must receive the full and completed application, including all required sections.

A late application will not be reviewed or considered unless the Agreement Officer (AO) determines that doing so is in the U.S. DOT's best interest.

## 5. INTERGOVERNMENTAL REVIEW

An application under this Notice of Funding Opportunity is not subject to State review under E.O. 12372.

## 6. FUNDING RESTRICTIONS

U.S. DOT will not reimburse any pre-award costs or application preparation costs under this proposed Agreement.

## 7. OTHER SUBMISSION REQUIREMENTS

In the event of system problems or technical difficulties with the application submittal, Applicants should contact the U.S. DOT point of contact designated on page 1. If Applicants are unable to use the system due to technical difficulties, Applicants must e-mail applications to the U.S. DOT point of contact listed on page 1 no later than the application deadline cited above.

## SECTION E. APPLICATION REVIEW INFORMATION

### 1. CRITERIA

The Government will evaluate applications on following criteria:

**MERIT:** U.S. DOT will evaluate and rank the applications against the following technical evaluation criteria. These criteria are distinct from eligibility criteria (see Section C) that are addressed before an application is accepted for review.

- **Quality and Feasibility.** The research center idea is well developed, with detail about how program activities will be carried out. The proposal includes a reasonable implementation timeline.
- **Innovation and Impact.** The proposing organization and research center idea are well-positioned to advance innovative research with high potential for significant impact on policy or other decision making regarding climate change and transportation.
- **Organizational Capacity and Record on Previous Federally funded Projects.** The organization has expertise in its stated field and has the internal controls in place to manage federal funds.
- **Monitoring and Evaluation Plan.** Applicant demonstrates it is able to measure success against key indicators and provides milestones to indicate progress toward goals outlined in the proposal. The program includes output and outcome indicators and shows how and when those will be measured.
- **Sustainability.** Program activities will continue to have positive impact after the end of the program.
- **Support of Underserved Communities.** Proposal shows clearly how the researcher center's activities will support underserved communities in the area of climate change and transportation, such as through addressing the disproportionate negative environmental impacts of transportation on disadvantaged communities.
- **Greenhouse Gas Emissions Reduction.** Research center idea will significantly inform or support U.S. DOT's goal of reducing greenhouse gas emissions in the transportation sector, such as through research on utilizing fiscally responsible land use; increasing the use of energy efficient modes of transportation like transit, rail, and active transportation; transitioning to clean vehicles and fuels, including electrification; and/or incorporating carbon-reducing uses of the rights-of-way or other carbon reduction strategies.
- **Evidence-based Climate Resilience.** Proposal incorporates evidence-based climate resilience measures or features, such as using best-available climate data sets or information resources, and decision-support tools (including U.S. DOT and other federal resources) to assess the climate-related vulnerability and risk; developing and deploying resilience solutions to address those risks; incorporating nature-based solutions; and monitoring performance of climate resilience measures.

#### **COST:**

The cost proposal will be evaluated on:

- 1) Cost reasonableness.
- 2) Cost matching of 33.3% of total cost.

- 3) Budget controls to achieve the work objectives.

## 2. REVIEW AND SELECTION PROCESS

U.S. DOT will utilize the following merit review process to evaluate applications:

A panel of Federal experts will evaluate all eligible technical applications using the merit criteria listed above. The panel will individually evaluate the technical applications. The panel will then collectively assign an adjectival rating to each eligible technical application using the following merit ratings: Exceptional, Satisfactory, Marginal, and Unsatisfactory.

U.S. DOT will evaluate the cost criteria listed above and conduct a risk assessment of the Applicant prior to award as described below.

The Government will award the application that is considered the most advantageous to the Government using the criteria cited above, and subject to the results of an Applicant risk assessment. Applications selected for possible award using the criteria cited above, will undergo the following risk assessment prior to award. The Government reserves the right to not make an award to an Applicant based on the results of the risk assessment. Only highly recommended applications will be considered for final selection. After completing the merit review, among projects of similar merit, U.S. DOT will prioritize applications that focus on the goals and priority topics listed in Section A of this NOFO.

