

# EARTH DAY/SUSTAINABILITY UPDATE

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# SUSTAINABILITY UPDATE

Earth Day 2021

- **Public-Policy Leading Commitments**

- » 100% Renewable Energy
- » Zero-Net Construction Emissions

- **Authority Success to Date**

- » Renewable Energy Strategy Components
- » Initial Tree Planting Complete
- » Voluntary Emissions Reduction Agreement (VERA) Offsets Complete
- » Conservation and Habitat Restored

- **Policy Goals To Advance**

- » Zero Emissions Vehicles (ZEV) in Construction



## SUSTAINABILITY

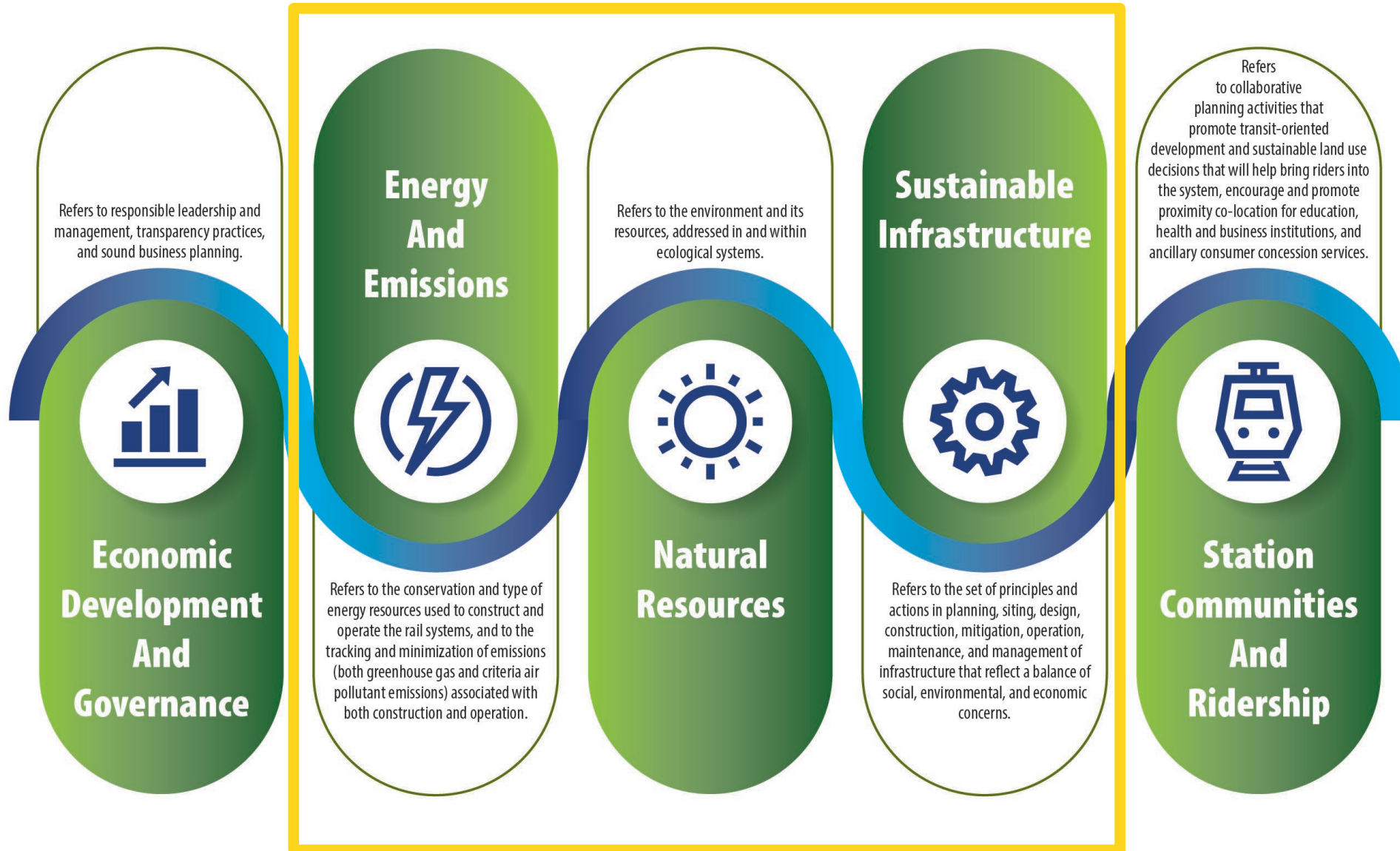
“The Authority will deliver a sustainable high-speed rail system for California that serves as a model for sustainable rail infrastructure. The Authority has developed and will continue to implement sustainability practices that inform and affect the planning, siting, designing, construction, mitigation, operation, and maintenance of the high-speed rail system.”

