2019 Alternative Fuels Corridor Request for Designation Nominations Webinar

December 5, 2019 - 1:00pm EST
Agenda

- AFC Program Overview
  - Results of Rounds 1-3
  - News and Updates
- 2019 / Round 4 Request for Nominations Process
- Alternative Fuels Data Center Station Locator and Corridor Tools
- Regional Alternative Fuel Corridor Convenings
- Q&A Discussion
Alternative Fuel Corridors
Round 4 - Request for Nominations

DIANE TURCHETTA | U.S. DEPARTMENT OF TRANSPORTATION-FHWA
MIKE SCARPINO | U.S. DEPARTMENT OF TRANSPORTATION- VOLPE CENTER
To improve the mobility of alternative fuel vehicles, the U.S. Department of Transportation (DOT) has designated national corridors in strategic locations along major highways for:

- Plug-in electric vehicle charging
- Hydrogen fueling
- Propane (LPG) fueling
- Natural gas (CNG, LNG) fueling
Benefits of a National System

- Allows for inter-city, regional, and national travel using clean-burning fuels
- Addresses range anxiety
- Integrates with existing transportation planning processes
- Accelerates public interest and awareness of alternative fuel availability
Combined Results Rounds 1-3

- Designations....
  - 79 nominations
  - Includes portions/segments of 100 Interstates, along with 76 US highways/state roads
  - Comprise 46 states plus D.C.
  - Covers over 135,000 miles of the National Highway System (all fuels combined)
Updates and News

- Three AFC Regional Convenings completed in 2019:
  - South Central (Arlington TX), Northeast/Mid-Atlantic (Providence RI), Intermountain West (Salt Lake City UT)
  - [http://altfueltoolkit.org/regional-convenings/](http://altfueltoolkit.org/regional-convenings/)

- Five Projects selected for funding under the FHWA Alternative Fuels Corridor Deployment Plans funding opportunity:
  - Illinois DOT
  - Pennsylvania DOT
  - Tennessee DOT
  - Pima Association of Governments (PAG)
  - North Texas Council of Governments (NCTCOG)
Updates and News

- Revised/updated FAQ’s on AFC website:

- MUTCD Update: Notice of Proposed Amendments (NPA)
  - https://mutcd.fhwa.dot.gov/mutcd_news.htm

- Transportation Reauthorization Bill – America’s Transportation Infrastructure Act
2019/Round 4 Request for Nominations
2019/Round 4 Request for Nominations

- Issued Round 4 request for nominations in October 30, 2019
- Distributed through FHWA Division Offices
- Nominations due on COB February 26, 2020
- Designations made in Spring 2020
- Request for Nominations posted on AFC website at:
2019/Round 4 Request for Nominations

- Can be submitted by **ANY** state or local official
- **State DOT** with jurisdiction over corridor must be aware and supportive of nomination
- **Multi-state and regional** applications/approaches are encouraged
- A **plan for signage** on the corridor is required
- **GIS Shapefile** information required:
  - Additional guidance in RFN
2019/Round 4 Request for Nominations

- **New for Round 4**: For a corridor to be considered EV Ready, the stations/sites **should have both J1772 combo (CCS) and CHAdeMO connectors**.

- **New for Round 4**: Will limit the number of US highways/State roads to **1-2 per nomination** so the “build-out” of fueling/charging infrastructure is focused on the Interstates across the country and flipping corridor-pending Interstates to corridor-ready.
<table>
<thead>
<tr>
<th>Fuel</th>
<th>Range</th>
<th>Distance between Stations</th>
<th>Distance from Highway</th>
<th>Type of Stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>EV</td>
<td></td>
<td>50 miles</td>
<td>5 miles from highway</td>
<td>Public stations only (no Tesla)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>200 miles</td>
<td>5 miles from highway</td>
<td>Public stations only</td>
</tr>
<tr>
<td>CNG</td>
<td>150 miles</td>
<td>150 miles</td>
<td>5 miles from highway</td>
<td>Public stations only</td>
</tr>
<tr>
<td>LNG</td>
<td>200 miles</td>
<td>200 miles</td>
<td>5 miles from highway</td>
<td>Public stations only</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>100 miles</td>
<td>100 miles</td>
<td>5 miles from highway</td>
<td>Public stations only</td>
</tr>
<tr>
<td>Propane</td>
<td>150 miles</td>
<td>150 miles</td>
<td>5 miles from highway</td>
<td>Primary stations only</td>
</tr>
</tbody>
</table>
Round 4 Request for Nominations

- **Corridor-ready** corridors should have a minimum of 2 stations. Final classifications will be made on a case-by-case basis.

