

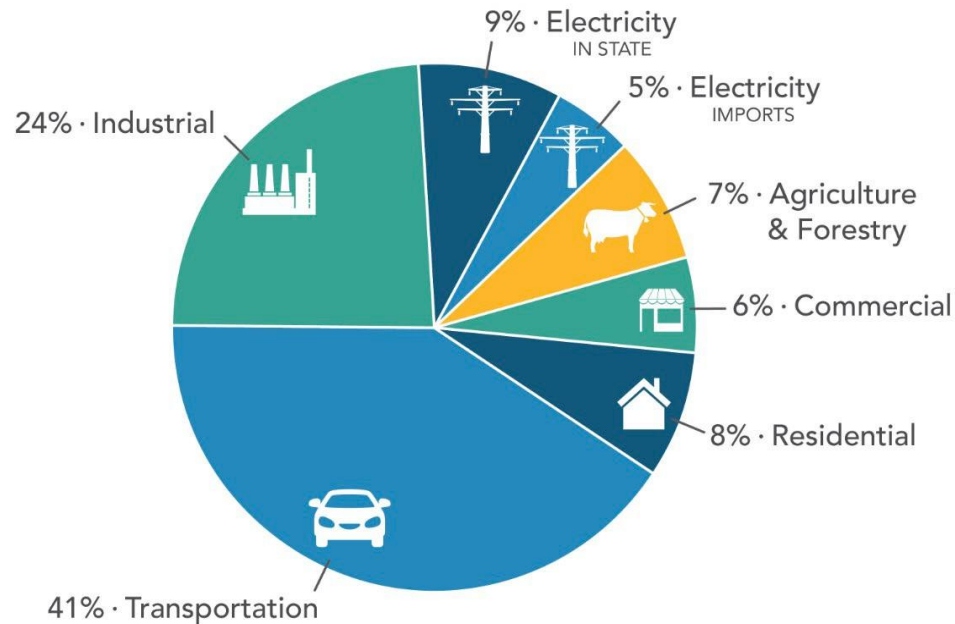


Expanding Beyond Clean Transit: Strategies and Partnerships

September 2022

Reducing transportation GHG emissions is critical to meeting the State's climate goals.

2000-2019 GHG Inventory (2021 Edition)



CA Greenhouse Gas Emission Inventory Program, CARB

Transit and multimodal options need to shift travel from single-occupancy car trips to cleaner modes. But this vision is in jeopardy...

↓ **11%**
Transit
Ridership
(2008-2018)

↓ **> 50%**
Transit
Ridership
(due to COVID)

↓ **83%**
Shared-modes
Ridership

↓ **\$48 billion**
Funding to
Transit Agencies

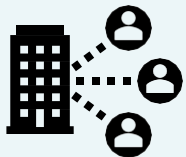
Caltrans, CARB, and other state agencies are accelerating the transition to zero emissions transit fleets.



Procurement

Transit and Intercity Rail Capital Program (TIRCP) - **91 ZEBs procured** and another **663 ZEBs are in the pipeline**, representing \$1.19 Billion of cap and trade and SB1 investment.

Low Carbon Transit Operations Program (or LCTOP) – supported the procurement of **685 ZEBs at 68 agencies** since 2014



Collaborations

ZEHTrans – ZEV technology research and information sharing

A-Team – technical support for small urban and rural operators

CARB/Caltrans/CalSTA Quarterly Executive Check-Ins – share updates on projects, funding, regulations



Our innovations are already having an impact in the Inland Empire and beyond.

- **1st hydrogen fuel cell train for North America** headed to San Bernardino County
- CalSTA/Caltrans MOU to bring **longer-distance** hydrogen fuel cell trains to the Central Valley by 2026
- Next up – ZE Intercity Buses



