California Transportation Commission

Senate Bill 671 Workgroup

Friday, August 26, 2022 10:00 am – 11:00 am Via GoToWebinar

Registration Link: https://attendee.gotowebinar.com/register/3768143317622821903

Agenda

Topic	Details
Welcome and Introductions	Welcome
	Webinar Logistics
Key Focus Areas for Discussion	Development of Priority Clean Freight Corridors
	Development of Top 5 Corridors with Heaviest Freight Volume and Near-Source Exposure to Diesel Exhaust and Other Contaminants
	Summary of Responses to Information Request
Closing and Next Steps	Next Meeting on September 27, 2022 (In-Person!)

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Senate Bill 671



August 26, 2022

SB 671 Corridor Requirements



- Priority Clean Freight Corridors
 - Identified by workgroup
 - Priority candidates for zero-emission infrastructure
- Top 5 freight corridors with heaviest freight volume and near-source exposure to diesel exhaust and other contaminants
 - Draft developed by CARB and CTC
 - CTC will share draft with workgroup for comment



Development of Priority Clean Freight Corridors

Selection Criteria



To be considered for the assessment, corridors/corridor segments must meet most or all the following criteria. Identified as a significant freight route by FHWA, Caltrans, MPO, a local agency, or the SB 671 workgroup.

Located where grid capacity is sufficient for significant additional load, or where sufficient hydrogen supply is available, and where hydrogen fuel supply can be delivered safely.

Located where the California Energy Commission (CEC) and/or others are already working to improve the ability to transition to zero-emission freight.

Selection Criteria



Identified as critical locations for zero-emission freight in the CEC's HEVI-LOAD model.

Corridor segment is in an area disproportionately burdened by air pollution.

If intended for electric vehicle charging, corridor segment is used for short haul trips suitable for servicing by trucks with limited range.

Corridor segment is a logical starting point for build out of charging network or a logical co-location hub for both light-duty and heavy-duty hydrogen Fuel Cell Electric Vehicles.

Corridor Nomination Form



Senate Bill 671 – Corridor/Corridor Segment Recommendation Form

Recommendation Form

1. What Corridor or Corridor Segment do you recommend?

Example:

- Highway 99 between 1-5 in Kern and highway 50 in Sacramento
- The 710 between the San Pedro Bay ports and downtown Los Angeles.
- Highway 10 and 15 from the ports to the high desert.

Please note that you can also use post miles or a map to describe the corridor/segment.

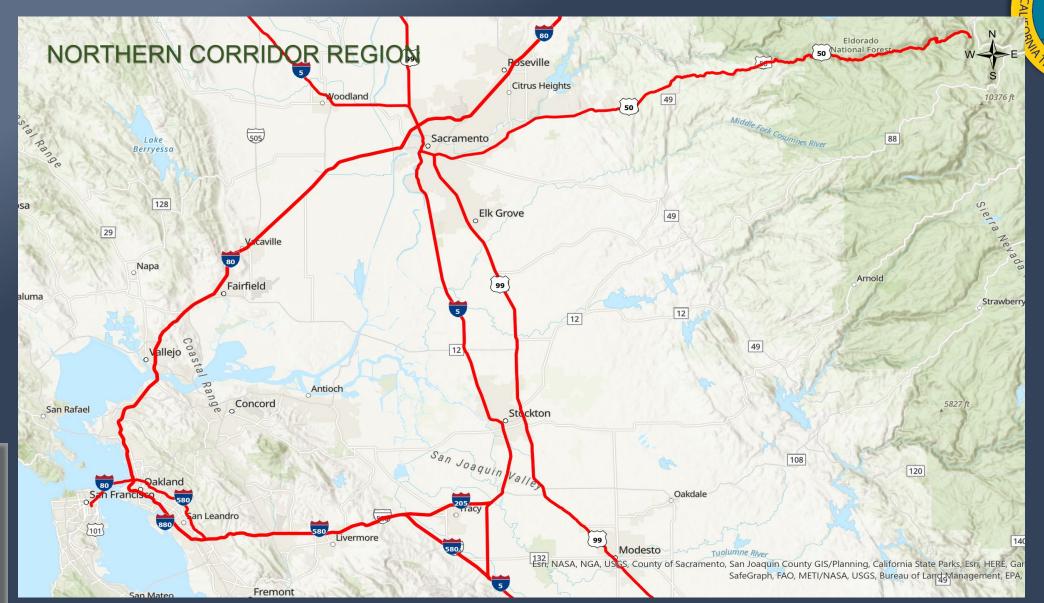
2. Describe why we should focus on this corridor.