- **Corridor-pending** corridors – if no facilities, then must submit a plan/timeline for build-out.

- **EV corridor** nominations:
  - Will only consider corridors with DC Fast Charge infrastructure.
  - Tesla stations are excluded due to their proprietary status.
  - Encourage coordination with Electrify America on targeted Interstates.

- **Public and private sector coordination** – working with state and local agencies, Clean Cities Coordinators, and other stakeholders.

- Coordinate with state freight plans and/or long-range transportation plans.
Round 4 Request for Nominations

- Interface Between Previous Designations and Current Request for Nominations:
  - If a corridor is extended beyond its starting or ending points, a formal designation proposal **is required** for the extension.
  - If additional fuel(s) are proposed for a designation on an existing corridor, a formal designation proposal **is required** for the additional fuel(s).
  - If the number of stations along a designated corridor changes (i.e. new stations being added or existing stations being closed), which results in the classification of the corridor being changed from corridor-pending to corridor-ready (or vice versa), a formal designation proposal **is not required**.
Round 4 Request for Nominations

- Identifies the following FHWA areas of interest for nominations:
  - Round 1 allowed the use of Level 2 chargers. FHWA encourages that States identify these highway segments which were designated as “corridor-ready” and prioritize these corridors for upgrades to DCFCs.
  - Round 1-3 allowed a DC Fast Charging station to have either J1772 combo (CCS) or CHAdeMO connectors. FHWA encourages that States identify these highway segments which were designated as “corridor-ready” and prioritize these corridors for upgrades to include both connectors.
The U.S. DOE Alternative Fuels Data Center provides station data and shapefiles to assist with nominating alternative fuel corridors. These datasets are organized by state and fuel type with filters applied to meet criteria for nominating corridors. This page also provides links to interactive maps to explore potential corridors by fuel. [https://www.afdc.energy.gov/corridors](https://www.afdc.energy.gov/corridors)

To submit your **nominations** and **shapefiles**, please email Sara.Secunda@dot.gov and instructions will be provided on how to upload these files.

More details in following slides.
For More Information

DOT Alternative Fuel Corridor Team Contact Information

<table>
<thead>
<tr>
<th>Name</th>
<th>U.S. Department of Transportation</th>
<th>Volpe Center</th>
<th>Telephone Number</th>
<th>Email Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diane Turchetta</td>
<td></td>
<td></td>
<td>202-493-0158</td>
<td><a href="mailto:diane.turchetta@dot.gov">diane.turchetta@dot.gov</a></td>
</tr>
<tr>
<td>Mike Scarpino</td>
<td></td>
<td></td>
<td>617-494-3373</td>
<td><a href="mailto:michael.scarpino@dot.gov">michael.scarpino@dot.gov</a></td>
</tr>
<tr>
<td>Stephen Costa</td>
<td></td>
<td></td>
<td>617-494-3852</td>
<td><a href="mailto:stephen.costa@dot.gov">stephen.costa@dot.gov</a></td>
</tr>
</tbody>
</table>

Resources

FHWA Alternative Fuel Corridor website and Corridor Tools:
http://www.fhwa.dot.gov/environment/alternative_fuel_corridors/
https://hepgis.fhwa.dot.gov/fhwagis/

MUTCD Memorandum – Signing for Designated Alternative Fuel Corridors:

DOE/NREL Alternative Fueling Station Locator & Corridor Tools:
https://afdc.energy.gov/stations/
https://afdc.energy.gov/corridors

FHWA Alternative Fuel Corridors Convenings:
http://altfueltoolkit.org/regional-convenings/

Motorweek Video Segment on Corridors:
https://www.youtube.com/watch?v=QZhlFqTXb-g
Shapefile/Nomination Upload Instructions

- To submit your **nominations** and **shapefiles**, please email Sara.Secunda@dot.gov.

