

Senate Bill 1121 Technical Workshop Meeting: Extended Fiscal Needs Survey and Revenue Impacts of Zero-emission Vehicles

February 16, 2024



Welcome

Frances Dea-Sanchez | Needs Assessment Program Manager

Agenda

- Welcome and Opening Remarks
- Logistics
- Technical Analysis Discussion
 - Extended Fiscal Needs Survey
 - Revenue Impact of Zero-emission Vehicles (ZEVs)
- Questions and Answers
- Wrap-up and Next Steps

We're
looking for
your input

An aerial photograph of a winding asphalt road that curves through a dense forest. The trees are in various shades of green and yellow, suggesting an autumn setting. A white van is driving on the road, positioned in the middle of the curve. The road has yellow and white lane markings. The overall scene is captured from a high angle, looking down on the landscape.

Opening Remarks

Tanisha Taylor | Executive Director

Webinar Logistics

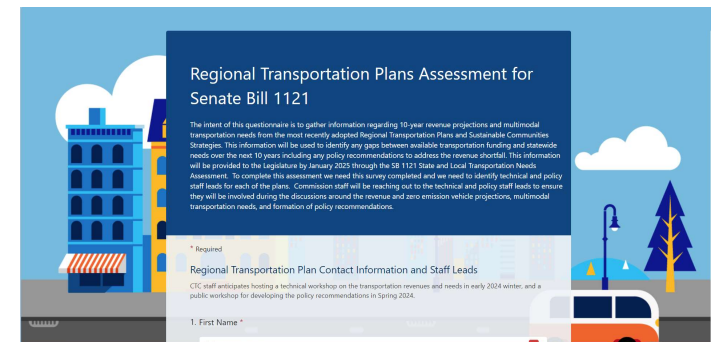
Justin Hall | Meeting Support Team

An aerial photograph of a winding asphalt road that curves through a dense forest. The trees are mostly green, with some showing yellow and orange autumn colors. A white van is driving on the road, positioned in the lower right quadrant of the frame. The road has yellow and white lane markings. The overall scene is captured from a high angle, looking down on the landscape.

Extended Fiscal Needs Survey

Survey

- Sent to Metropolitan Planning Organizations, Regional Transportation Planning Agencies and other counties
- Requested information:
 - Status of regional transportation plan
 - 10-year multimodal transportation needs
 - 10-year revenue projections
 - AB 744 (part of separate study effort, included to reduce future email requests)
- Understanding the requested information is detailed and may not be readily available or may require significant effort to complete by some agencies



Survey – Needs Categories

- Active Transportation
- Local Streets and Roads
- State Highway
- Transportation System Management
- Transportation Demand Management
- Highway Safety
- Highway Pavements
- Local Roads Safety
- Local Roads Pavements
- Local Roads Complete Streets
- Transit Capital
- Transit Operations
- Transit Maintenance and Rehabilitation
- Passenger Rail (Expansion and efficiency)
- Passenger rail operations and maintenance
- Others

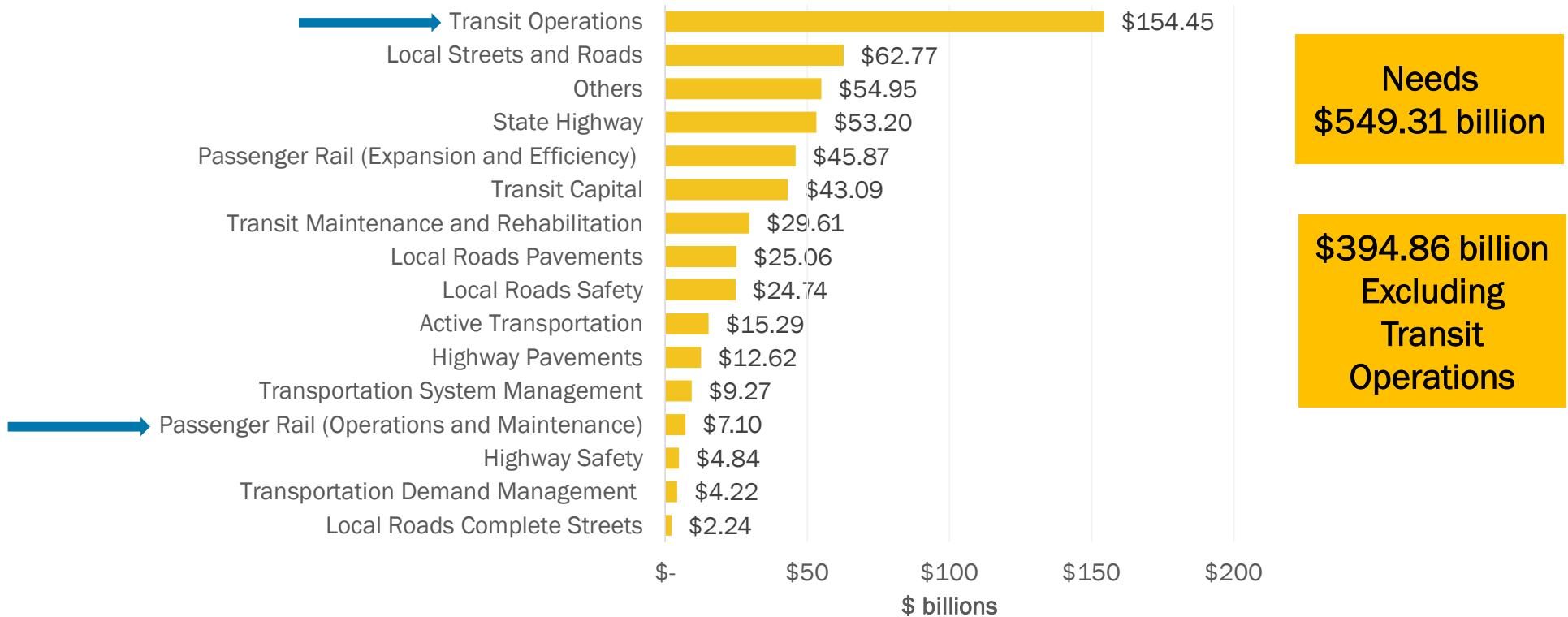
Survey – Revenue Categories

- Federal Grants
- Infrastructure Investment and Jobs Act (IIJA)
- Bipartisan Infrastructure Law (BIL)
- Other Federal
- State Transportation Improvement Program (STIP)
- State Highway Operations and Protection Program (SHOPP)
- Senate Bill 1 (State)
- Other State
- Local Sales Tax
- Other Local
- Transit-related Funding
- Tolls
- Other

