

Transit in California

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Today's Presentation

- About Caltrans
 - Caltrans and its Division of Rail and Mass Transit
- Challenges & Programs
 - Climate Action and Social Equity
 - California Transit Programs and Incentives
- The future of transit in California
 - Vision: California's State Rail Plan
 - The California Integrated Travel Program
 - 2022 State Rail Plan Update

A long-exposure photograph of a high-speed train at night, creating horizontal light trails in blue, white, and orange. The train is moving from left to right. In the background, a city street with a traffic light and building windows is visible.

About Caltrans and Transit

Caltrans and its Division of Rail and Mass Transit

CA Transit – By the Numbers

- How many transit rides are there every year in California?
- How many miles of revenue service do buses drive per year in California?
- How many transit employees are there in California?
- How many public transit agencies operate in California?

California Department of Transportation

- California's second largest state agencies with 20,000+ employees
- Multimodal transportation agency
- 12 districts (see map next slide)
- Leadership by Division of Rail and Mass Transportation



Organized by districts

Caltrans Near Me

- ▶ **District-1** - Eureka
- ▶ **District-2** - Redding
- ▶ **District-3** - Marysville / Sacramento
- ▶ **District-4** - Bay Area / Oakland
- ▶ **District-5** - San Luis Obispo / Santa Barbara
- ▶ **District-6** - Fresno / Bakersfield
- ▶ **District-7** - Los Angeles
- ▶ **District-8** - San Bernardino / Riverside
- ▶ **District-9** - Bishop
- ▶ **District-10** - Stockton
- ▶ **District-11** - San Diego
- ▶ **District-12** - Orange County



Partnerships

Caltrans Division of Rail & Mass Transportation

Federal Partners

- Federal Transit Administration (FTA) & Federal Railroad Administration (FRA)

State Agencies

- California High Speed Rail Authority (CHSR), California Air Resources Board (CARB), California State Transportation Agency (CalSTA)

Regional and Local Agencies

- Metropolitan Planning Organizations, Commuter Rail Agencies, Joint Power Authorities, Transit Agencies, Cities and Counties

Private Industry

- BNSF, Union Pacific, Shortline Railroads, Amtrak (semi-private)

Funding Overview

Caltrans Division of Rail & Mass Transportation

Federal Funding

- Federal Transit Administration (FTA) Funds and Federal Railroad Administration (FRA) Grants

State Funding

- Climate Investment (Cap & Trade) Funds
 - Transit & Intercity Rail Capital Program
 - Low Carbon Transit Operations Program
- Public Transportation Account
 - Intercity Passenger Rail operations
- State Transit Assistance derived from the sales tax on Diesel Gas and vehicle registrations
- State Rail Assistance
- STIP (Intercity Rail Share of ITIP)



Intercity & regional system

Existing Conditions

- 3 Intercity Passenger Rail Systems
 - Feeder bus services
- 5 Commuter Rail Systems
- 4 Long-Distance Routes
- Numerous transit and rail systems at the local level to support this travel



Challenges & Programs

Climate Action, Social Equity, California Transit Programs and Incentives

The transit demographic divide

Challenges



LA Metro ridership demographics example where the majority of....

- ...Surveyed bus riders live below the poverty line
- ...Transit riders self-identify as not white,
- Lack access to a personal vehicle, and
- Lack access to high-speed internet or a smartphone data plan

Fig. 1. LA Metro Bus Riders
Ethnicity

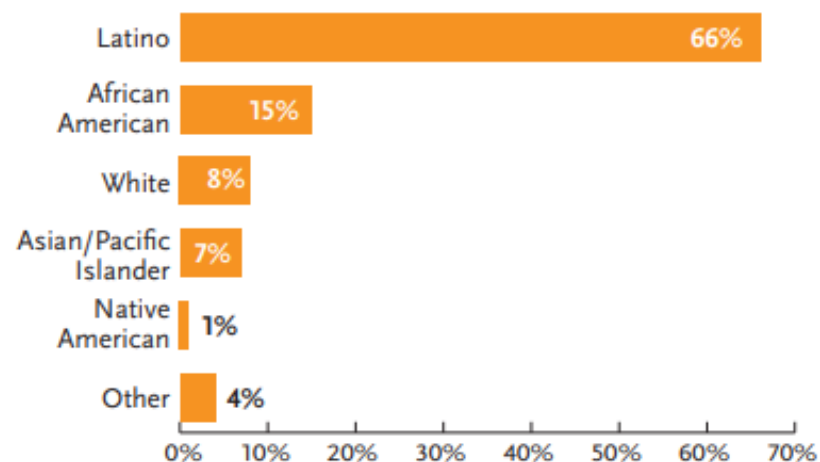
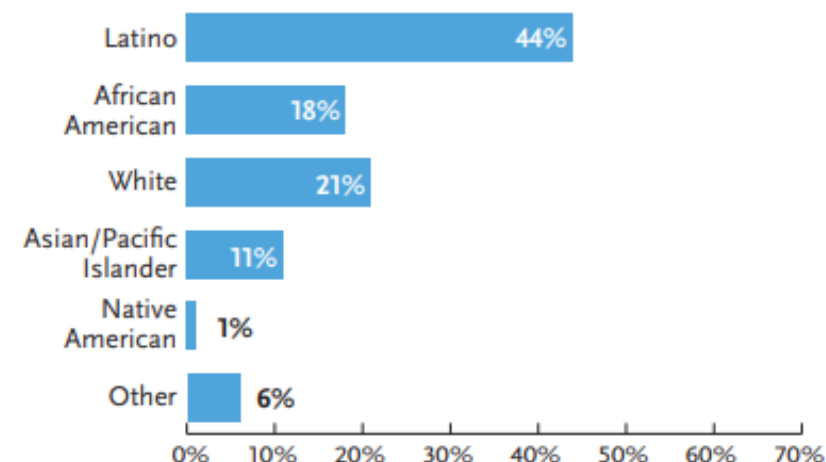


