



## **U.S. Department of Transportation**

### **Federal Transit Administration**

#### **Fiscal Years 2012 and 2013 Innovative Safety, Resiliency, and All-Hazard Emergency Response and Recovery Program Project Selections**

#### **Fiscal Years 2013 and 2014 Low or No Emission Vehicle Deployment Program Project Selections**

#### **Fiscal Year 2012 Bus Efficiency Enhancements Research and Demonstrations Program Project Selections**

**AGENCY:** Federal Transit Administration, DOT

**ACTION:** Announcement of Research Program Project Selections

**SUMMARY:** The U.S. Department of Transportation's Federal Transit Administration announces the selection of research projects funded in support of three Notice of Funding Availability, as authorized under the Moving Ahead for Progress in the 21<sup>st</sup> Century, and prior legislation.

#### **Innovative Safety, Resiliency, and All-Hazard Emergency Response and Recovery**

**Program:** The U.S. Department of Transportation's (DOT) Federal Transit Administration (FTA) announces the selection of Innovative Safety, Resiliency, and All-Hazard Emergency Response and Recovery Program (SRER) Program projects (see Table 1) with Fiscal Year (FY) 2012 and FY 2013 appropriations for FTA's Research, Development, Demonstration and Deployment Program. The Consolidated and Further Continuing Appropriations Act, 2012, Pub. L. 112-55 made \$25,000,000 available to carry out innovative research and demonstrations of national significance under 49 U.S.C. 5312. Of that amount, \$20,800,000 was made available

for innovative safety, resiliency, and all-hazards emergency response and recovery demonstration projects of national significance. An additional \$8,200,000 in Section 5312 FY 2013 Research funds was made available for the same purpose for a combined amount of \$29,000,000 in funds was made available from Fiscal Years 2012 and 2013. On October 1, 2013, FTA published a Notice of Funding Availability (NOFA) (78 FR 60369) announcing the availability of funding for SRER. These competitive research program funds will strengthen operational safety of public transportation, help transit systems better withstand natural disasters and other emergencies, and improve emergency response capabilities.

**Low or No Emission Vehicle Deployment Program:** The U.S. Department of Transportation's (DOT) Federal Transit Administration (FTA) announces the selection of Low or No Emissions Vehicle Deployment Program (LONO) projects (see Table 2) with Fiscal Year (FY) 2013 and FY 2014 appropriations for deployment of low or no emission transit buses. The Moving Ahead for Progress in the 21st Century Act (MAP-21), Public Law 112-141, July 6, 2012, amended 49 U.S.C. 5312 to add a new paragraph (d)(5) authorizing FTA to make grants to finance eligible projects under the LONO Program. The Consolidated and Further Continuing Appropriations Act, 2013, (also referred to as the Full Year Continuing Appropriations Act, 2013) Public Law 113-6, March 26, 2013, made available \$24,900,000 in FY 2013 (after sequestration) funds to carry out the LONO Program. Of that amount, \$21,600,000 was made available for transit buses and \$3,300,000 was made available for supporting facilities and related equipment. The Consolidated Appropriations Act, 2014, Public Law 113-76, January 17, 2014, made available \$30,000,000 in FY 2014 to carry out the LONO Program. Of that amount, a minimum of \$4,000,000 was made available for supporting facilities and related equipment.

On January 9, 2014, FTA published a NOFA (79 FR 1668) announcing the availability of funding for the LONO program. The main purpose of the LONO Program is to deploy the cleanest and most energy efficient U.S.-made transit buses that have been largely proven in testing and demonstrations but are not yet widely deployed in transit agency fleets. The LONO Program provides funding for transit agencies for capital acquisitions and leases of zero-emission and low-emission transit buses, including acquisition, construction, and leasing of required supporting facilities such as recharging, refueling, and maintenance facilities.