*From #HSRA 19-02 Revised Sustainability Policy*



# AUTHORITY SUSTAINABILITY PRIORITIES

Five key areas organize our sustainability approach



# STRONG BOARD AND EXECUTIVE LEADERSHIP HAS INSPIRED GROUNDBREAKING COMMITMENTS FOR OVER A DECADE

- **2008 – Board Adopts 100-percent renewable energy for operations**

- 2011 – Incorporated in California Air Resources Board (ARB) Scoping Plan for AB32

- **2012**

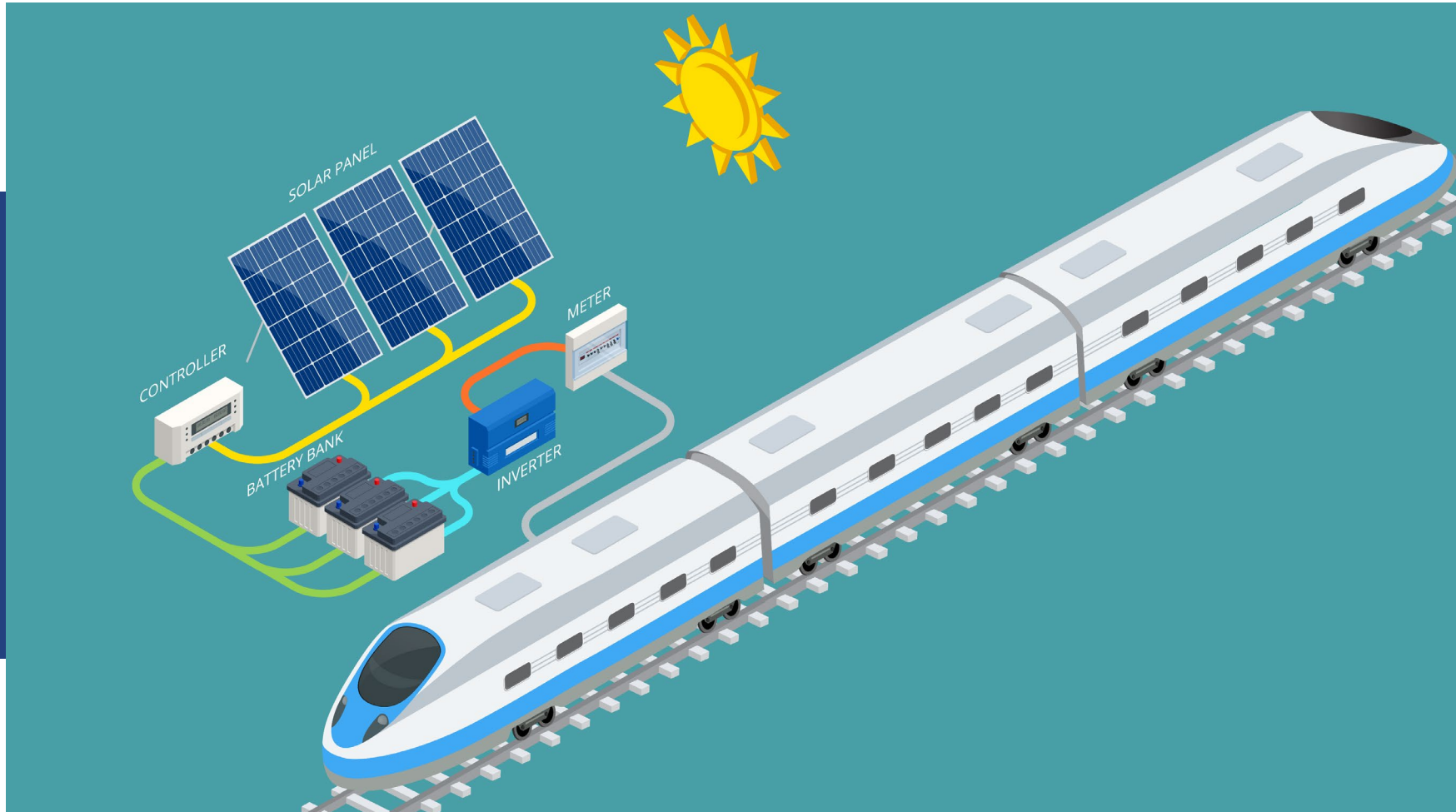
- » **Net-Zero direct greenhouse gas emissions (GHG) for construction**
- » **Net-Zero air quality emissions for construction**