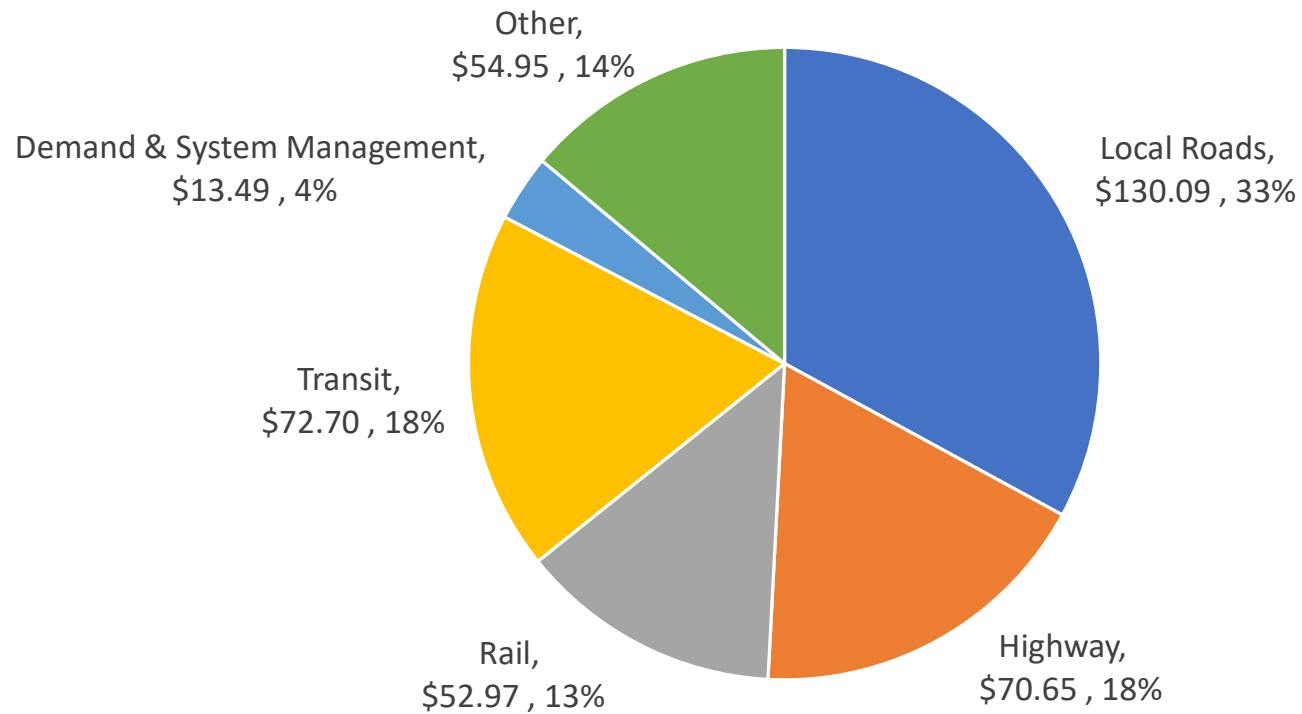
Reponses Received

- Association of Monterey Bay Area Governments (AMBAG)
 - Monterey County
- Fresno Council of Governments
- Kern Council of Governments
- Lassen County
- Metropolitan Transportation Commission (MTC)
- Sacramento Area Council-Government (SACOG)
- San Diego Association of Governments (SANDAG)
- Santa Barbara County Association of Governments (SBCAG)
- Southern California Association of Governments (SCAG)
- Sierra County
- Stanislaus Council of Governments (StanCOG)
- Tehama County

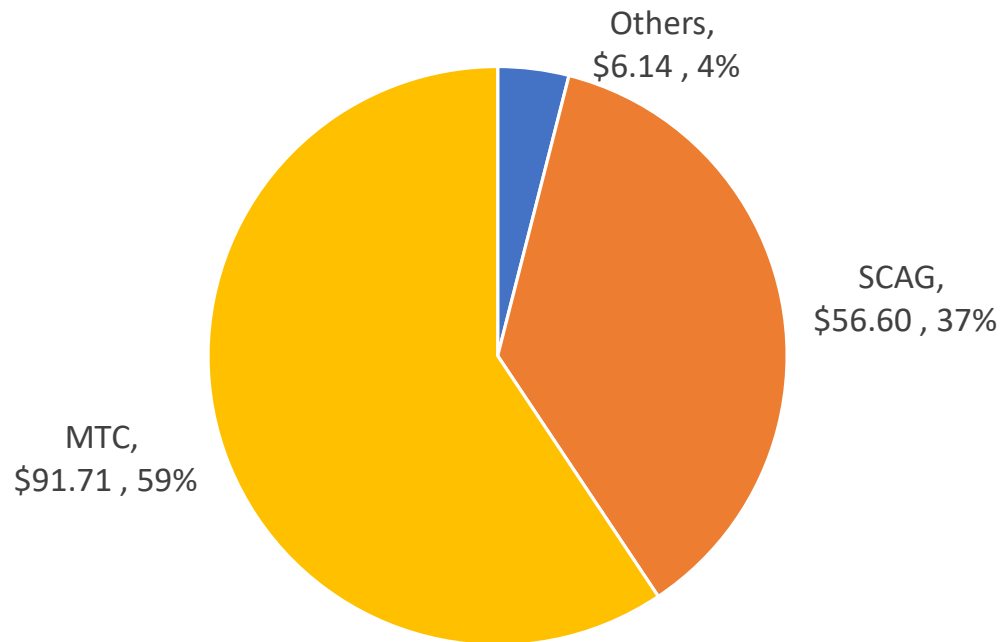
Preliminary Results – Needs



Preliminary Results – Needs by Facility (excludes Transit Operations)

