

# Interstate Highway 45 ZEV Corridor: Infrastructure Development

## Agenda:

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

November 10, 2020

11:00 am – 12:00 pm

**Call-In Information: 1-346-248-7999**

**Meeting ID: 871 2822 6957**

**Please mute yourself when you are not speaking**

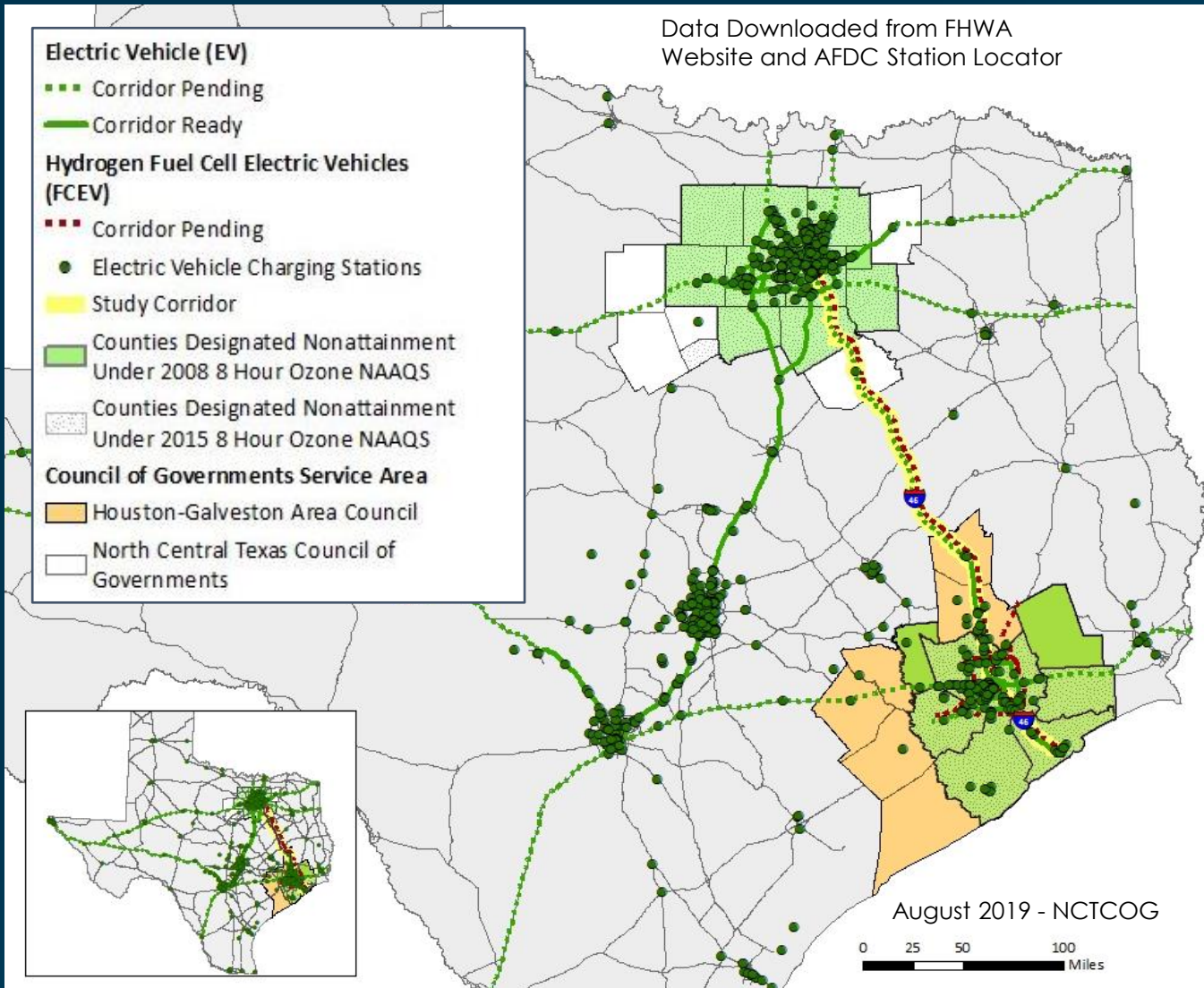


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# IH-45 ZEV Corridor Plan Goals



