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**DEPARTMENT OF TRANSPORTATION**

**[4910-22-P]**

**Federal Highway Administration**

**[Docket No. FHWA-2013-0048]**

**Notice of Funding Opportunity for Accelerated Innovation Deployment**

**Demonstration**

**AGENCY:** Federal Highway Administration (FHWA), Department of Transportation (DOT).

**ACTION:** Notice of Funding Opportunity.

**SUMMARY:** This notice announces a funding opportunity and requests grant applications from eligible entities as FHWA continues the Accelerated Innovation Deployment (AID) Demonstration authorized within the Technology and Innovation Deployment Program (TIDP) under the Fixing America's Surface Transportation (FAST) Act. The AID Demonstration provides incentive funding for activities eligible for assistance in any phase of a highway transportation project between project planning and project delivery including: planning, financing, operation, structures, materials, pavements, environment, and construction that address the TIDP goals. The FHWA expects approximately \$10 million to be made available for AID Demonstration in each of Fiscal Years (FY) 2016 through 2020 from amounts authorized under section 6002 of the FAST Act.

**DATES:** The FHWA will use an open, rolling solicitation. The project must be authorized within 6 months of applying for AID Demonstration funding. Completed applications will be evaluated and award determinations made on a rolling basis until the

program ends or funding is no longer available. Applications must be submitted through <http://www.grants.gov>. The Grants.gov “Apply” function will open on [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** Only applicants who comply with all submission requirements described in this notice and submit applications through [www.grants.gov](http://www.grants.gov) will be eligible for award.

**FOR FURTHER INFORMATION CONTACT:** For questions about the AID Demonstration program discussed herein, contact Mr. Thomas Harman, Director, Center for Accelerating Innovation, Federal Highway Administration, 1200 New Jersey Avenue SE., Washington, DC 20590, (202) 366-6377. For legal questions, contact Ms. Seetha Srinivasan, Office of the Chief Counsel, Federal Highway Administration, 1200 New Jersey Avenue SE., Washington, DC 20590, (202) 366-4099. Office hours are from 8:00 a.m. to 4:30 p.m., e.t., Monday through Friday, except Federal holidays. A TDD is available for individuals who are deaf or hard of hearing at (202) 366-3993.

Additionally, the notice, answers to questions, requests for clarification, and information about Webinars for further guidance will be posted at:

<http://www.fhwa.dot.gov/accelerating/grants>. Applicants are encouraged to contact FHWA directly to receive information about AID Demonstration.

**SUPPLEMENTARY INFORMATION:** This notice solicits applications for AID Demonstration. Each section of this notice contains information and instructions relevant to the application process for AID Demonstration grants. The applicant should read this notice in its entirety to submit eligible applications.

**Electronic Access**

An electronic copy of this document may be downloaded from the Federal Register Web site at <http://www.archives.gov> and the Government Printing Office's database at <http://www.access.gpo.gov/nara>.

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### **A. Program Description**

On December 4, 2015, President Obama signed into law the FAST Act (Pub. L. 114-94), which continues the TIDP under 23 U.S.C. 503 to implement accelerated innovation deployment. The TIDP relates to all aspects of highway transportation including planning, financing, operation, structures, materials, pavements, environment, and construction.

Section 503(c)(1) specifies the following TIDP goals: (A) significantly accelerate the adoption of innovative technologies by the surface transportation community; (B) provide leadership and incentives to demonstrate and promote state-of-the-art technologies, elevated performance standards, and new business practices in highway construction processes that result in improved safety, faster construction, reduced

congestion from construction, and improved quality and user satisfaction; (C) construct longer-lasting highways through the use of innovative technologies and practices that lead to faster construction of efficient and safe highways and bridges; (D) improve highway efficiency, safety, mobility, reliability, service life, environmental protection, and sustainability; and (E) develop and deploy new tools, techniques, and practices to accelerate the adoption of innovation in all aspects of highway transportation. The AID Demonstration is one aspect of the multifaceted TIDP approach and provides funding as an incentive for eligible entities to accelerate the implementation and adoption of proven innovation in highway transportation.