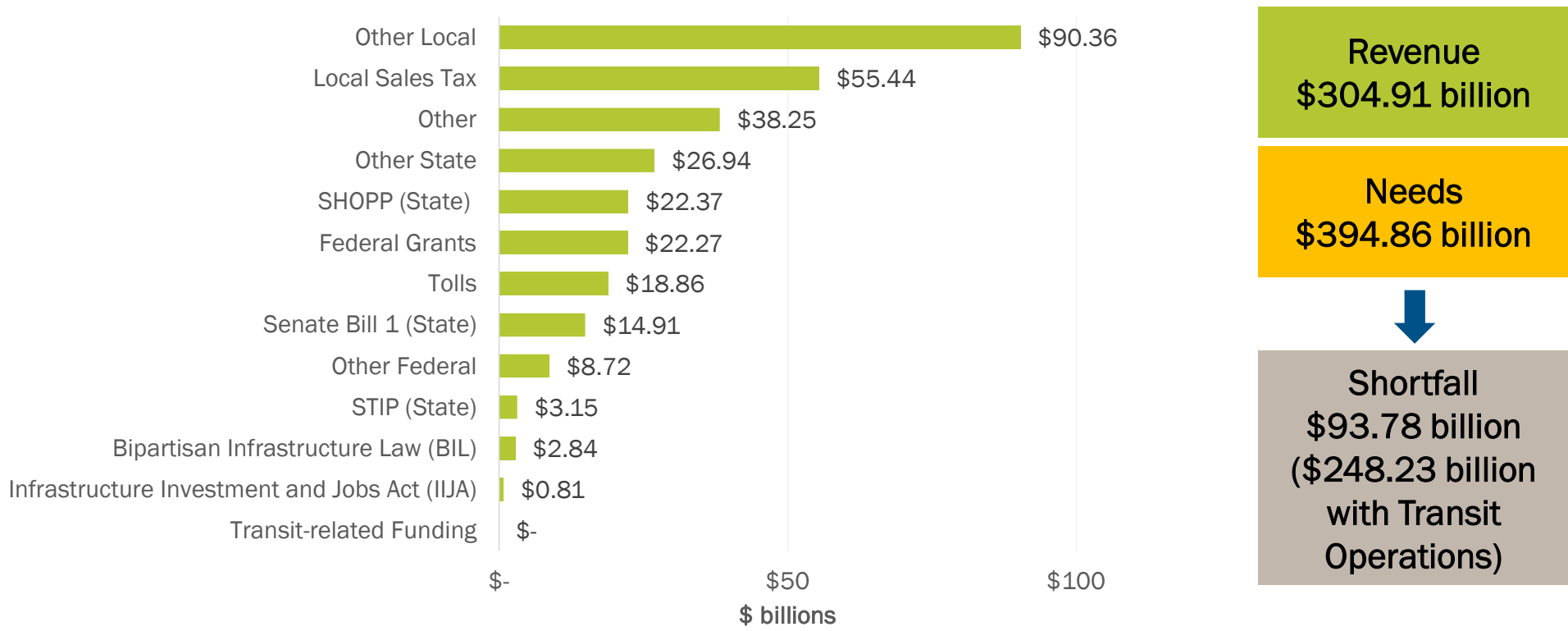


Preliminary Results – Transit Operations



**Needs
\$154.45 billion**

Preliminary Results – Revenue



Next Steps

- Obtain and summarize results from other responding agencies (as received)
- Review and summarize existing documents:
 - 2021 California Transportation Plan 2050 (Caltrans)
 - 2022 Statewide Local Roads and Streets
 - 2023 State Highway Systems Management Plan (Caltrans)
 - 2023 Draft California State Rail Plan (Caltrans)
 - 2023 State Bicycle and Pedestrian Plan (Caltrans)
 - Others

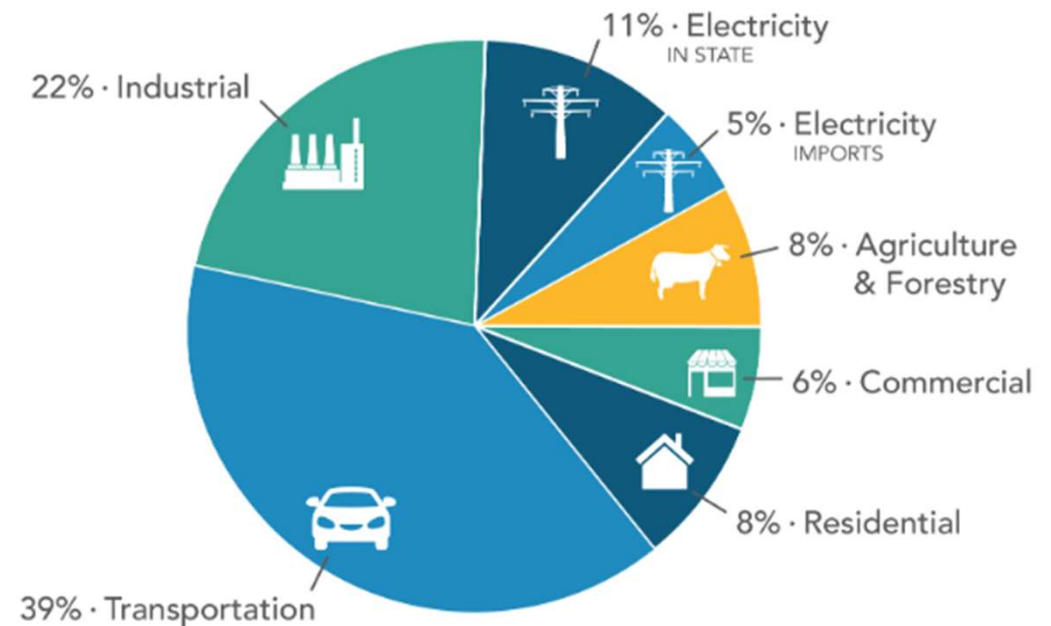
An aerial photograph of a winding asphalt road that curves through a dense forest. The trees are mostly green, with some showing autumnal colors of yellow and orange. A white van is driving on the road, positioned in the right-hand lane. The road has yellow and white lane markings. The overall scene is captured from a high angle, looking down at the road and the surrounding woods.

