



CALIFORNIA

High-Speed Rail Authority

CTC Presentation

December 7, 2022



California High-Speed Rail is Advancing

California High-Speed Rail

- 500-mile project
- Connecting:
 - » San Francisco Bay Area
 - » Central Valley
 - » Los Angeles
- Total trip time, less than 3 hours



- Electrified service, 220mph
- Creating jobs
- Reducing GHG emissions
 - » 400k cars off the road annually
- Increasing rail ridership

2022 Progress

Today:

- 422 of 500 miles environmentally cleared
 - » Bay Area (San Jose) to LA County (Palmdale)
 - » Palmdale to Burbank EIR/EIS 2023
 - » Los Angeles to Anaheim EIR/EIS 2024
- 119 miles under construction
- Merced to Madera and Poplar Avenue to Bakersfield in Advanced Design
- Caltrain electrification construction underway
- Funding committed for LAUS improvements



2022 Progress

- **9,000 Construction Jobs Created Since Construction Began**
 - » 1,000+ Construction Workers Dispatched to Sites Daily
 - » 34 Active Construction Sites
- **Pre-Apprenticeship Training Center**
 - » 12-week program targeting veterans, at-risk young adults, minority and low-income Central Valley residents
 - » 10 trades taught to each cohort
- **739 Small Businesses Employed**
 - » 237 are Disadvantaged Business Enterprises
 - » 90 Disabled Veteran Business Enterprises



San Francisco
Millbrae-SFO

San José

Gilroy

Carlucci Road

Merced

Madera

Fresno

Kings/Tulare

Bakersfield

Palmdale

Burbank

Los Angeles

Norwalk/Santa Fe Springs

Fullerton

Anaheim

Central Valley

Initial Operating Segment

- 171 Miles
- 100% environmentally cleared
- 119 miles under construction
- 52 miles starting advanced design (pre-construction work)
- Design for Central Valley Stations, October 2022 Board Meeting
- Track and Systems contract in 2022
- Train procurement in 2023

