



New Jersey Economic Development Authority

**REQUEST FOR INFORMATION (“RFI”)
2020-RFI-OET-TL-098
for
Supporting the Transition to
Zero-Emission Commercial Transportation**

1. INTENT/SUMMARY OF SCOPE

The New Jersey Economic Development Authority (“Authority” or “NJEDA”), an independent authority of the State of New Jersey, is seeking information and ideas from qualified entities (“Respondents”) regarding the State’s transition to zero-emission commercial transportation.¹

This Request for Information (RFI) is issued by the New Jersey Economic Development Authority to seek information from entities and/or individuals with perspectives on the deployment of zero-emission medium and heavy-duty vehicles (MHDVs) as well as related charging equipment and infrastructure. For the purpose of this RFI, the term “MHDV” is broadly defined as encompassing both on-road vehicles² as well as off-road goods-moving equipment, such as equipment used at ports, airports, and large distribution centers.

The Authority is interested in receiving information (including but not limited to comments, questions, recommendations, white papers, tools, case studies, information, ideas, references, and general responses, e.g., willingness to participate in a focus group or demonstration project) that will help it to shape new zero-emission MHDV programs and initiatives in New Jersey using proceeds from the Regional Greenhouse Gas Initiative (RGGI). More specifically, this RFI aims to help the Authority better understand:

1. The extent to which MHDV owners and/or operators are currently utilizing zero-emission technologies, and/or are considering them in their future procurement pipeline;
2. The key barriers (financial and non-financial) that entities face in deploying zero-emission MHDVs and associated charging equipment;

¹ Zero-emission refers primarily to battery storage electrification technology, but also includes vehicle electrification based upon hydrogen fuel cell technology

² Encompasses both Medium (Class 2b-6) and Heavy (Class 7-8) duty vehicle classifications as defined by the US FHWA – https://www.fhwa.dot.gov/policyinformation/tmguid/tmg_2013/vehicle-types.cfm

3. How the Authority can best support and incentivize entities in transitioning to zero-emission MHDVs and equipment; and
4. Potential supports that would enable New Jersey to grow existing and attract new zero-emission MHDV supply chain businesses, and prospective supply chain businesses.

Please note, the scope of this RFI is limited to MHDVs and associated charging infrastructure. Information pertaining to light vehicles (i.e passenger cars) can be directed to the New Jersey Department of Environmental Protection (DEP) via drivegreen@dep.nj.gov.

2. BACKGROUND

The New Jersey Economic Development Authority serves as the State’s principal agency for driving economic growth. The Authority is committed to making New Jersey a national model for inclusive and sustainable economic development by focusing on strategies that help build strong and dynamic communities, create high-quality jobs for New Jersey residents, and provide pathways to a stronger and fairer economy. Through partnerships with a diverse range of stakeholders, the Authority creates and implements initiatives to enhance the economic vitality and quality of life in the State, and to strengthen New Jersey’s long-term economic competitiveness.

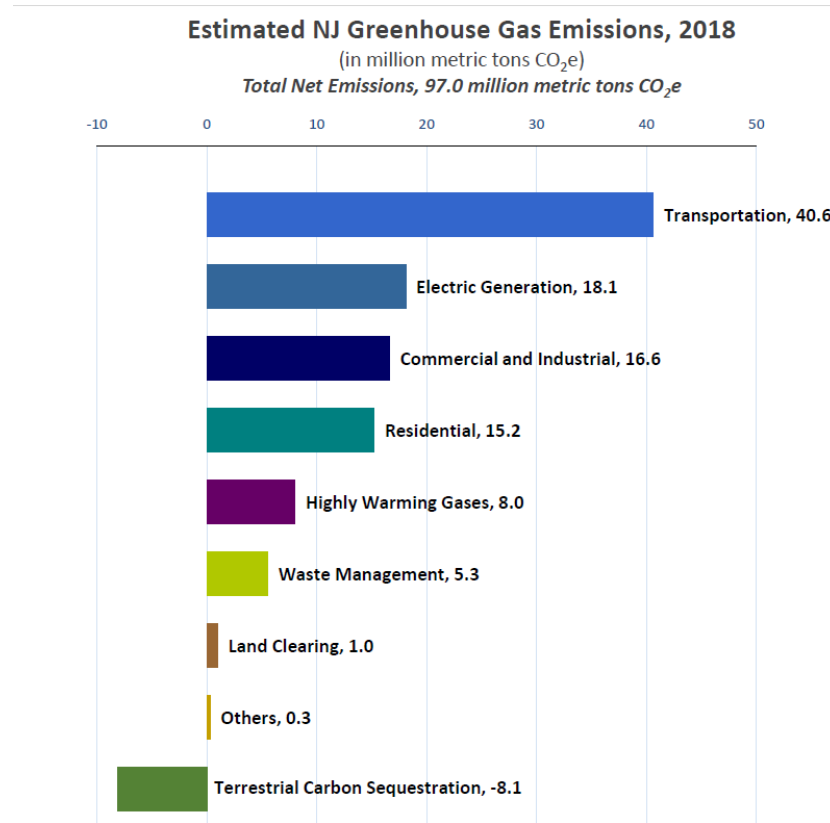
Reducing transportation sector emissions

