Interstate Highway 45 Zero-Emission Vehicle Corridor Plan and Alternative Fuel Updates

Public Input Meeting
November 11, 2019

Bethany Hyatt
Air Quality Planner
### Air Quality Emphasis Areas

<table>
<thead>
<tr>
<th>High-Emitting Vehicles/Equipment</th>
<th>✔️</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Speeds</td>
<td></td>
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<tr>
<td>Idling</td>
<td></td>
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<tr>
<td>Vehicle Miles of Travel</td>
<td></td>
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<tr>
<td>Energy and Fuel Use</td>
<td>✔️</td>
</tr>
<tr>
<td>Cold Starts</td>
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<tr>
<td>Hard Accelerations</td>
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Background

Section 1413 of the Fixing America’s Surface Transportation Act
USDOT Required to Designate Corridors to Improve Mobility of Vehicles Using Certain Alternative Fuels:

Benefits of Corridor Designation
- Prioritize Future Fueling Station Investment
- Accelerate Public Interest/Awareness with Signage
- Improves User Experience (Reliability & Wayfinding)

USDOT = US Department of Transportation; TxDOT = Texas Department of Transportation
Corridor-Ready Requirements

Have Fueling Stations In Place That Meet the Following Criteria:

- Within 5 Miles of the Highway
- Publicly Accessible
- Within the Maximum Distance Allowances below

<table>
<thead>
<tr>
<th>Fuel Type</th>
<th>Fuel Specific Criteria</th>
<th>Maximum Allowed Distance Between Stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Charging</td>
<td>DCFC Only</td>
<td>50 Miles</td>
</tr>
<tr>
<td>Propane</td>
<td>Primary*</td>
<td>150 Miles</td>
</tr>
<tr>
<td>Compressed Natural Gas (CNG)</td>
<td>Fast Fill (3,600 psi)</td>
<td>150 Miles</td>
</tr>
<tr>
<td>Liquified Natural Gas (LNG)</td>
<td>N/A</td>
<td>200 Miles</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>N/A</td>
<td>100 Miles</td>
</tr>
</tbody>
</table>

*Stations are considered primary if they are staffed during regular business hours, do not require drivers to call ahead in order to fuel, accept credit or fleet cards as a payment type, and are able to fuel vehicles at a rate of 12 gallons per minute or faster.
## Schedule and History

<table>
<thead>
<tr>
<th>Round/Year</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round 1: 2016</td>
<td>Nominations Submitted by NCTCOG, H-GAC, TxDOT</td>
</tr>
<tr>
<td>Round 2: 2017</td>
<td>Nominations Submitted by TxDOT, RTC Submitted Requests to TxDOT</td>
</tr>
<tr>
<td>Round 3: 2018</td>
<td>Nominations Submitted by TxDOT, RTC Submitted Requests to TxDOT</td>
</tr>
<tr>
<td>Round 4: 2019</td>
<td>Nominations Opened October 30, 2019</td>
</tr>
</tbody>
</table>
### Round 3 – 2018 Submittal

<table>
<thead>
<tr>
<th>Corridor</th>
<th>Section</th>
<th>Fuel Type</th>
<th>RTC Recommended</th>
<th>TxDOT Submitted</th>
<th>FHWA Designated</th>
</tr>
</thead>
<tbody>
<tr>
<td>IH 635</td>
<td>Metro Loop</td>
<td>CNG, Propane, Electric</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>IH 820</td>
<td>Metro Loop</td>
<td>CNG, Propane, Electric</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>US 67</td>
<td>Cleburne to IH 20</td>
<td>CNG</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>US 287</td>
<td>Ennis to Amarillo</td>
<td>CNG, Propane, Electric</td>
<td>✓</td>
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<td></td>
</tr>
<tr>
<td>US 380</td>
<td>Near Greenville to Denton</td>
<td>CNG, Propane, Electric</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
FHWA-Designated Alternative Fuel Corridors for Texas and Neighboring States

16 Interstates

1 State Highway

1 US Highway
FHWA-Designated Gaseous Alternative Fuel Corridors

Increasingly Important for Medium and Heavy-Duty Vehicles

Utilized Frequently in the Freight Industry
Hydrogen Fuel Cell Class 8 Trucks Have Been Developed

Toyota Zero-Emission Truck, NCTCOG Staff Photo
FHWA Solicitation for Alternative Fuels Corridor Deployment Plans

Goals:
- Develop an Infrastructure Deployment Plan
- Transition Corridors from “Pending” to “Ready”
- Identify Public-Private Partnerships

NCTCOG Proposal:
- Develop Electric and Hydrogen corridor along I-45
- Emphasis on Freight Vehicles

Key Dates:
- Funding Notification Received: October 10, 2019
- Projects Due: November 30, 2020
North Texas Electric Vehicle (EV) Registrations As of July 2019

Total Registered Electric Vehicles: 13,809

Top 5 EV Makes/Models in North Central Texas:
- Tesla Model 3: 5,016
- Tesla Model S: 1,943
- Tesla Model X: 853
- Nissan Leaf: 765
- Chevrolet Volt: 751

Historic Trendline for Electric Vehicle (EV) Registration in North Central Texas from 2011-2019
Ready for an Alternative Fuel Vehicle?

**Plug-In Electric Drive Motor Vehicle Credit**
$2,500 - $7,500 tax rebate for the purchase of a new qualified plug-in electric vehicle.

**Denton Municipal Electric $300 EV Rebate**
$300 rebate for customers that purchase an electric vehicle.

**Light-Duty Motor Vehicle Purchase or Lease Incentive Program**
Up to $5,000 for a new light-duty CNG or propane vehicle; Up to $2,500 for a new light-duty electric or hydrogen fuel cell electric vehicle; First-come, first-served.

**Oncor/Nissan Rebate**
Customers of Oncor can receive up to $3,500 toward a new 2018 or 2019 Nissan Leaf.

**EV Charger Incentive**
Up to 50% or $500 on a level 2 charger for United Cooperative Services Customers.

**Check Out Our Website for the Most Up-To-Date Incentives:**
https://www.nctcog.org/aqfunding
Ready to Upgrade Your Fleet?

FUNDING FOR NEW VEHICLE PURCHASES

Propane Council of Texas Propane Vehicle Incentive
Up to $7,500 per Propane Vehicle or Conversion to Propane (To Cover Incremental Cost)

Light-Duty Motor Vehicle Purchase or Lease Incentive Program
Up to $5,000 for a new light-duty CNG or propane vehicle; Up to $2,500 for a new light-duty electric or hydrogen fuel cell electric vehicle

FUNDING FOR DIESEL VEHICLE REPLACEMENTS

TERP Texas Natural Gas Vehicle Grant Program (TNGVGP)
Replacement or Repower of Diesel or Gasoline Vehicles with a GVWR* over 8,500 lbs. With Natural Gas; Up to 90% of Incremental Cost

Texas Volkswagen Environmental Mitigation Program (TxVEMP)
Replacement or Repower of Refuse Vehicles to an Alternative Fuel; Up to 80% for Government Vehicles

FUNDING FOR NON-VEHICLE PROJECTS

North Texas Freight Terminal Electrification 2019
Up to 30% of the Cost of Electrified Parking Spaces, Power Monitoring Equipment, and Electric Power Kits

Propane Council of Texas & Propane Education and Research Council
Up to $2,000 for propane lawnmowers

Check Out Our Website for the Most Up-To-Date Incentives:
www.nctcog.org/aqfunding

*Gross Vehicle Weight Rating
For More Information

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www.dfwcleancities.org/altfuelcorridors and www.nctcog.org/aqfunding