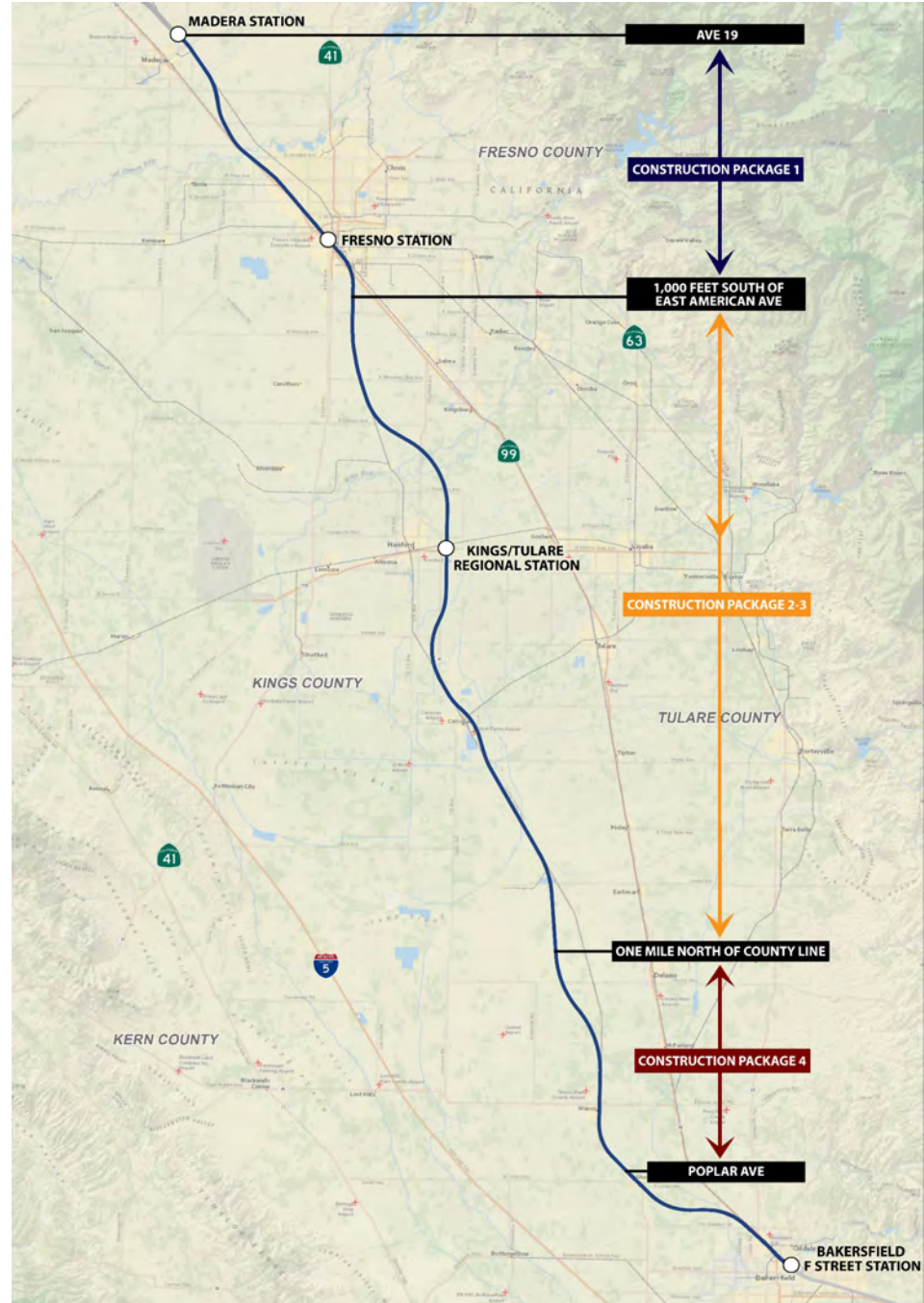
Goal: Initial operations by 2030

Central Valley Station Design Work Advancing



Upcoming Milestones

- 2023
 - » CP 4 construction completion
 - » Trainset procurement
 - » Track and Systems Procurement
- 2025/2026
 - » CP 1 and CP 2/3 construction completion
- 2028
 - » Track and Systems completion for 119-mile test track
- 2029/2030
 - » Testing on 119-mile test track
 - » Completion of extensions into Merced and Bakersfield
- Winter 2030
 - » Passenger service begins



Bay Area Valley to Valley Segment

- 159 Miles
- 100% environmentally cleared
- Eligible to begin advanced design in 2022/2023
- Corridor electrification underway on 51 miles through Caltrain Electrification Project
- DTX station coordination
- Corridor grade separation coordination
- Segment construction is unfunded

Goal: Advance design work in 2023, identify “shared corridor” early capital investments, develop funding plan options

Southern California Completion of Phase 1

- 164 Miles
- 92 miles (56%) environmentally cleared in 2022 (remainder in 2023/24)
- Some advanced design could begin in 2023
- LA Union Station Phase A fully funded, clearing environmental in 2022
- Segment construction is unfunded

Goal: Complete all environmental; begin advanced design in 2023; identify “shared corridor” early capital investments; develop segment funding plan options

Spring 2022 Polling Data Shows Increased Support

- **IGS Poll shows growing support for high-speed rail**
 - » By a five-to-three margin, 56% to 35% of CA voters support continuing to build high-speed rail
 - » Future riders overwhelmingly support high-speed rail progress
 - *65% of voters aged 18-40*
 - » Voters see how high-speed rail can create more equitable mobility for all Californians
 - *63% of those making less than \$20,000 support the project's progress*
 - *Majority support or better for all income groups*
 - *Strong support from all disadvantaged communities*