ZEV Revenue Impact Studies

Transportation Produces the Most Greenhouse Gas (GHG) Emissions

In California (2021):

- 381.3 million metric tons of carbon dioxide equivalent (MMT CO₂e)
- Transportation ~ 39% of total MMT CO₂e
- Light-duty vehicles (passenger cars and trucks) ~ 29% of total MMT CO₂e

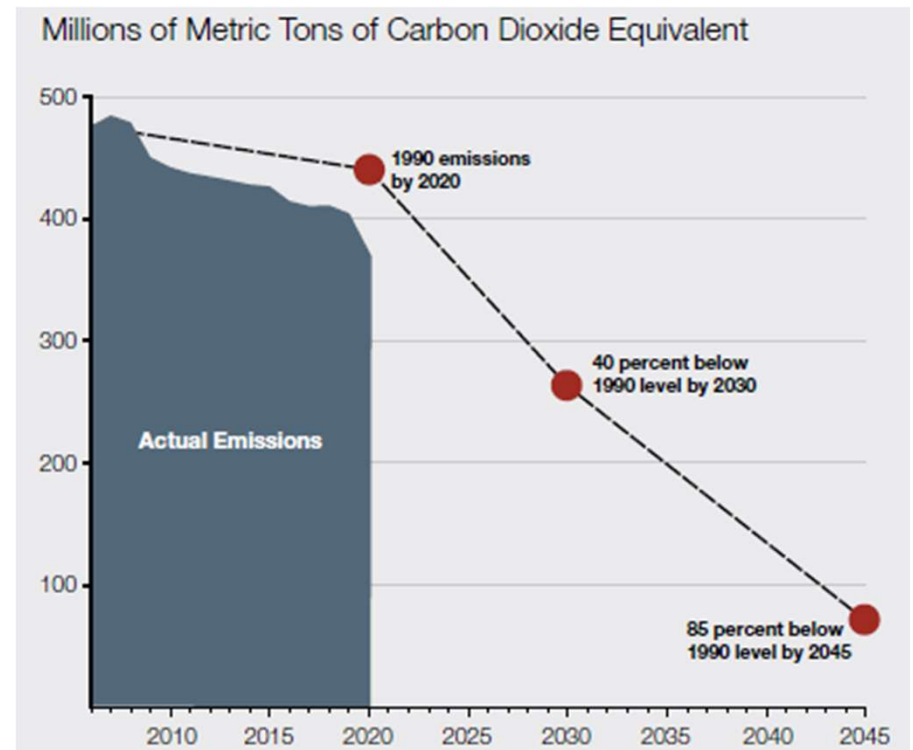


Source: <https://ww2.arb.ca.gov/ghg-inventory-data>

California Greenhouse Gas Reduction Goals

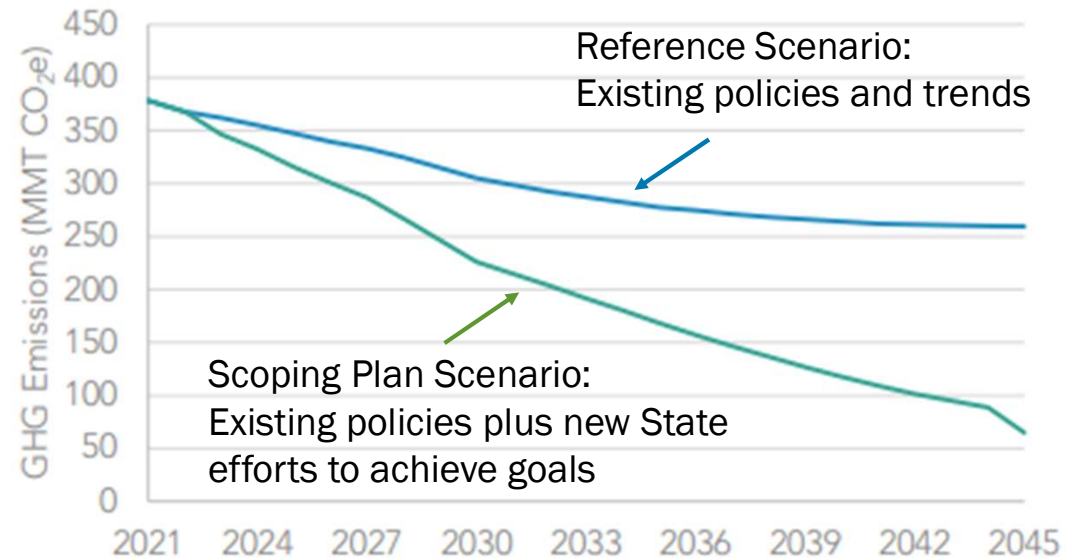
- AB 32 (Nunez, 2006) – set first emission target to 1990 level by 2020
- SB 32 (Pavley, 2016) – extended target to 40% below 2020 emissions level by 2030
- AB 1279 (Muratsuchi, 2022) – extended target to 85% below 1990 level by 2045 and carbon neutrality by 2045

Source: LAO Report: Assessing California's Climate Policies – Implications for State Transportation Funding and Programs



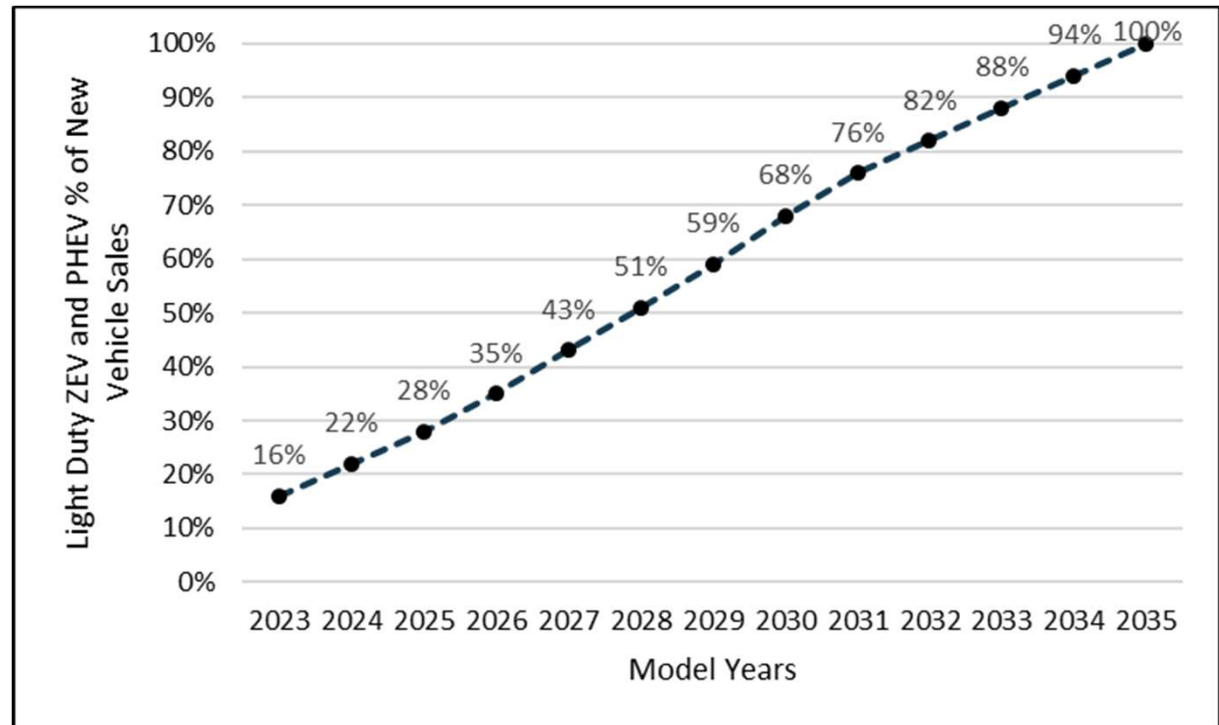
2022 (December) CARB Scoping Plan

- Changes to achieve targets:
 - 100% of new light-duty vehicle sales are ZEVs by 2035
 - 100% of new med- and heavy-duty vehicle sales are ZEVs by 2040
 - Light-duty vehicles miles traveled (VMT) decrease to 25% below 2019 level by 2030, and 30% below 2019 level by 2045



