Low or No Emission (Low-No) Program FY 2021 Notice of Funding
Federal Transit Administration (FTA)

Webinar Date: February 25, 2021
Hosted by: Electrification Coalition
The Electrification Coalition (EC) works to accelerate the adoption of electric vehicles to reduce the national security and economic threats caused by our nation’s oil dependency.
EV ADOPTION PROGRAMS AROUND THE U.S.

The EC National Presence
EC Staff Locations and Programs Around the U.S.

- EV Policy – Federal, State, Local
- Analysis
- Fleets
- Freight Electrification
- Cities
- Consulting/Technical Support
AMERICA IS ALL IN is the most expansive coalition of leaders ever assembled in support of climate action in the United States.

Mobilizing thousands of U.S. cities, states, tribal nations, businesses, schools, and faith, health, and cultural institutions, America Is All In aims to:

**Accelerate**
Ambitious non-federal climate action across the country through direct implementation and collective advocacy

**Partner**
With the federal government to develop, implement, and ensure accountability for an ambitious, all-in national climate strategy

**Promote**
The role of subnational leaders around the world by elevating U.S. subnational action on the global stage
Guest Remarks

Subash Iyer
Chief Counsel, Federal Transit Administration (FTA)
City and State Leadership

• Cities can be key drivers of E-bus adoption
• Most momentum for bus electrification is centered in metropolitan areas
• Bus electrification helps cities meet internal, state-wide, and international fuel and emissions reduction goals
• In the C40 Fossil-Fuel-Free Streets Declaration, 13 cities committed to procure only zero-emissions buses
Overview of Notice of Funding:

- $180 million total funding available from The Federal Transit Administration (FTA) for FY 2021.
- Provides funding to state and local governmental authorities for the purchase or lease of zero-emission and low-emission transit buses as well as acquisition, construction, and leasing of required supporting facilities.
- Support national transit fleet transition to the lowest polluting and most energy efficient transit vehicles

**Notice of Funding Opportunity Posted:** 2/11/2021
**Proposals Due:** 11:59 PM Eastern Time by 4/12/2021 via electronic submission to [www.grants.gov](http://www.grants.gov)

https://www.transit.dot.gov/funding/grants/lowno
Eligibility

Eligible Applicants

• Public transit agencies
• State transportation departments
• Tribes
• direct recipients of FTA grants under the Section 5307 Urbanized Area Formula program

Eligible Projects

• Purchasing or leasing low- or no-emission buses
• Acquiring low- or no-emission buses with a leased power source
• Constructing or leasing related facilities and equipment (e.g. EV charging equipment)
• Rehabilitating or improving existing public transportation facilities to accommodate low- or no-emission buses
• Constructing new public transportation facilities to accommodate low- or no-emission buses
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Federal share cannot exceed 85% of the total transit bus cost
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Federal share cannot exceed 85% of the total transit bus cost

Federal share cannot exceed 90% of the net project cost
Eligibility

Eligible Projects

• Workforce Development - Up to 0.5% of requested grant funding for each action (for a total of 1% of grant request):
  • Workforce Development Activities eligible under federal public transportation law (49 U.S.C. 5314(b))
  • Training at National Transit Institute
Evaluation Criteria

- Demonstration of Need
- Demonstration of Benefit
- Planning and Local/Regional Prioritization
- Local Financial Commitment
- Project Implementation Strategy
- Technical, Legal, and Financial Capacity
- Geographic Diversity
- Diversity in Size of Transit System
- Previous Federal Grant Performance

Applicants MUST Demonstrate:
- Reduced Energy Consumption
- Reduced Harmful Emissions
- Reduced Direct Carbon Emissions

After applying the above criteria, the FTA Administrator will consider the following key Departmental objectives:

a. Non-Attainment Areas within Service Area
b. Environmental Justice Communities within Service Area
c. Funding Request for Workforce Development

Best Practice and Trends
FTA has recently made smaller average grants
- Request the largest version of your project.
- Allow for scalability in your grant application.
- Expect an award smaller than what you applied for. (NOFO – FTA may cap the amount of a single applicant)

- May Favor Non-Attainment Areas, Be Sure to Cite Non-Attainment Areas Service Routes Operate In
- Consider Workforce Development Request
- FTA has favored higher local cost-share
Opportunities to Lower Upfront Costs

$749,000 Electric Bus vs. $500,000 Fossil Fuel Bus

Local vouchers reduces electric bus price

Incremental cost required over Fossil Fuel Bus

Max Low-No Award Reduces Bus Cost

Battery Lease - Electric Bus Cost Fossil Fuel Bus

$0 Out of Pocket Cost for Bus/Charger Capital Lease
Additional information

- Full announcement posted on grants.gov: FTA-2021-001-LowNo
- Contact Amy Volz, Office of Program Management, 202-366-7484
- FTA-hosted Info Webinar (link), Thursday March 4, 2-3 PM EST (will be recorded for later viewing)
Guest Industry Panelists
Benefits of Electromobility

**CLEANER.** Reduced/zero tailpipe emissions. Noise reduction/quiet operation.

**GREENER.** CO$_2$ and other greenhouse gas reduction. Fossil fuel consumption reduction. Wind, water and solar generating the electricity.

**LEANER.** Total cost reduction over time. Vehicle and battery costs are decreasing. Lower maintenance costs. Fewer moving parts means reduced wear and tear.