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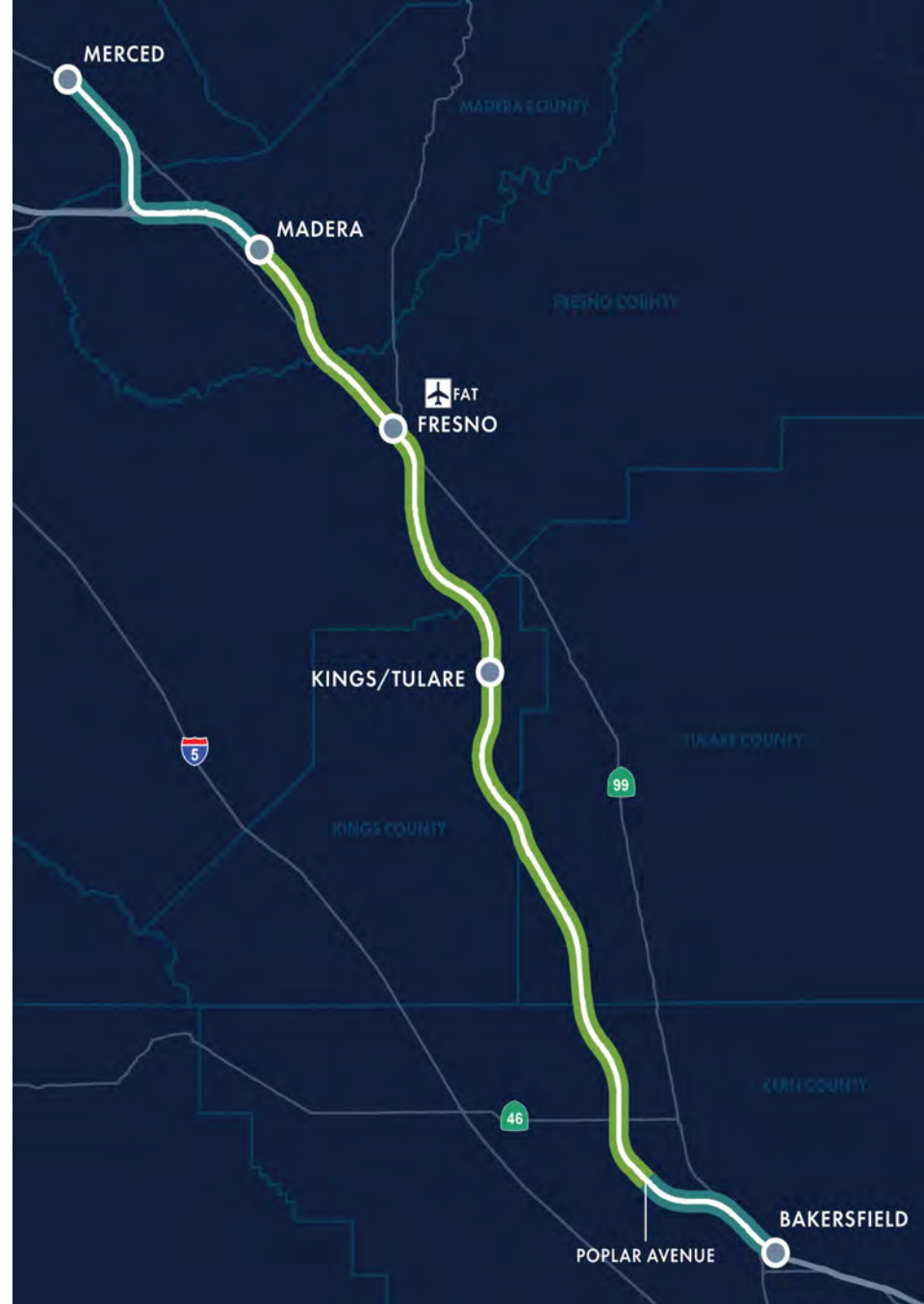


