Fixing America's Surface Transportation Act

Designation of Alternative Fuel Corridors

Request for Nominations

Round 4

Background:

Section 1413 of the Fixing America's Surface Transportation Act (FAST Act), signed into law on December 4, 2015, requires the Secretary to designate national alternative fueling corridors. (23 U.S.C. 151). In accordance with 23 U.S.C. 151(a), corridor designations must identify near- and long-term needs for, and location of, electric vehicle (EV) charging, and hydrogen, propane, and natural gas fueling infrastructure at strategic locations along major national highways to improve the mobility of passenger and commercial vehicles that employ these technologies across the United States. The Federal Highway Administration (FHWA) must solicit nominations for corridors from State and local officials and involve a range of stakeholders (23 U.S.C. 151(b) and (c)).

The Secretary must update and re-designate the corridors not later than five years after the date of establishment of the corridors, and every five years thereafter. Because of the rapidly evolving state of vehicle technology and infrastructure related to the use of alternative fuels, it is important to update the corridor networks on a continuing basis. The FHWA has determined that annual updates are appropriate to reflect these changes.

The FAST Act also directs FHWA to review designated corridors every five years to identify standardization needs and to set an aspirational goal for achieving strategic deployment of alternative fueling infrastructure by fiscal year 2020. Accordingly, the DOT issued a report that established a 2020 vision to ensure a user-centric experience. This vision will require a safe, reliable, effective, and high-performance system that aligns with DOT's vision for the National Highway System (NHS)[1] and strengthens U.S. energy security, economic vitality, and quality of life.

[1] For additional information on the NHS see: https://www.fhwa.dot.gov/planning/national_highway_system/. Section 111 of Title 23 United States Code prohibits Interstate rest areas built after January 1, 1960 from offering commercial services such as fuel and food on the Interstate right-of-way. In light of this provision, an alternative fuel facility can be located on an Interstate right-of-way, but a fee may not be charged for the fuel or other use of the facility.

The table below summarizes the results of the first three rounds of nominations:

	REQUEST FOR NOMINATIONS (DATE ISSUED)	NOMINATIONS RECEIVED	INTERSTATES DESIGNATED[b]	US & STATE HIGHWAYS DESIGNATED	NUMBER OF STATES[c]	NHS MILGEAGE COVERED[d]
1 (2016)	**July 22, 2016[a]**	**34**	**56**	**16**	**36**	**96,046**
2 (2017)	**September 22, 2017[e]**	**24**	**28**	**27**	**8**	**23,158**
3 (2018)	**October 5, 2018[e]**	**21**	**16**	**33**	**2**	**16,731**
TOTAL		**79**	**100**	**76**	**46**	**135,935**

[a] 81 FR 47852 (July 22, 2016), available at: https://www.gpo.gov/fdsys/pkg/FR-2016-07-22/pdf/FR-2016-07-22.pdf
[b] Represents segments/portions of Interstates
[c] Plus the District of Columbia
[d] Includes some double counting for multiple fuel corridor segments
[e] Distributed through FHWA Division Offices

The FHWA will designate nominated highway corridors as either "corridor-ready" or "corridor-pending." Corridor-ready segments currently contain a sufficient number of fueling facilities to allow for corridor travel with the designated alternative fuel. Corridors that do not have sufficient alternative fuel facilities to support alternative fuel vehicle travel are designated as corridor-pending. The table below describes the requirements for designations by fuel type. The FHWA will work with State and local agencies to bring corridors designated as corridor-pending up to the corridor-ready stage.

The FHWA supports the expansion of the national network of alternative fuel corridors and has established a process outlining the necessary steps and information for the 2019 corridor designations in this request. The FHWA has created an Alternative Fuels Corridor website to provide information on the previous rounds of corridor designations and to keep stakeholders and the public informed on future designations. In addition, FHWA has developed specifications for Signing for Designated Alternative Fuel Corridors in compliance with The Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways that is available on the Alternative Fuel Corridors website.