CARB Advanced Clean Cars II (adopted August 2022)

- Annual increase in passenger cars, trucks, and SUVs to be ZEVs:
 - 16% in 2023
 - 100% by 2035
- In 2023, annual sales of new vehicles were **25% ZEVs** more than 1 year ahead of schedule



CARB Advanced Clean Fleets (adopted May 2023)

- Requires all new medium- and heavy-duty vehicle sales to be ZEV by 2036
- Requires drayage (seaports to railyards) trucks to be ZEVs by 2035
- Requires phase in and purchase standards for federal, state, and local agencies

High Priority/Federal Fleet Milestones						
Group	% ZEV	10%	25%	50%	75%	100%
1	Box trucks, buses w/2 axles, yard tractors, light-duty package delivery vehicles	2025	2028	2031	2033	2035+
2	Work trucks, day cab tractors, buses w/3 axles	2027	2030	2033	2036	2039+
3	Sleeper cab tractors and specialty vehicles	2030	2033	2036	2039	2042+

Revenue Estimate Studies

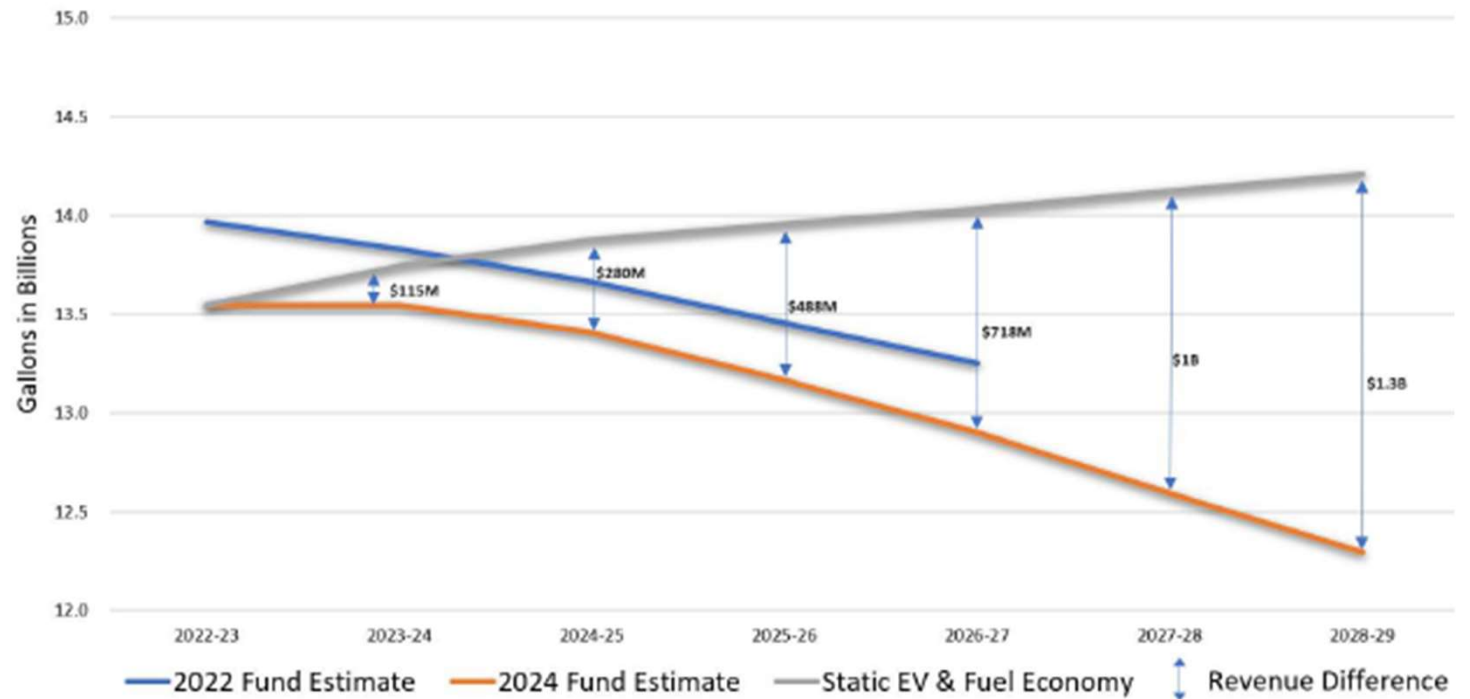
- California Department of Transportation (Caltrans)
- Statewide Local Roads and Streets Needs Report (NCE)
- Legislative Analysts Office (LAO)
- Senate Bill 1121 Revenue Scenario Projection
- Mineta Transportation Institute (MTI) – anticipated February 2024

Caltrans


- 2024 State Transportation Improvement Program Fund Estimate
 - Adopted by the Commission August 2023
- Near-term analysis of gasoline consumption, 3 scenarios:
 - 2022 Fund Estimate
 - 2024 Fund Estimate
 - Static EV & Fuel Economy – baseline
 - Assumes no change in fuel economy or zero-emission vehicle adoption after FY 2022-23
 - CARB’s emission factor (EMFAC) 2021 database
 - VMT, fuel economy, fuel type, and vehicle type

Caltrans (continued...)

