

San Bernardino Investment Playbook

Project Details: Zero-Emission Buses

The San Bernardino County Transit Agency (SBCTA) and Omnitrans jointly developed the San Bernardino Countywide Zero-Emission Bus Study Master Plan and the Omnitrans Bus Rollout Plan, both adopted in 2020. Omnitrans is gradually transitioning to an all-zero-emission bus fleet for its 40-foot buses by 2040 by incrementally replacing compressed natural gas (CNG) buses with either battery electric or hydrogen fuel cell buses. Omnitrans began operating its first four battery electric buses in 2021, two of which operate in the City of San Bernardino. Omnitrans expects to begin operating its first four hydrogen fuel cell buses out of its San Bernardino maintenance facility in 2024.

The Omnitrans Zero-Emission Bus Rollout Plan (2020) and Zero-Emission Bus Fleet Transition Plan (2022) outline steps that Omnitrans plans to take to develop a workforce skilled in operating and maintaining zero-emission vehicles. A skills gap assessment will be conducted and training will be provided for equipment mechanics, mechanic helpers, vehicle service workers, and coach operators. Omnitrans is also launching a new apprenticeship program in collaboration with San Bernardino Valley College in 2023. These full-time paid apprenticeships (with benefits) will prepare San Bernardino Valley College students for Omnitrans Equipment Mechanic and Mechanic Helper positions.

RATIONALE

California has a suite of state-level policies and programs designed to reduce and ultimately end the state's dependence on carbon-based fuels, which are one of the largest contributors to the climate crisis. One such rule is the California Air Resources Board (CARB) Innovative Clean Transit regulation, which requires that all public transit buses be zero-emission by 2040. Throughout the state, transit agencies have developed detailed plans for this transition and are now working to bring about a wholesale transformation of their fleets. The switch to zero-emission buses will keep California on track to achieve its climate goals and improve quality of life by reducing pollution and noise for communities located along bus routes.

OBJECTIVES

- Position San Bernardino in the vanguard of climate action
- Significantly reduce the City's reliance on carbon-based energy
- Improve health outcomes and quality of life for area residents

ADDITIONAL DETAILS

By 2040, Omnitrans' entire fleet of 186 fixed-route buses (40-foot and 60-foot buses) will be replaced with zero-emission buses, which Omnitrans expects to be a mix of battery electric buses and hydrogen fuel cell buses. The multi-stage effort to convert Omnitrans' 40-foot bus fleet to zero emissions by 2040 will require extensive investment across several domains:

- Replacement of retiring CNG buses with zero-emission buses, which have a higher cost per bus

- Electrical upgrades and installation of electric vehicle charging stations at maintenance facilities and on-route at transit centers
- Design, construction, operation, and maintenance of hydrogen fueling stations and acquisition of hydrogen fuel
- Zero-emission workforce development apprenticeship program (three apprentices per year for three years)

COST

\$200M	Capital investment in vehicles
\$45M	Capital investment in charging / fueling infrastructure
\$155M	Operations and maintenance through 2050
\$500K	Three years of Workforce Development Apprenticeship Program (three apprentices per year)

\$400.5M TOTAL

POTENTIAL FUNDING

Federal

Environmental Protection Agency (EPA)
 Federal Transit Administration (FTA)
 Federal Highway Administration (FHWA)
 US Department of Energy
 US Department of Transportation

State

California Air Resources Board (CARB)
 California Transportation Commission (CTC)
 Caltrans

Local

South Coast Air Quality Management District (SCAQMD)
 Mobile Source Reduction Committee (MSRC)

LEAD ORGANIZATIONS

Omnitrans – Jeremiah Bryant, chief strategy and planning officer
 San Bernardino County Transit Authority – Carrie Schindler, director of transit and rail

SIMILAR PROJECTS ELSEWHERE

Transit agencies in California and across the nation are converting to zero-emission bus fleets.