Infrastructure Coverage Criteria

Fuel/ Technology	Corridor-Ready[a] NHS Segment has…	Corridor-Pending[b] NHS Segment has…
EV Charging[c]	Public DC Fast Charging no greater than 50 miles between one station/site and the next on corridor, and no greater than 5 miles off the highway. **Additionally, each DC Fast Charging site should have both J1772 combo (CCS) and CHAdeMO connectors.**	Public DC Fast Charging stations separated by more than 50 miles. Location of station/site- no greater than 5 miles off the highway.
Hydrogen[d]	Public hydrogen stations no greater than 100 miles between one station and the next on the corridor, and no greater than 5 miles off the highway.	Public hydrogen stations separated by more than 100 miles. Location of station- no greater than 5 miles off the highway.
Propane[e]	Public, primary propane stations no greater than 150 miles between one station and the next on the corridor, and no greater than 5 miles off the highway.	Public, primary propane stations separated by more than 150 miles. Location of station- no greater than 5 miles off the highway.
CNG	Public fast fill, 3,600 psi CNG stations no greater than 150 miles between one station and the next on the corridor, and no greater than 5 miles off the highway.	Public, fast fill, 3,600 psi CNG stations separated by more than 150 miles. Location of station- no greater than 5 miles off the highway.
LNG	Public LNG stations no greater than 200 miles between one station and the next on the corridor, and no greater than 5 miles off the highway.	Public LNG stations separated by more than 200 miles. Location of station- 5 miles or less off the highway.

a. A corridor-ready corridor is defined as having a minimum of 2 stations. Final classifications will be made on a case-by-case basis.

b. If a corridor is being designated as corridor-pending and currently has no alternative fuel facilities located on it, then a strategy or

plan and timeline for infrastructure build-out should be submitted.

c. Electric vehicle designations will only consider corridors with DC Fast Charge infrastructure and both connector types. Tesla charging stations are considered a proprietary network and do not meet the designation criteria of being publicly accessible. Therefore, these stations are not eligible for inclusion.

d. If a hydrogen refueling station currently used for non-road transportation purposes is being used to support the nomination process, then the station must be compliant with SAE J2601 standards, and meet all of the criteria outlined in this document for a hydrogen corridor including being publicly accessible.

e. For propane stations, only "primary" stations (i.e., those stations that are staffed during regular business hours, do not require drivers to call ahead in order to fuel, accept credit cards or fleet cards as a payment type, and are able to fuel vehicles at a rate of 12 gallons per minute or faster, or at a rate similar to filling a gasoline vehicle, as designated by the U.S. Department of Energy's Alternative Fuel Station Locator) would be considered when determining infrastructure coverage along a nominated corridor.

Interface Between Previous Designations and Current Request for Nominations:

The first three rounds of corridor designations were announced by FHWA in November 2016, March 2018, and April 2019. This fourth round of corridor designations may provide State or local agencies an opportunity to nominate additional corridors, extend currently designated corridors, and/or nominate a different fuel(s) along an already designated corridor. It is not FHWA's intention to require formal updates on the first three rounds of corridor designations through this current request for nominations. However, the following guidelines are provided to clarify the interface between previous designations and this current request for nominations:

1. If a corridor is extended beyond its starting or ending points, a formal designation proposal through this current request for nominations <u>is needed</u> for the extension.
2. If additional fuel(s) are proposed for a designated corridor on an existing corridor, a formal designation proposal through this current request for nominations <u>is needed</u> for the additional fuel(s).
3. 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 through this current request for nominations <u>is not needed</u>. In this scenario, the length of the designated corridor does not change, only the status of the designation as corridor-ready or corridor-pending between its starting and ending points changes. The FHWA is working with the National Renewable Energy Laboratory (NREL) to identify these situations, and the corridor point of contact will be notified of any change in designation status. However, if the State, or nominating entity, are aware of facilities along a corridor that have been added or are no longer in operation, it is requested that this information be informally conveyed to FHWA and/or NREL.
4. The initial round of designations in 2016 allowed the use of Level 2 chargers. FHWA encourages that States identify these highway segments

which were designated as "corridor-ready" in Round 1 of the Program –(i.e. currently have only Level 2 chargers) and prioritize these corridors for upgrades to DCFCs.

