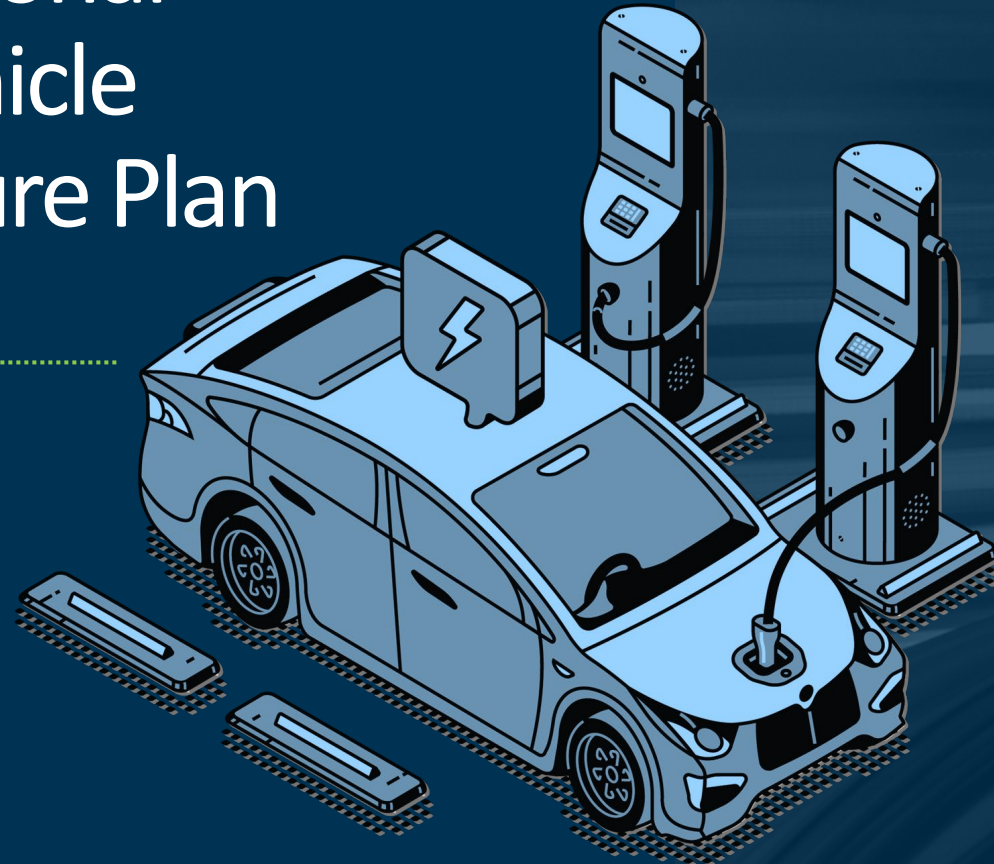


# INDOT National Electric Vehicle Infrastructure Plan

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

HNTB



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INDIANA



**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

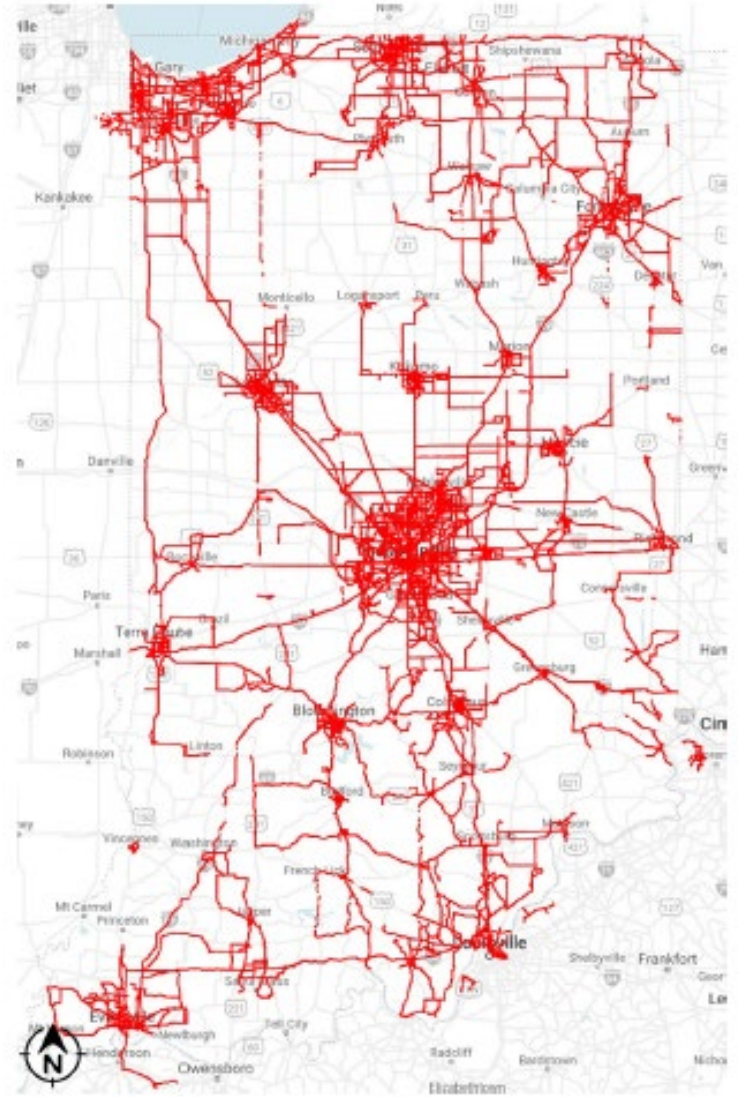


# EVs in Indiana



Snapshot - July 12-18, 2021