Fig. 2. LA Metro Rail Riders
Ethnicity



Climate action

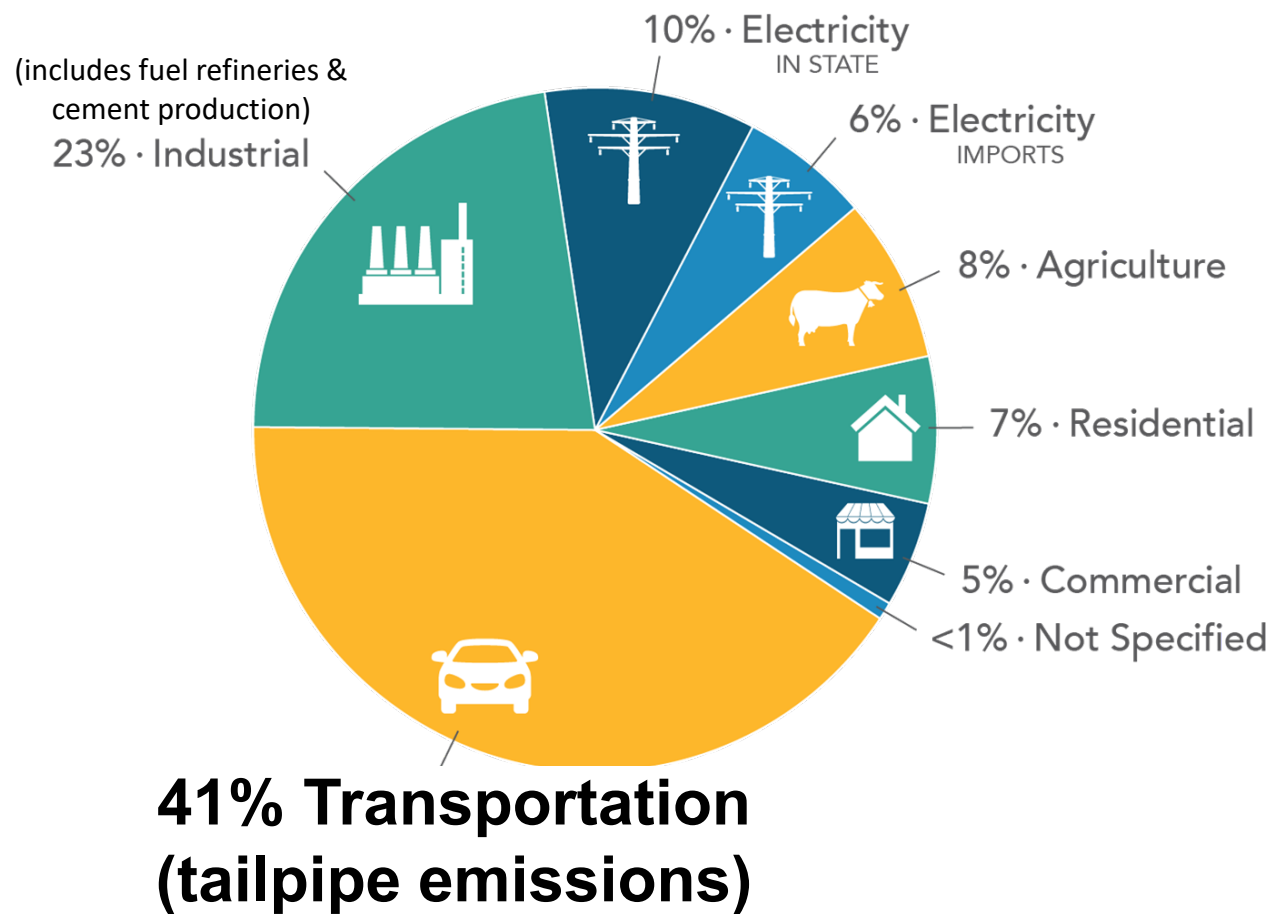
Challenges



California's greenhouse gas emissions (GHGe)