Example reasons:

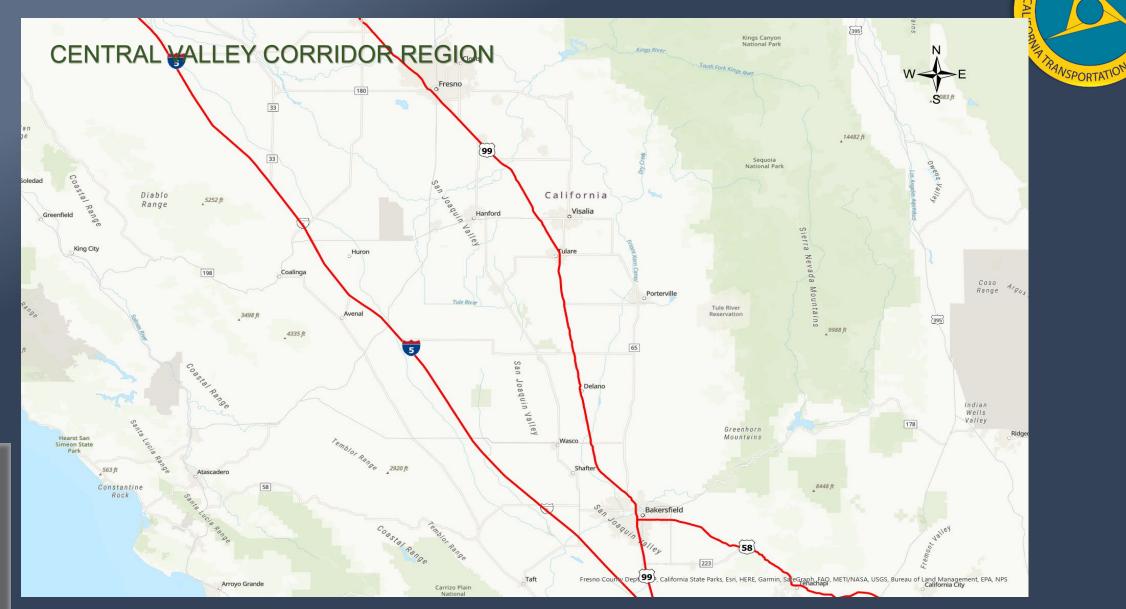
- · Publicly owned facility
- Primary freight connector between regions or subregions
- Connects major freight nodes such as seaports, rail intermodal yards, transloading and warehousing or connects recognized freight corridors
- It is in an area where energy needed is available or where hydrogen could be distributed.
- It has locations with enough space to build charging or re-fueling infrastructure.
- It is a facility in need of capital investment, beyond routine maintenance, that would improve freight movement and reduce emissions and other impacts.
- It is a facility of potential high value as a low or zero emissions corridor particularly for freight corridors transecting residential areas.
- It is a facility that would be of high value for a new dedicated truck lane that would provide priority for low or zero emission trucks
- . It has high relative or absolute truck volumes

Please note that you can recommend rail corridors. You can also recommend port terminals, railyards, or a transloading facility as long as it is located at the end of or along the identified freight corridor.