Electrification of the transportation sector is essential for New Jersey to achieve its target of 80% reduction in greenhouse gas (GHG) emissions by 2050. Currently, transportation accounts for 41% of GHG emissions in the State, more than twice that of the second largest source, electricity generation (18%), shown in Figure 1.³ Fossil fuel-powered transportation is also the leading source of air pollutants.⁴

³ *Statewide Greenhouse Gas Emissions Inventory*, NJ Department of Environmental Protection (NJDEP), 2018

⁴ *Clean Air Future Health and Climate Benefits of Zero Emission Vehicles*, American Lung Association, 2016

Figure 1



Transitioning to zero-emission technologies is necessary to reduce these societal costs and to advance environmental justice (i.e., the health and quality of life outcomes for communities disproportionately impacted by pollutants). New Jersey’s Energy Master Plan (EMP)⁵ sets bold targets to decarbonize the transportation sector, including:

- Supporting the deployment of 330,000 light-duty electric vehicles (EVs) by 2025;
- Deploying EV charging infrastructure throughout the state;
- Encouraging EV adoption through incentives for charging station installation in certain locations and the purchase of electric vehicles;
- Increasing consumer and fleet owner awareness and acceptance of electric vehicles;
- Rolling over the state light-duty (passenger) fleet to electric vehicles;
- Continuing to improve New Jersey Transit’s environmental performance;
- Increasing clean transportation options in low-and moderate-income and environmental justice communities;
- Partnering with industry to develop incentives to develop the MHDV vehicle fleet with battery or fuel cell technology, and to support R&D enabling such electrification; and
- Exploring policies that can accelerate adoption of alternative fuels in transportation.

⁵ The Energy Master Plan (EMP) can be accessed here: <https://nj.gov/emp/>

Legislation signed by Governor Murphy earlier this year⁶ embeds a number of the above targets into law. Further, the Partnership to Plug In MOU⁷, executed in June 2019 among NJDEP, BPU & EDA, recognizes and synchronizes each agency's efforts to electrify the transportation sector.

Recognizing the transportation sector's contribution

Electrification will strengthen the transportation sector's already considerable contributions to the State's economy and community wellbeing. In 2018, New Jersey's transportation, logistics, and distribution (TLD) sectors accounted for over 400,000 jobs and contributed more than \$67 billion to State Gross Domestic Product (GDP).⁸ This contribution is also high in comparison to national averages – New Jersey accounts for 4% of the US GDP generated by TLD sectors, while representing only 2.7% of US population. This is due to New Jersey's strategic location and extensive transportation assets, including the nation's second busiest port, second densest road and rail network, and nation's largest statewide mass transit system (NJ Transit).