- » Proactive construction requirements, including requiring **Tier 4 vehicles and 100-percent recycling requirements**
- **2013** – CEO Signs Sustainability Policy
- **2014**
  - » First infrastructure project to require disclosure on major materials, informed AB 262 Buy Clean California Act
  - » EMMA developed to track and monitor program and contractor progress
- **2016** – Board Adopts Sustainability Policy
- **2017** – Incorporated in ARB Scoping Plan Update
- **2019**
  - » Required **performance targets** for embodied energy (concrete and steel)
  - » Zero emissions fleet vehicles (25 percent of on road fleet) for contractors
  - » Required use of renewable diesel
  - » Direct GHG emissions target set for construction tied to a bonus/penalty



# RENEWABLE ENERGY STRATEGIC OPPORTUNITIES

Analyzing resources that reduce cost and improve resiliency



Use solar and storage “behind the meter” to reduce cost and mitigate risk.



# INITIAL TREE PLANTING PROJECTS COMPLETE

Projects carried in place to sequester and avoid greenhouse gas emissions

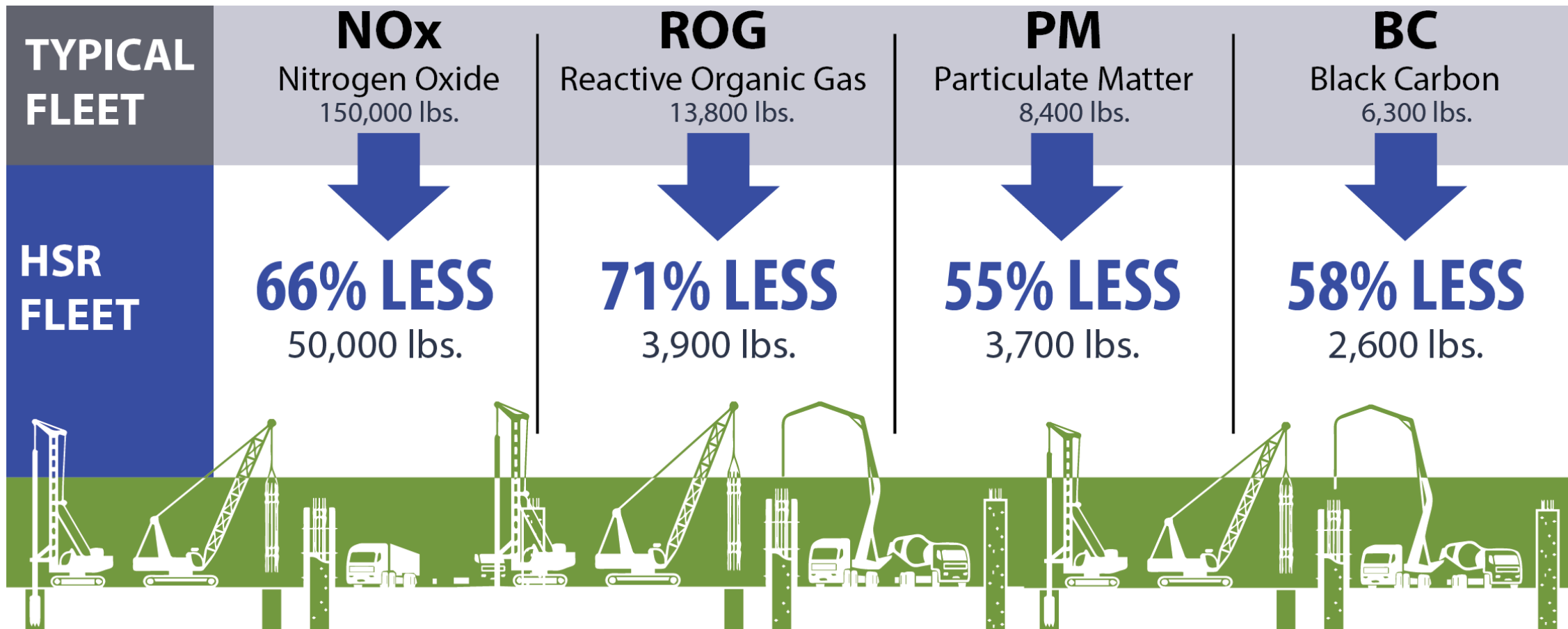


180,000 metric tons of carbon dioxide avoided or sequestered



# TIER 4 REQUIREMENTS MINIMIZE AIR POLLUTION

Protecting communities in construction



Tier 4 requirements have had a significant positive impact to date.





