Interstate Highway 45 ZEV Corridor: Customer Identification

Agenda:

- 1. Welcome/Housekeeping
- 2. Review of Subgroup Role/Objectives
- 3. Discussion and Closing Remarks

October 19, 2020

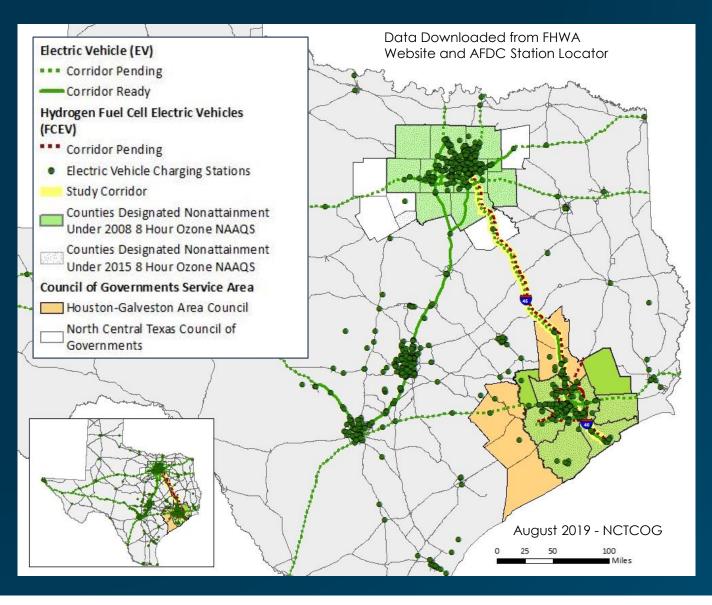
2:30 pm – 3:30 pm

Next Meeting: November 16, 2020 at 2:00 PM

Council of Governments



IH-45 ZEV Corridor Subgroups



Infrastructure Development:

- Solicit Infrastructure Needs and Criteria
- Identify and Contact Property Owners

Customer Identification:

- Identify Best Technologies Suitable for Vocational Needs
- Evaluate Commercialization Status of Suitable Vehicles

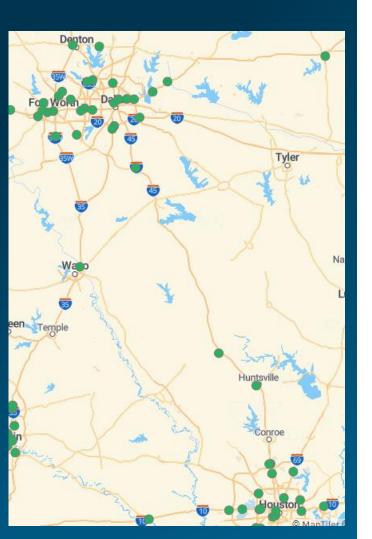
Vehicle Availability:

- Identify and Engage End-User Fleets
- Match User Needs to Vehicle Availability

Policy/Incentives:

- Identify and Prioritize Non-Monetary Policies/Incentives
- Assess Existing and Needed Monetary Incentives

What we Have Now/Work in Progress



Existing DC Fast Charge BEV Infrastructure (Electrify America)

Truck Stops along I-45

Developing Surveys

Fueling Providers Fleets

Origin/Destination Data

Heavy-Duty Diesel Inspection & Maintenance Pilot Program

Data from 496 Trucks at New Waverly Weigh Station

~46% Destined for DFW as Final Destination

~23% Passing Through DFW, not Final Destination

Remaining ~31% Not Passing Through DFW

What we Have Now/Work in Progress

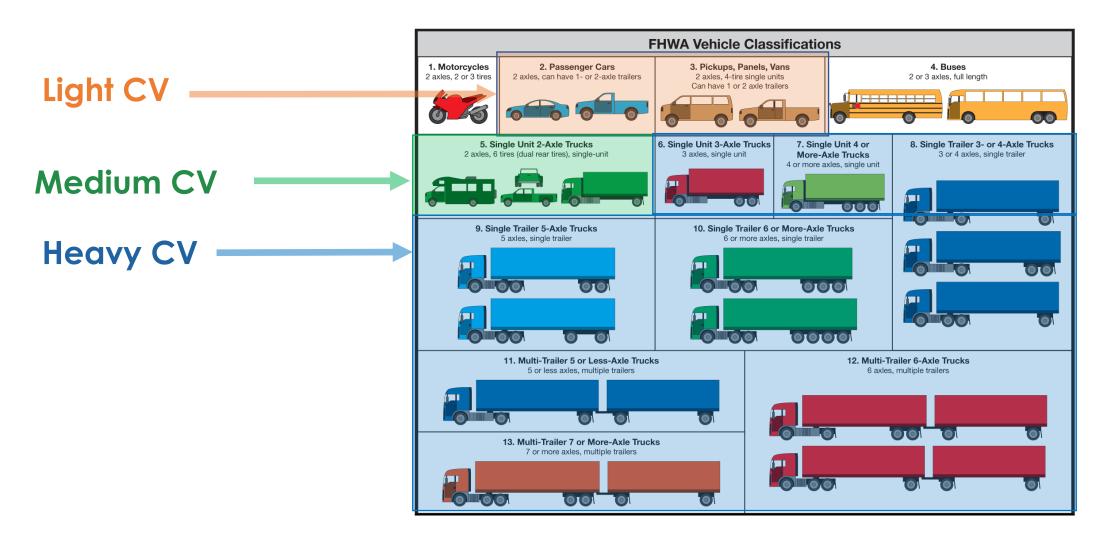
Total Truck Volumes Along Corridor (current and future forecasted volume)