**Create an Actionable Infrastructure Plan that Facilitates BEV and FCEV Pilot Projects Along the Corridor**

- Focused on Medium and Heavy-Duty Applications

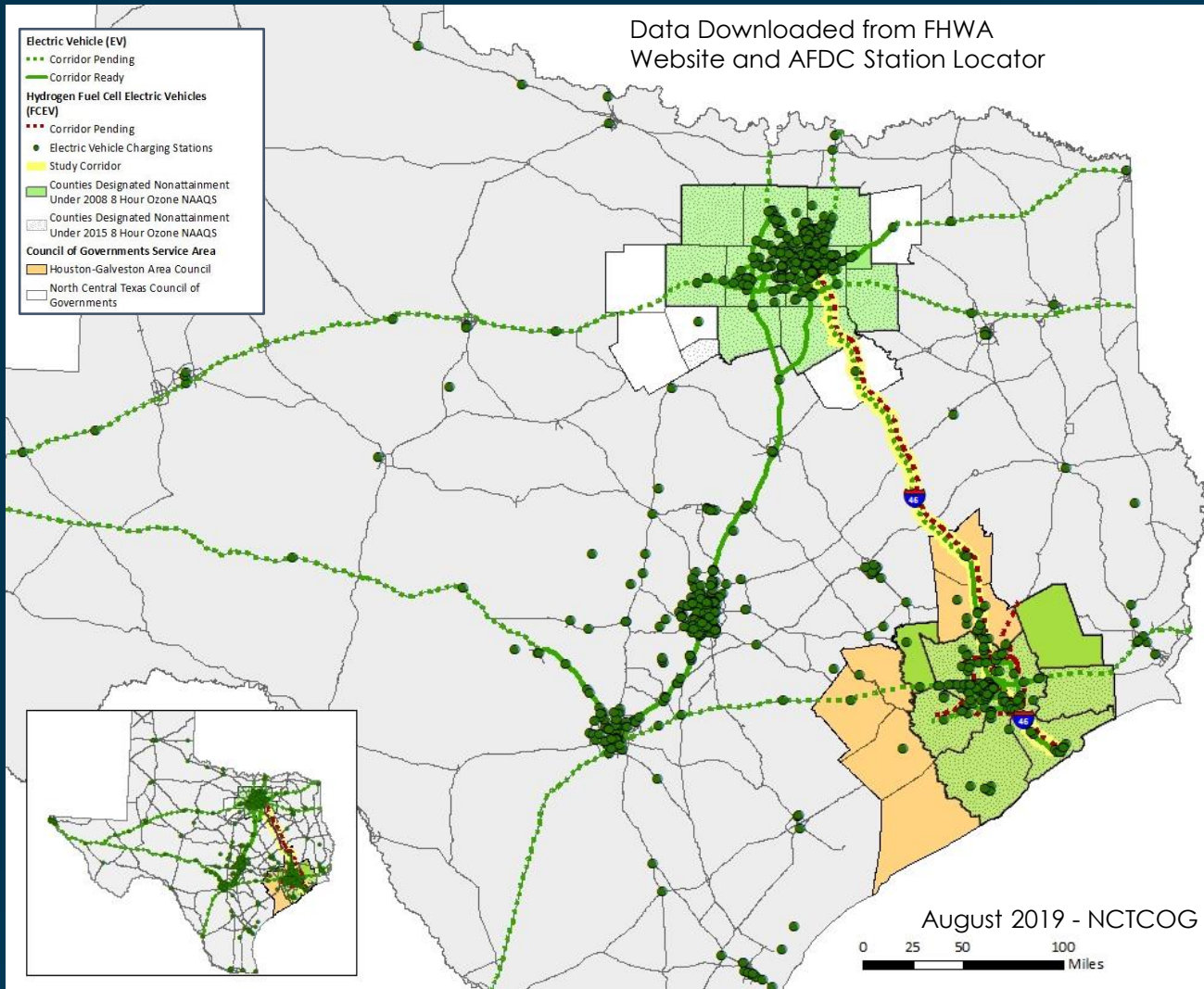
**Support Future Strategic Initiatives in the Corridor**

