



Local Transportation Climate Adaptation Program (LTCAP):

LA Metro A Line Overhead Catenary System (OCS) Resiliency Upgrade



Project Summary

THE PROBLEM The Los Angeles County Transportation Commission (LA Metro) A Line Overhead Catenary System Resiliency Upgrade (Project) brings a new level of climate-resiliency to a vulnerable segment of Metro's highest ridership (50,000 daily boardings) and longest (48 miles) light rail line, which connects the City of Long Beach to the City of Azusa in the San Gabriel Valley. Within the Project Area, extending 13.6 miles from Downtown LA (Union Station) to Sierra Madre Villa Station in Pasadena, an older system of balance weights that is used to maintain needed tension on the overhead wires (to keep them up and running, and avoid entanglements) has become increasingly vulnerable to heat. **On high-heat days, the wires sag, forcing additional inspections, slow-downs, and sometimes requiring riders to use "bus bridges" when heat-related repairs are made.** This results in significant delays for riders, both on the train and at platforms, and pulls public resources away from other system needs.

CLIMATE CHANGE MAKES IT WORSE By mid-century, the frequency, severity, and duration of extreme heat days will increase an estimated 7-14% in Southern California according to Cal-Adapt mid-range emissions scenarios. It is critical not only to maintain reliable and consistent service, but to also increase passenger comfort and safety, as well as the safety of Metro employees who must inspect and maintain the OCS on active rail lines when temperatures reach 95° Fahrenheit.

Passenger wait times between affected A Line trains could increase by 30% during extreme heat days; posing risks to vulnerable riders, especially seniors, children, and those with chronic illnesses.

Metro's A Line OCS Resiliency Project:

- » **Upgrades** 27.2 directional miles of OCS to mitigate against extreme heat in the region.
- » **Minimizes** OCS heat-related slow orders, which reduces on-train and platform wait times and permits efficient transfers during heat events, saving 4.05 million passenger hours over 30 years
- » **Avoids** \$27M over 30 years in inconvenient bus bridges from heat-related sagging wires.
- » **Keeps** 8.2 million trips on Metro Rail, by making riders happy with on-time service, and avoids 43.3 million miles of auto travel and 6,324 metric tons of GHG over 30 years.
- » **Lowers** potential safety risks to the public and Metro workers from loose OCS "live wires."

THE SOLUTION This 2024 LTCAP application requests \$9.63M in funding, matched by \$1.07M in Metro Proposition A 35% Funding, for a total Project cost of \$10.7M. This funding will allow Metro to **upgrade 27.2 directional miles of OCS with a newer spring tensioner system that will prevent sagging during high- and extreme-heat events** thus mitigating localized and cascading operational impacts.

PROJECT SCHEDULE The project, placed on Caltrans' SCRIPT list in 2023, would begin construction in 2026 and be operational in 2030.

WHO RIDES? The A Line North now sees 30,000 people getting on or off the A Line at one of the 19 stations each day. These riders will benefit from safer, more reliable service without extra wait time on high heat days. Further, Metro's light rail system is the best way to get to work, school, and recreation for many of the more than 383,000 people within walking distance of an A Line North station, including 147,000 in Federal disadvantaged communities (CEJST) and 230,000 in State designated AB 1550 low income communities.

VULNERABLE RIDERS BENEFIT Immediate and direct project benefits will extend to riders accessing Metro's light rail system at all 19 stations between Union Station and the easternmost A Line station at APU/Citrus Collect, in Azusa. Recent (2023) on-board surveys show that **44% of A Line riders live in households earning less than \$50,000 and 40% of riders do not have a vehicle** in their household. Metro rider data shows that **67.5% of riders are transit-dependent**. As the backbone of the County's transit system, Metrorail helps to make Southern California more affordable for lower-income, transit-dependent travelers. However, **all riders will benefit** from maintaining safe and reliable highfrequency service with fewer heat-related delays and service disruptions.