- An email invite will then be sent to the submitter to upload nominations and shapefiles to the Box.com directory for their state.

- The name of each file should include the submitter's agency and the date.
  - Ex: ElPasoMPO_111318. The files upload can be .zip files.

- If a submission is a corridor in more than one state, please indicate one state for uploading the file.

- If there is an issue with Box.com, please email Sara.Secunda@dot.gov for alternative upload instructions.
Box.com Directory
Alternative Fuels Data Center
Station Locator and Corridor Tools

Johanna Levene
December 5, 2019
Alternative Fuels Data Center

The premier information resource for alternative fuels and advanced vehicles

afdc.energy.gov
What does the AFDC provide?

- Fuel Conservation
- Laws & Incentives
- Interactive Tools
- Maps & Data
- Case Studies
- Alternative Fuels, Vehicles, & Stations
- Publications
Alternative Fuel Stations

afdc.energy.gov/stations
Alternative Fuel Stations
Alternative Fuel Stations
Alternative Fuel Stations

How to find FHWA eligible stations:

CNG – requires advanced filters
  • Fast-fill
  • 3600 psi

LNG – default station locator

Hydrogen – default station locator

Propane – default station locator

Electric – requires corridor tools
Changing electric station requirements from DC Fast to DC Fast with both CHAdeMO and CSS connectors will reduce the number of stations eligible for round 4 alternative fuel corridor nominations by 33%.
Resources for Nominating Corridors

• CSV downloads
• Shapefiles
• Interactive maps

afdc.energy.gov/corridors
Demo: New Tool for Measuring Corridors

Available 12/31/2019 on AFDC
Alternative Fueling Station Locator

Find alternative fueling stations in the United States and Canada. For U.S. stations, see data by state. For Canadian stations in French, see Natural Resources Canada.

Use this tool to measure the driving distance along interstate highways between stations that meet the criteria under the Federal Highway Administration's Alternative Fuel Corridors Program. Explore more resources for nominating corridors.

Starting Station
Select a station on the map to choose your starting point.

Ending Station
Select a station on the map to choose your ending point.
Alternative Fueling Station Locator

Find alternative fueling stations in the United States and Canada. For U.S. stations, see data by state. For Canadian stations in French, see Natural Resources Canada.

Use this tool to measure the driving distance along interstate highways between stations that meet the criteria under the Federal Highway Administration’s Alternative Fuel Corridors Program. Explore more resources for nominating corridors.

Starting Station
MAVERIK
880 Hoodoo way
Washington, UT 84780
0.4 miles to highway

Ending Station
Walmart 3947 - Mesquite, NV
1120 W Pioneer Blvd
Mesquite, NV 89027
0.8 miles from highway

47 miles
Driving distance between the stations

See Route Directions
Alternative Fueling Station Locator

Find alternative fueling stations in the United States and Canada. For U.S. stations, see data by state. For Canadian stations in French, see Natural Resources Canada.

Use this tool to measure the driving distance along interstate highways between stations that meet the criteria under the Federal Highway Administration's Alternative Fuel Corridors Program. Explore more resources for nominating corridors.

Starting Station

MAVERIK
980 Hoodoo way
Washington, UT 84780
0.4 miles to highway

Ending Station

Walmart 3847 - Mesquite, NV
1120 W Pioneer Blvd
Mesquite, NV 89027
0.8 miles from highway

47 miles
driving distance between the stations

Route Directions

Start out going south on N Hoodoo Way toward N 1100 E.

Turn left onto N 1100 E.

Enter next roundabout and take the 3rd exit onto Washington Pkwy.

Merge onto I-15 S via the ramp on the left (Passing through Arizona, then crossing into Nevada).

Take the Falcon Ridge Pkwy/NV-144/Mesquite Blvd/West Mesquite exit, EXIT 120.