**Bus Efficiency Enhancements Research and Demonstrations:** The U.S. Department of Transportation's (DOT) Federal Transit Administration (FTA) announces the selection of five

projects totaling \$3,000,000 for Bus Efficiency Enhancements Research and Demonstrations (BEERD) program (see Table 3). On June 28, 2013, FTA published a Request for Proposals (RFP) on *www.grants.gov* and FTA's website announcing the availability of \$3,000,000 of FY 2012 Section 5312/5314 National Research Program discretionary funds for innovative research, development, and demonstration projects targeting bus efficiency enhancements, specifically enhanced electrification of accessories, and improvements in thermal management of transit bus bodies. These projects will reduce energy use by transit buses and will have favorable impacts on meeting the needs of the riding public, public transportation operators, and the American bus industry and its supplier base. They will advance the DOT's research goals, which include but are not limited to improving safety, enhancing the state of good repair of public transit systems, providing more effective and efficient public transportation service, increasing capital and operating efficiencies, developing and deploying advanced vehicle designs and technology, reducing harmful emissions, and increasing energy efficiency. These projects also support an overarching FTA goal of developing and deploying new and innovative ideas, practices, and approaches for transit buses.

**FOR FURTHER INFORMATION CONTACT:** The FTA Office of Research, Demonstration and Innovation (TRI) and/or FTA Regional Office will reach out to successful applicants regarding to the next steps in applying for the funds or program-specific information (see Tables 1-3, below).

Unsuccessful SRER program applicants may contact Roy Chen, Office of Technology at email address *royweishun.chen@dot.gov* to arrange a proposal debriefing within 30 days of this announcement. A TDD is available at 1-800-877-8339 (TDD/FIRS).

Unsuccessful LONO Program applicants may contact Sean Ricketson, Office of Mobility Innovation at email address *sean.ricketson@dot.gov* to arrange a proposal debriefing within 30 days of this announcement. A TDD is available at 1-800-877-8339 (TDD/FIRS).

Unsuccessful BEERD program applicants may contact Marcel Belanger, Office of Mobility Innovation at email address *marcel.belanger@dot.gov* to arrange a proposal debriefing within 30 days of this announcement. A TDD is available at 1-800-877-8339 (TDD/FIRS).

**SUPPLEMENTARY INFORMATION:** In response to the SRER NOFA, FTA received 72 proposals requesting \$160,000,000 in Federal funds. Project proposals were evaluated based on each applicant's responsiveness to the program evaluation criteria as detailed in the NOFA. The FTA is funding 13 SRER projects, as shown in Table 1, for a total of \$29,000,000.

In response to the LONO NOFA, FTA received 50 project proposals requesting \$200,000,000 in Federal funds. Project proposals were evaluated based on each applicant's responsiveness to the program evaluation criteria as detailed in the NOFA. The FTA is funding 10 LONO Program projects, as shown in Table 2, for a total of \$54,469,249.

In response to the BEERD RFP, FTA received 13 project proposals requesting \$14,600,000 in Federal funds. Project proposals were evaluated based on each applicant's responsiveness to the program evaluation criteria as detailed in the RFP. The FTA is funding five BEERD Program projects, as shown in Table 3, for a total of \$3,000,000.

Applicants selected for competitive discretionary research funding for the SRER and BEERD Programs should work with FTA's TRI staff identified in the contacts section of this notice to finalize electronic awards in FTA's Transportation Electronic Awards Management System (TEAM) or its successor system, so that Federal funds can be obligated expeditiously.

Applicants selected for the LONO Program should work with TRI staff identified in the contacts section of this notice and/or FTA Regional Office staff to finalize its electronic award in TEAM or its successor system, so that Federal funds can be obligated expeditiously.

Electronics awards must only include eligible activities applied for in the original project application. Federal funds must be used consistent with the competitive proposal and for the eligible purposes established in the NOFA and described in the FTA *Circular 6100.1E* and/or FTA *Circular 9030.1E*. In cases where the allocation amount is less than the applicant's requested amount, applicants should work with TRI staff to reduce scope or scale the project such that a complete phase or project is accomplished. Applicants are reminded that program requirements such as cost sharing or local match can be found in the corresponding NOFA or RFP. Depending on the year of funding, type of project, and the applicant's proposal, local match may be required for some projects. Local match must be identified in the electronic award at the time of obligation and must be available at the time of expenditure. A discretionary research project identification number has been assigned to each project (see Tables 1-3 of this notice) for tracking purposes and must be used in the TEAM or successor system, application.

Selected projects may be eligible for pre-award authority for each of the programs, so long as all required conditions for pre-award authority have been met and the activities undertaken in advance of Federal funding are contained in the approved statement of work. The FTA may grant pre-award authority for costs incurred after the project selections were announced. The dates of announcement, which are the earliest dates for which pre-award authority can be granted, are as follows: February 12, 2015 for SRER; February 5, 2015 for LONO; and January 16, 2015 for BEERD. The FTA's policy for pre-award authority, including

the required conditions, can be found in the FY 2015 Annual Apportionments, Allocations, and Program Information Notice, published on February, 9, 2015.