- Revenue shortfall of \$1.3B (13%) below baseline scenario by FY 2028/29

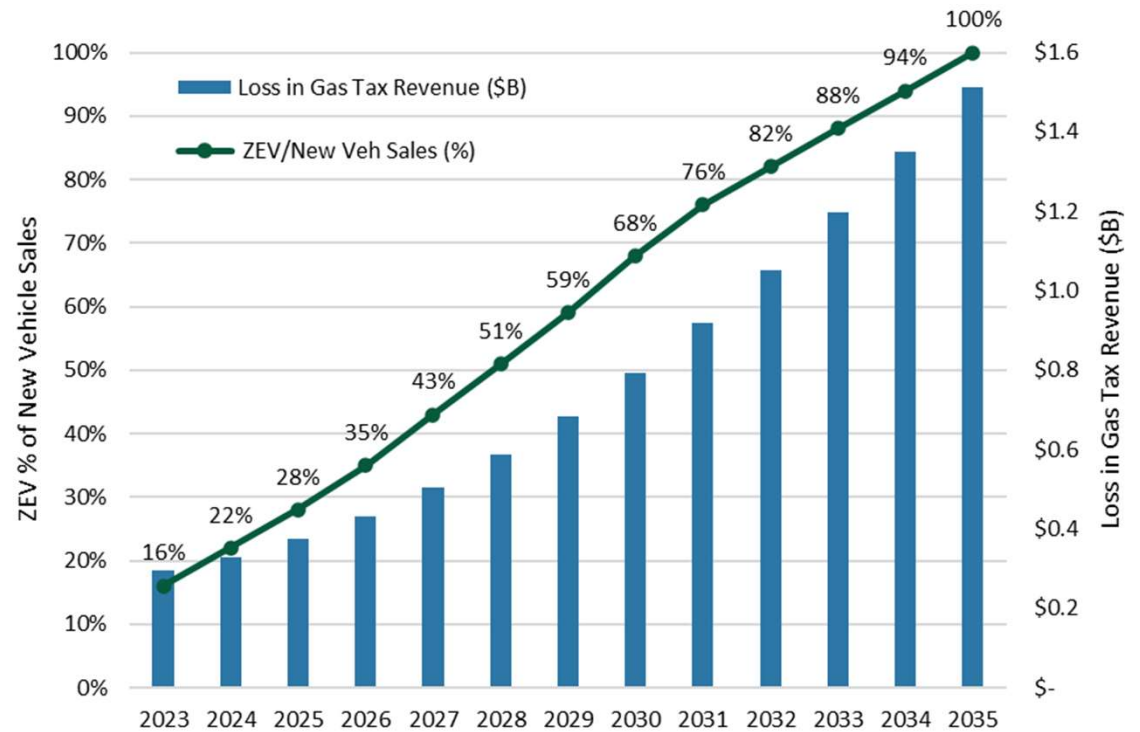


NCE

- Statewide Local Roads and Streets Needs Report
 - Advanced Clean Cars II ZEV schedule
 - Light-duty vehicles only
 - Typical conventional vehicle contributes \$281/year in gas tax
 - Gas tax rate (at time of study): \$0.539/gallon
 - Average VMT: 12,500
 - Average gas mileage rate: 24 mpg
 - ZEVs
 - Road Improvement Fee (part of SB1): \$108/year
-  ~1/3 of conventional gas vehicles

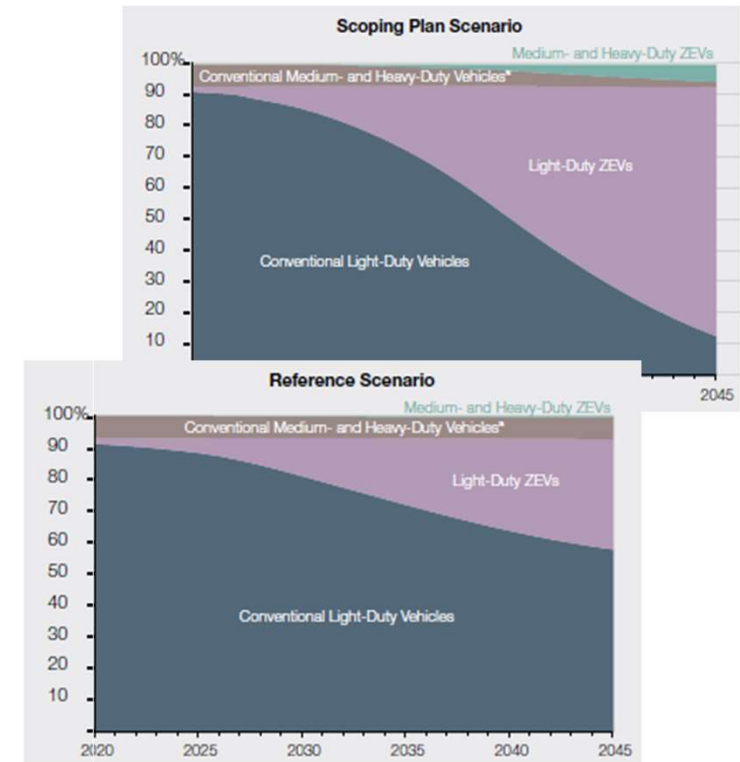
NCE (continued...)

- Gas tax revenue for light-duty vehicles will decrease by \$1.5B by 2035



LAO (based on 2022 CARB Scoping Plan Scenarios)

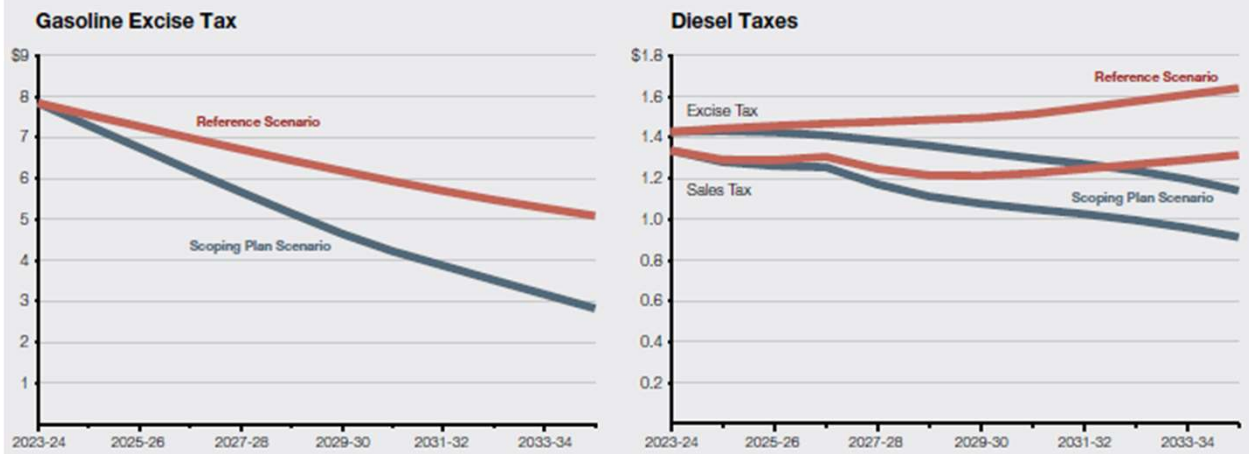
- Scoping plan scenario
 - Aggressive ZEV transition (85% ZEVs by 2045)
 - Light-duty VMT reduction (25% of 2019 by 2030/30% by 2045)
 - Fuel efficiency increases
- Reference scenario
 - Conservative ZEV transition (65% ZEVs by 2045)
 - Current policies and practices
 - Fuel efficiency increases