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

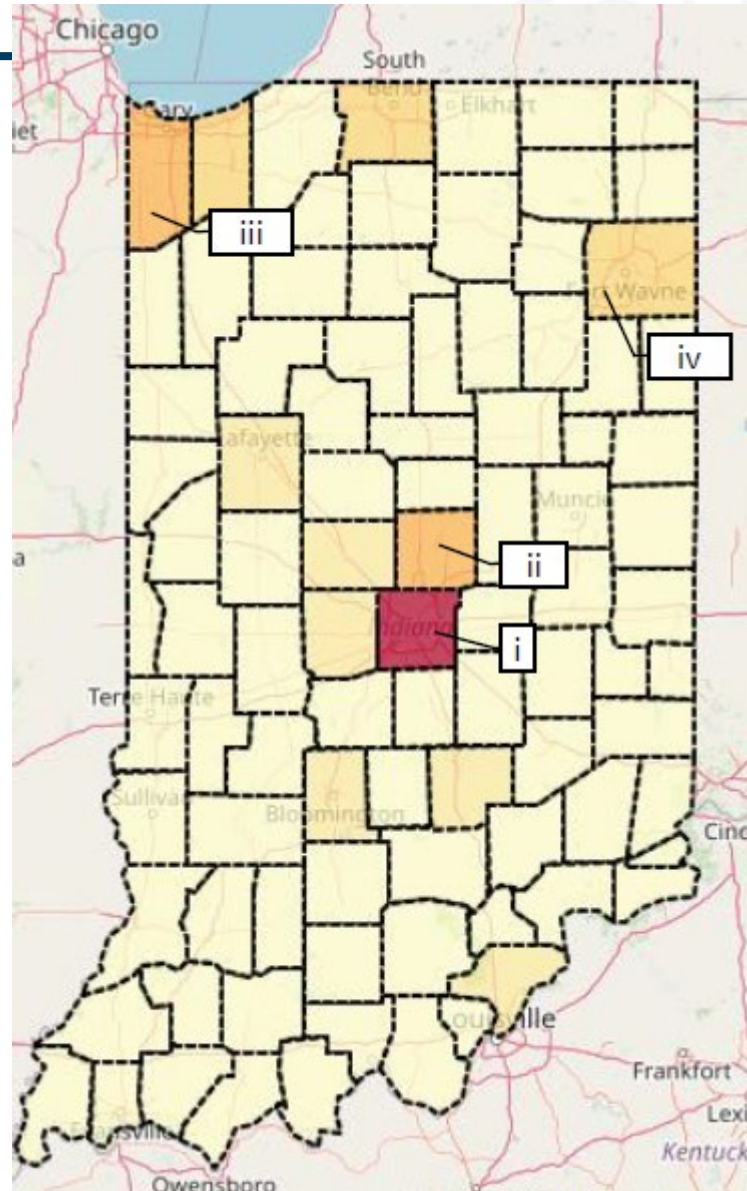


— EV Trails

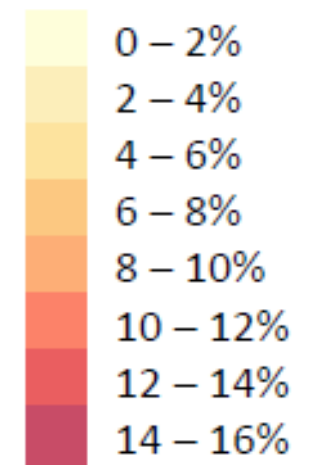
\*\*Desai, J., Mathew, J.K., Li, H. and Bullock, D.M. (2021) Analysis of Electric and Hybrid Vehicle Usage in Proximity to Charging Infrastructure in Indiana. *Journal of Transportation Technologies*, 11, 577-596. <https://doi.org/10.4236/jtts.2021.114036>



