INDOT National Electric Vehicle Infrastructure Plan

Public In-Person Meeting

June 9, 2022
Introductions

- Scott Manning, INDOT
  - Deputy Chief of Staff
- Joe Guerre, HNTB
  - Indiana Planning Group Director
- Peter Flynn, HNTB
  - Senior Project Engineer
- Kerri Garvin, Greater Indiana Clean Cities Incorporated
  - Executive Director
Today’s Agenda

- Background
- NEVI Program Overview
- Indiana Plan Overview
- Public Engagement
Where we are today?

- **2020**
  - INDOT Partners with Purdue to study EVs in Indiana

- **2021**
  - Bipartisan Infrastructure Law Passed

- **2022**
  - February – Initial Federal NEVI Guidance provided
  - March to July – State planning process
  - August 1 – State plans due to FHWA
EVs in Indiana

Snapshot - July 12-18, 2021

- 9,814 EV trips
- 64,700 EV vehicle miles traveled
- 18% of EV milage was on Interstates
- 53% of the EV VMT occurred in just 10 counties.

NEVI Program Overview
NEVI Program Overview

- **Source:** 2021 Bipartisan Infrastructure Law (BIL)
- **Goal:** create nationwide network of 500,000 EV chargers by 2030
  - *Initial funding is directed to Alternative Fuel Corridors (AFC)*
  - *Establish minimum standards for EV chargers within 180 days of enactment*
  - *Compliance with the Justice40 Initiative*

- **Funding:**
  - $7.5B ($5B formula, $2.5B discretionary) over 5 years
  - Indiana = $99,605,738

- **Schedule:**
  - Round 6 AFC nominations due May 13, 2022
  - State plans due August 1, 2022
  - Federal Highway Administration (FHWA) approves by September 30, 2022
NEVI – Key Requirements

• EV charging infrastructure must be located every 50 miles along State’s interstate highway system, within 1 mile of the Interstate
• EV charging infrastructure must include at least four 150KW Direct Current (DC) Fast Chargers
• Rest areas are not eligible locations
• States are allowed to contract with private entities for installation, operations and maintenance
EV Charging Infrastructure

<table>
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<tr>
<th>Type</th>
<th>Time to full charge</th>
<th>Use case</th>
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<tbody>
<tr>
<td>Level 1 Charging</td>
<td>20 hours</td>
<td>Single family home</td>
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<tr>
<td>Level 2 Charging</td>
<td>5-6 hours</td>
<td>Work and multi-family</td>
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<tr>
<td>DC Fast Charging</td>
<td>20-30 minutes</td>
<td>Public charging and retail business</td>
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Source: [Alternative Fuels Data Center: Developing Infrastructure to Charge Electric Vehicles (energy.gov)](https://energy.gov)
## Plan Overview

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<td>Discretionary Exceptions</td>
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**Approach**

- **Review existing research**
  - Purdue SPR 4509: *A Strategic Assessment of Needs and Opportunities for Wider Adoption of EVs in Indiana*
  - *Journal of Transportation Technologies: Analysis of Electric and Hybrid Vehicle Usage in Proximity to Charging Infrastructure in Indiana*

- **Stakeholder engagement**
  - Request for information
  - Virtual event(s)
  - Online survey
  - In-person meetings
  - *One-on-one meetings (as requested)*

- **Plan development**
  - Map existing research to relevant sections
  - Identify gaps
  - Stakeholder engagement results to drive content development
  - Map existing and planned locations
  - Workshop with INDOT to finalize plan content
FAQs

• Have preliminary locations been selected?
• What is the RFP process and timing?
• What are INDOT roles and responsibilities?
• What is the difference between the formula and discretionary NEVI program?
• Is the grid ready for this infrastructure?
• Does this relate to the Volkswagen settlement funds?
INDOT NEVI Vision and Priorities

- Vision:
  - Collaboratively plan, build, and maintain safe and innovative EV infrastructure that enhances quality of life, drives economic growth, and facilitates the movement of people and goods

- Priorities:
  - Resolve 50-mile gaps on alternative fuel corridors
  - Provide service in high demand areas, exceeding requirements when warranted
  - Provide service in disadvantaged communities and rural areas
  - Leverage existing access to utility service
INDOT NEVI Goals and Outcomes

- Deliver great service. *Collaborate and communicate with internal and external stakeholders regarding EV infrastructure deployment.*
- Enhance Indiana’s economic competitiveness and quality of life. *Eliminate range anxiety for EV travel.*
- Execute a 20-year road and bridge plan. *Deliver the EV plan to provide a robust, reliable and sustainable charging network.*
- Develop INDOT’s 21st century workforce. *Enable the private sector to ensure continued operation of EV charging infrastructure funded by NEVI and reduce the need for future public funding.*
## Performance Measures

<table>
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<th>Performance Measure</th>
<th>Target</th>
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<tr>
<td>Percent of Alternative Fuel Corridors miles that are within 50 miles of a charging station</td>
<td>100%</td>
</tr>
<tr>
<td>Percent of Indiana’s population that is within X miles of a charging station</td>
<td>100%</td>
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<tr>
<td>Number of sites implemented</td>
<td>TBD</td>
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<tr>
<td>Number of ports implemented</td>
<td>TBD</td>
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<tr>
<td>Percent of time at least one port is available at all sites</td>
<td>TBD</td>
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Contracting Overview

Strategy:
- Competitive procurement process
- Incremental release of RFPs
- Multiple sites in each release

Assumptions:
- 20% match - leverage private sector contributions
- INDOT will not operate or maintain
- 5-year minimum O&M