Potential Fuel Volumes Needed (calculated from truck volume and origin/destination fraction)

Total Truck Volume -> Trucks Suitable for BEV or FCEV Transition based on Weight Class/Type and Origin/Destination

Suitable Trucks -> Fuel Consumption

Three Commercial Vehicle Classes



CUSTOMER IDENTIFICATION

Assumptions

Federal Highway Administration designation intervals are appropriate.

Hydrogen: 100 miles between stations, Within 5 Miles

Electric: 50 miles between stations, Within 5 Miles

Plan should focus on build-out of facilities to support medium/heavy-duty vehicles.

Critical Minimum on Light-Duty BEV in Place FCEV Adoption Expected First in MD/HD Sectors

Momentum for hydrogen vehicles is on the heavy-duty side.

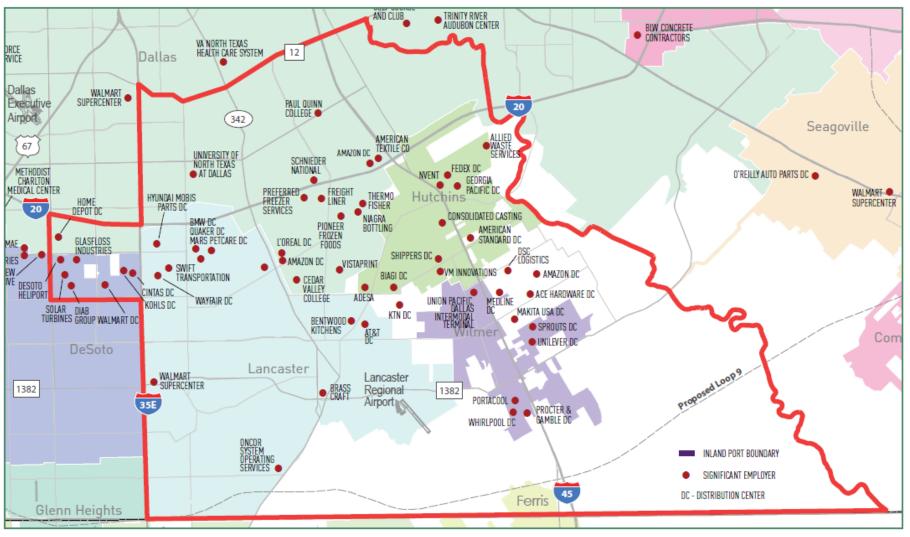
MD/HD trips originating in either Houston or DFW, bound for other end of corridor, minimal stops in-between metros.

Who Should We Be Talking To?

Where Can we Find Clusters on Houston End of Corridor?

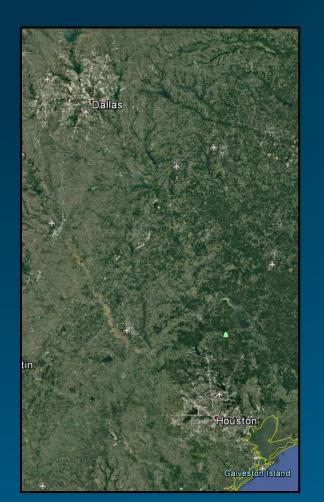
Southern Dallas Inland Port

Over 20 Distribution Centers



Source: Southern Dallas Inland Port Employer and Employee Survey

Discussion



What are the driving factors for a fleet to switch to ZEVs?

Fuel Availability

Cost

Company policies

Incentives

Fleet accessibility

What is the critical minimum needed in market demand to bring OEM offerings to Texas market?

BEV trucks FCEV trucks

How large will fleet pilot deployments be?

Are fleets traveling through Dallas to make stops in Fort Worth?

Discussion



What fleets have policies in place that would make them an ideal candidate for transition to heavy-duty ZEVs?

What are the most critical factors in a location for a driver to stop to charge?

Location Amenities

Should we focus on co-locating EVSE and hydrogen refueling with existing sites (truck stops)?

ZEV Incentives



Volkswagen Environmental Mitigation Program Level 2 Charging Infrastructure

Funds: Up to \$2,500, Not to exceed 70% Funding per Activity

Deadline: First-Come, First-Served Until August 11, 2021

Texas Light-Duty Motor Vehicle Purchase or Lease Incentive Program

Funds: Up to \$2,500 for Electric or Hydrogen

Deadline: First-Come, First Served Until January 7, 2021 or Until all Funds

are Awarded

North Texas Emissions Reduction Project

Funds: Up to 45% Funding to Replace Diesel Trucks with Electric Trucks *Includes charging pedestal and installation cost, one per purchased vehicle

Deadline: January 8, 2021

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