- AV Technology
- Truck Platooning

**Expect Plan will Need Revisiting in 3-5 years**

**Stakeholder Role: Guide Plan Development, Lend Expertise, Ensure Appropriate Details Addressed**

# IH-45 ZEV Corridor Plan Goals



## Infrastructure Development:

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

## Customer Identification:

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

## Vehicle Availability:

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

## Policy/Incentives:

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

# What we Have Now/Work in Progress

## Developing Surveys

Fueling Providers  
Fleets

## Origin/Destination Data

[Heavy-Duty Diesel Inspection & Maintenance Pilot Program](#)

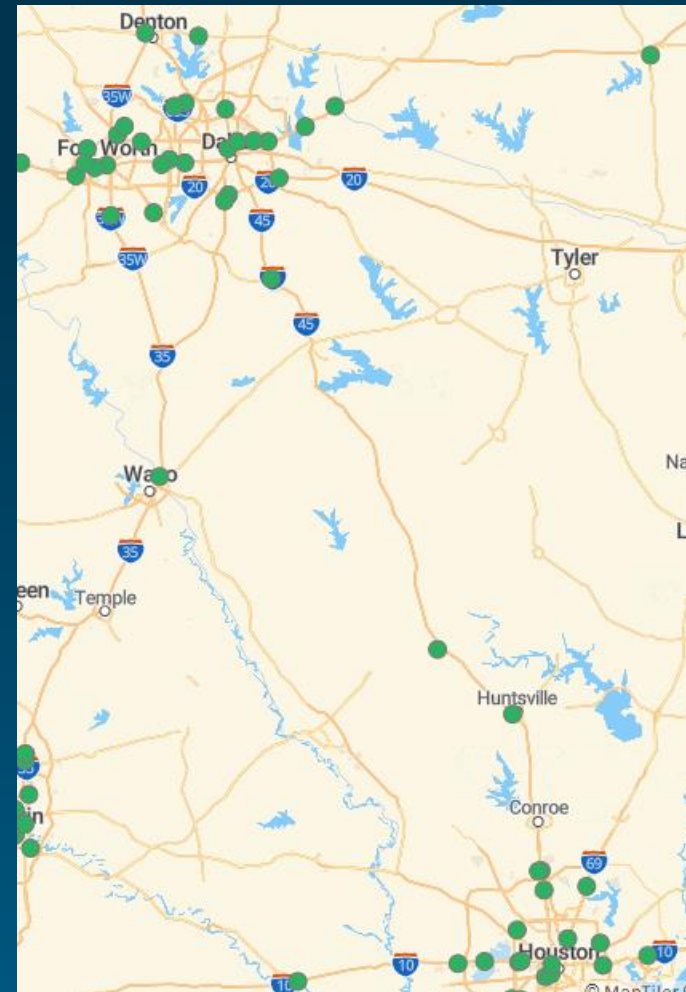
Data from 496 Trucks at New Waverly Weigh Station  
~46% Destined for DFW as Final Destination  
~23% Passing Through DFW, not Final Destination  
Remaining ~31% Not Passing Through DFW