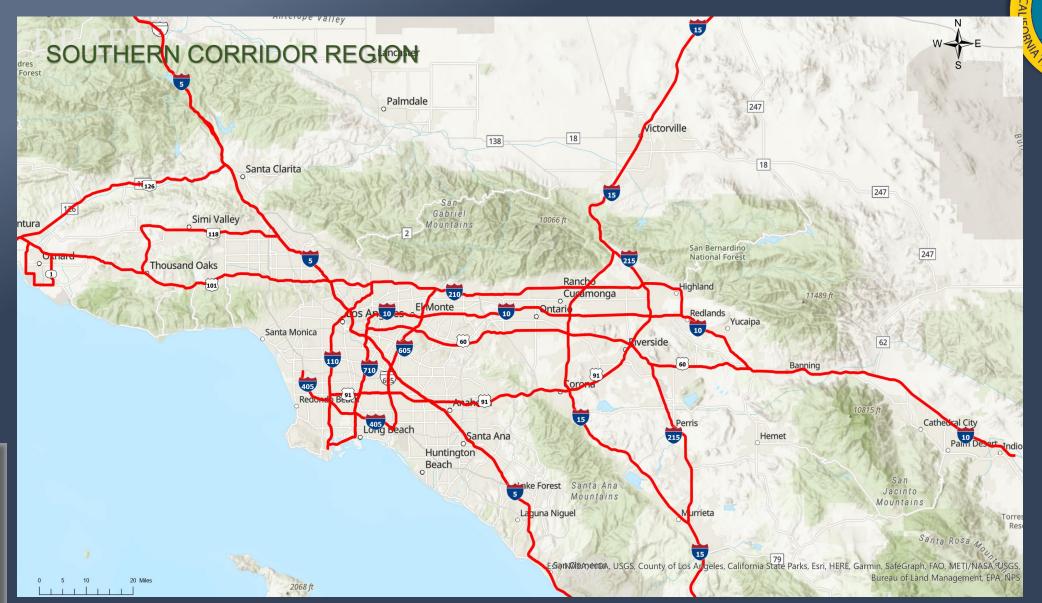
3. What potential projects could be implemented along this corridor?



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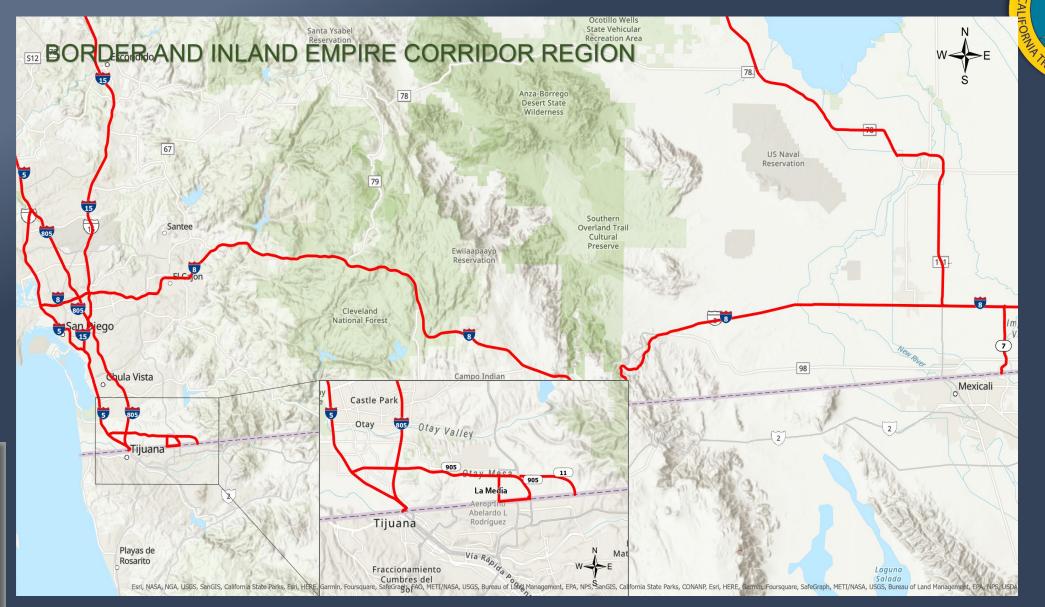


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Development of top 5 freight corridors with heaviest freight volume and near-source exposure to diesel exhaust and other contaminants