- Overall revenues will decrease by \$4.4B from current levels

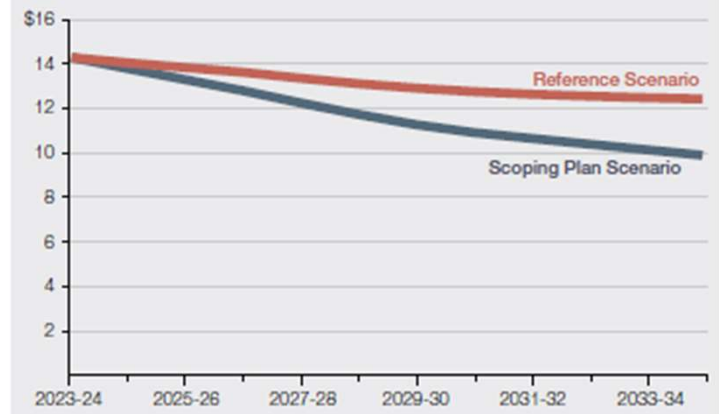
Fuel Tax Revenues Decline as Fuel Efficiency and ZEV Adoption Increase

Inflation-Adjusted Dollars (In Billions)



Overall Transportation Revenues Projected to Decline Significantly

Inflation-Adjusted Dollars (In Billions)

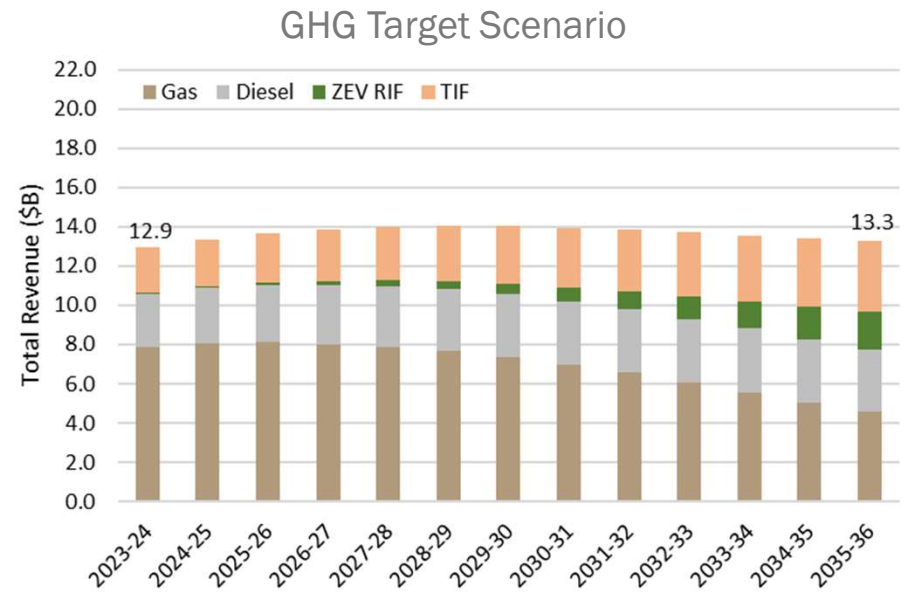
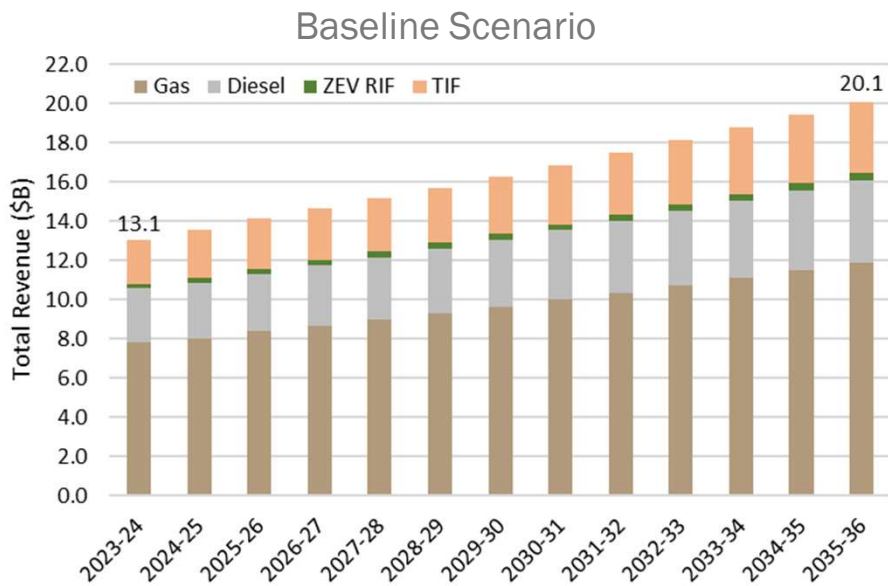


Senate Bill 1121 Revenue Scenario Projection (2023)

- **Baseline (Status Quo) Scenario**
 - Caltrans Budget FY 2021-22 to 2024-25
 - Gas excise tax, diesel excise and sales tax, road and transportation improvement fees
 - Annual revenue increase
 - 3% inflation rate + CARB vehicle increase (0.4 - 1.2%/year)
 - ZEVs annual fee is average of conventional vehicles
 - Fuel efficiency consistent
 - 25 mpg for light-duty vehicles
 - 20 mpg for medium and heavy-duty vehicles
- **Achieve GHG Target Scenario**
 - ZEV adoption in accordance with Advanced Clean Cars II/Fleets
 - Fees
 - Diesel = \$0.969/gal
 - Gas = \$0.659/gal
= road improvement fee = \$108/year
 - 3% inflation
 - Improved fuel efficiency