#### **B. Federal Award Information**

Section 6002 of the FAST Act authorized \$67,000,000 for TIDP for FY 2016 and \$67,500,000 for FY 2017 through 2020. The Funds are subject to the overall Federal-aid obligation limitation and the obligation limitation associated with these funds is available for 4 fiscal years. The amount of TIDP budget authority available in a given year may be less than the amount authorized for that fiscal year. The TIDP funds are available at an 80 percent Federal share, which require a minimum mandatory 20 percent cost share. The Federal share of a project or activity carried out with funds authorized under section 6002 of the FAST Act shall be 80 percent unless expressly specified otherwise by the Act or otherwise determined by the Secretary. [FAST Act § 6002(c)(1)]

The FHWA expects approximately \$10 million to be made available for AID Demonstration in each FY 2016 through 2020 from amounts authorized under section 6002 of the FAST Act. The planned award type is a grant that is allocated to a State

department of transportation (State DOT) through project authorization, or for Federal Land Management Agencies and tribes through existing agreements with FHWA Federal Lands Highways Division. The FHWA has funding award goals of up to \$9 million available to State DOTs per FY and up to \$1 million available to Federal Land Management Agencies and tribal governments per FY. These funding goals will be reviewed annually and may be adjusted to reflect current priorities and needs.

The amount of each award may be up to the full cost of the innovation, but only to a maximum of \$1 million. Awards are limited per FY of up to two per State DOT applicant, with up to one award for a State DOT and up to one award for a subrecipient applying through the State DOT, and limited to one award per applicant for Federal Land Management Agencies and tribal governments, subject to the number of eligible applications and the availability of funds.

Award recipients shall submit a final report to FHWA within 6 months of project completion based on the plan described in Section F (*Federal Award Administration Information*), which documents the process, benefits, and lessons learned including development and/or refinement of guidance, specifications or other tools and methods to support rapid adoption of the innovation(s) as standard practice, as well as level of commitment by recipient to deploy the innovation as standard practice.

### **C. Eligibility Information**

#### **Entities Eligible to Apply for Funding**

The AID Demonstration provides incentive funding for eligible entities to accelerate the implementation and adoption by the applicant of proven innovation in

highway transportation. Section 502(b)(3) of title 23, U.S.C., authorizes the Secretary to award grants to a wide range of entities. The FHWA will provide AID Demonstration grants to eligible State DOTs, Federal Land Management Agencies, and tribal governments. These entities are the most likely to fulfill the deployment goals of the AID Demonstration program, since they are actively engaged in the deployment of new technologies. Consistent with other FHWA funding provided to tribes, any federally recognized tribe identified on the list of “Indian Entities Recognized and Eligible to Receive Services from the Bureau of Indian Affairs” (published at 77 FR 47868) is eligible to apply for AID Demonstration. Metropolitan planning organizations and local governments may apply through the State DOT as a subrecipient.

#### Eligible Uses of Funds

The AID Demonstration funds are available for any project activities eligible for assistance under title 23, U.S.C. Eligible activities may involve any phase of a highway transportation project between project planning and project delivery, including planning, financing, operation, structures, materials, pavements, environment, and construction that address the TIDP goals mentioned in Section A (*Program Description*). Projects eligible for funding must pilot and demonstrate for the applicant proven innovative practices or technologies, which the applicant or subrecipient intends to implement and adopt as a significant improvement from the applicant’s or the subrecipient’s conventional practice.

#### **D. Application and Submission Information**

Applications must be submitted through <http://www.grants.gov>. The FHWA will award TIDP AID Demonstration funds to projects based on eligibility outlined in Section

*C (Eligibility Information)* and the selection criteria outlined in Section E (*Application Review Information*).

The FHWA will use an open, rolling solicitation, until the program ends or funding is no longer available. Project readiness will be treated as primary selection criteria in FHWA's evaluation process. The project must be authorized within 6 months of applying for AID Demonstration funding. An eligible project must be a pilot deployment for the applicant of a proven innovation previously deployed by others and align with the previously described TIDP goals. The innovation must be proven in real-world highway transportation application with documented benefits (in a form that is publicly available or verifiable), not routinely used by the applicant or the subrecipient, and represent a significant improvement from the applicant's or the subrecipient's conventional practice. The FHWA encourages the use of innovations included in the Every Day Counts (EDC) initiative. Please go to the following link to see examples and benefits of EDC innovations: <https://www.fhwa.dot.gov/innovation/everydaycounts/>.

Initially, to ensure a wide variety of innovations and project types, FHWA will limit awards to three projects per innovation. The FHWA intends to give priority funding consideration to projects using innovations that have not previously received TIDP funding.

