



Renewable Communities

Massachusetts cities and towns
leading the way to 100% renewable energy

Martha's Vineyard Transit Authority: Electric transit buses

Well-known as a summer vacation destination, Martha's Vineyard is also home to 17,000 year-round residents. Residents and visitors alike are served by the Martha's Vineyard Transit Authority (VTA), with a fleet of 33 buses running in all four seasons.¹ The VTA runs 12 year-round routes, and served 1.35 million riders between July 2017 – June 2018.²

In 2017, the VTA announced that it had placed an order for electric buses. The first six buses entered into service beginning in the summer of 2018.³ An additional six electric buses were set to be added to the VTA fleet in the summer of 2019. The VTA plans to transition to an all-electric fleet in the coming years, replacing its remaining diesel-fueled buses with electric buses as they reach the end of their operational lifespan.⁴

Part of the VTA's Clean Energy Transportation Plan is the development of a cutting-edge charging infrastructure. Chargers at the VTA's garage will be connected to a microgrid consisting of solar panels and battery storage. In normal operation, the solar panels and battery will help the VTA reduce its consumption of electricity during peak hours. In the event of a power outage, the system can disconnect from the larger electric grid and continue to provide power, in tandem with backup diesel generators.⁵

The agency is also installing wireless induction chargers at a few key stops around the island. When a bus pulls over to discharge passengers at one of these stops, its battery will receive enough power from the charger to reach the next charging station, extending the range of the buses to be practically unlimited.⁶

The VTA's bus service connects ferry terminals, beaches, and most major attractions on the island, making it possible for visitors to leave their cars on the mainland rather than pay an extra fee to have them ferried over.⁷ As the VTA introduces more electric buses into its fleet, residents and visitors alike will benefit from reduced noise, improved service, and cleaner air.

1. "Martha's Vineyard transit plan goes beyond electrification," Sarah Shemkus, Energy News Network, 10 December 2018, <<https://energynews.us/2018/12/10/northeast/marthas-vineyard-transit-plan-goes-beyond-electrification/>>.

2. *Annual Report: Fiscal Year 2018*, Martha's Vineyard Transit Authority, 30 June 2018, <<http://www.vineyardtransit.com/Pages/FV1-000588BA/FV1-000588BF/VTA%20Annual%20Report%20FY%202018.pdf>>.

3. "Press Release - VTA Moves Forward with Plans to go Electric," Martha's Vineyard Transit Authority, 14 August 2017, <http://www.vineyardtransit.com/Pages/VTA_BBBoard/I05BD8D5A>. "Electric Buses Have Arrived!," Martha's Vineyard Transit Authority, <http://www.vineyardtransit.com/Pages/VTA_BBBoard/I06156066>.

4. "Martha's Vineyard transit plan goes beyond electrification," Sarah Shemkus, Energy News Network, 10 December 2018, <<https://energynews.us/2018/12/10/northeast/marthas-vineyard-transit-plan-goes-beyond-electrification/>>.

5. "A Microgrid for Every Electric Bus Stop in Martha's Vineyard Town," Lisa Cohn, Microgrid Knowledge, 16 October 2018, <<https://microgridknowledge.com/microgrids-charging-buses/>>.

6. Ibid.

7. "Frequently Asked Questions," Martha's Vineyard Transit Authority, <http://www.vineyardtransit.com/Pages/VTA_Webdocs/faqs>.