Indiana Electric Vehicle Infrastructure Deployment Plan

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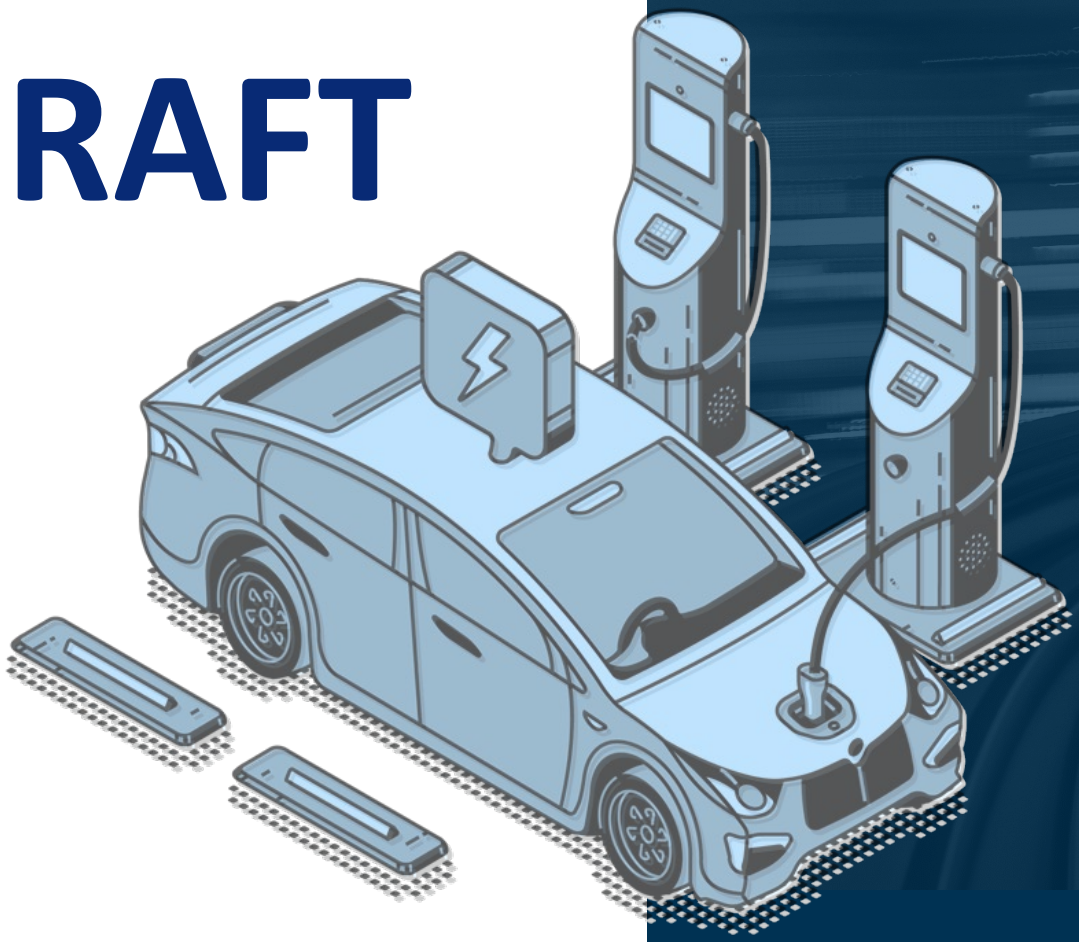

July 20, 2022

Indiana Department of Transportation

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Acronyms

AADT	Annual Average Daily Traffic
ADA	Americans with Disabilities Act
AFC	Alternative Fuel Corridors
BIL	Bipartisan Infrastructure Law
BRT	Bus Rapid Transit
DAC	Disadvantaged Communities
DBE	Disadvantaged Business Enterprise
DC	Direct Current
DER	Distributed Energy Resource
DERMS	Distributed Energy Resource Management System
EPA	Environmental Protection Agency
EV	Electric Vehicle
EVSE	Electric Vehicle Supply Equipment
FHWA	Federal Highway Administration
GhG	Greenhouse Gas
GICC	Greater Indiana Clean Cities, Inc.
HDV	Heavy-Duty Vehicles
IDEM	Indiana Department of Energy Management
IEDC	Indiana Economic Development Corporation
IFA	Indiana Finance Authority
INDOT	Indiana Department of Transportation
ITE	Institute of Transportation Engineers
IURC	Indiana Utility Regulatory Commission
NEVI	National Electric Vehicle Infrastructure
NPRM	Notice of Proposed Rulemaking
NTP	Notice to Proceed
O&M	Operations and Maintenance
OED	Indiana Office of Energy Development
OEM	Original Equipment Manufacturer
REV	Regional Electric Vehicle
RFI	Request for Information
RFP	Request for Proposal
TBD	To Be Decided
USDOT	United States Department of Transportation
VMT	Vehicle Miles Traveled
VW	Volkswagen
ZEV	Zero-Emission Vehicle

1.0 Introduction

The November 2021 Bipartisan Infrastructure Law (BIL) created the Joint Office of Energy and Transportation and the National Electric Vehicle Infrastructure (NEVI) program. The NEVI program includes a formula component and a discretionary component. The program will make significant investments in the electric vehicle (EV) charging infrastructure that will put the United States on a path to a nationwide network of 500,000 EV chargers by 2030 and ensure a convenient, reliable, affordable, and equitable charging experience for all users.