The AO is the official responsible for final award selection. The Government is not obligated to make any award as a result of this notice.

## 3. RISK ASSESSMENT

The Government will assess the risks posed by an Applicant before it receives an award. This Risk Assessment will include evaluation of some or all of the following items relative to the Applicant and/or sub-applicants as applicable:

- (1) Applicant's financial stability;
- (2) Applicant's quality of management systems and ability to meet the management standards prescribed in 2 CFR Part 200;
- (3) Applicant's history of performance;

Note: History of performance includes the Applicant's record in managing Federal awards, if it is a prior Recipient of Federal awards, including timeliness of compliance with applicable reporting requirements, conformance to the terms and conditions of previous Federal awards, and if applicable, the extent to which any previously awarded amounts will be expended prior to future awards. The Government will evaluate the relevant merits of the Applicant's history of performance based on its reputation and record with its current and/or former customers with respect to quality, timeliness and cost control. The history of performance will be reviewed to assure that the Applicant has relevant and successful experience and will be considered in the risk assessment. In evaluating history of performance, the Government may consider both written

information provided in the application, as well as any other information available to the Government through outside sources.

(4) Applicant's audit reports and findings from audits performed on the Applicant pursuant to 2 CFR Part 200 Subpart F—Audit Requirements or the reports and findings of any other available audits;

(5) Applicant's ability to effectively implement statutory, regulatory, or other requirements imposed on non-Federal entities;

(6) Applicant's potential for conflict of interest if applicable; and

Note: U.S. DOT will review information provided by the Applicant, and any other relevant information known to U.S. DOT, to determine whether an award to the Applicant may create an actual or potential conflict of interest. If any such conflict of interest is found to exist, the AO may (a) disqualify the Applicant, or (b) determine that it is otherwise in the best interest of the United States to award to the Applicant and include appropriate provisions to mitigate or avoid such conflict in the Agreement pursuant to 2 CFR 200.112.

(7) Applicant's eligibility to receive Federal funding. Per the guidelines on government-wide suspension and debarment in 2 CFR Part 180, the Government will confirm that the Applicant and any named sub-applicants are not debarred, suspended or otherwise excluded from or ineligible for participation in Federal programs or activities. Prior to making a Federal award with a total amount of Federal share greater than the simplified acquisition threshold, DOT is required to review and consider any information about the applicant that is in the designated integrity and performance system accessible through SAM (currently FAPIIS) (see 41 U.S.C. 2313). An applicant, at its option, may review information in the designated integrity and performance systems accessible through SAM and comment on any information about itself that a Federal awarding agency previously entered and is currently in the designated integrity and performance system accessible through SAM. DOT will consider any comments by the applicant, in addition to the other information in the designated integrity and performance system, in making a judgment about the applicant's integrity, business ethics, and record of performance under Federal awards when completing the review of risk posed by applicants as described in § 200.206.

Pursuant to 2 CFR Part 200.206, prior to making a Federal award, the Federal awarding agency is required to review information available through any OMB-designated repositories of government-wide eligibility qualification or financial integrity information, such as Federal Awardee Performance and Integrity Information System (FAPIIS), Dun and Bradstreet, and "Do Not Pay." At a minimum, the information in the system for a prior Federal award recipient must demonstrate a satisfactory record of executing programs or activities under Federal grants, cooperative agreements, or procurement awards; and integrity and business ethics.

If U.S. DOT does not make a Federal award to a non-Federal entity because the official determines that the non-Federal entity does not meet either or both of the minimum

qualification standards as described in 2 CFR 200.206, U.S. DOT will report that determination in FAPIIS.

#### 4. ANTICIPATED ANNOUNCEMENT AND FEDERAL AWARD DATES

U.S. DOT anticipates making award on or about December 18, 2023.

## SECTION F. FEDERAL AWARD ADMINISTRATION INFORMATION

### 1. FEDERAL AWARD NOTICES

If your organization's application is selected for award, you will be notified and sent an award document for signature. Applicants not selected for award will be notified in writing by U.S. DOT.