Merge onto Falcon Ridge Pkwy.

Turn right onto W Pioneer Blvd.

You have arrived at your destination.
Demo: Interactive Maps for Nominating Corridors
Resources for Nominating Corridors

Interactive Maps

Explore Potential Corridors
Use the prototype mapping tool to explore potential corridors by fuel:
- EV charging
- Hydrogen
- Propane
- CNG
- LNG
Corridor Tool Links

Alternative Fuel Data Center - https://afdc.energy.gov/
Alternative Fuel Data Center Station Locator - https://afdc.energy.gov/stations
Alternative Fuel Data Center Advanced Search - https://afdc.energy.gov/stations#/analyze
Alternative Fuel Data Center Corridor Measurement – coming soon to https://afdc.energy.gov/stations
Station Data for Nominating Alternative Fuel Corridors - https://afdc.energy.gov/corridors
Thank You

www.nrel.gov

johanna.levene@nrel.gov
matt.rahill@nrel.gov

This work was authored by the National Renewable Energy Laboratory, operated by Alliance for Sustainable Energy, LLC, for the U.S. Department of Energy (DOE) under Contract No. DE-AC36-08GO28308. Funding provided by U.S. Department of Transportation Federal Highway Administration. The views expressed in the article do not necessarily represent the views of the DOE or the U.S. Government. The U.S. Government retains and the publisher, by accepting the article for publication, acknowledges that the U.S. Government retains a nonexclusive, paid-up, irrevocable, worldwide license to publish or reproduce the published form of this work, or allow others to do so, for U.S. Government purposes.
Federal Highway Administration
Regional Alternative Fuel Corridor Convenings

• Strengthen coordination between states, public and private partners.
• Evaluate regional priorities and needs, programs, and resources to expand corridors.
• Identify critical infrastructure gaps.
• Discuss a regional strategy to promote clean vehicle adoption and corridor growth.
• Share tools and foster partnership development to fill infrastructure gaps.
• Five regional convenings: Midwest (MN), Southeast (SC), South Central (TX), Northeast/Mid-Atlantic (RI), Intermountain West (UT).
Federal Highway Administration
Regional Alternative Fuel Corridor Convenings

1 - Midwest Alternative Fuel Corridor Convening (June 2019)
2 - Southeast Alternative Fuel Corridor Convening (Sept 2018)
3 - South Central Alternative Fuel Corridor Convening (April 2019)
4 - Northeast/Mid-Atlantic Alternative Fuel Corridor Convening (July 2019)
5 - Intermountain Western Alternative Fuel Corridor Convening (Nov 2019)
Convening Results

- 42 states and DC engaged, representing 240 corridors (pending and ready interstates, US routes, and state highways by state).

- 260+ stakeholder attendees:
  - State DOTs.
  - FHWA Division Offices.
  - State energy/environment agencies.
  - Clean Cities Coalitions.
  - Utilities.
  - Alternative fuel infrastructure providers.
  - Metropolitan planning organizations.
  - Fleet end-users.
Convening Resources

- Agenda and presentations.
- Convening summary reports.
- Fact sheets:
  - Tools for corridor planning.
  - Funding opportunities for alternative fuel vehicles and infrastructure.
  - Electric vehicle fact sheets by state.
  - Considerations for planning corridor charging.
- Convening series takeaways report (under development).
- Webinar (under development).
Next Steps to Expand a National Network of AFCs

- **Corridor Funding**: Authorize a funding program to support infrastructure development and signage for FHWA Alternative Fuel Corridor program.

- **Regional Coordination**: Continue ongoing engagement and outreach with regional partnerships to ensure coordination, alignment of corridor priorities, and technical exchange.

- **Elevate Value Proposition**: Advance educational campaign amongst politicians, government and industry (dealers/fleets) on benefits/business case/availability of alternative fuel technologies and infrastructure.

- **Encourage Vehicle Incentives**: Provide voucher incentives for MD/HD alternative fuel vehicles (rural, urban & freight transportation).

- **Address Barriers**: Streamline permitting process, building codes, CMAQ Buy America Waiver, and fuel tax.