Challenges

Transportation emissions from the transportation and industrial sectors together account for half of statewide emissions of harmful greenhouse gases

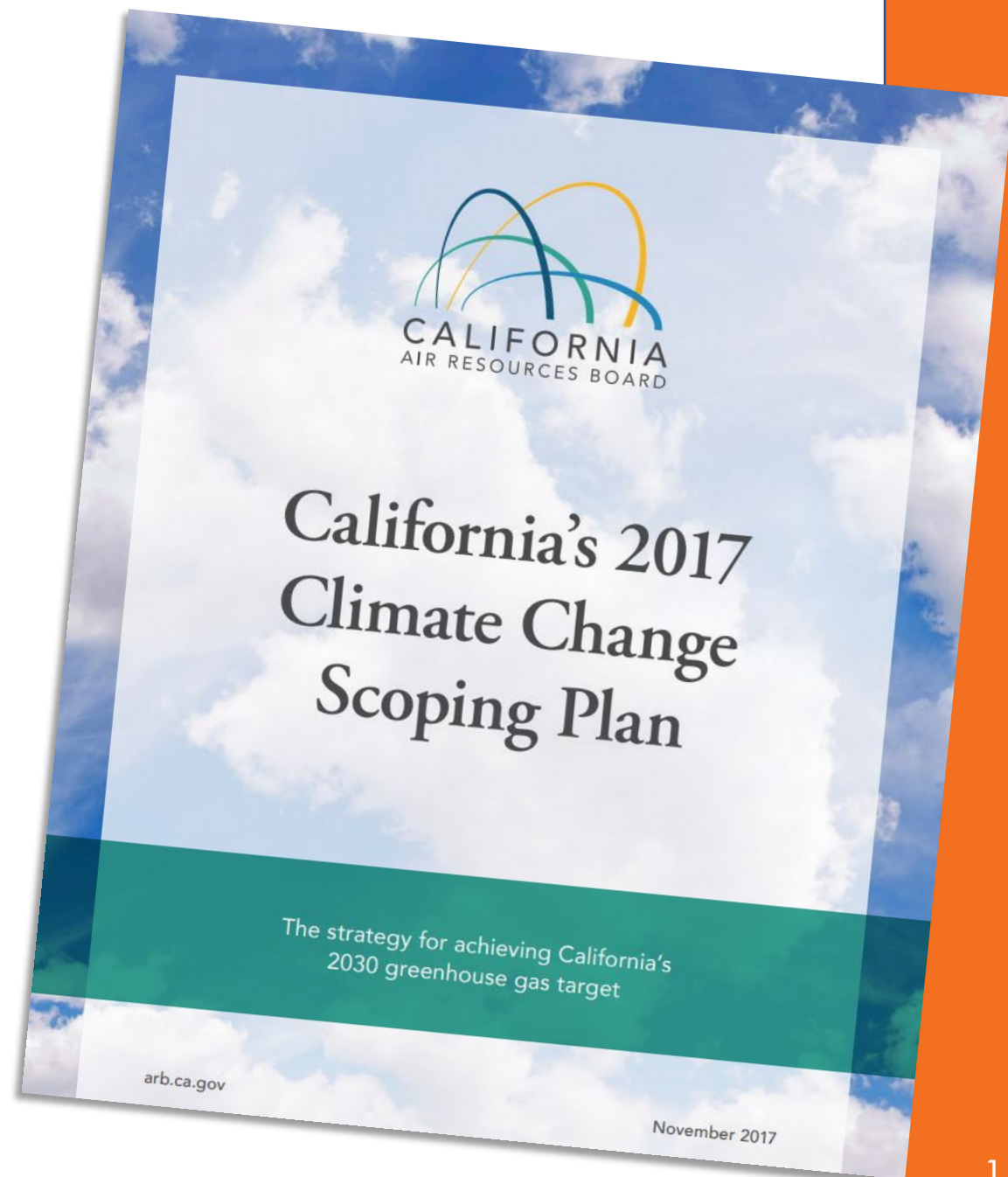


Reducing emissions

Challenges

Under State's 2017 "Scoping Plan," transit plays a role among the three main GHGe reduction strategies:

- Increasing zero emission vehicles
- Converting to cleaner fuels in conventional vehicles
- **Reducing Vehicle Miles Traveled (vehicle use)**