Post electronic award reporting requirements include submission of the Federal Financial Report and Milestone reports in TEAM as appropriate (FTA *Circular 6100.1E*, *C.5010.1D* and *C9030.1E*). The grantees must comply with all applicable Federal statutes, regulations, executive orders, FTA circulars, and other Federal requirements detailed in the FY15 Master Agreement in carrying out the project supported by the FTA research grant. The FY15 Master Agreement can be found at: <http://www.fta.dot.gov/documents/21-Master.pdf>.

The FTA emphasizes that grantees must follow all third-party procurement guidance, as described in FTA *Circular 4220.1F*.

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Therese W. McMillan

Acting Administrator

**Table 1: Innovative Safety, Resiliency, and All-Hazards Emergency Response and Recovery Demonstration Project Selections**

Project ID	State	Project Sponsor	Project Description	Amount
D2015-SRER-001	CA	Los Angeles County Metropolitan Transportation Authority (LACMTA)	The Los Angeles County Metropolitan Transportation Authority (LACMTA) will receive funding to install and test a Platform Track Intrusion Detection System (PTIDS) at select light rail and heavy rail stations to reduce injuries, fatalities and other track intrusion incidents. The radar-based system will monitor station platforms and portions of track, and alert rail operators and LACMTA's Rail Operations Center to stop trains if a person or object is detected within the track right-of-way.	\$1,722,400
D2015-SRER-002	CA	Applied Research Associates, Inc.	Applied Research Associates, Inc., in partnership with Sacramento Regional Transit District (RT), will receive funding to develop, test and demonstrate a front-end bumper design for light rail vehicles that operate in a shared right-of-way environment to improve safety, reduce injuries and minimize the impact of collisions with automobiles, pedestrians or bicyclists. Bumper prototypes will be mounted on select light rail vehicles to test compatibility during normal operation of light rail service, and during crashworthiness testing.	\$1,323,414
D2015-SRER-003	CA	San Francisco Bay Area Rapid Transit District (BART)	The San Francisco Bay Area Rapid Transit District (BART) will receive funding to develop and demonstrate innovative safety technologies that will improve track worker safety and help prevent accidents involving trains and track workers. The technology will alert track workers to the presence of an approaching train and will stop the train if the workers do not acknowledge receipt of the alert.	\$5,000,000
D2015-SRER-004	GA	Metropolitan Atlanta Rapid Transit Authority (MARTA)	The Metropolitan Atlanta Rapid Transit Authority (MARTA) will receive funding to install and demonstrate Bombardier's TrackSafe system along six miles of MARTA's rail system to improve track worker safety and reduce hazards associated with track inspection, maintenance and repair. The technology will be installed between Medical Center and North Springs stations and will alert track workers to the presence of an approaching train, and train operators and control center staff to the specific location of track workers.	\$4,233,865

Project ID	State	Project Sponsor	Project Description	Amount
D2015-SRER-005	GA	Center for Transportation and the Environment (CTE)	The Center for Transportation and the Environment (CTE) will receive funding to develop, evaluate and plan the deployment of a Bus Exportable Power System (BEPS) that would allow existing transit buses to export power using their hybrid propulsion systems. The system essentially would transform hybrid buses into a mobile power generator for use during all-hazards emergency response and recovery.	\$995,098
D2015-SRER-006	IL	The Board of Trustees of the University of Illinois	The Board of Trustees of the University of Illinois, in partnership with multiple public transit providers across the country, will receive funding to develop and deploy prototype concrete crossties and fastening systems for light rail, heavy rail, and commuter rail transit infrastructure to increase the life cycle of critical components and help maintain rail infrastructure in a state of good repair during normal operations and natural disasters. Transit partners include MetroLink (St. Louis, MO), Metra (Chicago, IL), Washington Metropolitan Area Transit Authority (Washington, DC), New York City Transit Authority (New York, NY), and TriMet (Portland, OR).	\$2,396,981
D2015-SRER-007	IL	UChicago Argonne LLC	UChicago Argonne LLC, in partnership with Pace Suburban Bus Service (Pace) and Metra Commuter Rail, will receive funding to research and develop a decision support tool for transit asset management that addresses all-hazards emergency response and recovery. The tool will help emergency responders to quickly assess a situation, develop an appropriate mitigation strategy, and restore transit services in the most effective manner, using available transit assets.	\$2,890,600
D2015-SRER-008	LA	City of New Orleans	The City of New Orleans, in partnership with the Regional Transit Authority (RTA) and the University of New Orleans, will receive funding to improve the evacuation of city residents and vulnerable populations during emergencies and disasters. This project will focus on evacuation transportation planning provided by the City of New Orleans and RTA, and includes the identification of transportation assets that are needed for an evacuation and of current transportation assets that are used on a daily basis by the RTA.	\$500,329

