

Medium- and Heavy-Duty EVs

Vehicle Classification

Class 3-5: Medium Duty (10,000-19,500 lbs)



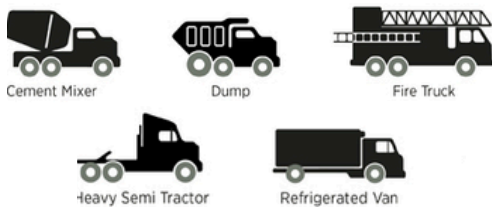
Class 6: Medium Duty (19,501-26,000 lbs)



Class 7: Heavy Duty (26,001-33,000 lbs)



Class 8: Heavy Duty (over 33,000 lbs)



MHD EVs in Maine

- Based on Maine vehicle registration data, average daily MHDV use falls well with the range of most electric models -53 miles for medium-duty and 96 for heavy-duty.
- Under a moderate projection of MHD Zero Emissions Vehicle (ZEV) adoption and policy support, GHG emissions in Maine could decrease by over 300,000 metric tons annually.

Resources for Assessment

AFLEET Heavy-Duty Vehicle Emissions Calculator (HDVEC)

- Estimates emissions from alternative fuel heavy-duty vehicles to support technology comparisons.

Benefits of Medium and Heavy Duty EVs

- Trucks and buses make up 27% of Maine's transportation emissions and 10% of the state's GHGs, making MHDV electrification key to climate goals.
- MHDVs emit significant air pollutants like NOx and PM2.5. Electrification reduces these pollutants significantly.
- Electric MHDVs generate less noise, reducing noise pollution near depots, major routes, and schools.

Regional Highlights



- In May 2022, Greater Portland Metro and Biddeford Saco Old Orchard Beach Transit (BSOOB Transit) each added two battery electric buses (BEB's) to their fleets. They are expected to be five times more energy efficient than their diesel and compressed natural gas (CNG) counterparts.
- Casco Bay Lines is set to launch the "Battery Steele", a new hybrid-electric ferry that makes it one of the first U.S. passenger ferry systems to fully adopt diesel-electric technology, cutting up to 800 metric tons of CO₂ each year.
- BSOOB Transit is supporting fleet electrification with a resilient microgrid that will provide clean energy and backup power for its electric buses, ensuring service continues during grid outages.