2022-2023
Prioritization of preliminary sites

2023-2024
Procurement of Phase 1 sites

2024-2025
1. Implementation of Phase 1 sites
2. Procurement of Phase 2 sites

2025-2027
1. Implementation of Phase 2 sites
2. Procurement for Phase 3
3. Full build out of AFCs

NOTE: TIMEFRAME IS APPROXIMATE
Indiana Alternative Fuel Corridors

• Designated AFCs:
  • All interstates
  • US 31

• Round 6 nominations:
  • I-469
  • I-265
Existing Charging Infrastructure

ALL EV CHARGING LOCATIONS: 241

DC FAST CHARGER LOCATIONS: 23

NEVI COMPLIANT CHARGER LOCATIONS: 4
Existing Charging Infrastructure - NEVI

- Four EV charging stations
- Most existing charging locations exceed the NEVI requirements for power and number of chargers
- Charging locations exceed the spacing required to meet the NEVI requirements
- None of the existing or proposed AFC’s have sufficient charging location coverage to demonstrate a complete corridor EV corridor.
Preliminary Charging Infrastructure

- Preliminary charging locations are shown in blue with light green service areas
- Service area shapes represent a 25-mile range
- Overlapping service areas along the EV corridors demonstrate the AFC meets the NEVI criteria
- 44 Preliminary EV charging locations
With all preliminary charging locations shown, nearly the entire state of Indiana will be within 50-miles of a DCFC charging location.

98% of Indiana residents will be within 35-miles of a DCFC location.
Disadvantaged and Rural Communities

- Justice 40 Initiative (January 2021)
  - At least 40 percent of the overall benefits of certain Federal investments flow to disadvantaged communities (DACs).
  - NEVI is a Justice 40 covered program

- USDOT DAC Definition*
  - Transportation access
  - Environmental
  - Resilience
  - Equity

- Approximately 59% of Indiana residents live in a DAC area

*https://www.transportation.gov/equity-Justice40
Preliminary Charging Infrastructure

- 100% of the preliminary sites are in or within 15-miles of at least one DAC area

- 62% the preliminary sites are in or within 5 miles of DAC area

- [https://www.anl.gov/es/electric-vehicle-charging-equity-considerations](https://www.anl.gov/es/electric-vehicle-charging-equity-considerations)
Regional View of Preliminary Infrastructure

- 25-mile service area
- AFC’s in Crawfordsville and Greenfield Districts
- 19 preliminary sites are in this region
Public Engagement
Strategic Objectives:

- **Gain insight:** into market motivations that drive investment and activity into EV charging.
- **Gauge the level of interest:** in funding opportunities, participation, and engagement with other federal funding sources.
- **Identify key planning considerations:** for EV charging buildout.
- **Identify gaps:** gauging which communities are likely to be underserved, as outlined by the Justice40 Initiative.
- **Assess readiness:** where are we at today and where do we need to go to successfully implement EV charging programs.
- **Define success:** Gain insight into metrics and performance monitoring techniques.
- **Clarity on INDOT’s role:** how can we support implementation?
- **Identify unknowns:** determine other considerations INDOT should be aware of.
Who are the stakeholders?

- **General Public:**
  - Community-based organizations
  - Grassroots EV chapters
  - Underserved/underrepresented communities

- **Government:**
  - State agencies
  - General Assembly
  - Metropolitan planning organizations
  - Municipal and county governments
  - Public transit organizations
  - EV Product Commission
  - 21st Century Energy Task Force
  - REV Midwest member states

- **Labor Organizations**
- **Private Sector:**
  - Charging providers
  - Original equipment manufacturers
  - Infrastructure and energy alternatives

- **Consumer- and Investor-Owned Utilities**
- **Freight and Logistics**
- **Academia**
Activities to Date

- Request for Information (closed April 29)
- Virtual open house May 11
  - Recording: https://register.gotowebinar.com/recording/166089350942842380
- Public Survey (closed May 27):
  - Over 2,000 responses received
- Utility questionnaire (INDOT and OED) responses due June 8
- INDOT On the DOT podcast Episode 29: https://soundcloud.com/indotpod/may-2022
Primary barrier to EV adoption:
- Availability of charging stations

Key amenities sought at EV charging stations:
- 24-hour access
- Safety
- Lighting
- Restrooms

Prioritizing AFCs:
- Addressing gaps in the existing charging network
- Total traffic volumes
- EV traffic volumes
- Increasing EV charging in rural Indiana
Upcoming Opportunities

- In-person meetings by region:
  - Northern Indiana – 6/2/22
    - Time: 3-5 p.m. ET
    - Location: Plymouth, IN
  - Central Indiana – 6/9/22
    - Time: 3-5 p.m. ET
    - Location: Indianapolis, IN
  - Southern Indiana – 6/14/22
    - Time: 3-5 p.m. ET
    - Location: Seymour, IN

- Request one-on-one meeting with INDOT

COMING SOON: Comment on INDOT NEVI Program Webpage
Resources

- **Indiana resources:**
  - Indiana NEVI Program Web page: [https://www.in.gov/indot/current-programs/innovative-programs/electric-vehicle-charging-infrastructure-network/](https://www.in.gov/indot/current-programs/innovative-programs/electric-vehicle-charging-infrastructure-network/)
  - Email: evchargingRFI@indot.in.gov
  - INDOT Plan will be posted on August 1, 2022 for public comment
    - *Comments received will inform future updates to the plan*

- **Federal Resources:**
  - NEVI Formula Program - [https://www.fhwa.dot.gov/legsregs/directives/notices/n4510863.cfm](https://www.fhwa.dot.gov/legsregs/directives/notices/n4510863.cfm)