## Nova Bus

### LFSe+ Battery Electric

Zero emissions with all electric accessories

<table>
<thead>
<tr>
<th>Measurements</th>
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<tbody>
<tr>
<td>Lenght</td>
<td>40 feet (12.2 meters)</td>
</tr>
<tr>
<td>Width</td>
<td>8.5 feet (2.6 meters)</td>
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<tr>
<td>Height</td>
<td>10.8 feet (3.3 meters)</td>
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<tr>
<td>Interior height</td>
<td>93 inches excluding rear axle</td>
</tr>
<tr>
<td>Wheelbase</td>
<td>244 inches (front to rear axle)</td>
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<thead>
<tr>
<th>Propulsion</th>
<th></th>
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<tbody>
<tr>
<td>Motor</td>
<td>BAE Systems HDS200</td>
</tr>
<tr>
<td>Rated power</td>
<td>200 kW</td>
</tr>
<tr>
<td>Rated torque</td>
<td>3835 lb-ft or 5200 N-m</td>
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<thead>
<tr>
<th>Passenger Payload</th>
<th></th>
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<tbody>
<tr>
<td>Seating capacity</td>
<td>Up to 41</td>
</tr>
<tr>
<td>Loading capacity</td>
<td>Up to 68</td>
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<thead>
<tr>
<th>Body features</th>
<th></th>
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<tbody>
<tr>
<td>Structure</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td>Outside shell</td>
<td>Fiberglass and thermoplastic skirt panels</td>
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<thead>
<tr>
<th>Turning radius</th>
<th></th>
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<tbody>
<tr>
<td>Turning radius</td>
<td>40 feet 10 inches (12.5 meters)</td>
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<tr>
<th>Main Components</th>
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<tbody>
<tr>
<td>Flooring</td>
<td>Maintenance-free composite floor</td>
</tr>
<tr>
<td>HVAC</td>
<td>MCC ECO 136e</td>
</tr>
<tr>
<td>Cooling system</td>
<td>Nova eCooling system</td>
</tr>
<tr>
<td>Axles</td>
<td>Front ZF RL-82A</td>
</tr>
<tr>
<td>Brakes</td>
<td>Regenerative braking with ABS all-wheel disc brakes</td>
</tr>
<tr>
<td>Electrical system</td>
<td>Volvo Bus Electronic Architecture (VBEA)</td>
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Removing Barriers to Transition towards Electromobility

- It’s not just a bus purchase! Infrastructure needs come first
- We need to think about financial incentives to encourage the purchase of electric buses
  - Government Incentives: Unlocking Financial Support
  - Government Voucher Program (NYHVIP, CAHVIP, Low No)
  - Bulk Purchasing
- Funding needs to be:
  - Predictable – electrifying a fleet require a long term plan
  - Simple - it has to be easily and quickly accessible to transit agencies
  - Flexible – should include electrification plan, feasibility studies, project management time, grid upgrade with utilities, garage upgrades...
1. **EPC:** Ask your Electric Vehicle Service Provider (EVSP) (i.e., charging provider), about their experience with site design and about how they engaged with the local utility, as needed for power upgrades, and government agencies on permitting.

2. **Future Proofing:** Ask what your EVSP does to future proof the site and future proof against unknown future EV models and unknown onboard charging systems, to meet your needs not just today but also several years from now as you grow.

3. **Eliminate Range Anxiety:** Depending on if vehicles reliably come back to the depot or would benefit from refueling on the go, ask your EVSP what solutions they have to support the specific needs of your fleet.

4. **Hardware selection:** Is your fleet homogenous or diverse? Each vehicle has different charging needs. If you have a diverse fleet, make sure to ask your EVSP about the range of hardware options they provide.

5. **Reliability:** How important is uptime to your fleet’s operations? Make sure to ask your EVSP about the uptime of their charging network and the steps that they take to ensure reliability. Do they provide uptime guarantees? Do they provide routine monitoring and preventative maintenance? What sort of Service Level Agreements (SLAs) do they have in place?

6. **Energy Management:** Ask what services your EVSP provides to actively manage and optimize charging schedules.

7. **Financing:** Do you want to own the EVSE infrastructure (higher CapEx; lower OpEx) or alternatively have your EVSP own and operate it for you (lower CapEx; higher OpEx)? Ask your EVSP if they offer a variety of charger ownership models.

8. **Incentives:** Ask your EVSP what their experience is helping customers obtain funding from grants, utility incentives, etc.

9. **Flexibility:** Ask your EVSP how they can be flexible and adapt to the specific needs of your fleet.
Proterra is a leader in the design & manufacture of zero-emission electric transit vehicles & EV technology for commercial applications.

- Over a decade of EV deliveries, 17M miles
- >1,000 buses sold to 130+ customers
- >54 MW installed charging infrastructure

Proterra buses & charging systems are eligible for Low-No funding

- Built from the ground up to be electric, the Proterra ZX5 is the longest-range battery-electric bus in its class
- Streamline your project with **turn-key charging infrastructure** from Proterra Energy
• Key benefits of partnering on your Low-No application:
  - Streamlined approach
  - Expedited procurement
  - Faster project delivery
  - Special pricing
    - Proterra is offering highly competitive pricing on vehicles and charging systems for Low-No projects, lower than state schedule pricing

If you are interested in partnering, we recommend starting the planning process as early as possible – reach out to get started!
Proven success with Low-No grant funding applications

- Agencies that partnered with Proterra have won over 80 grant awards under the Low-No program, representing more than $177 million in grant funds.
Elisabeth-Victoria Walsh, Nova Bus – Elisabeth-Victoria.Walsh@volvo.com
Jason Walter, EVGo – jason.walter@evgo.com
Lauren Scoville, Proterra – lcochran@proterra.com
Discussion
Questions and Answers
Electrification Coalition
The Electrification Coalition

Revolutionizing Transportation and Achieving Energy Security

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