State fuel tax supports transit

Funding Source

In 2017, California voters approved an increase to the fuel tax to provide funding for transportation, including an additional \$750 million in **public transit** funding each year to California



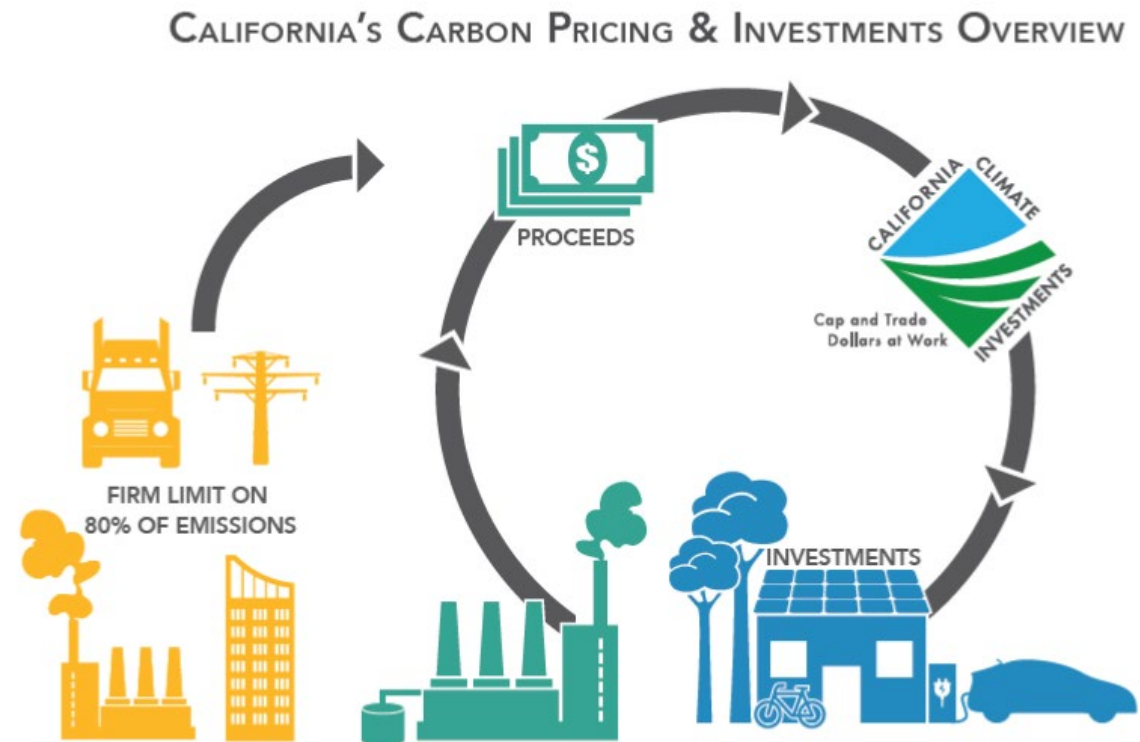
Cap-and-trade

Funding Source

Funds the California Climate Investment (CCI) programs:

- Transit and Intercity Rail Program
- Low Carbon Transit Program

(and a lot of funding for our High Speed Rail Project)



Source: CARB, 2018

Transit & Intercity Rail Capital Program (TIRCP)

Transit Program

- Competitive grant for transformative CAPITAL investment
- Projects must reduce GHGe; and
- 35% of projects awarded must benefit disadvantaged and low-income communities
 - 25% to disadvantage communities
 - 10% to low income communities and low income households within ½ mile of a disadvantaged community

The Zero Emission Multiple Unit (ZEMU)

TIRCP-awarded Project

The
first
ZEMU
in USA



- Recipient: San Bernardino County Transportation Authority
- Funding for R&D and its supporting infrastructure
- It is a hybrid battery-hydrogen fuel cell system



Low Carbon Transit Program (LCTOP)

Transit Program

- Formula based non-competitive program, provides OPERATING and CAPITAL assistance to transit agencies
- Projects must reduce GHGe; and
- LCTOP has an emphasis of providing direct and meaningful benefit within Disadvantaged Communities (DAC)