In the application, the applicant or the subrecipient must indicate willingness to: (1) participate in monitoring and assessment activities regarding the effectiveness of the innovation(s) and subsequent technology transfer and information dissemination

activities associated with the project; (2) accept FHWA oversight of the project; and (3) conduct a before and after customer satisfaction determination.

Application Process (I. thru IV.)

I. Contents of Applications

The applicant shall include all of the information requested below in their applications. The FHWA may request applicants to supplement the data in the application, but encourages applicants to submit the most relevant and complete information they can provide. The applicant should, to the extent practicable, provide data and evidence of project merits in a form that is publicly available or verifiable.

A complete application will consist of: (1) the Standard Form 424 (SF 424) available from Grants.gov, and (2) the narrative attachment to the SF 424 as described below.

II. Standard Form 424, Application for Federal Assistance

Applicants should refer to [http://apply07.grants.gov/apply/forms/sample/SF424\\_2\\_1-V2.1.pdf](http://apply07.grants.gov/apply/forms/sample/SF424_2_1-V2.1.pdf) for instructions on completing the SF 424, which is part of the standard Grants.gov submission.

III. Narrative (Attachment to SF 424)

The applicant or subrecipient shall include the supplemental narrative in the attachments section of the SF 424 mandatory form in Grants.gov to successfully complete the application process.

The applicant or subrecipient shall respond to the application requirements described below. The supplemental narrative shall be prepared with standard formatting

(e.g. a single-spaced document, using a standard 12-point font, such as Times New Roman, with 1-inch margins) and should not exceed 5 pages.

An application shall include information needed to verify that the project meets the statutory eligibility criteria as described in Section C (*Eligibility Information*) as well as other information required for FHWA to assess each of the selection criteria specified in Section E (*Application Review Information*). The applicant or subrecipient is required to demonstrate the responsiveness of the proposal to any pertinent selection criteria with the most relevant information that applicants can provide, regardless of whether such information is specifically requested or identified. The applicant or subrecipient shall provide concrete evidence of project milestones, financial capacity, and commitment in order to support project readiness.

For ease of review, the narrative should generally adhere to the following basic outline, and include relevant maps and graphics:

1. Project Abstract: Describe work that would be completed under the project, whether the project is a complete project or part of a larger project with prior investment, and the aspect of highway transportation and the TIDP goals that the innovation would address (maximum five sentences). The project abstract should succinctly describe how this specific request for AID Demonstration funding would be included in the project.
2. Project Description: Brief description of the project and project objective(s), the innovation and related documented benefits, the performance goals and measures for the innovation, current organizational/institutional experience

with the innovation, and the significant improvement to conventional practice expected.

3. Innovation Performance: Brief description of how the innovation will be monitored, assessed, and documented to determine if the performance goals and measures are achieved, including a timeline of demonstration, deployment, implementation, and/or adoption activities.
4. Applicant information and coordination with other entities: Identification of applicant, and subrecipient if applicable; description of cooperation with other entities; and information regarding any other entities involved in the project.
5. Funding Request: Summary of the funding request including the basis for determining the cost of the innovation in the project (note: a project cost estimate may be the best source for providing this data and may be provided as an additional attachment). The applicant should also include the total project cost, identifying Federal and non-Federal shares of project costs.
6. Eligibility and Selection Criteria: Brief description of how the project meets the statutory eligibility criteria as described in Section C (*Eligibility Information*) and the selection criteria identified in Section E (*Application Review Information*).

#### IV. Contact Information

The applicant or subrecipient should include contact information requested as part of the SF-424. The FHWA will use this information to contact applicants and to inform parties of FHWA's decision regarding award determination. Contact information should

be provided for a direct employee of the applicant. Contact information for a contractor, agent, or consultant of the lead applicant is insufficient for FHWA's purposes.

Additional Information on Applying Through Grants.gov

Applications for AID Demonstration shall be submitted through Grants.gov. To apply for funding through Grants.gov, applicants must be properly registered. Complete instructions on how to register and apply can be found at [www.grants.gov](http://www.grants.gov). If interested parties experience difficulties at any point during the registration or application process, they should call the Grants.gov Customer Support Hotline at 1-800-518-4726, Monday-Friday from 7:00 a.m. to 9:00 p.m., e.t.