# EVs in Indiana



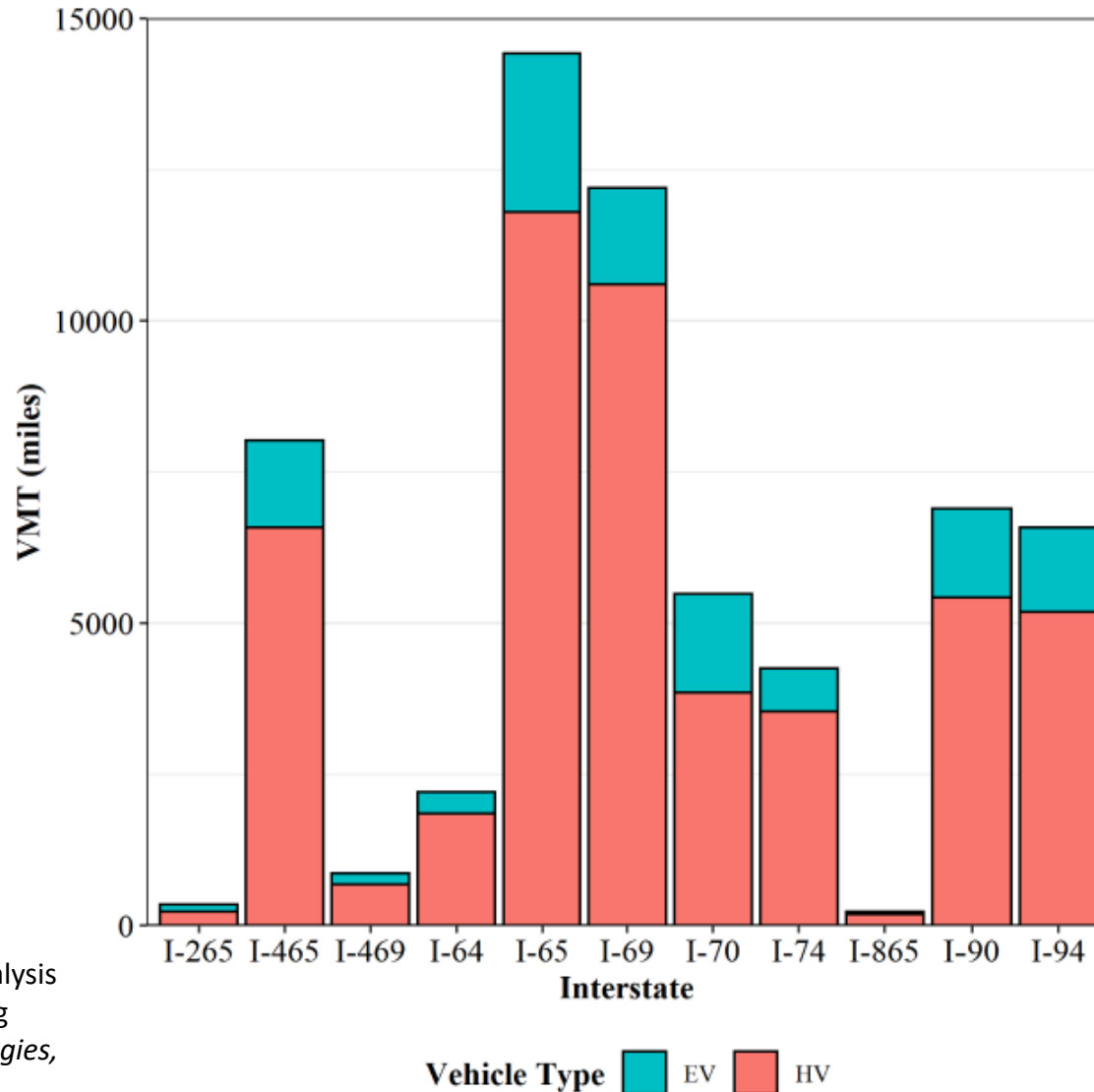
Percent of EV Miles by County



\*\*Desai, J., Mathew, J.K., Li, H. and Bullock, D.M. (2021) Analysis of Electric and Hybrid Vehicle Usage in Proximity to Charging Infrastructure in Indiana. *Journal of Transportation Technologies*, 11, 577-596. <https://doi.org/10.4236/jtts.2021.114036>

# EVs in Indiana

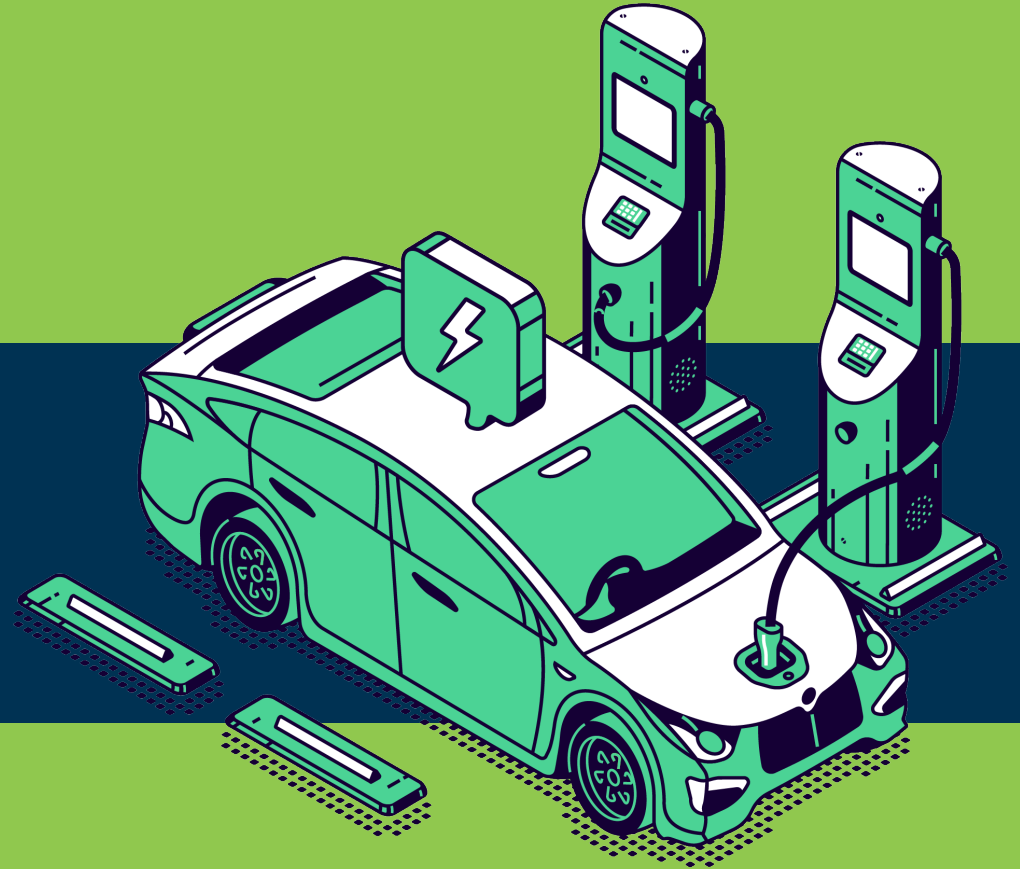
## EV and HV Miles by Interstate



\*\*Desai, J., Mathew, J.K., Li, H. and Bullock, D.M. (2021) Analysis of Electric and Hybrid Vehicle Usage in Proximity to Charging Infrastructure in Indiana. *Journal of Transportation Technologies*, 11, 577-596. <https://doi.org/10.4236/jtts.2021.114036>