Only the AO can commit the U.S. DOT. The award document, signed by the AO, is the authorizing document. Only the AO can bind the Federal Government to the expenditure of funds.

Notice that an Applicant has been selected as a Recipient does not constitute approval of the application as submitted. Before the actual award, U.S. DOT will enter into negotiations concerning such items as program components, staffing and funding levels, and administrative systems, if necessary. If the negotiations do not result in an acceptable submittal, the U.S. DOT reserves the right to terminate the negotiation and decline to fund the Applicant.

### 2. ADMINISTRATIVE AND NATIONAL POLICY REQUIREMENTS

Before submitting an application, applicants should review all the terms and conditions and required certifications which will apply to this award, to ensure that they will be able to comply. These include:

- [2 CFR 25 - UNIVERSAL IDENTIFIER AND SYSTEM FOR AWARD MANAGEMENT](#)
- [2 CFR 170 - REPORTING SUBAWARD AND EXECUTIVE COMPENSATION INFORMATION](#)
- [2 CFR 175 - AWARD TERM FOR TRAFFICKING IN PERSONS](#)
- [2 CFR 182 - GOVERNMENTWIDE REQUIREMENTS FOR DRUG-FREE WORKPLACE \(FINANCIAL ASSISTANCE\)](#)
- [2 CFR 183 - NEVER CONTRACT WITH THE ENEMY](#)

In accordance with the Office of Management and Budget's guidance located at 2 CFR part 200, all applicable Federal laws, and relevant Executive guidance, U.S. DOT will review and consider applications for funding, as applicable to specific programs, pursuant to this notice of funding opportunity in accordance with the following:

- [Guidance for Grants and Agreements in Title 2 of the Code of Federal Regulations \(2 CFR\)](#), as updated in the Federal Register's 85 FR 49506 on August 13, 2020, particularly on:

- Selecting recipients most likely to be successful in delivering results based on the program objectives through an objective process of evaluating Federal award applications (2 CFR part 200.205),
- Prohibiting the purchase of certain telecommunication and video surveillance services or equipment in alignment with section 889 of the National Defense Authorization Act of 2019 (Pub. L. No. 115—232) (2 CFR part 200.216),
- Promoting the freedom of speech and religious liberty in alignment with *Promoting Free Speech and Religious Liberty* (E.O. 13798) and *Improving Free Inquiry, Transparency, and Accountability at Colleges and Universities* (E.O. 13864) (§§ 200.300, 200.303, 200.339, and 200.341),
- Providing a preference, to the extent permitted by law, to maximize use of goods, products, and materials produced in the United States (2 CFR part 200.322), and
- Terminating agreements in whole or in part to the greatest extent authorized by law, if an award no longer effectuates the program goals or U.S. DOT priorities (2 CFR part 200.340).

**Critical Infrastructure Security and Resilience:** It is the policy of the United States to strengthen the security and resilience of its critical infrastructure against both physical and cyber threats. Each applicant selected for Federal funding under this notice must demonstrate, prior to the signing of the grant agreement, effort to consider and address physical and cyber security risks relevant to the transportation mode and type and scale of the project. Projects that have not appropriately considered and addressed physical and cyber security and resilience in their planning, design, and project oversight, as determined by the Department and the Department of Homeland Security, will be required to do so before receiving funds for construction, consistent with Presidential Policy Directive 21 - Critical Infrastructure Security and Resilience and the National Security Presidential Improving Cybersecurity for Critical Infrastructure Control Systems.

**Civil Rights and Title VI:** As a condition of a grant award, grant recipients should demonstrate that the recipient has a plan for compliance with civil rights obligations and nondiscrimination laws, including Title VI of the Civil Rights Act of 1964 and implementing regulations (49 CFR § 21), the Americans with Disabilities Act of 1990 (ADA), and Section 504 of the Rehabilitation Act, all other civil rights requirements, and accompanying regulations. This should include a current Title VI plan, completed Community Participation Plan, and a plan to address any legacy infrastructure or facilities that are not compliant with ADA standards. DOT's and the applicable Operating Administrations' Office of Civil Rights may work with awarded grant recipients to ensure full compliance with Federal civil rights requirements.

