

# **Fixing America's Surface Transportation Act**

## **Designation of Alternative Fuel Corridors**

### **Request for Nominations**

#### **Background:**

Section 1413 of the FAST Act (Section 1413), signed into law on December 4, 2015, requires the Secretary to designate national EV charging, hydrogen, propane, and natural gas fueling corridors within 1 year from the date of enactment (December 4, 2016). (23 U.S.C. 151). In accordance with 23 U.S.C. 151(a), corridor designations must identify near- and long-term need for, and location of, EV charging infrastructure, hydrogen fueling infrastructure, propane fueling infrastructure, and natural gas fueling infrastructure at strategic locations along major national highways to improve the mobility of passenger and commercial vehicles that employ electric, hydrogen fuel cell, propane, and natural gas fueling technologies across the United States.

The FHWA seeks to create a national network of alternative fueling and charging infrastructure along National Highway System (NHS) corridors.<sup>1</sup> This infrastructure will improve the mobility of passenger and commercial vehicles that employ electric, hydrogen fuel cell, propane, and natural gas fueling technologies across the United States, and strengthen U.S. energy security, economic vitality, and quality of life.

The 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 shall update and redesignate the corridors not later than five years after the date of establishment of the corridors under subsection (a), 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.

On July 22, 2016, FHWA published a Federal Register Notice<sup>2</sup> inviting nominations from State and local officials to assist in making initial alternative fuel corridor designations. For the first designation, FHWA identified 55 routes, spanning 35 States, that will serve as the basis for a national network of "alternative fuel" corridors. Some corridors are designated as "signage-ready," meaning that there are a sufficient number of facilities on the corridor to warrant signage that alerts drivers of the availability of alternative fueling stations. Corridors that do not have sufficient alternative fuel facilities to warrant highway signage are designated as "signage-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 signage-pending up to the signage-ready stage.

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 NHS.

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 2017 corridor designations in this request. The FHWA has created an [Alternative Fuels Corridor Web site](#) to provide information on the initial round 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](#) for Streets and Highways that is available on the Alternative Fuel Corridors Web site.

**Infrastructure Coverage Criteria<sup>a</sup>**

<b>Fuel/ Technology</b>	<b>Signage Ready<sup>b</sup> NHS Segment has...</b>	<b>Signage Pending<sup>c</sup> NHS Segment has...</b>
<b>EV Charging<sup>d</sup></b>	Public DC Fast Charging no greater than 50 miles between one station and the next on corridor	Public DC Fast Charging chargers separated by more than 50 miles
<b>Hydrogen<sup>e</sup></b>	Public hydrogen stations no greater than 100 miles between one station and the next on the corridor	Public hydrogen stations separated by more than 100 miles
<b>Propane<sup>f</sup></b>	Public, primary propane stations no greater than 150 miles between one station and the next on the corridor	Public, primary propane stations separated by more than 150 miles
<b>CNG</b>	Public fast fill, 3,600 psi CNG stations no greater than 150 miles between one station and the next on the corridor	Public, fast fill, 3,600 psi CNG stations separated by more than 150 miles
<b>LNG</b>	Public LNG stations no greater than 200 miles between one station and the next on the corridor	Public LNG stations separated by more than 200 miles

- a. Location of station/fueling site - 5 miles or less off the highway.
- b. A signage-ready corridor is defined as having a minimum of 2 or 3 stations and being at least 150 miles in length, or the entire length of a highway in a State, if less. Final classifications will be made on a case-by-case basis.
- c. If a corridor is being designated as signage-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.

- d. For the initial 2016 designations, FHWA designated highways with both Level 2 and DC Fast Charging capabilities. For 2017 and beyond, FHWA will designate only DC Fast Charge infrastructure.
- e. 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.
- f. For propane stations, only "primary" stations (i.e., those stations that offer vehicle-specific fueling capabilities and fuel priced specifically for use in vehicles, as designated by the US Department of Energy's Alternative Fuel Station Locator) would be considered when determining infrastructure coverage along a nominated corridor.

### **Interface Between Initial Designations and Current Request for Nominations:**

The initial round of corridor designations were announced by FHWA in November 2016. This second round of corridor designations<sup>3</sup> 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 initial round of corridor designations through this current request for nominations. However, the following guidelines are provided to clarify the interface between initial 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 is needed 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 is needed 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 signage-pending to signage-ready (or vice versa), a formal designation proposal through this current request for nominations is not needed. In this scenario, the length of the designated corridor does not change, only the status of the designation as signage-ready or signage-pending between its starting and ending points changes. The FHWA is working with the National Renewable Energy Laboratory to identify these situations, and the corridor point of contact will be notified of any change in designation status.

**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.). If a non-Interstate highway that is on the NHS<sup>4</sup> is being nominated, then a compelling case should be made as to why it should be considered for designation. It is the intention of FHWA to first focus on the build-out of alternative fuel 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 20-page narrative nomination (the 20-page limit excludes corridor/station specific technical information required below) containing the following elements/information:

- 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;
- Type, number, and distance between existing alternative fuel facilities by fuel type located along proposed corridor(s) (Note: see the below section for the technical information to be provided in the Appendix of

the nomination with regards to the corridor and stations locations);

- Estimated/projected cost of planned alternative fuel facilities on proposed corridor(s), if known;
- If gaps are identified in the corridor(s) that exceed the "signage-ready" criteria, provide a brief description of possible activities to be undertaken to move the corridor from pending to ready;
- Existing and projected usage of the corridor(s) (i.e., mainly freight, mainly passenger, or both, vehicle miles traveled and/or freight congestion/tonnage moved);
- Goals for strategic deployment of refueling/recharging infrastructure along corridor(s) and/or network for short-term (by the end of fiscal year 2020), and, if desired, long-term (by the end of fiscal year 2040), and;
  - A description of the plan for signage on the corridor;
  - Coordination efforts with State Department of Transportation;
  - Location of starting/ending corridor signage; and,
  - Plan for signage approaching exits and beyond off ramps.