# 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

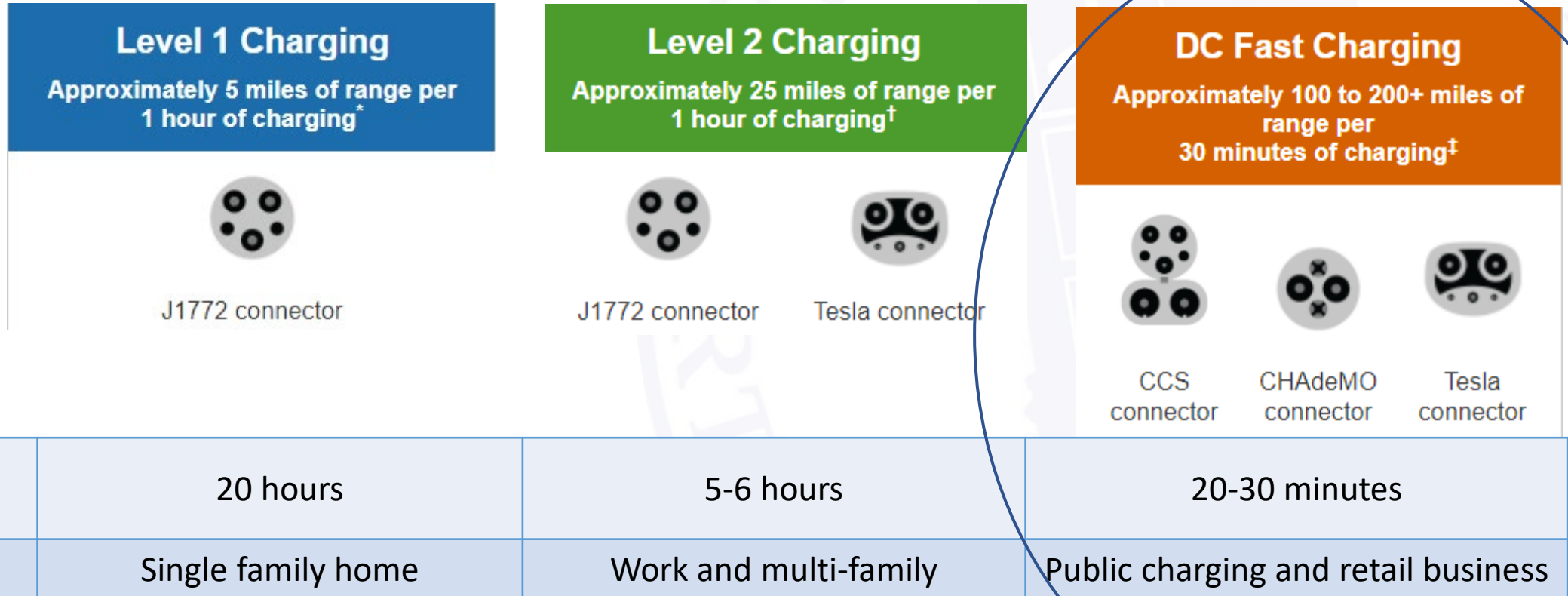


# NEVI – Key Requirements

- 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



Source: [Alternative Fuels Data Center: Developing Infrastructure to Charge Electric Vehicles \(energy.gov\)](https://www.energy.gov/alternative-fuels-data-center)

# Plan Overview



Chapter	Title
1	Introduction
2	State Agency Coordination
3	Public Engagement
4	Plan Vision and Goals
5	Contracting
6	Existing and Future Condition Analysis
7	EV Charging Infrastructure Deployment
8	Implementation
9	Civil Rights
10	Equity Considerations
11	Labor and Workforce Considerations
12	Cybersecurity
13	Program Evaluation
14	Discretionary Exceptions



## 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

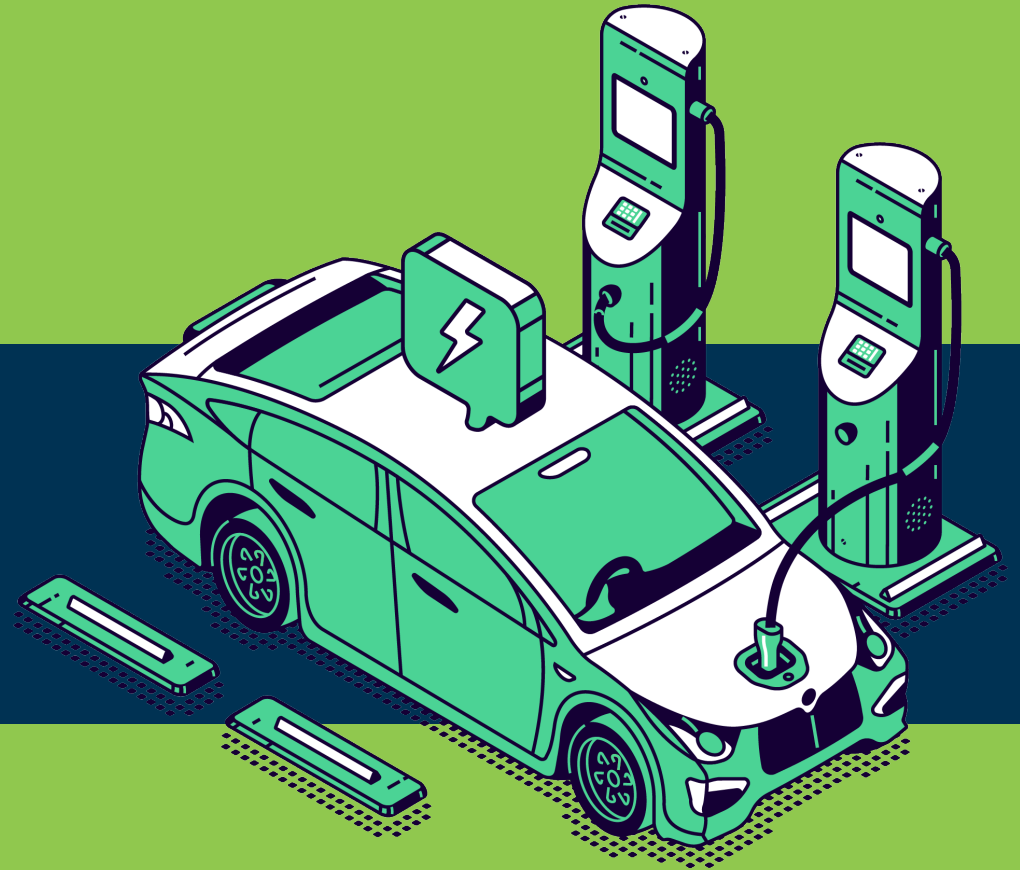
Workshop with INDOT to finalize plan content