Registering with Grants.gov is a one-time process, however, processing delays may occur and it can take up to several weeks for first-time registrants to receive confirmation and a user password. Accordingly, FHWA highly recommends that potential applicants start the registration process as early as possible. In order to apply for AID Demonstration under this notice and to apply for funding through Grants.gov, all applicants are required to complete the following:

1. Acquire a Data Universal Numbering System (DUNS) Number. A DUNS number is required for Grants.gov registration. The Office of Management and Budget requires that all applicants for Federal funds include a DUNS number in their applications for a new award or renewal of an existing award. A DUNS number is a unique nine-digit sequence recognized as the universal standard for identifying and keeping track of entities receiving Federal funds. The identifier is used for tracking purposes and to validate address and point of contact

information for Federal assistance applicants, recipients, and subrecipients. The DUNS number will be used throughout the grant life cycle. Obtaining a DUNS number is a free, one-time activity that can be completed by calling 1-866-705-5711 or by applying online at <http://fedgov.dnb.com/webform>.

2. Acquire or Renew Registration with the System for Award Management (SAM) Database. All applicants for Federal financial assistance maintain current registrations in the SAM database. An applicant must be registered in the SAM to successfully register in Grants.gov. The SAM database is the repository for standard information about Federal financial assistance applicants, recipients, and subrecipients. Entities that have previously submitted applications via Grants.gov are already registered with SAM, as it is a requirement for Grants.gov registration. Please note, however, that applicants must update or renew their SAM registration at least once per year to maintain an active status, so it is critical to check registration status well in advance of relevant application deadlines. Information about SAM registration procedures can be accessed at: <https://www.sam.gov/portal/public/SAM/>.
3. Acquire an Authorized Organization Representative (AOR) and a Grants.gov Username and Password. Applicants will need to complete an AOR profile on Grants.gov and create a username and password. The assigned DUNS Number is required to complete this step. For more information about the registration process, go to: [www.grants.gov/applicants/get\\_registered.jsp](http://www.grants.gov/applicants/get_registered.jsp).
4. Acquire Authorization for the AOR from the E-Business Point of Contact (E-

Biz POC). The E-Biz POC for the applicant must log in to Grants.gov to confirm the applicant as an AOR. Please note that there can be more than one AOR for each applicant.

5. Search for the Funding Opportunity on Grants.gov. Applicants can use the Catalog of Federal Domestic Assistance number for this solicitation, which is 20.200, titled Technology and Innovation Development Program, when searching for the AID Demonstration opportunity on Grants.gov.
6. Submit an Application Addressing All of the Requirements Outlined in this Notice of Funding Opportunity. Within 24 to 48 hours after submitting an electronic application, applicants should receive an email validation message from Grants.gov. The validation message will specify whether the application was received and validated or rejected, with an explanation.

*Note:* When uploading attachments, applicants should use generally accepted formats such as .pdf, .doc, and .xls. While applicants may imbed picture files such as .jpg, .gif, .bmp, in your files, they should not save and submit the attachment in these formats. Additionally, the following formats will not be accepted: .com, .bat, .exe, .vbs, .cfg, .dat, .db, .dbf, .dll, .ini, .log, .ora, .sys, and .zip.

#### **E. Application Review Information**

The FHWA will evaluate AID Demonstration applications in accordance with the evaluation process described below.

The FHWA will establish an evaluation team of technical and professional staff with relevant experience and/or expertise to review each application received by FHWA through Grants.gov. The evaluation team will be responsible for reviewing, evaluating, and rating the applications as well as making funding recommendations to FHWA senior leadership.

After reviewing the application, the evaluation team may contact the applicant to discuss the application and confirm understanding of the requirements for participation in AID Demonstration. Based on the information collected, the evaluation team will prepare a summary assessment rating the application along with the team's recommendation. The summary assessment and recommendation will be presented to FHWA senior leadership to make a final determination on the approval of the award.

#### I. Selection Criteria

All applications will be evaluated on a rolling basis and be assigned a rating of "Qualified" or "Not Qualified."