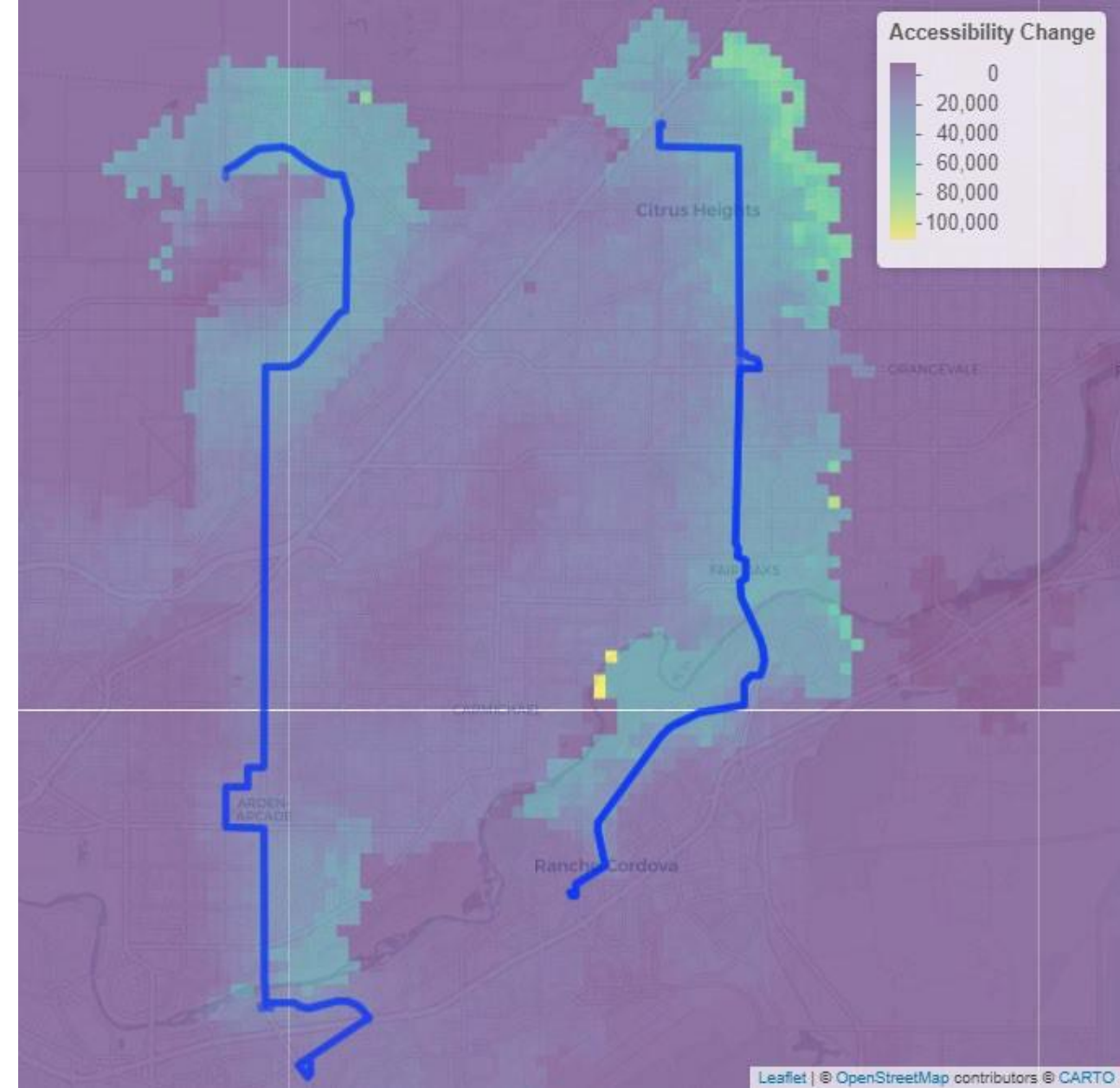
Transit systems must also be accessible, connected, and equitable.

In addition to clean buses and trains, we also need more people to choose transit instead of driving.

Caltrans is working to make transit more attractive and reduce vehicle miles travelled (VMT) through four strategies.