# 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?



# Indiana EV Plan Overview



# 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 21<sup>st</sup> 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

Performance Measure	Target
Percent of Alternative Fuel Corridors miles that are within 50 miles of a charging station	100%
Percent of Indiana's population that is within X miles of a charging station	100%
Number of sites implemented	TBD
Number of ports implemented	TBD
Percent of time at least one port is available at all sites	TBD

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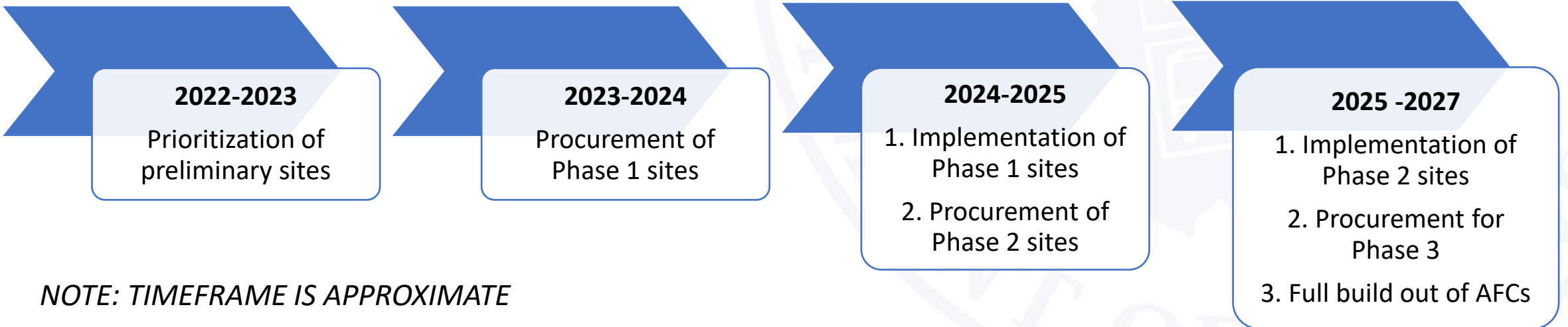
# Contracting Overview

## ■ 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

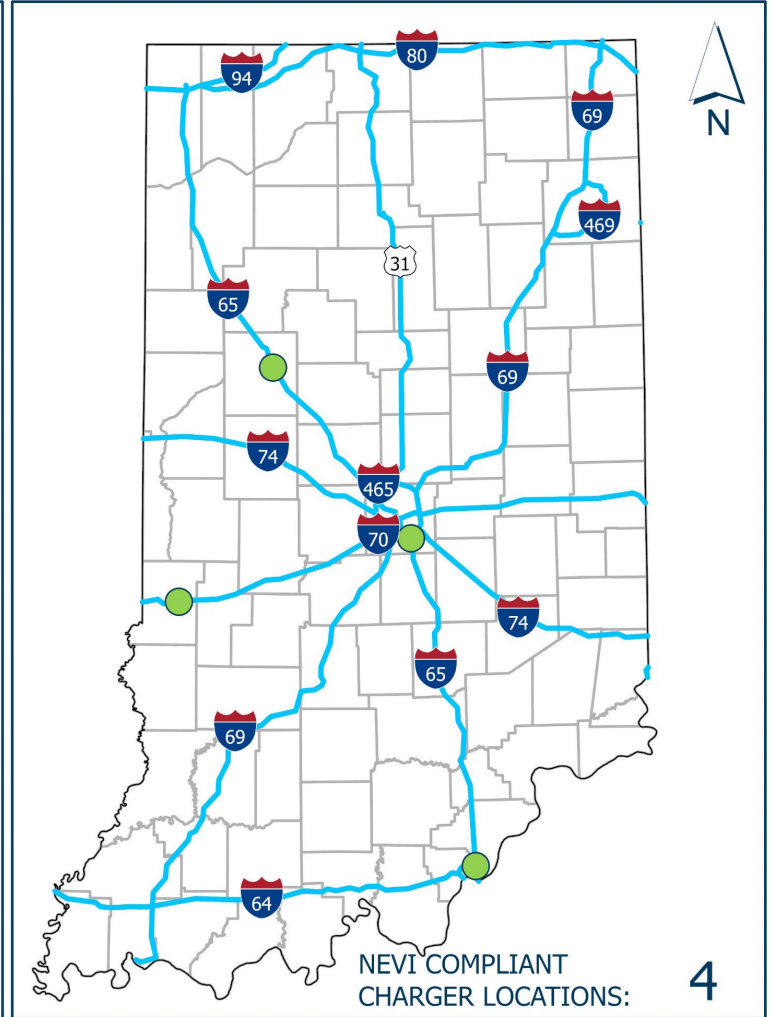
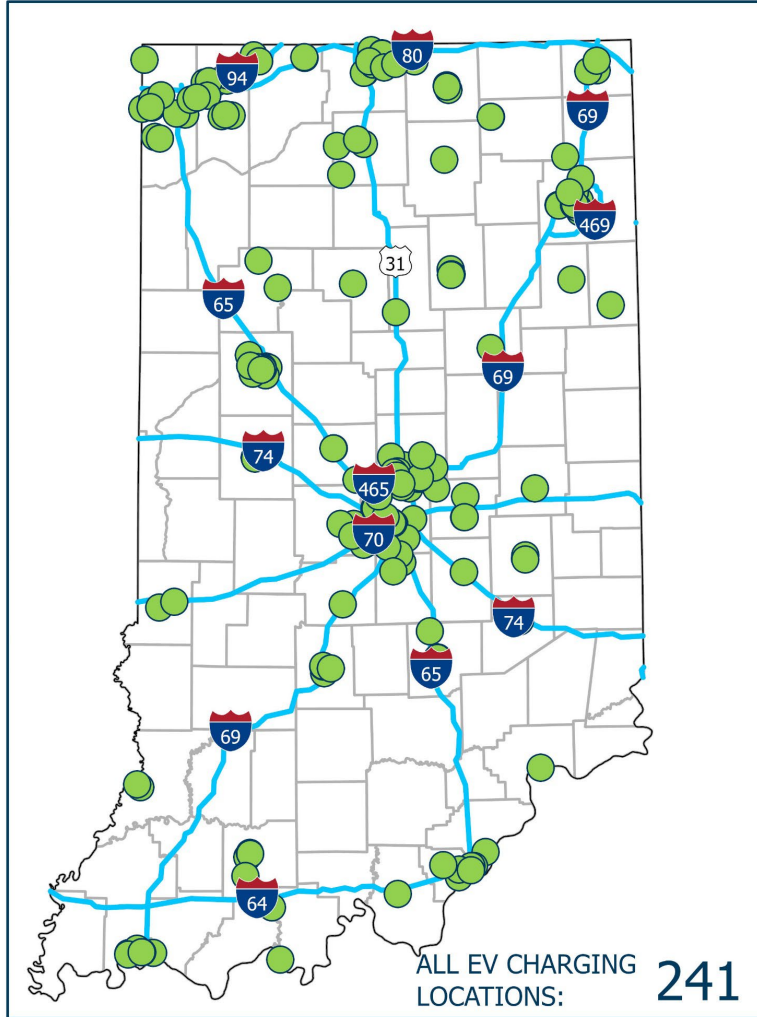