5. Although the entire NHS is included in the corridor program, **FHWA is limiting the number of US highways/State roads to 1-2 per nomination in Round 4** so the "build-out" of fueling/charging infrastructure is focused on the Interstates across the country and flipping corridor-pending Interstates to corridor-ready. Also, there must be a compelling case made as to why US highways/State roads should be considered for designation.
6. The previous three rounds of designations allowed a DC Fast Charging station to have either J1772 combo (CCS) or CHAdeMO connectors. As stated in the above Infrastructure Coverage Criteria Table, starting with Round 4, all DC Fast Charging stations should have both J1772 combo (CCS) and CHAdeMO connectors to be eligible for designation. FHWA does not plan to change the status of corridors that included stations with only one connector type, however it is recommended that these stations be prioritized for upgrades to include both.

FHWA Areas of Interest for Round 4 Nominations:

After the completion of the first three rounds of designations, FHWA has identified several areas of interest for the fourth round of corridor designations that State or local agencies should consider when planning/preparing their nominations. The following are the FHWA areas of interest:

- States that have no corridor designations (pending or ready).
- Nominations from States that have not submitted an application as a lead.
- States that currently have existing Interstates/highways that are corridor-ready for one or more alternative fuels, but have not submitted a nomination.
- Since corridors extend beyond State boundaries, nominations that take into consideration the next fueling site over State or international borders[2] are encouraged. Similarly, cooperation between neighboring States is highly encouraged.
- Nominations that will complete the nation's longest and heavily traveled highways for one of more alternative fuels. For example, I-95, I-10, I-80, I-40, I-35, I-65, I-70, I-81, or I-90.
- FHWA strongly encourages EV nomination submissions from State and local officials who have Interstate highways within their States that have been targeted for investment in the first 30-month cycle by Electrify America in the National Zero Emission Vehicle Investment Plan. See page 22 of the Cycle 1 Plan, and page 48 of the Cycle 2 Plan.
- Coordination, integration, and inclusion with other DOT programs and regulations such as the

development/update of State Freight Plans and Long-Range Transportation Plans (LRTPs).

Information to be Included in Nominations (Narrative Portion):

Any State or local agency is invited to nominate an alternative fuel corridor for designation. For the purposes of this solicitation, an eligible corridor is an Interstate highway (e.g. I-10, I-80, I-95, etc.). Or if a non-Interstate highway that is on the NHS is being nominated, then a compelling case should be made as to why it should be considered for designation (see language above on the limitation of nominating US highways/State roads in round 4). It is the intention of FHWA to first focus on the build-out of alternative fueling/charging infrastructure along Interstate corridors, and then on other components of the NHS. This decision was made based on the size of the NHS compared to the limited resources available to make designation determinations. Corridors within a single State and multistate corridors are eligible, with the goal of connecting communities, cities, and regions to develop a national network of alternative fuel facilities. A State or local agency interested in submitting a nomination for an alternative fuel corridor designation should develop no more than a 25-page narrative nomination containing the following elements/information (requested station information may be displayed in a table):

- Corridor(s) being proposed for designation (include the official name of the NHS segment and beginning and end points on the proposed corridor(s);
- Name of lead State or local agency originating the nomination (please include name, title, e-mail address, and phone number);
- Name of the entity (or entities) with jurisdiction over the proposed corridor(s) (i.e., State, local government, Indian tribe, and/or Federal land management agency). A letter of support from this entity (or entities) is strongly recommended;
- Type of alternative fuel(s) projected to be used along the corridor(s);
- Description of corridor(s), including the major metropolitan areas and/or intermodal facilities located along the corridor, how the corridor contributes to the national network, and why it is being proposed for designation;
- If a non-Interstate highway that is on the NHS is being nominated, describe the importance of this highway corridor and why it should be considered for designation (see language above on the limitation of nominating US highways/State roads in round 4);
- Type, number, and distance between existing alternative fuel facilities by fuel type located along proposed corridor(s);
- If gaps are identified in the corridor(s) that exceed the "corridor-ready" criteria, provide a brief description of possible activities to be undertaken to move the corridor from pending to ready;
- A description of the plan for signage on the corridor, including the following:
    - Coordination efforts with State Department of Transportation;

- Location of starting/ending corridor signage; and,
- Plan for signage approaching exits and beyond off ramps.

o Starting and endpoint of the corridor – designated by first and last fueling station on the corridor - based on mileage marker and town/city;

o Listing of each station along the highway with the following information:

- Address of the station;
- Fuel(s) provided;
- For electric vehicle charging sites, include EV connector(s) (number and type of network);

o Distance between all the stations along the corridor.