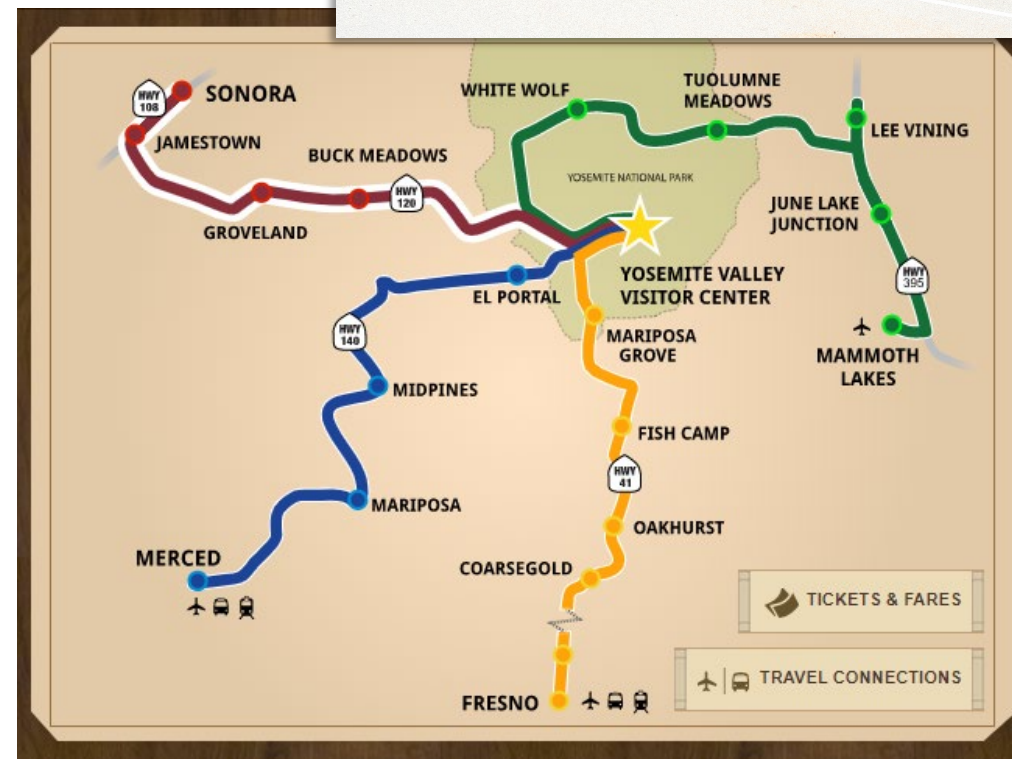


Pictured: a transit engagement event funded in part by LCTOP

YARTS operations subsidies

LCTOP-awarded Project

- Rural transit example
- Provides operational funding
 - Offered low-income City of Merced residents **reduced fares** to Yosemite National Park; and,
 - **Free transit** service for low-income residents of Mariposa County



Incentives for transit decarbonization

California Air Resources Board

- The Lower-Emission School Bus Program
- The Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project



Pictured: a ZEV bus from Northern California

A long-exposure photograph of a high-speed train at night, creating horizontal light trails in blue, white, and orange. The train is moving from left to right. In the background, a city skyline is visible under a dark sky. A traffic light pole with a green light is in the foreground on the left.

The future of Transit in California

The 2018 State Rail Plan, Cal-ITP, and 2022 Rail Plan Update

Mission and Vision

Caltrans Division of Rail and Mass Transportation

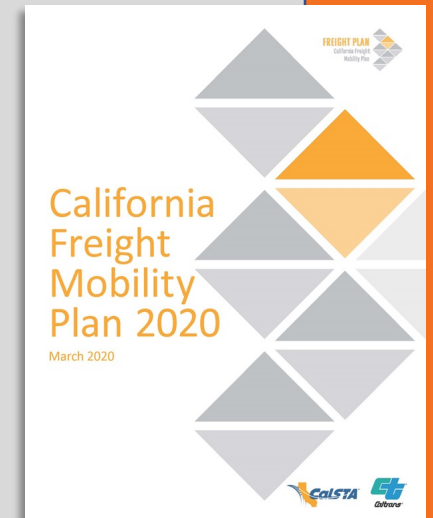
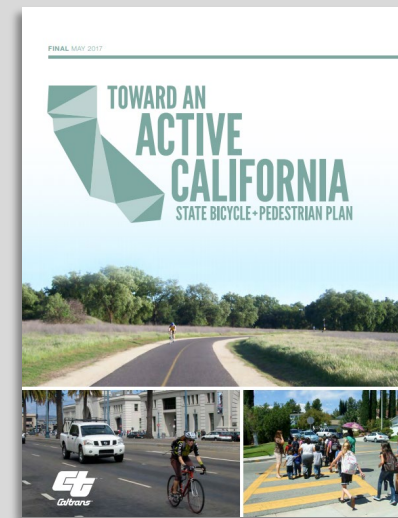
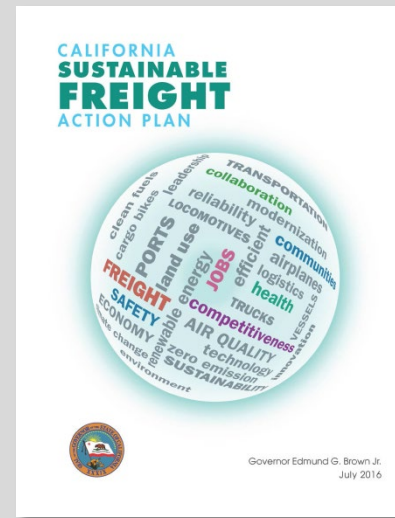
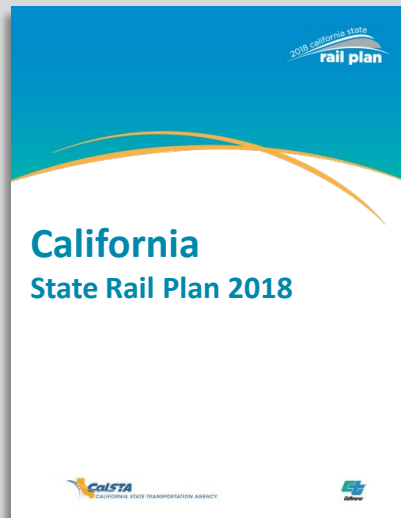
- Draft Vision:

California provides mobility for all as the leader in world-class public transportation.

- Draft Mission:

Improve public transportation by integrating and investing in an equitable, efficient, and accessible network.

Transportation planning at Caltrans



State Rail Plan 2018

Caltrans Division of Rail and Mass Transportation

- Statewide Rail Network “Vision”
 - Passenger & Freight Rail Investments
- Rail Investment Program
 - Short-term (2022), Mid-Term (2027) & Vision (2040)
- Passenger Rail System Integration



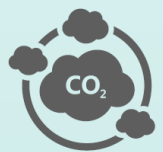
Vision for passenger rail

California State Rail Plan

- Integrated Statewide Network
- Coordinated Schedules
- Customer Focus



Rail Plan Outcomes



Reduce greenhouse gas emissions

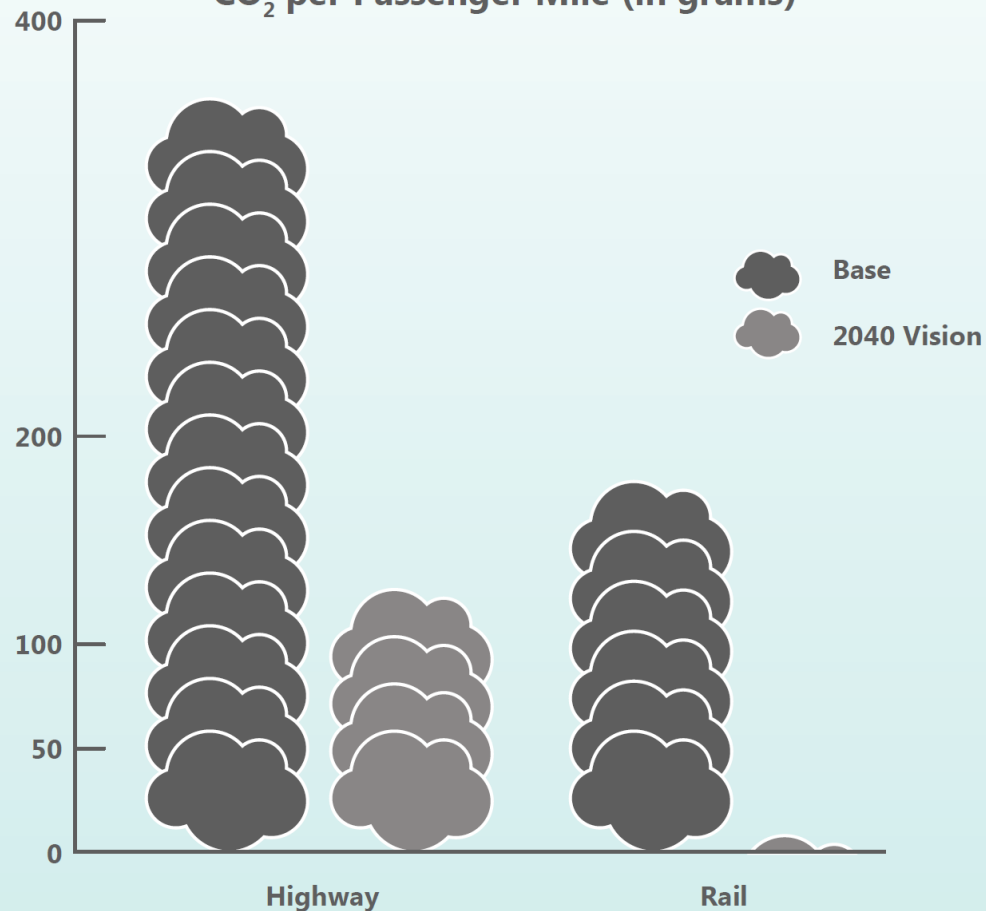


Mitigate roadway congestion



Reduce vehicle emissions

CO₂ per Passenger Mile (in grams)