California High-Speed Rail A Critical Investment in America's Future

Merced to Bakersfield

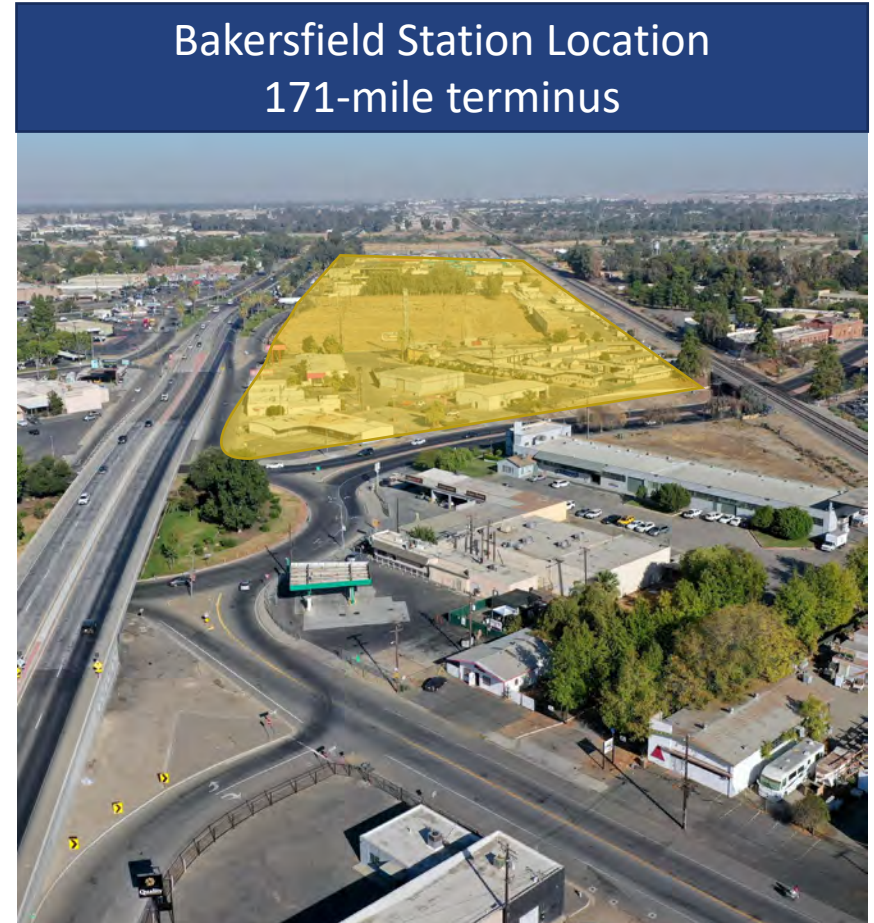
Interim Operating Segment

- This segment links high-speed rail service from the population centers of Northern and Southern California through the fastest growing market – Central California.
- Yields \$117.2 million in additional system revenues from passenger fares
 - » Increased speed and frequency of service will contribute to significantly higher ridership in the corridor
- Ongoing construction produces more than 200,000 projected job-years of employment in the Merced Bakersfield section and over \$41 billion in economic activity.
- Zero emissions trains will reduce GHG emissions (CO₂e) by up to 456,000 – 565,000 metric tons per year by 2040 in the Merced to Bakersfield line
 - » Equivalent to emissions from roughly 122,000 passenger vehicles driven for one year
 - *Reduces 284 million annual vehicle miles traveled (VMT)*



119 vs 171 Miles

The 119-mile segment provides a high-speed test track capable of certifying speeds of 250mph with rural endpoints, while the 171-mile Merced-to-Bakersfield operating line segment supports high-speed service linking major California cities.



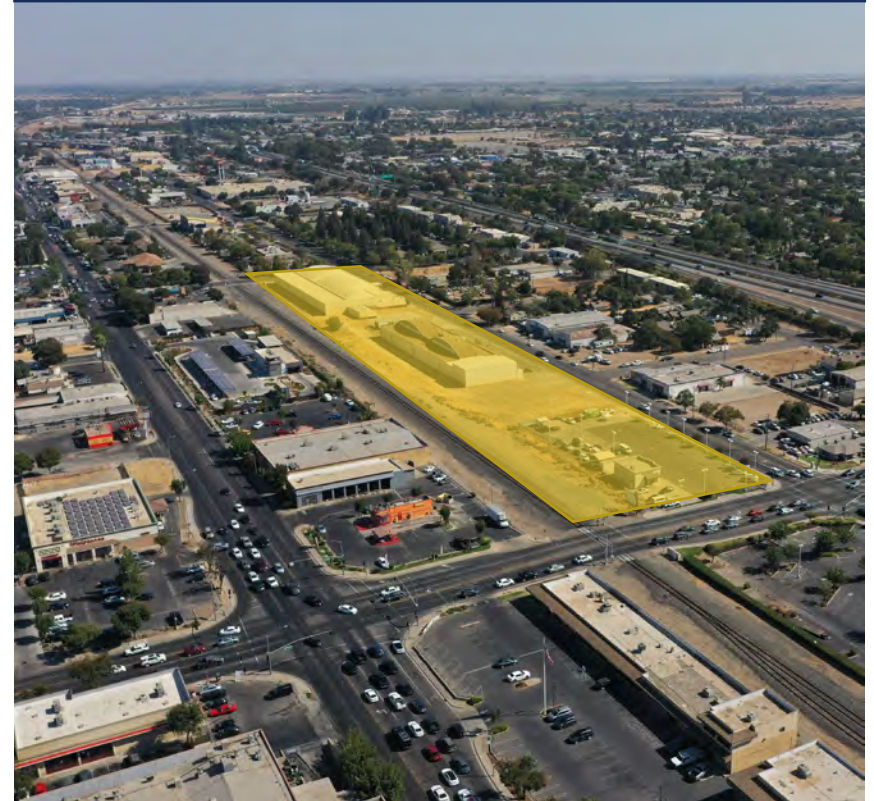
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19th Avenue, Madera County
119-mile terminus