# VOLUNTARY EMISSIONS REDUCTION AGREEMENT (VERA)

Offset projects completed in advance of construction



**VOLUNTARY EMISSIONS REDUCTION AGREEMENTS (VERA)**

The efficiency of our partner, the San Joaquin Air Pollution Control District has led to air quality benefits.  
1,300 Tons offset to date, only 95 Tons produced



# AGRICULTURAL CONSERVATION AND HABITAT RESTORATION

45,000 metric tons of carbon dioxide avoided or sequestered from completed projects

**3,750 acres**

Habitat Preserved  
and Restored

**1,250 acres**

Agricultural Land  
Secured in  
Easements



# STATE OF CALIFORNIA POLICY HAS PUSHED THE ZERO EMISSIONS VEHICLE (ZEV) MARKET

- Executive Order N-79-20 sets ambitious statewide targets to transition the transportation sector

100% of in-state sales of new passenger cars, light-duty trucks, and drayage trucks will be zero-emission

100% zero-emission off-road vehicles and equipment operations

**2035**

**2045**

100% zero-emission medium and heavy-duty vehicles in the state



# MOVING FORWARD, MINIMIZING EMISSIONS FURTHER

Using new tools to advance our policy commitment

**The Authority has identified opportunity areas to use ZEVs to further minimize direct emissions.**

**Pollutants come from 3 primary sources in construction:**

## **Light Duty Vehicles:**

The contractor's site vehicles



## **Medium- and Heavy-Duty Vehicles:**

Vendor's delivery and hauling



## **Off-Road Equipment:**

Contractor's off-road equipment



# ADVANCING ZEV POLICY GOALS

Honor State leadership on ZEV

**Implementation will focus on feasibility and follow a phased approach:**

- 1. 100% ZEVs for contractor site travel fleet for future construction contracts.**
- 2. Prioritize suppliers and subs that have on-road hauling fleets with ZEVs and provide contract incentives for compliance;**
  - a) by 2035 require all short-haul and drayage to be fully ZEV fleets; and
  - b) by 2045, full transition to ZEV heavy-duty trucks where feasible.
- 3. Identify opportunities and pilot projects for electric off-road equipment;**
  - a) by 2030, require 10% ZE off-road equipment where feasible; and
  - b) by 2035, a full transition to ZE off-road equipment, where feasible.



In addition, the Authority will continue investments in projects that sequester, avoid or otherwise offset criteria air pollutants and greenhouse gas emissions. By reducing emissions, we pay less for offsets.

# CLIMATE ADAPTATION PLAN

Authority's program-wide analysis of climate risk, vulnerabilities, and adaptation practices

- **The Authority has completed an adaptation plan that:**
  - » Documents the work to analyze, understand, and prepare for climate change while delivering the program
  - » Lays the path for incorporating climate adaptation into Authority decision-making
- **To complement the internal plan, an executive summary will be available later this Spring.**

## CLIMATE ADAPTATION PLAN

CALIFORNIA  
High-Speed Rail Authority

Summary of Content  
Final Draft



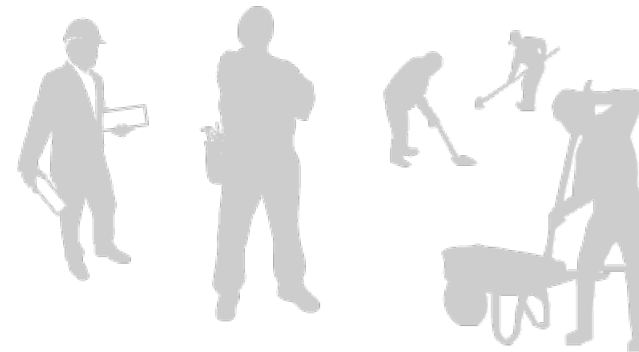
# ACCELERATE SUSTAINABILITY BENEFIT

Social, environmental, and economic benefit to all Californians



# 55%

**of project expenditures occurred in designated disadvantaged communities throughout California, spurring economic activity in these areas.**



More than 2500 workers live in disadvantaged communities



# EARTH DAY/SUSTAINABILITY UPDATE

CALIFORNIA HIGH-SPEED RAIL



## Headquarters

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