The ratings are as follows:

1. Qualified - a project must meet all 8 of the following criteria:
  - i. project ready to authorize within 6 months of applying for AID Demonstration funding, including such information as: evidence of project milestones, financial capacity, and commitment in order to support project readiness.
  - ii. project pilots and demonstrates an innovation with a technology readiness level of 7 or higher as defined in Table 1;
  - iii. project aligns with TIDP goals to accelerate the implementation and delivery

of new innovations and technologies that result from highway research and development to benefit all aspects of highway transportation.;

- iv. innovation is proven in real-world application with documented benefits, and not routinely used by the applicant or the subrecipient;
- v. application describes the innovation’s magnitude and scope of impact on the applicant’s or the subrecipient’s conventional practice;
- vi. cost estimate is included that directly supports the requested funding amount;
- vii. information provided on performance goals and measures for respective innovation demonstration and deployment activities;
- viii. application indicates the applicant’s or subrecipient’s willingness to:
  - 1) participate in monitoring and assessment activities regarding the effectiveness of the innovation(s) and subsequent technology transfer and information dissemination activities associated with the project;
  - 2) accept FHWA oversight of the project;
  - 3) conduct before and after customer satisfaction determinations; and
  - 4) commit to deployment of the innovation as standard practice in the future, if the deployment is successful .

**Table 1 - Technology Readiness Levels (TRL)**

<b>Phase</b>	<b>TRL</b>	<b>Description</b>	<b>Examples</b>
<b>Basic Research</b>	1	Basic principles and research	Piezo electric energy harvesting in the roadway Agent-based modeling and simulations
	2	Application	

		formulated	
	3	Proof of concept	
<b>Applied Research</b>	4	Components validated in laboratory environment	Cooperative adaptive cruise control  Fiber-reinforced concrete columns
	5	Integrated components demonstrated in a laboratory environment	
<b>Development</b>	6	Prototype demonstrated in relevant environment	Nondestructive testing for concrete bridge decks, Strategic Highway Research Program (SHRP) R06A  Software tools for sharing and integrating Geographic Information System (GIS) data
	7	Prototype demonstrated in operational environment	
	8	Technology proven in operational environment	
<b>Implementation</b>	9	Technology refined and market ready	FHWA Every Day Counts (EDC) technologies – e.g. Warm Mix Asphalt, Safety Edge, Design-Build, Programmatic Agreements, Accelerated Bridge Construction, Prefabricated Bridge Elements & Systems:  <a href="https://www.fhwa.dot.gov/innovation/everydaycounts/">https://www.fhwa.dot.gov/innovation/everydaycounts/</a>

2. Not Qualified - If a project meets any one of the following criteria, then it is not

qualified for funding:

- i. project does not meet the eligibility requirements;
  - ii. application fails to address one or more of the application requirements;
  - iii. applicant received AID Demonstration funding within the current fiscal year;
- or
- iv. three AID Demonstration funding awards were already made for the innovation.

**F. Federal Award Administration Information**

Each applicant selected for AID Demonstration funding shall work with FHWA on the development and implementation of a plan to collect information and report on the project's performance with respect to the relevant outcomes that are expected to be achieved through the innovation in the project. Each recipient or subrecipient of AID Demonstration funding shall report on specified performance indicators for its project. Performance indicators will be identified for each project, and will consider the individual project's stated goals as well as resource constraints of the recipient or subrecipient. Performance indicators may include formal goals or targets, will include baseline measures as well as post-project outputs, and will inform the AID Demonstration in working toward best practices, programmatic performance measures, and future decisionmaking guidelines. The recipient or subrecipient shall submit a final report to FHWA within 6 months of project completion which documents the process, benefits, and lessons learned including development and/or refinement of guidance, specifications, or other tools and methods to support rapid adoption of the innovation(s)

as standard practice.

**G. Federal Awarding Agency Contacts**

For further information concerning this final notice please contact:

Mr. Thomas Harman, Director  
Federal Highway Administration  
Office of Innovative Program Delivery  
Center for Accelerating Innovation  
1200 New Jersey Avenue SE., E84-547  
Washington, DC 20590  
Telephone: (202) 366-6377, or  
e-mail: tom.harman@dot.gov

For legal questions, please contact:

Ms. Seetha Srinivasan  
Attorney-Advisor  
Federal Highway Administration  
Office of the Chief Counsel  
1200 New Jersey Avenue SE., E82-328  
Washington, DC 20590  
Telephone: (202) 366-4099, or  
e-mail: seetha.srinivasan@dot.gov

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**Authority:** Section 52003 of Pub. L. 112-141; Section 6003 of Pub. L. 114-94; 23  
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Gregory G. Nadeau  
Administrator  
Federal Highway Administration

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