**Federal Contract Compliance:** As a condition of grant award and consistent with EO 11246, Equal Employment Opportunity (30 FR 12319, and as amended), all Federally assisted contractors are required to make good faith efforts to meet the goals of 6.9 percent of construction project hours being performed by women, in addition to goals that vary based on geography for construction work hours and for work being performed by people of color. Under Section 503 of the Rehabilitation Act and its implementing regulations, affirmative action obligations for certain contractors include an aspirational employment goal of 7 percent workers with disabilities.

The U.S. Department of Labor's Office of Federal Contract Compliance Programs (OFCCP) is charged with enforcing Executive Order 11246, Section 503 of the Rehabilitation Act of 1973, and the Vietnam Era Veterans' Readjustment Assistance Act of 1974. OFCCP has a Mega Construction Project Program through which it engages with project sponsors as early as the design phase to help promote compliance with non-discrimination and affirmative action obligations. OFCCP will identify projects that receive an award under this notice and are required to participate in OFCCP's Mega Construction Project Program from a wide range of Federally- assisted projects over which OFCCP has jurisdiction and that have a project cost above \$35 million. DOT will require project sponsors with costs above \$35 million that receive awards under this funding opportunity to partner with OFCCP, if selected by OFCCP, as a condition of their DOT award.

### 3. REPORTING

#### a. QUARTERLY PROGRESS REPORT

Recipients will be required to submit on the 30<sup>th</sup> of the month following the calendar quarter being reported a financial report and a technical progress report. The reports should include a timeline of activities completed and expected future activities together with the corresponding total cost for past and future activities. The narrative should be succinct; however, if significant technical progress has been made more details can be provided. The report should include photos, press clips, social media postings and success stories from the project team.

Applicants should be aware of the post award reporting requirements reflected in [2 CFR 200 Appendix XII—Award Term and Condition for Recipient Integrity and Performance Matters](#).

#### b. ANNUAL BUDGET REVIEW AND PROGRAM PLAN

The Recipient must submit electronically the Annual Budget Review and Program Plan to the AO 60 days prior to the anniversary date of the Agreement. The Annual Budget Review and Program Plan must include the required certification pursuant to 2 CFR 200.415. The Annual Budget Review and Program Plan must provide a detailed schedule of activities, estimate of specific performance objectives, include forecasted expenditures, and schedule of milestones for the upcoming year. If there are no proposed deviations from the Approved Project Budget, the Annual Budget Review must contain a statement stating such. The Recipient must meet via teleconference or web conference with U.S. DOT to discuss the Annual Budget Review and Program Plan. Work proposed under the Annual Budget Review and Program Plan must not commence until AO's written approval is received.

### 4. DATA MANAGEMENT PLAN

In accordance with the [U.S. DOT Plan to Increase Public Access to the Results of Federally Funded Scientific Research](#), and the [U.S. DOT Departmental Data Release Policy](#) (DOT Order 1351.34, adopted March 28, 2011) research cooperative agreement recipients are required to

create a Data Management Plan (DMP). In the DMP, an Eligible Entity must propose program-level strategies to deposit Digital Data Sets resulting from U.S. DOT-funded scientific research in a repository that enables and allows for public access and sharing. The DMP will be reviewed and must be approved by the Office of the Assistant Secretary for Research and Technology following the award of a cooperative agreement.

#### **SECTION G: FEDERAL AWARDING AGENCY CONTACT**

Until 11:59 PM EDT on November 20, 2023, questions about this Notice of Funding Opportunity may be directed to [ClimateResearch@dot.gov](mailto:ClimateResearch@dot.gov). Questions posed by applicants will be posted along with OST-R's responses on the U.S. DOT Climate Change Initiative website <https://www.transportation.gov/priorities/climate-and-sustainability/dot-climate-change-center> so all potential applicants may benefit equally from any additional information provided in the responses.

***NOTE: Until a formal notice of award is issued, no communication by government, either written or oral, shall be interpreted as a promise that an award will be made.***