Under the NEVI formula program, Indiana expects to receive nearly $100 million in Federal funding. While formula funds are essentially guaranteed, each state is required to submit an EV Infrastructure Deployment Plan that describes how it will use the NEVI formula funds. The plans must be consistent with guidance provided by the Federal Highway Administration (FHWA).

FHWA's guidance prioritizes developing charging networks along designated alternative fuel corridors (AFCs) and providing charging infrastructure for underserved communities. Figure 1 shows Indiana's current AFCs as well as two additional corridors nominated in May 2022. In short, Indiana's AFC network covers all interstates plus US 31. In anticipation of an upcoming Round 7 of AFC nominations, Indiana plans to nominate the U.S. 30 corridor across Northern Indiana for AFC consideration.

Figure 1. Current and Pending AFCs in Indiana

After FHWA certifies that all of Indiana's AFCs are "fully built out" to NEVI compliant standards, Indiana will have the option to use any remaining NEVI formula funds on other public roads.

The Indiana Department of Transportation (INDOT) led the development of the statewide EV Infrastructure Deployment Plan, in cooperation with the Governor's Office, Indiana Utility Regulatory Commission (IURC), Indiana Economic Development Corporation (IEDC), the Indiana Office of Energy Development (OED), the Indiana Department of Environmental Management

(IDEM), metropolitan planning organizations, utilities, energy service providers, industry, and advocacy groups across the state.

INDOT's planning process relied on three key activities:

- Review the current state of EV charging in Indiana.
- Coordinate with state and Federal partners to understand NEVI program requirements.
- Engage with stakeholders and the public to understand priorities from a variety of perspectives

INDOT began its planning process by reviewing and then incorporating existing EV charging activities and research across the state from the public and private sector. Examples include research by INDOT's Joint Transportation Research Program in partnership with Purdue University and projects that rely on Volkswagen (VW) settlement funds. Key resources are highlighted below:

- Purdue SPR 4509: A Strategic Assessment of Needs and Opportunities for Wider Adoption of EVs in Indiana (In Progress)[1]
- Journal of Transportation Technologies: Analysis of Electric and Hybrid Vehicle Usage in Proximity to Charging Infrastructure in Indiana[2]
- Using connected vehicle data for assessing EV charging infrastructure usage and investment opportunities. Institute of Transportation Engineers (ITE). ITE Journal. 2022;92(3):22-31. ITE Paper (11-state EV).[3]

To complement these existing efforts, INDOT implemented an extensive stakeholder and public engagement process, using various tools to share information and solicit feedback from numerous perspectives. The engagement effort included:

- A request for information (RFI)
- A public survey
- Utility questionnaire
- A virtual open house

[1] Gkritza, Konstantina, and Labi, Samuel, Purdue University/Indiana Department of Transportation JHRP, expected completion date December 30, 2022.

[2] Desai, J., Mathew, J. K., Li, H., & Bullock, D. M. (2021). Analysis of Electric and Hybrid Vehicle Usage in Proximity to Charging Infrastructure in Indiana. Journal of Transportation Technologies, 11(4), 577-596.

[3] Desai J, Mathew JK, Li H, Bullock, Darcy M, P E, Ph D. Using connected vehicle data for assessing electric vehicle charging infrastructure usage and investment opportunities. Institute of Transportation Engineers. ITE Journal. 2022;92(3):22-31. https://www.proquest.com/scholarly-journals/using-connected-vehicle-data-assessing-electric/docview/2638088730/se-2?accountid=13360

- Three in-person engagement meetings
- A virtual engagement meeting
- Numerous one-on-one stakeholder meetings.

In addition, INDOT created an EV page on its website[4] to consolidate all materials for public access, provide answers to frequently asked questions (FAQs), and enable the ongoing collection of input from stakeholders across the state.

Throughout the planning process, INDOT also coordinated with state agencies and Federal partners. The coordination effort included:

- Meeting with the Joint Office of Energy and Transportation through public and invite-only webinars, and during an Indiana-specific question and answer session
- Meeting with the FHWA Indiana Division
- Monthly meetings with an Indiana multi-agency working group made up of IURC, OED, the governor's office, and IEDC to discuss transportation and energy efforts across the state and align these agencies with INDOT's vison for the NEVI program
- One-on-one meetings with the Illinois, Kentucky, and Ohio DOTs to coordinate efforts across adjoining states.