Offer a convenient and reliable alternative



Increase electric and zero emission trains



Provide alternative to truck transport of containerized cargo

Rail Mode Share

Current: 0.34%



2040 No Build: 0.52%



2040 Vision: 6.8%



Current Ridership
110,000 Daily Trips



Business as Usual (2040)
161,000 Daily Trips



2040 Vision
1,313,000 Daily Trips

California Integrated Travel Program (Cal-ITP)

Goals and benefits



Improve the transit experience in California

Promote equity



Increase public agency buying power for technology and services

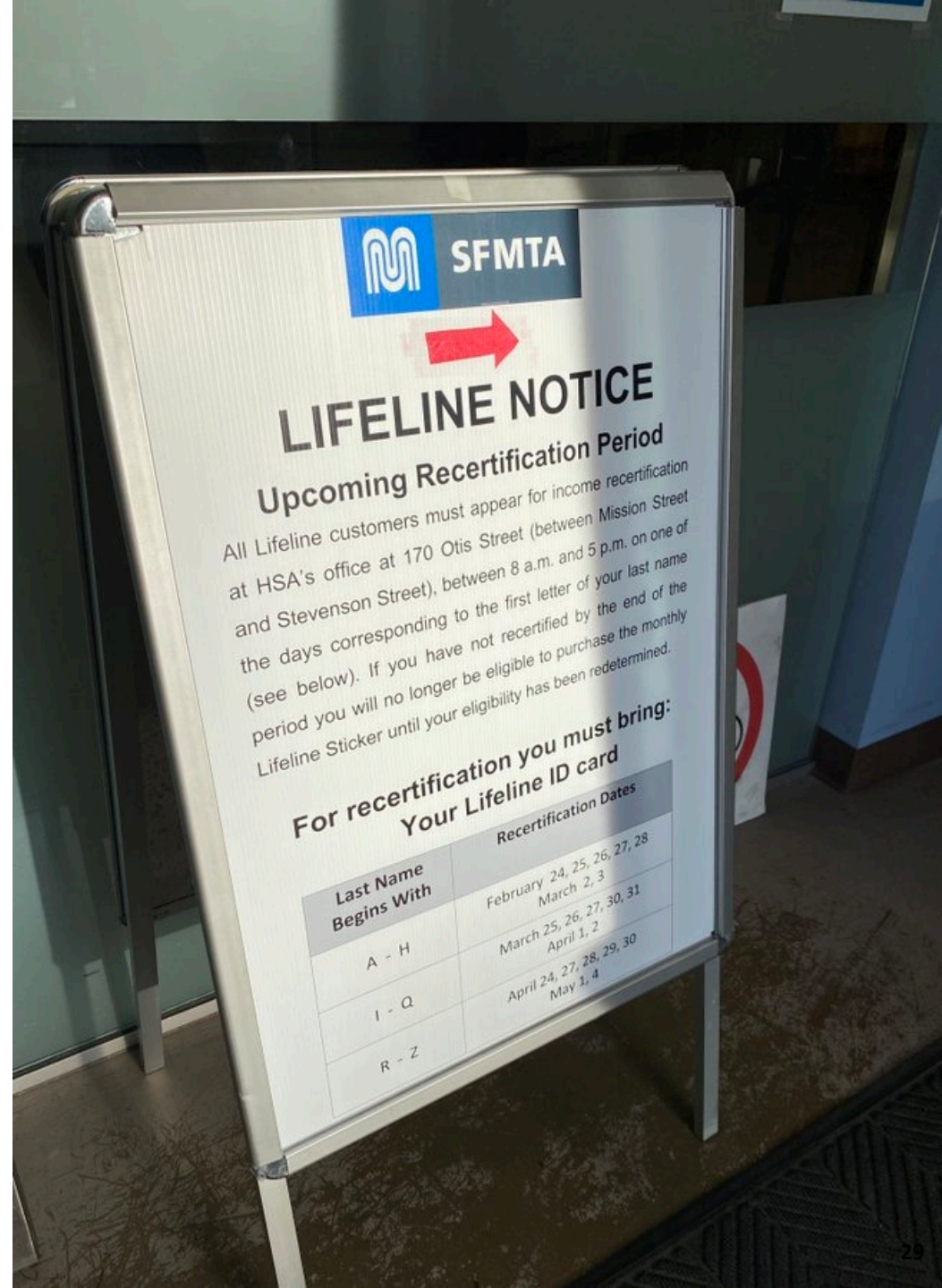
Realize benefits for transit services



Meet California climate change law

In the COVID era..... Cal-ITP has a solution

- A universal statewide transit benefit program
- Data, payment and tech services that solve the challenges of taking transit
- Support integration with Google and Apple maps to communicate with a passenger before they get on a bus or train



Where are the gaps?

