CALIFORNIA HIGH-SPEED RAIL

Margaret Cederoth, Director of Planning and Sustainability
Boris Lipkin, Northern California Regional Director
February 20, 2020
OPPORTUNITY TO RECONNECT AND RESHAPE CALIFORNIA’S ECONOMY
CONNECTING CALIFORNIA
CALIFORNIA HIGH-SPEED RAIL

- Increase Mobility
- Needed Alternative
- Better Air Quality
- Job Growth

Phase 1
- Phase 2
- Stations
High-Speed Rail Fills a Gap in California’s Infrastructure
TRAVEL TIME
Comparative Travel Times – Car, Existing Rail, and Non-Stop High-Speed Rail

INCREASE MOBILITY
A GOOD INVESTMENT
Cost of High-Speed Rail Phase 1 compared to cost of equivalent highway/air capacity

$63B - $98B
High-Speed Rail

Low  High

Base: $80B

$122B - $199B
Highway/Air Equivalent Capacity

Low  High

Base: $153B

NEEDED ALTERNATIVE
A GOOD INVESTMENT

Equivalent new capacity between San Francisco and Los Angeles would require:

4,300 New Highway Miles
115 New Airport Gates
4 New Airport Runways
LEADERSHIP IN SUSTAINABILITY

- California is the national leader on clean transportation in the era of climate change
- Meeting our mobility, economic, and environmental goals
- More than $6.4 Billion has been invested in planning and building high-speed rail
A TOP-RANKED PROGRAM
CALIFORNIA HIGH-SPEED RAIL

2019 Sustainability Report
Energizing Economic Revitalization

5-Star Project
GRESB Infrastructure Assessment

BETTER AIR QUALITY
• The initial line between Merced and Bakersfield delivers greenhouse gas and air quality benefits immediately

• The entire system, the backbone of electrified transportation, delivers critical long-term reductions

**CLIMATE BENEFITS**

**Draft 2020 Business Plan**

- 1.8 MMTCO$_2$e annual average reductions
- 800 tons of NOx reduced annually
- 260 tons of PM reduced annually

**BETTER AIR QUALITY**
CLIMATE BENEFITS
Projected Cumulative GHG Emissions Reduced (MMTCO$_2$e)

80 to 96 million metric tons of emissions reduced
HSR Expands Business Opportunities

Bay Area

Fresno
HSR Expands Business Opportunities

- San Jose to Fresno = 60 Minutes
- Bakersfield to Los Angeles = 60 Minutes
- San Francisco to Los Angeles = 2 Hours and 40 Minutes
# GROWTH OPPORTUNITIES FOR BUSINESSES

<table>
<thead>
<tr>
<th>Location</th>
<th>Average Asking Rent/SF – Office Space, All Classes, Q4, 2017**</th>
<th>Companies</th>
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</thead>
<tbody>
<tr>
<td>Bay Area</td>
<td>$58</td>
<td>Apple, Yelp, Uber, Lyft, ZipRecruiter, Weebly</td>
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<tr>
<td>Phoenix</td>
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<td>Apple, Yelp, Uber, Lyft, ZipRecruiter, Weebly</td>
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<td>Salt Lake City</td>
<td>$24</td>
<td>Adobe, eBay</td>
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<tr>
<td>Reno</td>
<td>$20</td>
<td>Tesla, Apple, Switch, Google</td>
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<tr>
<td>Central Valley</td>
<td>$18</td>
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</table>

** Source Data: CBRE and Cushman & Wakefield Q4 market reports; reflects full-service gross rents/SF

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## JOB GROWTH
Mayor Sam Liccardo
SAN JOSE

https://www.youtube.com/watch?v=5_jbM8u2a_k
• Required by PUC Section 185033
  » Foundational document for implementing the program
  » Required every two years (even years)

• Represents the status of the program at the current point in time

• Summarizes the Authority’s approach to implementation

• Includes:
  » Updated capital cost and other estimates
  » Updated ridership and revenue forecasts
  » Summary of progress over last two years
  » Review of current challenges and how to address them
PROJECT PROGRESS

- 700 onsite construction workers per week
- Doubled rate of construction in the Central Valley
- NEPA assignment approved by FRA
- Preferred Alternatives identified for entire Phase 1 system
- Issued first Record of Decision in five years (Shafter to Bakersfield)
- Initiated procurement of track and systems with issuance of Request for Proposals
MOMENTUM PICKING UP IN THE FIELD
AVERAGE MONTHLY EXPENDITURES BY QUARTER