Merced Station Location
171-mile terminus



California Legislative Support



- Provided an additional \$4.2 billion in State Bond Funds for Central Valley Construction
- Clarified Our Top Priority in State law:
 - “...it is the intent of the legislature that the High-Speed Rail Authority prioritize use of the funds.....to complete the Merced to Bakersfield segment.”
- Emphasized the 2023 Project Update Report (PUR) as the vehicle to update costs, schedules, and funding
- Establishes an Inspector General (IG) to review the project to bolster oversight



Schedule and Cost

Cost

- The current budget with the FRA for construction of the 119-mile segment is \$13.3 billion (\$3.0 billion from prior federal grants)
- Prior estimates for completing the full Merced to Bakersfield service add about \$6 billion; however, scope additions and inflation are expected to increase that number
- The Authority is targeting as a top priority \$8 billion in new federal grants from the Bipartisan Infrastructure Law to complete the 171-mile operating segment.
- Even with this federal assistance, California will still be contributing 65 percent of the funding to meet project costs (federal funds are being leveraged)



Federal Partnership

CURRENTLY-AWARDED FEDERAL GRANTS

To date, the Authority has been awarded the following federal grants:

Grant Awarded	Amount	Status
ARRA Grant	\$2.5B	ARRA Grant provided HSR with \$2.5 billion in federal funding which was fully expended by the statutory deadline (Oct-17). In January 2022, the Authority achieved its state match requirement (\$2.5 billion) one year ahead of schedule.
FY10 Grant	\$929M	FY10 Grant provides the Authority with \$929 million and has state match requirement of \$360 million. Period of performance under the grant is through 2026 with planned expenditures to start in the summer of 2024.
RAISE Grants	\$24M (2021) \$25M (2022)	RAISE Grant in 2021 awarded \$24 million for crucial safety, efficiency, and construction projects in and around the City of Wasco. RAISE Grant in 2022 awarded \$25 million for Merced extension to advance design.
EPA Brownfields	\$600K	The Brownfields EPA grant appropriation of \$600K is included in the ARRA Project Development appropriation (Los Angeles - Anaheim). About \$400K or 67% of the funds have been spent to date.
Total	\$3.5B	Total of around \$3.5 billion in federal grants has been awarded.

PENDING AND FUTURE FEDERAL GRANT APPLICATIONS

The Authority has three grant applications pending at USDOT, with more on the way:

Grant Application	Amount	Comment
2022 Mega Program - HSR Application #1	\$1,045M	This application request funding for the purchase of 6 high-speed rail trainsets compliant with Buy America, funding for stations, and funding for the second track
2022 Mega Program – HSR Application #2	\$223M	This application request funding to advance design on 2 San Francisco Bay Area segments and 2 Southern CA segments that have completed environmental clearance
2022 Railroad Crossing Elimination Program	\$67M	This application request funding to advance 6 new grade separations in the Bakersfield extension – 2 through construction and 4 through right-of-way
2022 Consolidated Rail Infrastructure and Safety Improvements	\$235M	These two applications (1) request funding to construct 6 new grade separations in the Bakersfield extension and (2) continue funding the Central Valley Training Center
2022 Federal State Partnership for Intercity Rail	Future Application	The Authority hopes for a large grant award in this program to build significant scope in the Merced to Bakersfield segment
Multi-year Target / Various Future Programs	\$8B	The Authority’s first priority is to complete high-speed passenger service in the Central Valley. Secondly, we want to advance design throughout the State and complete early investments with independent utility

New Opportunities with Federal Funding

- **With State Funds and New Federal Funds from the Bipartisan Infrastructure Bill, the Authority will:**
 - » Deliver an electrified, two-track initial operating segment connecting Merced, Fresno and Bakersfield with a goal of operating service in 2030
 - » Invest statewide to advance engineering and design work as every project section is environmentally cleared
 - » Leverage new federal and **state funds** for targeted statewide investments, particularly in shared corridors in the Bay Area and Los Angeles Basin (e.g.: DTX in San Francisco, grade separations, LAUS rebuild)
 - » Advance a longer-term funding strategy to extend high-speed rail beyond the Central Valley to the Bay Area as soon as possible
 - » Procure trainsets
 - » Make more progress on the design and construction of stations

Questions?