# Indiana Alternative Fuel Corridors

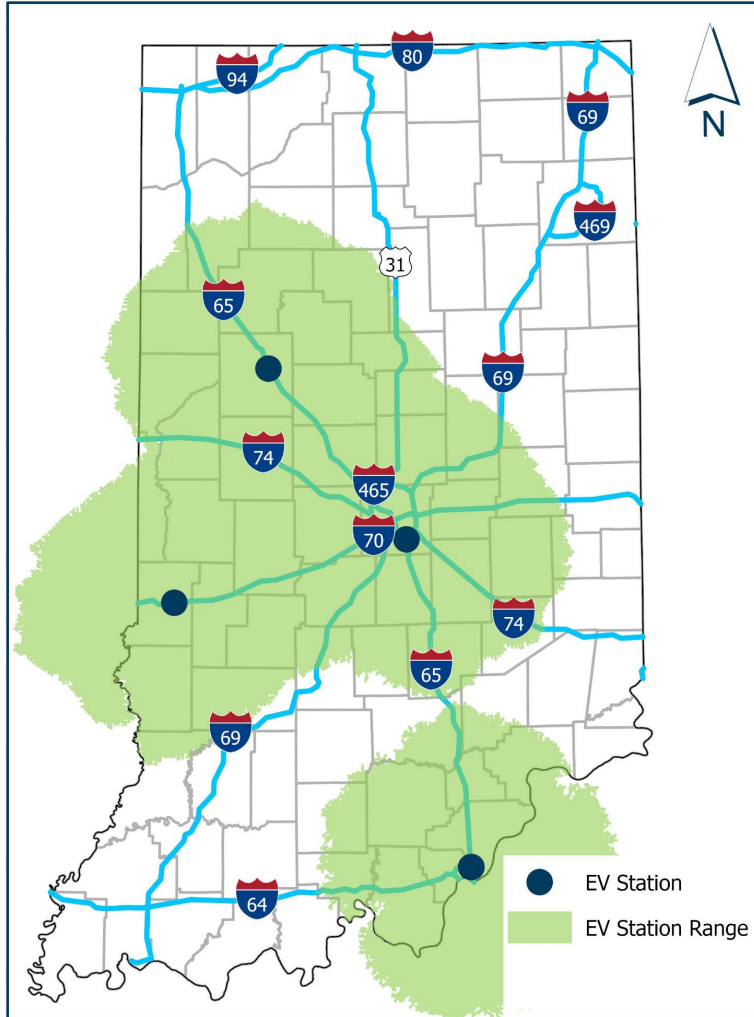


- Designated AFCs:
  - All interstates
  - US 31
- Round 6 nominations:
  - I-469
  - I-265