**Corridor/Station Specific Information to be Included in Nominations  
(Appendix -Technical Information Portion):**

Corridor/station specific information should be provided as an appendix to the nomination proposal.

The following should be provided for each of the nominated corridors (by nominated fuel):

- Starting and endpoint of the corridor, based on mileage marker and town/city;
  - First and last fueling station on the corridor;
- Listing of each station along the highway with the following information:
  - Address of the station;
  - Mileage marker/milepost of the exit off the corridor highway;
  - Fuel(s) provided;
  - Station Operator/Owner name; and,

- GIS shapefiles -the nomination should include the following for each segment of corridor being nominated, which should include:
  - ✓ Primary corridor Route Name, such as I-10 or I-HI (in Hawaii), U-95, U-9W, S-99, etc.
  - ✓ I –Interstate
  - ✓ U -US Highway
  - ✓ S –StateHighway
  - ✓ C- County Highway
  - ✓ 0-Others
  - ✓ Alternative Route Name, if any
  - ✓ Local Name, if any
  - ✓ Length in miles
  - ✓ NHS: Yes or No
  - ✓ State Abbreviations
  - ✓ Electric Vehicle: Signage Ready or Signage Pending
  - ✓ Hydrogen: Signage Ready or Signage Pending
  - ✓ Propane: Signage Ready or Signage Pending
  - ✓ CNG: Signage Ready or Signage Pending
  - ✓ LNG: Signage Ready or Signage Pending
  - ✓ Coordinate System used, such as NAD 1983

**NOTE** - The above requested GIS shapefile information should be available from your State DOT. To determine whether a route is on the NHS and/or to download the needed information to create the shapefile (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), please refer to the official FHWA NHS maps at: [https://www.fhwa.dot.gov/planning/national\\_highway\\_system/nhs\\_maps/](https://www.fhwa.dot.gov/planning/national_highway_system/nhs_maps/) or interactive NHS map viewer at: <https://hepgis.fhwa.dot.gov/fhwagis/#> .

- For electric vehicle charging sites, include EV connector(s) (number and type of network);
  - 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 signage; ready or signage pending (see the above section for this criteria)
  - A map of the corridor.

**NOTE** - The above requested station specific data shall be obtained from the U.S. Department of Energy's Alternative Fuel Station Locator (<http://www.afdc.energy.gov/locator/stations/>). No other source of station data will be considered. The AFDC station data on the locator is available as a csv data download ([https://www.afdc.energy.gov/data\\_download](https://www.afdc.energy.gov/data_download)), a JSON or XML API (<https://developer.nrel.gov/docs/transportation/alt-fuel-stations-v1/>) and a new shapefile version which is available at: <https://maps-data.nrel.gov/geoserver/web/>).

**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](mailto:diane.turchetta@dot.gov)

Mike Scarpino  
U.S. Department of Transportation  
Volpe Center  
617-494-3373 or [michael.scarpino@dot.gov](mailto:michael.scarpino@dot.gov)

Stephen Costa  
U.S. Department of Transportation  
Volpe Center  
617-494-3852 or [stephen.costa@dot.gov](mailto:stephen.costa@dot.gov)

For questions regarding GIS/shapefile information, please contact:

Supin Yoder  
U.S. Department of Transportation  
Federal Highway Administration  
708-283-3554 or [supin.yoder@dot.gov](mailto:supin.yoder@dot.gov)

**Submittal Information**

Please submit your nominations to:

Diane Turchetta  
U.S. Department of Transportation  
Federal Highway Administration  
202-493-0158 or [diane.turchetta@dot.gov](mailto:diane.turchetta@dot.gov)

Please submit all shapefiles to:

Supin Yoder  
U.S. Department of Transportation  
Federal Highway Administration  
708-283-3554 or [supin.yoder@dot.gov](mailto:supin.yoder@dot.gov)

**Timeline**

The deadline for this solicitation is **COB November 30, 2017**.

---

<sup>1</sup> 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.

<sup>2</sup> 81 FR 47852 (July 22, 2016), available at: [www.federalregister.gov/documents/2016/07/22/2016-17132/fixing-americas-surface-transportation-act-designation-of-alternative-fuel-corridors](http://www.federalregister.gov/documents/2016/07/22/2016-17132/fixing-americas-surface-transportation-act-designation-of-alternative-fuel-corridors)

<sup>3</sup> FHWA strongly encourages electric vehicle 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 ZEV Investment Plan. Volkswagen Group of America, *National ZEV Investment Plan: Cycle 1*, April 9, 2017, Page 22. <https://www.epa.gov/enforcement/epa-approved-national-zev-investment-plan-public-version>

<sup>4</sup> See following FHWA Web site for definitions and descriptions of the NHS:  
[http://www.fhwa.dot.gov/planning/national\\_highway\\_system/](http://www.fhwa.dot.gov/planning/national_highway_system/)