Transitioning to zero-emission MHDV will increase these economic contributions by reducing negative externalities and, as EV markets mature and charging access improves, by cutting costs for the State's transportation businesses (as well as households). Other benefits include:

- Creating jobs in construction, the trades, planning, and engineering to provide, wire, and install EV infrastructure and to modernize, upgrade, and maintain the distribution grid and all its connected components;
- Providing consumers and businesses protection against wide swings in the cost of gasoline and diesel;
- Reducing the overall cost of electricity for all customers through more efficient utilization of the grid; and
- Reducing GHG in communities disproportionately affected by air pollutants and, therefore, fostering improvement of public health.

The Authority recognizes that in the early phases of this transition to zero-emission solutions, the transportation and logistics sector will require targeted support to bridge cost differentials and to tackle the complexities of planning for the implementation of such a system. One of the most critical factors will be access to a robust charging network, which directly impacts technical requirements for MHDVs, such as driving range capabilities and load capacity.

Regional Greenhouse Gas Initiative (RGGI)

On January 29, 2018, Governor Murphy signed Executive Order 7 (EO 7), instructing state government agencies to return New Jersey to full participation in the Regional Greenhouse Gas Initiative (RGGI) as quickly as possible.⁹ RGGI is a multi-state, market-based program that establishes a regional cap on carbon dioxide (CO₂) emissions from the electric power generation

⁶P.L. 2019, c.362: Establishes goals and initiatives for increased use of use of plug-in EVs

⁷ https://drivegreen.nj.gov/pdf/MOU_6.3.19.pdf

⁸ Real GDP. NJEDA analysis

⁹ To learn more about RGGI visit: <https://www.rggi.org/>. Executive Order 7 (EO 7) is available at: <https://nj.gov/infobank/eo/056murphy/pdf/EO-7.pdf>

sector allowing for auctioning of emissions rights.

Based on its participation in the quarterly RGGI auctions, New Jersey plans to invest an estimated \$80 million each year of the proceeds in programs that reduce greenhouse gas emissions, drive forward projects that boost clean energy and create jobs, protect the health of residents in environmental justice communities, and increase the resiliency of coastal communities. By law, three state agencies (NJEDA, the New Jersey Department of Environmental Protection (NJDEP), and the New Jersey Board of Public Utilities (NJBPU)) are allocated RGGI proceeds, with NJEDA receiving 60% (focus area: commercial, institution, and industrial entities), and BPU and DEP each receiving 20% (focus areas, respectively: low income and moderate income residential; and local government, forest, and tidal marshes).

A significant portion of NJEDA's RGGI funding will be focused on programs and projects that support the deployment of zero emission MHDVs, with a focus in and around communities disproportionately impacted by GHG emissions. In collaboration with DEP and BPU, such programs or projects will be developed and prioritized based on a number of critical objectives:

- A net reduction in greenhouse gas emissions or a net sequestration of carbon;
- Be directly responsive to the recommendations submitted by the NJDEP to the Legislature pursuant to the Global Warming Response Act;
- Provide co-benefits; and,
- Be directly responsive to the negative effects of human health and the environment in communities that are disproportionately impacted by the effects of environmental degradation and climate change.

Industry consultation

The Authority is committed to supporting the commercial transportation sector through the electrification transition and is issuing this RFI to solicit input for programs that could be brought forward to accelerate the transition to zero-emission solutions for:

- MHDV trucks (e.g. drayage, box trucks, last mile, etc.);
- Light commercial vehicles (e.g. forklifts);
- School buses;
- Shuttle buses/jitneys;
- Private rail/freight;
- Public transit;
- Large off-road goods-moving equipment (such as that used at ports and airports); and
- Other commercial or industrial vehicle activities (construction, transportation, agriculture, etc).

3. ELIGIBILITY CRITERIA

The RFI is seeking responses from all stakeholders interested in zero-emission MHDVs and associated charging infrastructure, including but not limited to:

- EV-related technology companies (e.g. hardware and software developers, etc.);
- EV start-ups;
- Vehicle and component/parts manufacturers (e.g. OEMs, battery, powertrain, other parts manufacturers, assemblers, retrofitters, etc.);
- MHDV dealerships, financing, insurance, and leasing companies;
- MHDV maintenance companies or organizations;
- Owners/operators (e.g. freight/drayage, parcel delivery, school buses, shuttles, jitneys, waste collection services, port operators, airlines, etc.);
- EV charging infrastructure companies;
- Utilities; and
- R&D institutions (related to technology development, grid impact, or other facets of commercial EV development).