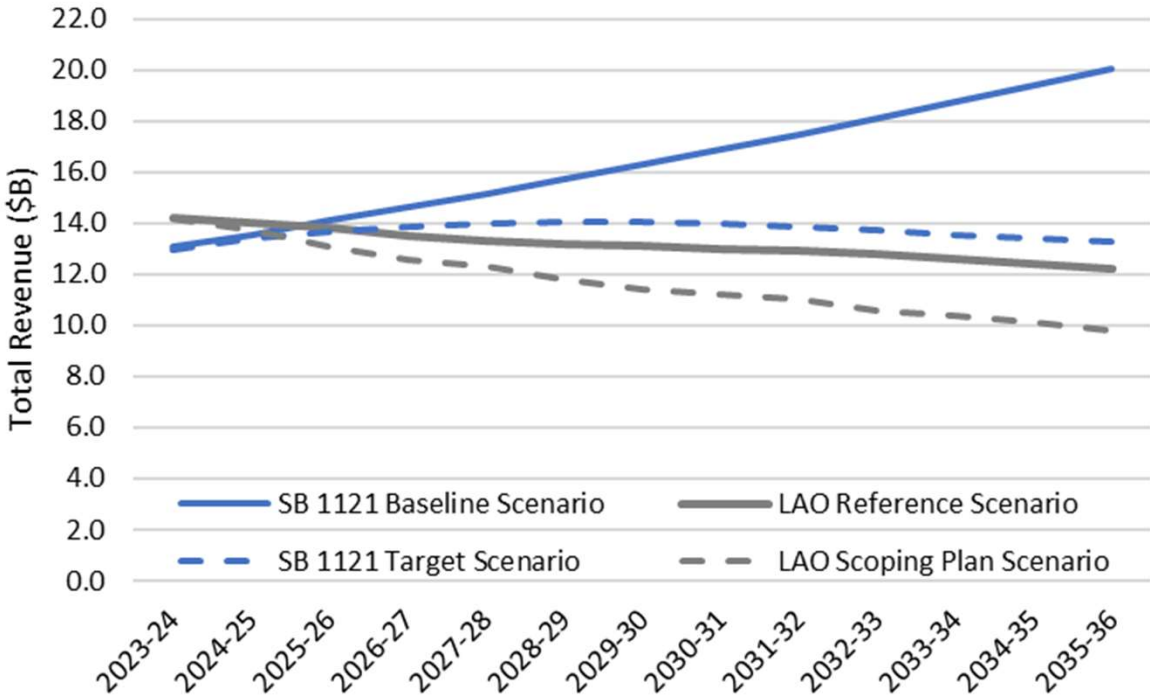
Senate Bill 1121 Revenue Projection (Continued)

- Overall target scenario revenues will be \$6.8B below the baseline scenario by FY 2035-36



Discussion Questions

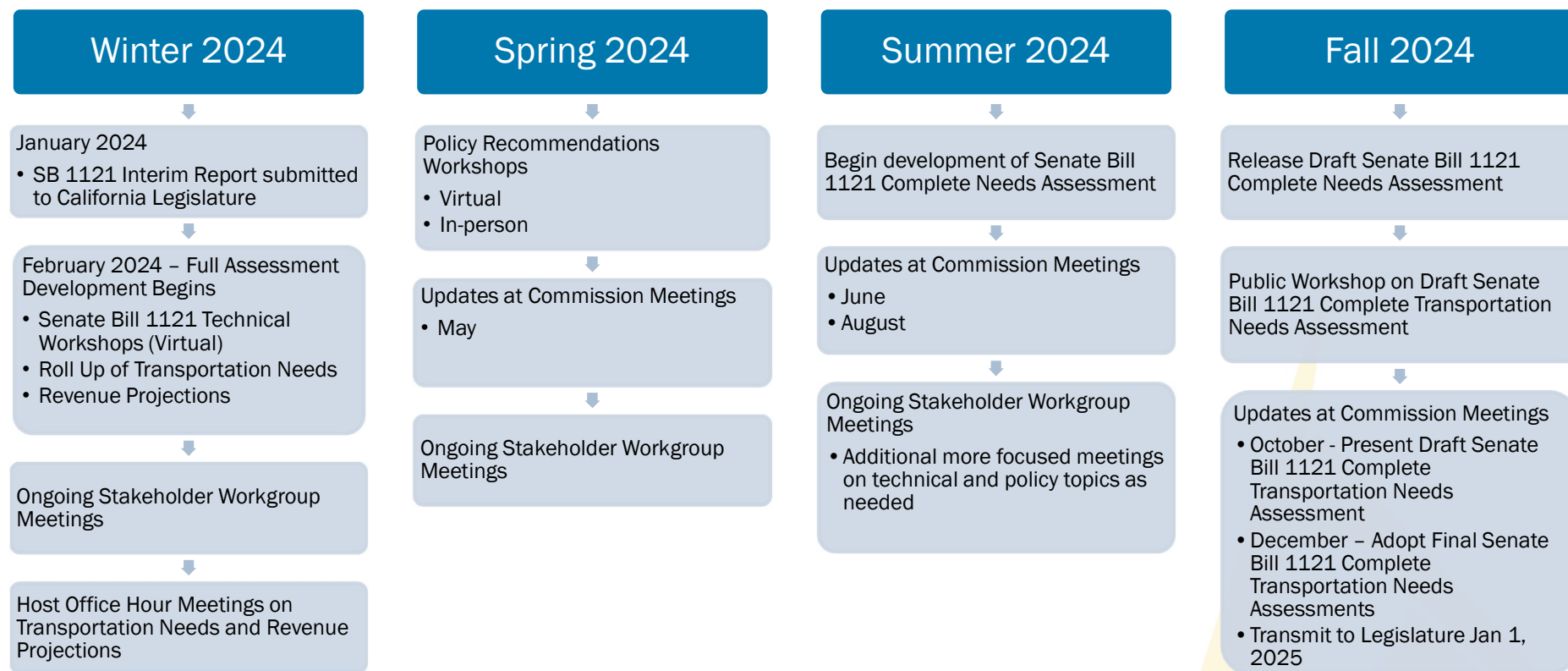
- What factors should be included in a baseline scenario?
- Should results be compared to a:
 - Baseline scenario?
 - Current revenue levels?
 - Maintenance needs?



Next Steps

- Complete assessment of Senate Bill 1121 Revenue Scenario Projection
- Review Mineta Transportation Institute report when available
- Compare results of methods

Tentative SB 1121 Complete Transportation Needs Assessment Report Timeline



Stakeholder Workgroup Meetings will be held regularly throughout this period



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We're
looking for
your input



Thank You