## 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



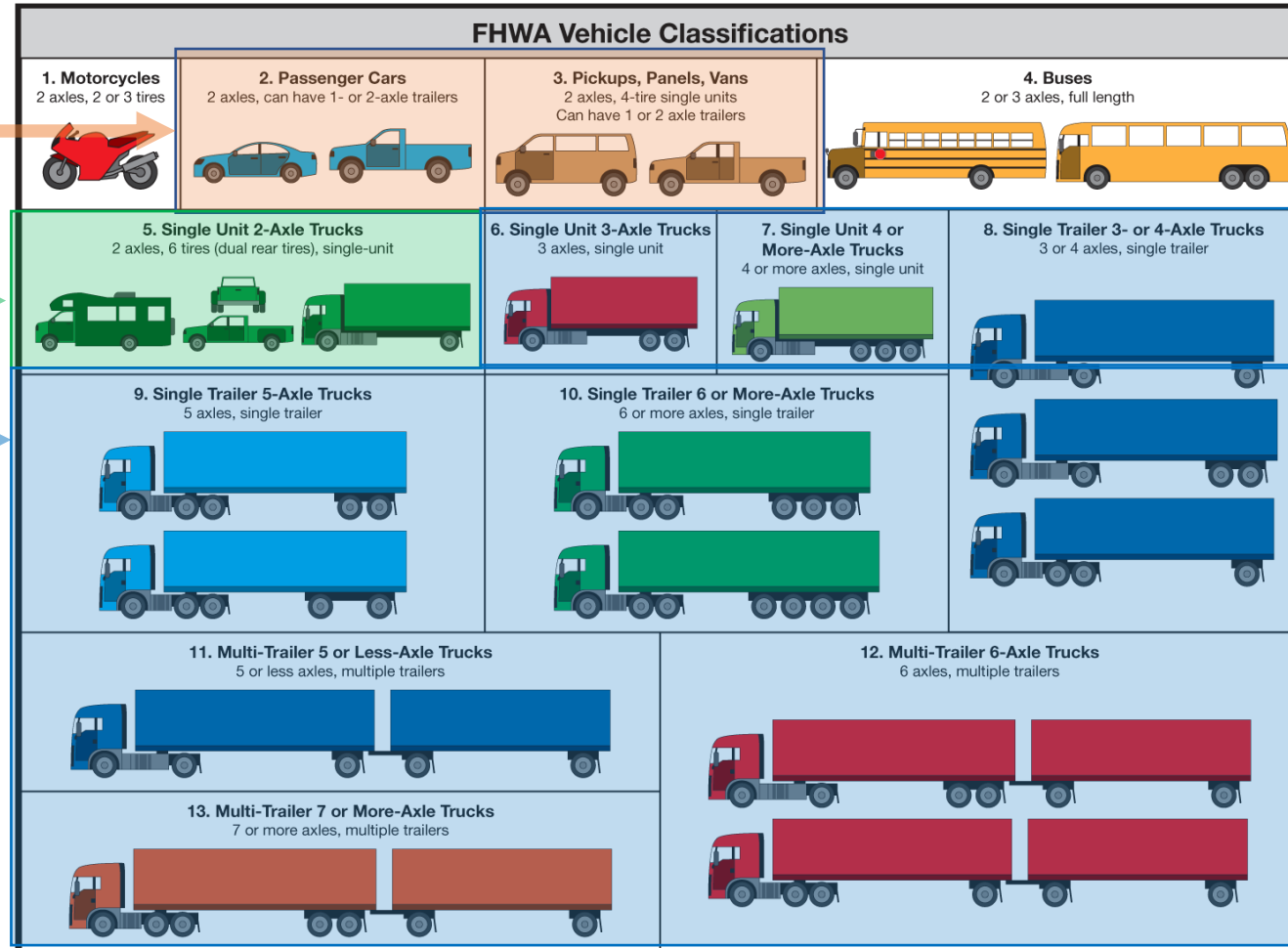
# Three Commercial Vehicle Classes

Light CV

Medium CV

Heavy CV

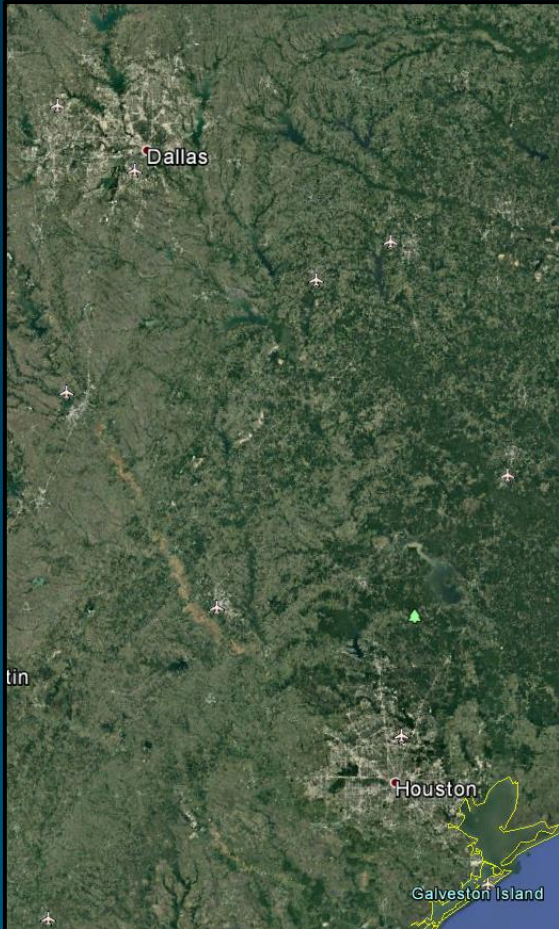
Why GVWR?