In addition, this RFI welcomes input from:

- Entities representing the interests of commercial transportation or MHDV supply chain businesses and workers, including but not limited to industry associations, chambers of commerce, and unions;
- Energy storage subject matter experts, including those with knowledge of battery testing and design, safety, and end of life (e.g., decommissioning, repurposing for stationary application, recycling, etc.)
- Environmental and other public policy-focused organizations;
- Organizations representing Environmental Justice communities (together with individual representatives of these communities);
- Jurisdictional and regulatory representatives (from NJ, all other states and territories, and international sources); and
- Entities with expertise in zero-emission MHDV matters, such as research institutions.

Qualified entities do not need to be located within the State of New Jersey to provide a response.

4. RFI RESPONSE QUESTIONS

In submitting responses to this RFI, respondents are encouraged to answer any questions they consider relevant and to the best of their ability. Respondents do not need to answer all questions for their response to be considered. Answers are understood to be preliminary and non-binding. Respondents are free to go beyond the scope of the questions and/or structure responses as necessary to increase clarity and efficiency of responses. Respondents should also feel free to submit additional or alternate information as deemed necessary and appropriate.

For ease, questions have been broken into the following categories:

- A. Background;
- B. General questions;
- C. Questions specific to users/purchasers of zero-emission MHDVs; and
- D. Questions specific to manufacturers and prospective or current supply chain entities.

A. Background

1. Please provide information on your company, group, organization or self and your involvement with, and/or interest in, zero-emission MHDVs.

B. General questions

2. Which vehicle types (e.g. drayage, school buses, etc.) and use cases (e.g. short haul, last mile, etc.) are most viable for electrification:
 - i. In the immediate-term (1-2 years)
 - ii. In the medium term (2-5 years)?
3. What are the major financial barriers (e.g., upfront capital costs, energy/demand charge costs, etc) and non-financial barriers (e.g., remaining life of current fleet, accessibility of charging locations that meet power/energy needs, route length, available technologies, regulatory/permitting issues, safety concerns, etc) to zero-emission MHDVs?
4. What are the top three initiatives New Jersey should pursue to accelerate overall zero-emission MHDV deployment?
5. What are the top three initiatives that New Jersey should pursue to accelerate the localization of zero emission MHDV supply chain activities in the State?
6. Which zero-emission MHDV-focused programs adopted in other states or internationally have performed particularly well or have been ineffective, and why?

C. Additional questions – Users/purchasers of zero-emission MHDVs:

7. To what extent are you currently utilizing zero-emission MHDVs? If your business has used and/or is currently using such technologies:
 - a. What impacts (positive and negative, as applicable) has it had on your operations?
 - b. What are the main challenges that you have experienced?
 - c. How have operating costs (such as fuel/energy, maintenance and repairs) compared with conventional vehicle types?
8. How do you see your company/group/organization utilizing zero-emission MHDVs over the next five to ten years? What types of incentives or programs could accelerate or increase the likelihood?
9. Have you, in addition to purchasing/using MHDV, electrified light-duty portions of your fleet? If so, what synergies or issues have you found in managing both types of vehicles (e.g., charging infrastructure)?

D. Additional questions – Zero-emission MHDV manufacturers and supply chain entities (including prospective supply chain entities):

10. To what extent is your business currently involved in zero-emission MHDV supply chains, either within or outside of New Jersey and what is the nature of its involvement (e.g. manufacturing, components, financing, etc)?
11. If not currently involved, to what extent do you envision your business becoming involved in zero-emission MHDV supply chains (based on current incentives and policy settings)?
12. Where do you see the greatest opportunities for growth of zero-emission MHDV supply chains in New Jersey over the next five to ten years?
13. What metrics do you use to select the components for your vehicles?
14. How do you address end of life (decommissioning, repurposing, recycling, and disposal/salvage) for the trucks, especially in relation to the batteries?