Project ID	State	Project Sponsor	Project Description	Amount
D2015-SRER-009	MN	Minnesota Valley Transit Authority	Minnesota Valley Transit Authority will receive funding to equip additional buses in its Bus Rapid Transit and express bus fleets with GPS-based technology to improve safety and bus service within narrow shoulder lanes along highly congested corridors in the Minneapolis-St. Paul area. The technology will provide lane keeping information, lane departure warnings, and collision avoidance advisories to bus operators in various weather and road conditions.	\$1,790,014
D2015-SRER-010 D2015-SRER-011	NJ	New Jersey Transit Corporation	New Jersey Transit Corporation (NJ Transit), in partnership with Stevens Institute of Technology, will receive funding to develop an advanced forecast and observation system that can provide real-time information on the potential risk and magnitude of flooding before and during significant storm surge events at specific locations critical to NJ Transit's operations. The system will help inform decision making on which equipment or rolling stock needs to be moved, which signals and substations need to be de-energized, and where staffing should be prioritized in advance of a major weather event.	\$381,079 (FY12) \$462,671 (FY13)
D2015-SRER-012	NY	New York Metropolitan Transportation Authority (MTA)	New York Metropolitan Transportation Authority (MTA) will receive funding to research and demonstrate an automated, data-based information collection system to measure and monitor the condition of subway railcar wheels and rail infrastructure to enhance safety, increase energy efficiency, and ensure reliable subway service. The system will be tested on MTA's Flushing (#7) Line.	\$3,617,948
D2015-SRER-013	OH	Battelle Memorial Institute	Battelle Memorial Institute, in partnership with Greater Cleveland Regional Transit Authority (GCRTA), will receive funding to research, develop and demonstrate integrated vehicle-to-vehicle and vehicle-to-infrastructure technology to minimize transit bus collisions with automobiles and pedestrians at intersections. This project will add both in-vehicle and infrastructure elements to create a connected vehicle environment for transit bus operations in the Cleveland area.	\$2,741,617

Project ID	State	Project Sponsor	Project Description	Amount
D2015-SRER-014	OR	Portland State University	Portland State University, in partnership with the Tri-County Metropolitan Transportation District of Oregon (TriMet) will receive funding to develop and test a Transportation Demand Management system that utilizes social media and Intelligent Transportation Systems (ITS) technology for emergency response and recovery in the Portland metropolitan area. The project will help TriMet and other transportation and emergency management agencies to deploy transportation services and personnel with increased effectiveness before, during and after an emergency.	\$943,984
<b>Total</b>				<b>\$29,000,000</b>

**Table 2: Low or No Emission Vehicle Deployment Program Project Selections**

Project ID	State	City	Project Sponsor	Project Description	Amount
D2015-LONO-001	CA	Thousand Palms	Sunline Transit Agency, in partnership with Southern California Association of Governments	Sunline Transit Agency, in partnership with the Southern California Association of Governments, will receive funding to purchase five hydrogen electric hybrid fuel cell buses built by BAE Systems, Ballard Power Systems and El Dorado National.	\$9,803,860
D2015-LONO-009	CA	Stockton	San Joaquin Regional Transit District (RTD)	The San Joaquin Regional Transit District (RTD), will receive funding to purchase five Proterra battery-electric buses and a charging station.	\$4,702,011
D2015-LONO-007	KY	Lexington	Lextran, Transit Authority of the Lexington Fayette Urban County Government	Lextran, the transit authority in Lexington, Kentucky, will receive funding to purchase five Proterra battery-electric buses, one charging station and one maintenance area charging system.	\$6,003,534
D2015-LONO-008	KY	Louisville	Transit Authority of River City (TARC)	The Transit Authority of River City (TARC), the transit agency for Louisville, Kentucky, and southern Indiana, will receive funding to deploy five Proterra battery-electric buses and a fast charging station.	\$3,321,250
D2015-LONO-010	MA	Boston	Massachusetts Bay Transportation Authority (MBTA)	The Massachusetts Bay Transportation Authority (MBTA) in Boston will receive funding to develop and deploy five 60-foot articulated New Flyer battery-electric buses on the MBTA Silver Line Bus Rapid Transit System.	\$4,139,188