Cal-ITP

- **Trip Planning:** Lack of reliable passenger information
- **Payment:** Unnecessary barriers for payment
- **Equity:** Cumbersome process to access discounts

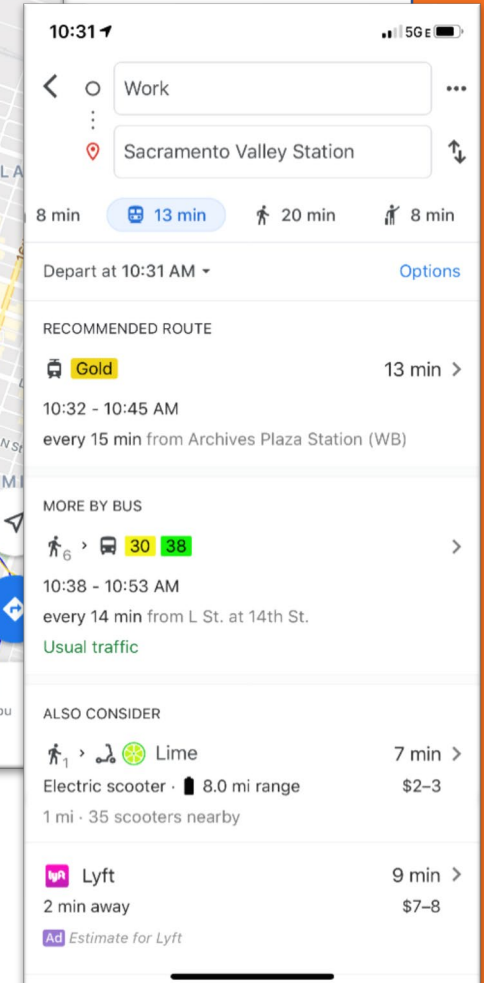
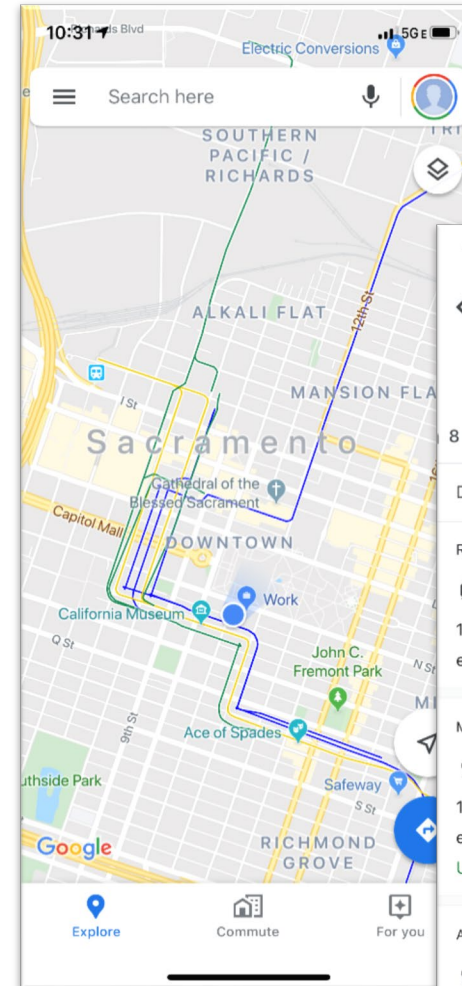


Trip planning

Cal-ITP

Ensure access to reliable data:

- Transit schedules, routes, stations and stops
- Trip costs for every route, starting with the standard/base fare
- Real-time vehicle location and arrival information, and any deviations from schedule



Payment

Cal-ITP

- Introduce contactless payment
- Reduce the cost of digital payments



Promoting social equity

Cal-ITP





The implementation of a **digitized eligibility verification program**.



Outcomes include:

Passenger

Ability to:

-  Use ID or Driver's License as proof of eligibility
-  Sign on to DMV account via agency website to prove eligibility for card or discount

Transit Agency

-  One standardized method to verify / establish eligibility
-  Outsource verification to DMV (cost reduction)

2022 State Rail Plan Update

Updating the Rail Plan at this key time to best tackle existential issues of transit



A long-exposure photograph of a high-speed train at night, creating horizontal light trails. The train is silver with blue and yellow accents. Two '2013' model year labels are visible on the front. A traffic light on the left shows a green light. The word 'Conclusion' is overlaid in white text on the left side of the image.

Conclusion