

Types of Rail Technology

OVERVIEW

The RTD FasTracks program is an integrated, multi-modal 12-year program to build 119 miles of new commuter rail and light rail, 18 miles of bus rapid transit, 21,000 new parking spaces at transit stations, and expand bus service throughout the eight-county district. The entire system will operate as an integrated network of the final transit technologies that are determined through the environmental process on each corridor, which are anticipated to include commuter rail, light rail, Bus Rapid Transit and buses.

Four of the FasTracks corridors are currently planned as commuter rail. Locomotive-Hauled Coach is no longer being considered, but Electric Multiple Units and Diesel Multiple Units are the two commuter rail technologies currently under consideration. The RTD Board will discuss commuter rail technology at a special board meeting on July 10 and make a recommendation on commuter rail technology for the EIS processes at the July 24 board meeting.

RTD TRANSIT TECHNOLOGY HISTORY

RTD began serving the Denver metro area's transit needs in 1973, with a comprehensive bus system. In 1994, RTD introduced light rail to the region. Two new technologies – commuter rail and bus rapid transit – will be introduced to the region as part of the RTD FasTracks program.

RTD FASTRACKS TRANSIT TECHNOLOGY



Light Rail

RTD's light rail is a passenger train powered by overhead electrical wires. It has a lighter frame than a traditional train, thus its name "light" rail. Because of its "lighter" size and turning radius, light rail has the ability to operate along crowded city streets and within tight urban corridors with frequent stops, where quick acceleration and deceleration are necessary.



Locomotive-Hauled Coaches

Locomotive-Hauled Coaches are powered by one diesel-electric locomotive engine and are the traditional commuter solution in the western United States. A more efficient technology for longer trains, LHCs have limited acceleration and the highest energy use. LHCs are not currently under consideration on FasTracks.



Diesel Multiple Unit (DMU)

Sleeker looking than a traditional locomotive hauled train, a DMU is powered by a diesel motor rather than a locomotive. Each vehicle can be equipped with engines and transmissions. Each unit carries passengers and has a capacity of 75 to 100 seats.



Electric Multiple Unit (EMU)

The EMU is heavier than a light rail vehicle, but operates in a similar way. It is powered by an overhead electrical system, and each vehicle is equipped with traction motors. Each unit has a capacity of 90 to 110 seats.

For more information on Commuter Rail technology, visit www.RTD-FasTracks.com