- List the distance between stations (and basis of this calculation);
- Indicate if the station meets the distance criteria for each fuel's corridor-ready or corridor-pending (see the above section for this criteria).

o A map of the corridor, including current station locations, as well as possible future locations.

NOTE - The U.S. Department of Energy's Alternative Fueling Station Locator (Station Locator) at https://www.afdc.energy.gov/stations is the definitive data source for corridor designations.

Information to be Included in Nominations (GIS Shapefiles):

The following GIS Shapefile information shall be submitted, along with the narrative portion, for each designation proposal. Please **DO NOT** include alternative fuel station information in the shapefile. This will be done by NREL/FHWA during the analysis process. Submit only the following information for each centerline corridor in the shapefile:

- ✓ **Primary Corridor Route Name:** such as I-10 or I-Hl (in Hawaii), U-95, U-9W, S-99, etc. (I –Interstate, U -US Highway, S–StateHighway, C- County Highway; O-0thers)
- ✓ **Electric Vehicle:** Corridor-Ready or Corridor-Pending
- ✓ **Hydrogen:** Corridor-Ready or Corridor-Pending
- ✓ **Propane:** Corridor-Ready or Corridor-Pending
- ✓ **CNG:** Corridor-Ready or Corridor-Pending
- ✓ **LNG:** Corridor-Ready or Corridor-Pending

Corridor Planning/Analysis Tools and Resources to Assist with Nomination:

The following information sources and/or tools are available for use to assist with the development of the designation nomination:

- Station data and shapefiles to assist with nomination of alternative fuel corridors are available on the U.S. Department of Energy's Alternative Fuel Data Center (AFDC) at https://www.afdc.energy.gov/corridors. These datasets are organized by State and fuel type with filters applied to meet the infrastructure coverage criteria.
- The AFDC also provides a mapping tool to explore potential corridors by fuel at https://www.afdc.energy.gov/corridors.
- The above requested GIS shapefile information should be available from your State DOT or MPOs. To determine whether a route is on the NHS, please refer to the official FHWA NHS maps at: https://www.fhwa.dot.gov/planning/national_highway_system/nhs_maps/ or interactive NHS map viewer at https://hepgis.fhwa.dot.gov/fhwagis/# .
- The applicant may utilize the FHWA NHS Shapefile as a base layer, and extract out the line segments needed to create a corridor specific GIS shapefile. The applicant can download the NHS shapefile at https://hepgis.fhwa.dot.gov/fhwagis/# (by clicking on "Download Data" shown on the second toolbar row of the menu on the top of the webpage and then selecting the NHS zip file).
- The applicant can also download the existing Alternative Fuel Corridor GIS Shapefile (including Rounds 1-3) to familiarize applicants with the attributes included in the FHWA Alternative Fuel corridor shapefile at https://hepgis.fhwa.dot.gov/fhwagis/# (by clicking on "Download Data" shown on the second toolbar row of the menu on the top of the webpage and then selecting the Alt Fuel Corridors zip file).

Points of Contact

For questions regarding the **information contained in this request**, please contact:

Diane Turchetta
U.S. Department of Transportation
Federal Highway Administration
202-493-0158 or diane.turchetta@dot.gov

Mike Scarpino
U.S. Department of Transportation
Volpe Center
617-494-3373 or michael.scarpino@dot.gov

Stephen Costa
U.S. Department of Transportation
Volpe Center
617-494-3852 or stephen.costa@dot.gov

For questions regarding **GIS/shapefile information**, please contact:

Sara Secunda
U.S. Department of Transportation
Volpe Center
617-494-3601 or Sara.Secunda@dot.gov

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

Timeline
The deadline for this solicitation is **COB Wednesday February 26, 2020**