Strategy 1: Increase How Well Transit Provides Access

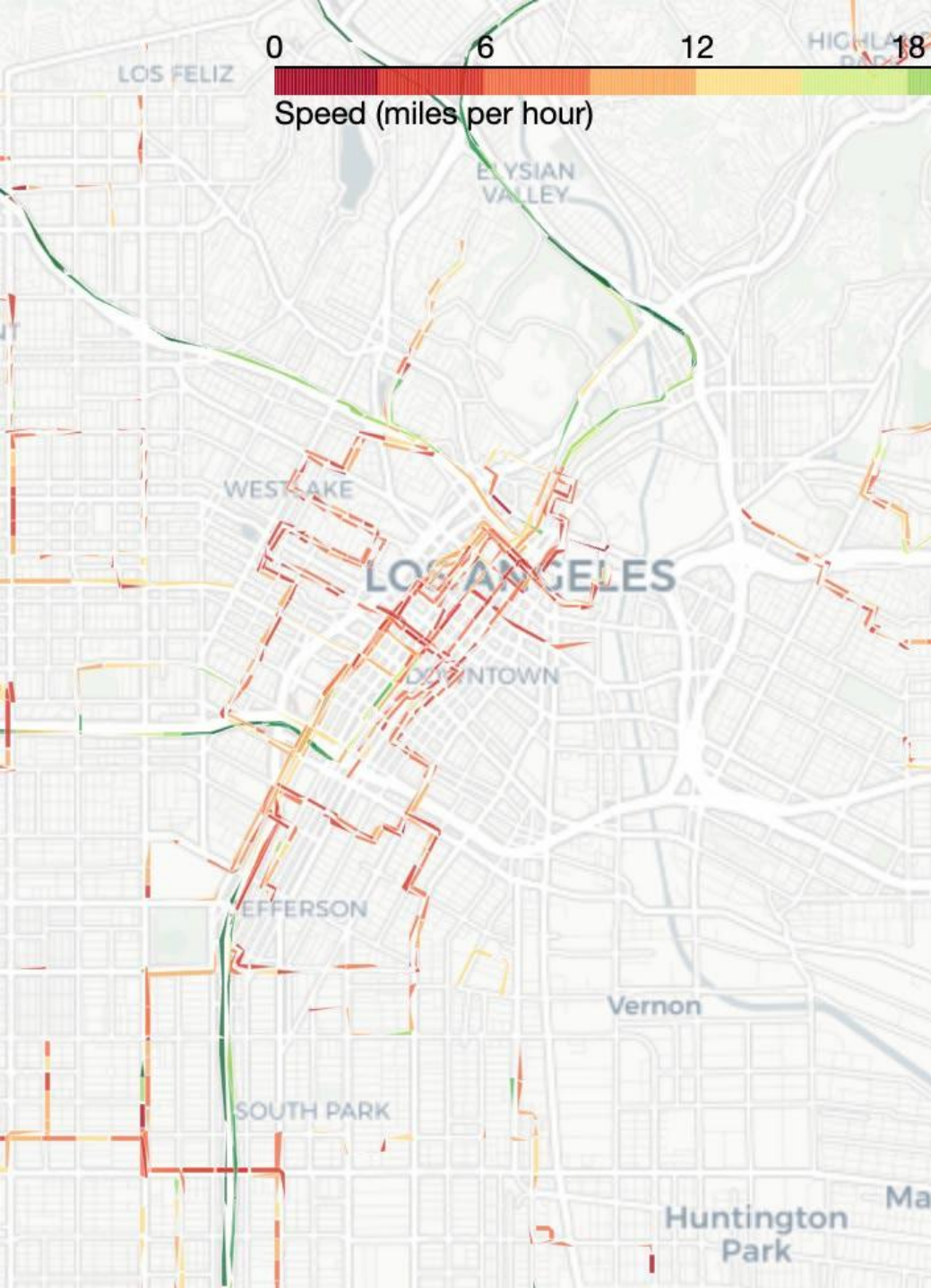
- **Reduce barriers to payment**
 - Make paying for transit easy by accepting cEMV payment
 - Provide direct subsidies for travel – removes cost as a barrier
 - Simplify the process for qualifying for discounts
- **Expand transit coverage statewide**
 - Assessing the quality of access
 - 15-30-60 bus coverage concept
 - E.g., currently investigating transit coverage gaps in rural and intercity markets





Strategy 2: Modernize and Prepare for Interoperability

- Streamline **eligibility** verification for benefits through partnership with CDT
- Simplify **trip-planning** through standardized transit schedules and fare information in the General Transit Feed Specification (GTFS)
- Increase **data analytics** using revenue, ridership, performance, and payments information to manage the network
- Support **multimodal** connections through network design (data design and physical design)



Strategy 3: Prioritize Transit Operations

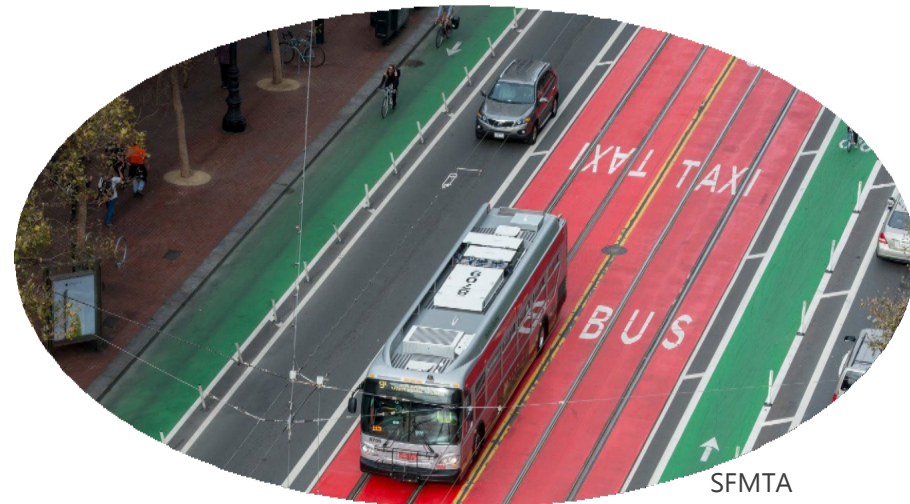
Faster access, equity, and performance tools can improve outcomes.

Case Study: Improving Bus Speeds

California's transit buses **averaged speeds of only 12mph in 2018.**

Potential improvements:

- Identify chokepoints
- Bus-on-shoulder
- Bus-only lanes
- Slip ramps
- Signal/intersection improvements
- Managed lanes/pricing





Strategy 4: Streamlining Funding and Awards

Funding is the lifeblood of transit programs.

- We can **streamline** funding and project selection workflows – Consolidated Applications
- Combining complimentary sources of funding and awards to create maximum project impact through **stacking**
- Tie funding to **impactful performance outcomes**

Continuing the collaboration between CARB and Caltrans can accelerate growth in sustainable transit.

Support a consolidated **family of investments** to fund projects.

Co-design rulemaking, procurement, and funding streams for **scalable projects**.

Align on **big-picture values**.