# Existing Charging Infrastructure



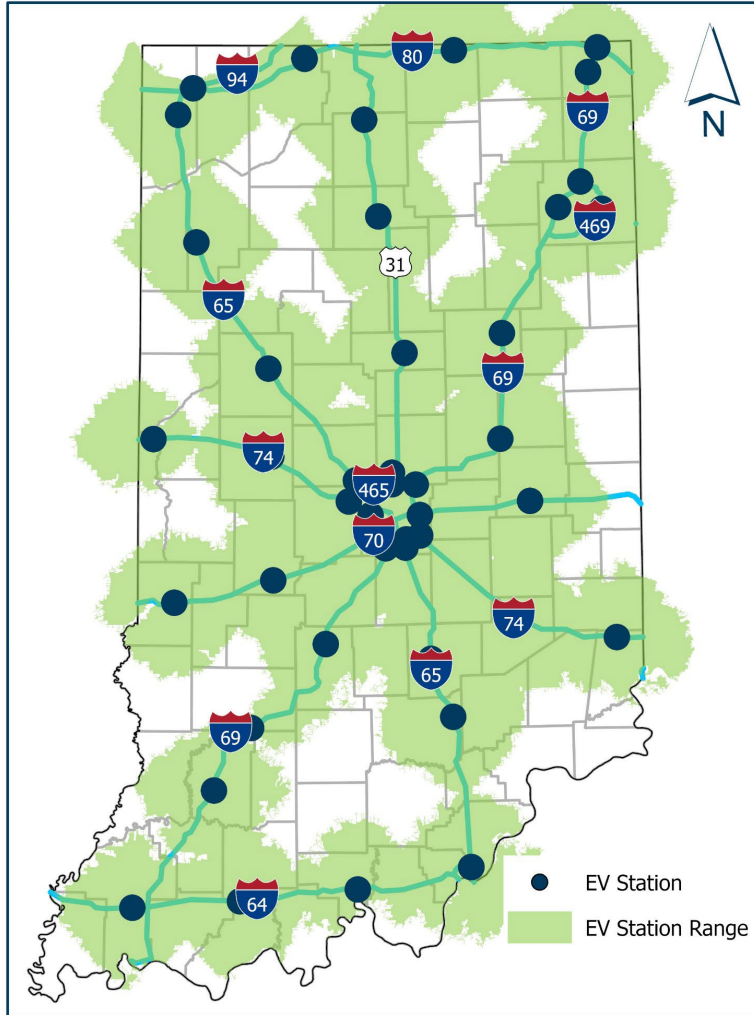
# Existing Charging Infrastructure - NEVI



- 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

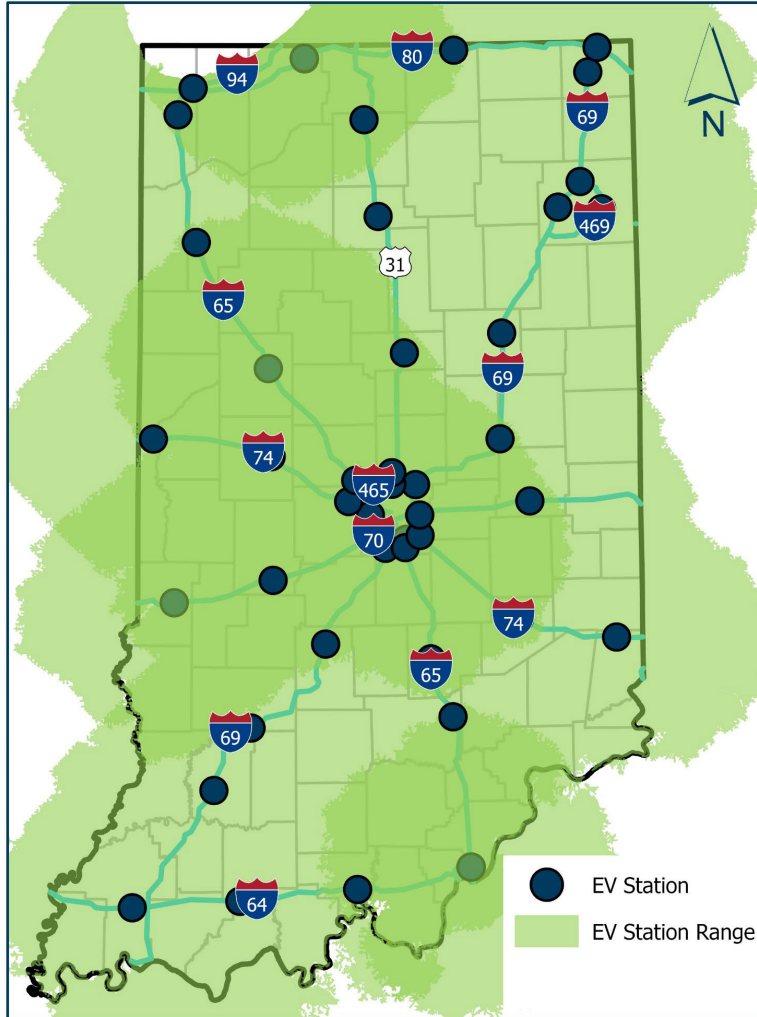
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# Preliminary Charging Infrastructure

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- 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

DRAFT





# Disadvantaged and Rural Communities



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- 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 Justice40 covered program
- USDOT DAC Definition\*
  - Transportation access
  - Environmental
  - Resilience
  - Equity
- Approximately 59% of Indiana residents live in a DAC area