5. QUESTIONS AND ANSWERS (from Respondents to NJEDA)

All questions concerning this RFI must be submitted in writing no later than 5:00PM EST, on July 22nd, 2020 via e-mail to: **RFI-MHDVelectrification@njeda.com**

The subject line of the e-mail should state: **Questions-2020-RFI-OET-TL-098.**

Answers to questions submitted will be publicly posted on the Authority's website on or about July 24th, 2020 at: <https://www.njeda.com/Bidding-Opportunities-General/Economic-Transformation-RFIs> as Addendum.

IT IS THE RESPONDENT'S RESPONSIBILITY TO CHECK THIS URL REGULARLY FOR UPDATES.

6. RESPONSE DETAILS (Info Provided to Respondents Regarding Document Submission)

All RFI responses must be submitted in writing no later than **5:00 PM EST on August 14th, 2020** via e-mail to: **RFI-MHDVelectrification@njeda.com.**

The subject line of the e-mail should state: **RFI Response-2020-RFI-OET-TL-098.**

7. FOLLOW-UP QUESTIONS (from NJEDA) / ADDITIONAL INFORMATION

Respondents may be invited to provide additional information to allow the Authority to better understand information provided.

8. PROPRIETARY AND/OR CONFIDENTIAL INFORMATION

The Authority reserves the right to copy any information provided by the Respondents. The Authority reserves the right to use ideas that are provided by Respondents, applicants, stakeholders, or vendors. By submitting a Response, the submitter represents that such copying or use of information will not violate any copyrights, licenses, or other agreements with respect to information submitted or product solutions demonstrated, if applicable. Responses must clearly be marked for any information the Respondent deems Proprietary and/or Confidential.

The Authority further reserves the right to share information with the NJDEP and NJBPU, its sister agencies on the State's "Partnership to Plug-In" initiative.

9. DISCLAIMER / NO OBLIGATION

The Authority is under no obligation to contact Respondents to this RFI. If necessary, it may contact respondents through telephone calls, written or electronic communications, presentation requests and/or interviews to seek clarification on submissions. Please note that, Respondents shall not be under any obligation to respond to any such request.

Information gathered from this RFI may be used to develop programs/actions aimed at supporting a zero-emission MHDV ecosystem in New Jersey.

This RFI is completely voluntary and will not affect scoring or consideration of any applications that may in the future be submitted to the Authority under programs or projects intended to strengthen New Jersey's cleantech innovation ecosystem.

This RFI is issued solely as a means of gathering information. Interested parties responding to this RFI do so at their own expense. There will be no monetary compensation from the Authority for the time and effort spent in preparing the response to this RFI. All expenses incurred are the sole responsibility of the Respondent.

This RFI is not a request for qualification/proposal. It may or may not result in further action. Should the Authority to move forward and issue an RFQ/P or announce a program/product related to this RFI, Respondents need not have submitted a response to this RFI in order to be eligible to respond to the RFP. Should an RFQ/P be issued, responding to this RFI will not affect scoring or consideration for that process.

10. NEW JERSEY OPEN PUBLIC RECORDS ACT

Respondents should be aware that responses to this RFI are subject to the “New Jersey Open Public Records Act” (N.J.S.A. 47:1A-1 et seq.), as amended and including all applicable regulations and policies and applicable case law, including the New Jersey Right-to-Know law. All information submitted in response to the RFI is considered public information, notwithstanding any disclaimers to the contrary, except as may be exempted from public disclosure by OPRA and the common law.

Any proprietary and/or confidential information submitted in response to this RFI will be redacted by the Authority. A person or entity submitting a response to this RFI may designate specific information as not subject to disclosure pursuant to the exceptions to OPRA found at N.J.S.A. 47:1A-1.1, when such person or entity has a good faith legal and/or factual basis for such assertion (i.e. information that may be included in another ongoing public procurement or solicitation). The Authority reserves the right to make the determination as to what is proprietary or confidential and will advise the person or entity accordingly. The Authority will not honor any attempt to designate the entirety of a submission as proprietary, confidential and/or to claim copyright protection for the entire proposal. In the event of any challenge to the Respondent’s assertion of confidentiality with which the Authority does not concur, the Respondent shall be solely responsible for defending its designation.