# INFRASTRUCTURE DEVELOPMENT

<b>Minimum for Initial Pilots</b>	<b>Early Adopter Build-Out/ Mature Pilot Project Phase</b>	<b>Target for Full Deployment</b>
1 Hydrogen station in each metro area	Houston station, DFW Station + one in middle	Houston Cluster, DFW Cluster + One/Two in Middle
1 HD BEV station in each metro area + one in center area of corridor	Houston station, DFW station + two/three in middle	Full Cluster + one or two in the middle

# Discussion: Path to Hydrogen Buildout



**Production Methods**

**Distribution Methods**

**What are the driving cost factors?**

Land

Installation

Hardware/Equipment

Utility Needs

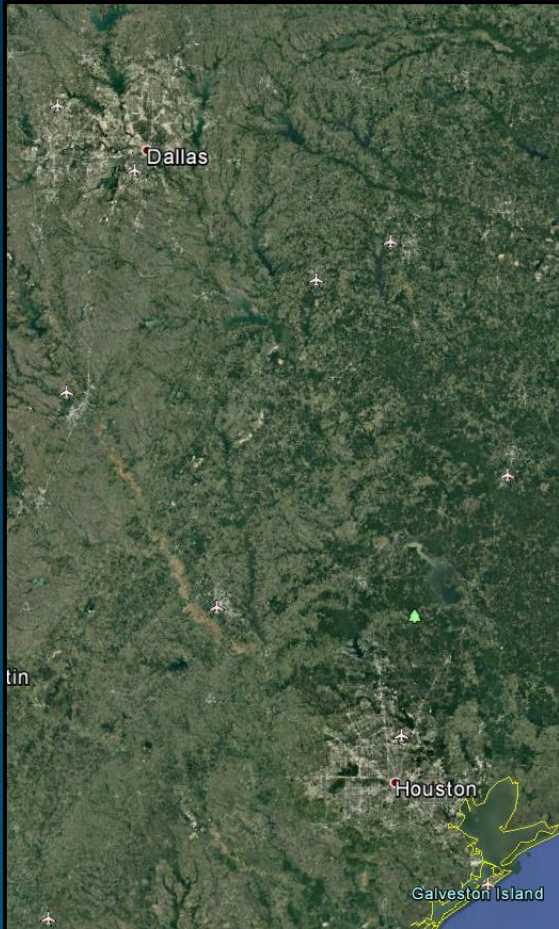
**What information do we need from the utility perspective?**

**What is the critical minimum of trucks needed to support a station? (or, minimum fuel throughput?)**



# Discussion:

## Ideal Siting/ Location Selection



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

Location  
Amenities

Are there special autonomous truck considerations that are impactful?

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

If a greenfield site, how much space is needed?

For greenfields, where can we get property ownership data?

Counties  
TxDOT

Who is the best strategist here?

# 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

For a full list of available funding opportunities, visit [www.nctcog.org/aqfunding](http://www.nctcog.org/aqfunding)

# CONTACT

## **Bethany Hyatt**

Transportation/Air Quality  
Planner

NCTCOG/DFWCC

[bhyatt@nctcog.org](mailto:bhyatt@nctcog.org)

817-704-5663



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[www.dfwcleancities.org/altfuelcorridors](http://www.dfwcleancities.org/altfuelcorridors)

[www.nctcog.org/IH45-ZEV](http://www.nctcog.org/IH45-ZEV)

## **Lori Clark**

Program Manager and DFW  
Clean Cities Coordinator

NCTCOG/DFWCC

[lclark@nctcog.org](mailto:lclark@nctcog.org)

817-695-9232



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