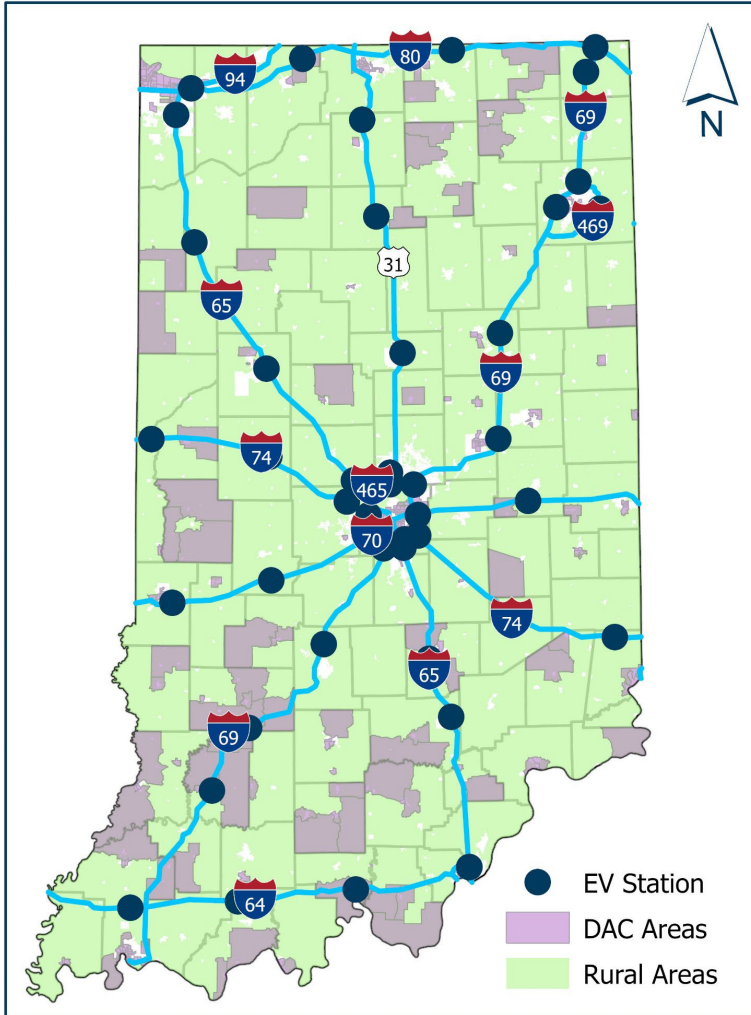
\*<https://www.transportation.gov/equity-Justice40>



# Preliminary Charging Infrastructure

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- 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>

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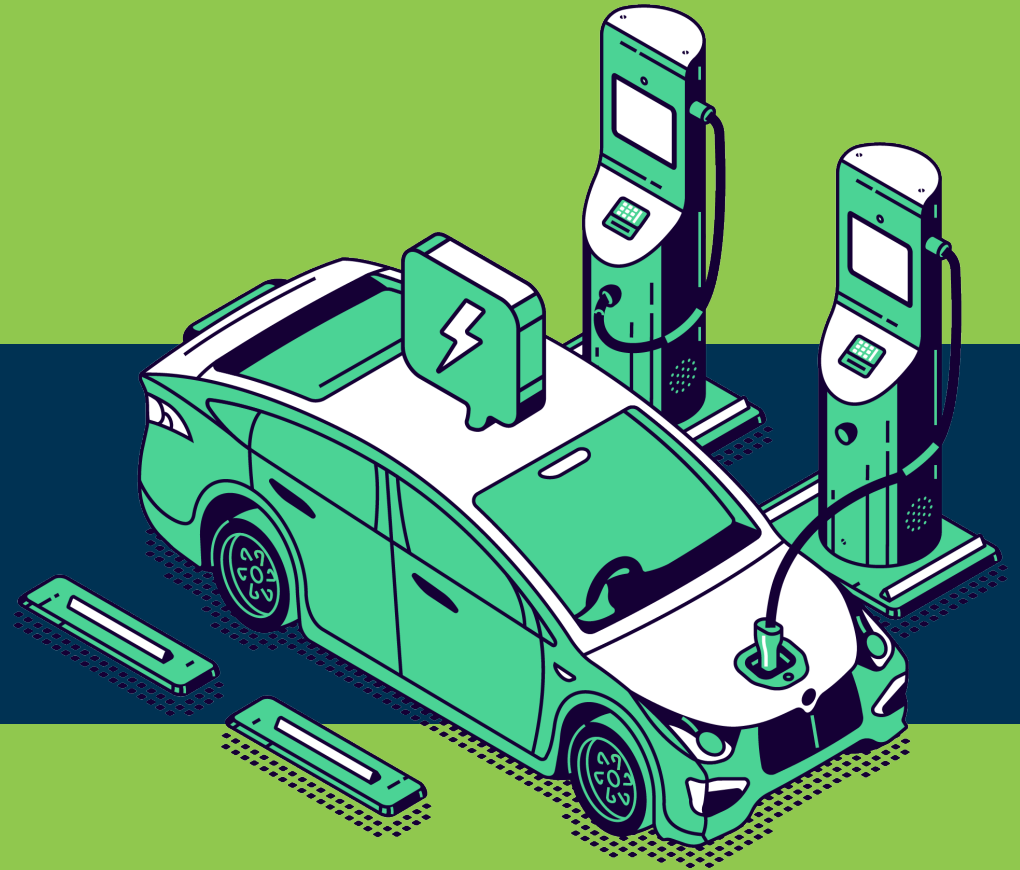




# Q & A #1



# Public Engagement



# Strategy



- 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?

HNTB



- 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
  - 21<sup>st</sup> 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

HNTB



- Request for Information (closed April 29)
- Virtual open house May 11
  - Slides: [https://www.in.gov/indot/files/INDOT-NEVI-Virtual-Open-House\\_Final\\_V2.pdf](https://www.in.gov/indot/files/INDOT-NEVI-Virtual-Open-House_Final_V2.pdf)
  - 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>





# Preliminary Public Survey Results



- 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



A woman with glasses and a patterned shirt stands in a meeting room, gesturing towards a group of people seated in front of her. The room has large windows overlooking a city building. The text on the right side of the image provides details about upcoming opportunities.

# 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/>
  - Email: [evchargingRFI@indot.in.gov](mailto: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 Guidance to States - [https://www.fhwa.dot.gov/environment/alternative\\_fuel\\_corridors/nominations/90d\\_nevi\\_formula\\_program\\_guidance.pdf](https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/nominations/90d_nevi_formula_program_guidance.pdf)
  - NEVI Formula Program - <https://www.fhwa.dot.gov/legsregs/directives/notices/n4510863.cfm>



Scott Manning  
[smanning1@indot.in.gov](mailto:smanning1@indot.in.gov)

Kerri Garvin  
[kerri@greaterindiana.com](mailto:kerri@greaterindiana.com)

Diane Newton  
[dnewton@hntb.com](mailto:dnewton@hntb.com)

# Q & A#2