$ in Millions

<table>
<thead>
<tr>
<th>Quarter</th>
<th>2019 Expenditures</th>
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<tbody>
<tr>
<td>Quarter 2</td>
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<tr>
<td>Quarter 3</td>
<td>32</td>
</tr>
<tr>
<td>Quarter 4</td>
<td>46</td>
</tr>
</tbody>
</table>
MOMENTUM PICKING UP IN THE FIELD

WEEKLY AVERAGE WORKERS DISPATCHED
WHERE WE ARE IN 2020

• 350 miles of electrified high-speed rail on the way to or under construction
  » 171 miles between Merced and Bakersfield
  » 51 miles of the Caltrain Corridor being electrified
  » 130 miles connecting Las Vegas to Southern California

• Remainder of Phase 1 (San Francisco to Los Angeles/Anaheim) environmental clearance underway
  » 5 Draft EIR/EIS documents planned in 2020
LOOKING AHEAD TO 2022

- 350 miles of high-speed rail under construction
  » First high-speed trains under development

- Full Phase 1 environmental clearance complete
  » Advancing strategic investments
  » Pursuing additional funding
WHY EXTEND TO BAKERSFIELD AND MERCED
171-MILE INTERIM SERVICE

• Best value
  » Expands train service
  » Reduces travel time
  » Increases ridership with lowered state operating costs

• It’s affordable
  » Cost of $20.4 billion is within the $20.6 billion and $23.4 billion range budget

• It connects three of the fastest growing counties of the state
  » Merced, Fresno and Bakersfield

• It Provides for interim connection
  » North into Bay Area and Sacramento via the San Joaquin and ACE service
  » South into LA Basin via bus connection
Advancing planning and economic development tools in partnership with station cities.
COSTS AND FUNDING

• Proposing to use funds available through 2030 to deliver initial line between Merced and Bakersfield
• Cost estimates still within ranges from the 2018 Business Plan
• Projected $20.6 to $23.4 billion in total funding available through 2030, based on Cap-and-Trade estimates

350 miles under development/construction
Full Phase 1 environmental clearance in 18-24 months
Over $8 billion in economic output from investment to date
HIGH-SPEED RAIL IN NORTHERN CALIFORNIA IN 2020

PROJECT DEVELOPMENT STAGES

Planning | Environmental | Pre-Construction | Construction | Operations

Diridon Integrated Station Concept | San Francisco to Merced Corridor | Downtown Extension (DTX) | Caltrain Electrification | Salesforce Transit Center

DRAFT 2020 BUSINESS PLAN
Environmental documents will include the entire project section from San Francisco to Alma St., San Jose.
DEVELOPMENT & REVIEW OF ENVIRONMENTAL DOCUMENT

Notice of Preparation

Development & Evaluation of Alternatives

Identification of Preferred Alternative

Public Review of Draft EIR/EIS

Cooperating & Responsible Agency Review

Prepare Draft EIR/EIS

Respond to Comments and Prepare Final EIR/EIS

Cooperating & Responsible Agency Review

Public Review of Final EIR/EIS

Authority Certifies Final EIR/EIS and Issues ROD

= ongoing outreach
LOOKING AHEAD IN NORTHERN CALIFORNIA

NEXT STEPS AFTER ENVIRONMENTAL CLEARANCE

Completion of Environmental Clearance

- Strategic Right-of-Way Acquisitions
- Third-Party Agreements
- Preliminary Engineering for Procurement
- Closure of Funding Gap
HOW TO COMMENT ON THE DRAFT 2020 BUSINESS PLAN

• 60-day public comment period: February 12 through April 12
• Online at: www.hsr.ca.gov/about/business_plans/business_plan_2020_comment_form.aspx
• By phone: 916-384-9516
• By email: DraftBP2020@hsr.ca.gov
• By mail:
  » California High-Speed Rail Authority
  » Attn: Draft 2020 Business Plan
  » 770 L Street, Suite 620, MS-1
  » Sacramento, CA 95814

• In Person:
  » Authority Board Meetings:
    • February 18, Sacramento, California Department of Food and Agriculture Headquarters
    • March 17, Los Angeles, LA Metro Headquarters
• Board Adoption of Draft Business Plan
  • April 21, Fresno, Location TBD
Headquarters
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Northern California Regional Office
California High-Speed Rail Authority
100 Paseo De San Antonio, Suite 300
San Jose, CA 95113