Project ID	State	City	Project Sponsor	Project Description	Amount
D2015-LONO-011	MA	Worcester	Worcester Regional Transit Authority (WRTA)	The Worcester Regional Transit Authority (WRTA), the transit provider in Central Massachusetts, will receive funding to purchase and install a Proterra charging station for its existing fleet of zero-emission battery-electric buses.	\$1,002,600
D2015-LONO-006	MN	Duluth	The Duluth Transit Authority (DTA)	The Duluth Transit Authority (DTA) will receive funding to purchase and deploy six Proterra Fast Charge Electric buses, two charging stations and a maintenance facility charger..	\$6,343,890
D2015-LONO-003	OH	Canton	Stark Area Regional Transit Authority (SARTA)	The Stark Area Regional Transit Authority (SARTA) will receive funding to purchase five hydrogen electric hybrid fuel cell buses built by BAE Systems, Ballard Power Systems and El Dorado National.	\$8,877,405
D2015-LONO-004	PA	Lancaster	Red Rose Transit Authority (RRTA)	The Red Rose Transit Authority (RRTA) in Lancaster, PA, will receive funding to purchase 17 electric hybrid buses. The new, low emission buses will be manufactured by BAE Systems and Gillig. Fourteen buses will go to RRTA, and three will go to the Berks Area Regional Transportation Authority.	\$2,638,400

Project ID	State	City	Project Sponsor	Project Description	Amount
D2015-LONO-005	TX	Dallas	Dallas Area Rapid Transit Authority (DART)	The Dallas Area Rapid Transit Authority (DART) will receive funding to purchase and operate seven all-electric Proterra buses. DART will operate the fast charge, zero-emission buses on its downtown circulator service, D-Link.	\$7,637,111
<b>Total</b>					<b>\$54,469,249</b>

**Table 3: Bus Efficiency Enhancements Research and Demonstrations Project Selections**

Project ID	State	Project Sponsor	Transit Agency Partner	Project Description	Amount
D2015-BERD-002	FL	Center for Transportation and the Environment (CTE)	Central Florida Regional Transportation Authority (LYNX), Orlando, FL	Center for Transportation and the Environment (CTE), in partnership with Central Florida Regional Transportation Authority (LYNX), will receive funding to develop and demonstrate a new thermoelectric power generator on a 40' transit bus contributed by LYNX to reduce fuel consumption and allow end of day information processing without idling.	\$532,258
D2015-BERD-004	GA	Center for Transportation and the Environment (CTE)	Metropolitan Atlanta Rapid Transit Authority (MARTA), Atlanta, GA	Center for Transportation and the Environment (CTE), in partnership with the Metropolitan Atlanta Rapid Transit Authority (MARTA), will receive funding to develop and demonstrate a BAE Systems prototype Reduced Engine Idle Load System. This first-of-its-kind effort will bring a multimode, electric accessory 'power plant' to market.	\$976,030
D2015-BERD-005	MD	Maryland Transit Administration (MTA), MD	Maryland Transit Administration (MTA), Baltimore, MD	The Maryland Transit Administration will receive funding to develop and demonstrate a retrofit of 35 hybrid buses with a hybrid beltless alternator and support equipment to monitor fuel savings and impact on house batteries.	\$495,621
D2015-BERD-001	MI	American Seating	The Rapid, Grand Rapids, MI	American Seating, in partnership with The Rapid in Grand Rapids, Michigan, will receive funding to develop and demonstrate a heated and cooled seat, which is intended to reduce fuel consumption of public transportation vehicles.	\$298,906
D2015-BERD-003	UT	Center for Transportation and the Environment (CTE)	Utah Transit Authority (UTA), Salt Lake City, UT	Center for Transportation and the Environment (CTE), in partnership with the Utah Transit Authority (UTA), will receive funding to develop and demonstrate a system that will eliminate or reduce idling during paratransit passenger loading operations, lowering operating costs, reducing energy usage, and improving air quality.	\$697,185
<b>Total</b>					<b>\$3,000,000</b>