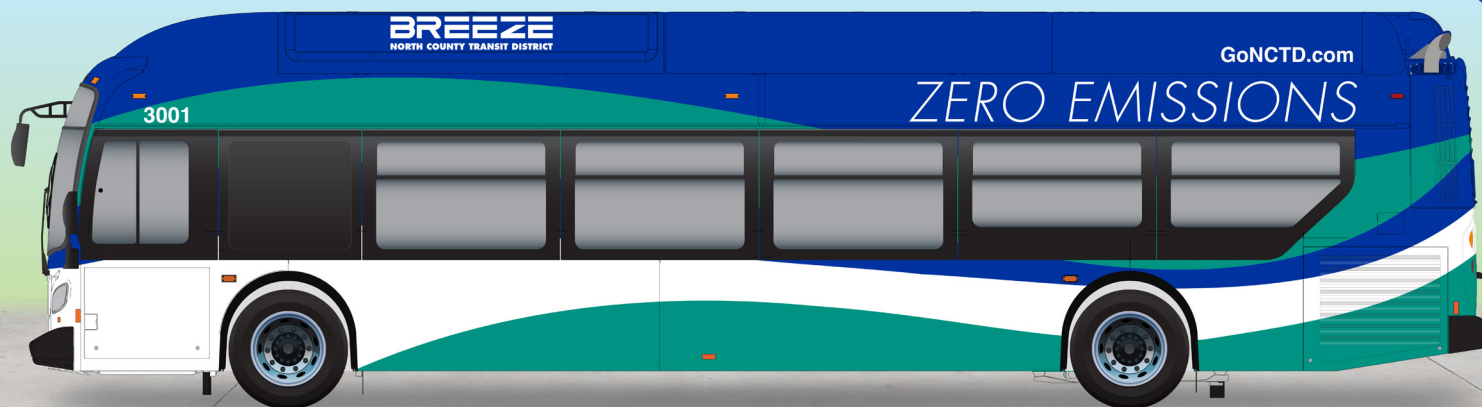


Zero-Emission Buses

Fact Sheet

Background

California has established a goal to transition transit fleets to zero-emission propulsion technology. NCTD plans to have an entirely ZEB fleet by 2042.



Cost of Transitioning to ZEB:

- Battery-electric bus (BEB): \$900K - \$1 Million
- Fuel-cell electric bus (FCEB): \$1.1 Million - \$1.2 Million
- Facilities improvements: \$47 Million

First Steps Towards Zero-Emissions

- NCTD intends to procure buses to use in a demonstration pilot across the NCTD service area. These will include:
 - 6 Battery Electric Buses (BEB) - FY21
 - 8 Fuel-Cell Electric Buses (FCEB) - FY22

Pilot program to determine which bus type best fits within NCTD services:

- Buses & Facilities: \$13 Million
 - BEBs, facility improvements, and electric chargers are funded
 - FCEBs and parking lot improvements are not yet funded for this pilot
 - BEB pilot in East division will be primarily focused on BREEZE route 350 which operates in Escondido
 - FCEB pilot in West division will be primarily focused on BREEZE routes 101, 302, 303, and 309



Zero-Emission Bus Facilities

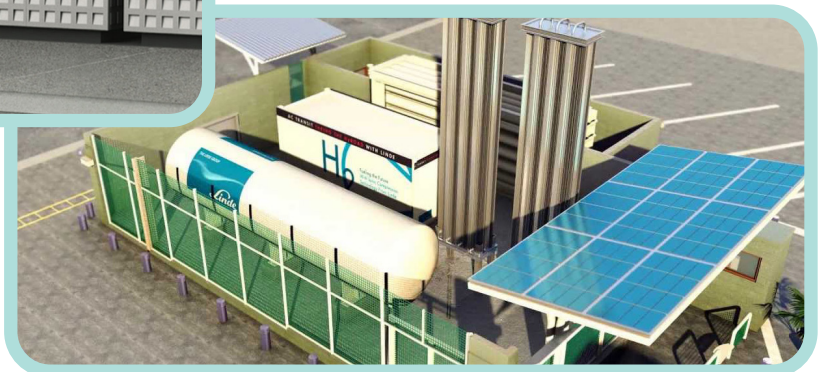
NCTD's transition to ZEB technologies will require a number of modifications and changes to existing infrastructure and operations.



General layout of division charging infrastructure



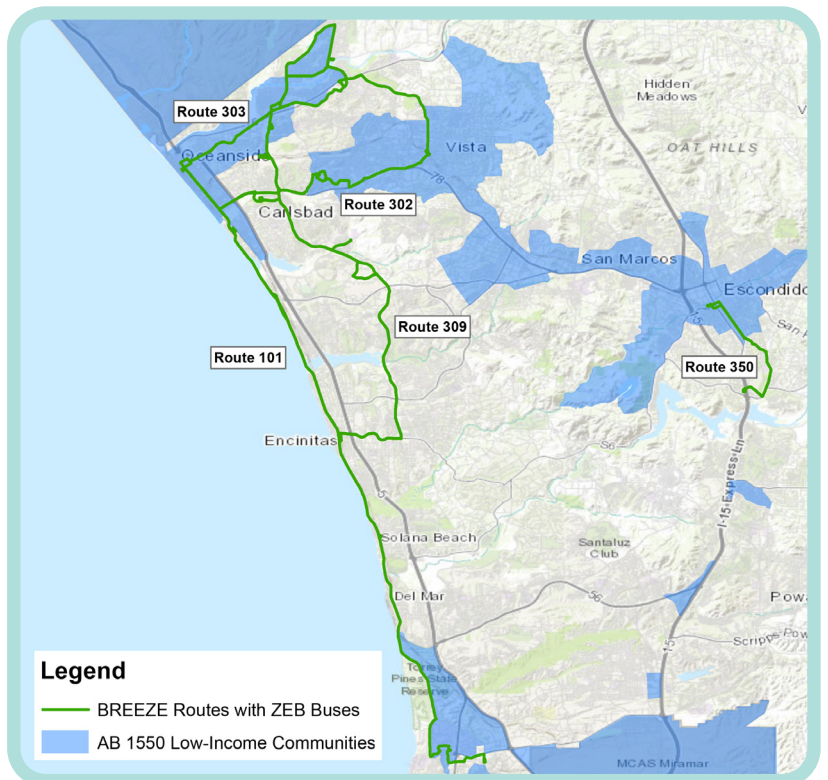
ChargePoint Express charging station for battery electric buses



Fueling station for hydrogen fuel-cell buses

Benefitting Disadvantaged Communities:

- NCTD plans to deploy ZEB buses throughout the service area and with special consideration to low-income communities.
- “Low-income communities” are census tracts with median household incomes at or below 80 percent of the statewide median income or with median household incomes at or below the threshold designated as low income by the Department of Housing and Community Development HCD’s State Income Limits.
- This map shows San Diego’s disadvantaged and low-income communities as based on 2016 state income limits.



7/23/2020