CalEnviroScreen

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- By census tract
- 21 indicators
- Average score
- Pollution score multiplied by population characteristics

Pollution Burden

Exposures

- Ozone Concentrations
- PM2.5 Concentrations
- Children's Lead Risk from Housing
- Diesel PM Emissions
- · Drinking Water Contaminants
- Pesticide Use
- · Toxic Releases from Facilities
- Traffic Density

Environmental Effects

- Solid Waste Sites and Facilities
- Groundwater Threats
- Hazardous Waste
- Impaired Water Bodies
- Cleanup Sites

Population Characteristics

Exposures

- Asthma
- Cardiovascular Disease
- · Low Birth Weight Infants

Socioeconomic Factors

- · Educational Attainment
- · Housing Burdened Low Income Households
- Linguistic Isolation
- Poverty
- Unemployment

Pollution Burden

Average of Exposures and Environmental Effects



Average of Sensitive Populations and Socioeconomic

Factors

Population

Characteristics



CalEnviroScreen Score

Pollution

Burden





- For the "top 5 corridors" maps, the CTC is working with the USACE Engineer Research and Development Center staff to develop a new set of truck volume map layers based on Replica data and potentially ATRI data. We currently also have TAMS and Caltrans data for this purpose
- CTC staff and CARB will continue to work on identifying these corridors and will bring results to the workgroup



Response to SB 671 Information Request

SB 671 Questions



- Forty-two questions regarding Electric and Hydrogen Fueling for Heavy Duty Vehicles
- Twenty-seven pages of responses
- Responses organized into four major themes, with overlap
 - Time
 - Risk vs Certainty
 - Large vs Small Fleet Operator
 - General Applicability
- Many other pertinent responses and points that will be considered

Time



- Multi-year planning, permitting and construction process
- Transportation Planning Organizations in planning process
- Infrastructure and fleet industries are in early stages of delivery and implementation
- New facilities take many years to become operational
- Fiscal incentives are needed to accelerate process
- Public oversight processes need to be streamlined
- Some technologies are still in development
- Need energy storage systems that do not yet exist

Risk vs Certainty



- Risk is more palatable for large organizations with diverse fleets because it can be taken at a smaller relative scale
- Risk is a greater threat to small organizations or owner operated because risk failure cannot be absorbed
- For fueling infrastructure and energy providers, they require the certainty of having paying customers, they need a fleet to fuel
- For fleet operators, they require the certainty of having available fuel when and where needed
- The demand and infrastructure are needed at the same moment

Large vs Small Operator



- In addition to risk, issue of operator owned charging infrastructure vs need to use publicly available charging infrastructure, such as truck stops
- Need public infrastructure to be widely available
- For small operators that provide service to clusters of warehouses where charging may be available, they need to have access
- Small operators may be dependent on the big operators and public agencies to develop the larger system which they can join later in the process but not at the beginning

General Applicability



- Land availability close to the dense freight sub-regions is an expensive challenge
- Many freight trip types have differing fueling requirements: pointpoint drayage, multi-stop pick-up and delivery, long distance and line haul
- Fueling may occur overnight, en-route, or transaction points such as warehouse, transloading facility or port requiring differing fueling infrastructure
- Standardization is essential

Overall Takeaway



- Multiple implementation pathways leading to many viable solutions for varied market
- Large organizations can take bite size chunks and become early adopters
- Small organizations may have to wait for the system to become more mature and will likely require greater subsidy
- Certainty of this all moving forward in a timely manner will likely require substantially larger public investment than we currently have
- There are energy providers, vehicles and fleet operators who are ready to jump in now. They just need a bit more certainty

Next Steps



- This information will inform the final SB 671 report
- The Commission will be updated regularly so they can provide input on major decisions

September 27th In-Person Meeting



- The next SB 671 workgroup meeting is on September 27th
- The meeting will be in-person at the Cal EPA building in Sacramento
- The meeting time is from 1-4pm
- Here is the link to register: Registration: SB 671 In-Person Meeting, September 27, 2022 (office.com)

Thank You!



SB 671 website: https://catc.ca.gov/programs/sb671

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