New Report Details Challenges and Solutions For Transitioning to a Climate Resilient Electric Bus Fleet

The new report, “Planning for a Climate Resilient Electric Bus Fleet: Challenges and Solutions for Public Transportation Agencies,” was produced by Tri-State Transportation Campaign and ElectrifyNY

New York, NY - Today, Tri-State Transportation Campaign (TSTC) and ElectrifyNY released a new report that serves as a guide for public transportation agencies looking to transition to an all-electric bus fleet.

While Superstorm Sandy is, to date, the most significant test of the MTA’s preparedness, the need for greater resiliency at the nation’s largest transit authority is broader than historic hurricanes. Flooding and water table intrusion, asset damage, and service disruptions are challenges the MTA must ameliorate almost daily. This looming threat, combined with the severe financial crisis the COVID-19 pandemic has wrought, is creating an increasingly dangerous situation. Even beyond rare storms like Sandy, climate change is a real and ongoing risk to MTA operations. Advocates found that over half of the MTA’s bus depots are located in areas that will be at high risk of flooding by 2050. Planning and designing a truly climate-resilient transit system—that includes battery-electric buses to reduce New York’s emissions—will limit disruptions and damage caused by severe weather events, advocates say.

“By speaking with transportation authorities that have begun incorporating electric buses into their fleets, we found that with strategic infrastructure siting, comprehensive emergency planning, and an eye to emerging technologies, the MTA and its peer transit agencies can have a resilient transition to electric buses,” said Lauren Bailey, Director of Climate Policy and primary author of the report. “Collaborations with the utilities, the City of New York, and local communities must begin now to create an electric bus network that serves the needs of all of our residents.”
The report argues that reducing New York State’s contributions to climate change is a crucial transition that the entire transportation system must undertake. Considering the need to not only prepare for a more volatile future, but also to work to prevent that same future from coming to pass, the MTA’s commitment to electrifying its bus fleet by 2040 is a significant step towards a more prepared transit system. Advocates contend that electrification is a challenge, albeit a solvable one that the MTA must tackle to move to a truly zero-emission, fossil fuel-free bus fleet. As the MTA manages this transition, they do so with an eye toward fleet resiliency in the face of climate change. To that end, this report offers an analysis of existing strategies, case studies, and future technologies that can ensure the nation’s largest bus fleet is ready for the next storm.

Key recommendations include:

- Provide on-street bus priority for high-frequency, high-ridership routes with charging infrastructure.
- Install permanent bus lanes on bridges, over the East River in particular, to provide redundancy with subway tunnels.
- Put most of the electric bus charging infrastructure in flood-resilient bus depots and ensure all bus depots are flood-resilient long term.
- Invest in smart charging technology to reduce peak demand, save money, and allow for renewable sources to integrate with the power grid.
- Develop an on-route charging system that allows high-frequency, high-ridership routes to continue operating during emergencies and power outages.

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Tri-State Transportation Campaign is a 27-year old advocacy organization that fights for an equitable, safe, multi-modal transportation network that provides options and supports the economies of New York, New Jersey, and Connecticut. TSTC works to fix our commutes, meet our climate goals, stop traffic deaths, and make transportation fair.

ElectrifyNY is a statewide coalition of advocates for environmental justice, public transportation, social justice, and good jobs fighting for a clean, equitable electric transportation future for New York.