1.1 EV Infrastructure Planning and Implementation Schedule

1.1.1 Dates for Indiana's EV Infrastructure Deployment Plan

Preparation for the plan development process began with the passage of the Infrastructure Investment and Jobs Act (IIJA), Public Law 117-58 (Nov. 15, 2021). In early 2022, INDOT convened Indiana's multi-agency working group and began internal discussions with planning and legislative staff to understand the law and potential impacts and opportunities. With the publication of the Joint Office Federal guidance on February 10, 2022, INDOT's plan development efforts began with greater urgency, solidifying contractor support to assist with public engagement and plan development. With resources under contract in March 2022, INDOT developed the scheduled summarized in Table 1**.**

[4] https://www.in.gov/indot/current-programs/innovative-programs/electric-vehicle-charging-infrastructure-network/

Table 1. Milestones in Indiana EV Implementation Plan Development

Milestone/Activity	Date
Request for Information	April 4, 2022 (Open) April 29, 2022 (Closed) May 25, 2022 (Summary)
Outreach and engagement plan development	April 29, 2022
Virtual Open House	May 11, 2022
AFC Round 6 Nominations	May 13, 2022
Public Engagement Survey	May 13-June 8, 2022
Utility Engagement Survey	May 13-June 8, 2022
Incorporate existing research and engagement into plan template	May 27, 2022
Workshop 1 (Northern Indiana)	June 2, 2022
Workshop 2 (Central Indiana)	June 9, 2022
Workshop 3 (Southern Indiana)	June 14, 2022
INDOT Visioning and Goal Setting	May 25, 2022 (Draft) June 17, 2022 (Final)
Draft Implementation Plan	June 24, 2022
Final Implementation Plan	July 8, 2022
Virtual Public Walkthrough of the Final Implementation Plan	July 13, 2022
Final Implementation Plan posted for public comment	July 20, 2022
Final Implementation Plan, Version 2 (if needed)	July 29, 2020

**One-on-one meetings with INDOT were made available throughout plan development (April – July 2022) and not broken out as a separate milestone. A summary of these meetings is provided in Table 4.*

1.1.2 Dates for Indiana EV Infrastructure Implementation

Once Indiana's plan receives Federal approval, INDOT will create a detailed framework for contracting and implementing the build out of the FHWA designated AFCs. Implementation will require several phases to achieve build out over the five years of the program. The activities and dates below are estimated timeframes, assuming plan approval on September 30, 2022.

- Phase 1: October 1, 2022 – September 30, 2023
    - Develop contracting plan to finalize procurement type, requirements, and schedule
    - Create engagement plan and schedule to include additional activities and outcomes with the stakeholder groups identified in Chapter 3, but especially focused on DAC utilities, the private sector, and state agency coordination.
    - Site definition will begin post-plan review. This will include activities to evaluate and prioritize sites, including:
        - Coordinate with utilities to understand existing power availability at candidate locations

        - Define minimum design standards/criteria for NEVI-compliant stations
        - Prioritize general site selection
        - Create corridor groupings
        - Develop evaluation criteria for specific site selection
    - Develop and release Request for Proposal (RFP) for Phase 1 sites (October 1, 2023 to June 30, 2024)
        - Finalize procurement method
        - Identify site hosts and charging providers
        - Make final selections and release funds (multiple awards are expected)
        - Issue notice to proceed (NTP)
- Phase 2: Implement stations in high demand areas (June 30, 2024 to June 30, 2025)
    - High demand areas will be defined in Phase 1 based on average daily traffic and dwell time for EVs, EV adoption in the county, utility readiness, etc.
- Phase 3: Procure and implement stations in other high priority areas
    - Procurement: September 30, 2024 – June 30, 2025
    - Implementation: June 30, 2025 to June 30, 2026 (and beyond)
    - Priorities will be defined in Phase 1 based on:
        - Proximity to Disadvantaged Communities (DACs)
        - Proximity to key travel stops/destinations
        - Proximity to DC fast charging stations
        - Geographic balance (as needed to fill in gaps, create redundancy, upgrade location's existing infrastructure)
    - Multiple awards are expected

2.0 State Agency Coordination

INDOT's goals for state agency coordination were as follows:

- Collaborate with state partners to define vision and goals
- Understand the potential impacts of EV charging infrastructure buildout on other state agencies and operations
- Define roles and responsibilities for future implementation
- Integrate cross-agency personnel into the plan development process

Table 2 lists the agencies INDOT engaged with during the planning process.

Table 2. Agencies Engaged in Plan Development

Agency	Interests and Impacts	Engagement Activities
Indiana		
Indiana Department of Transportation (INDOT)	- Lead agency for plan development - Contracting/procurement oversight	- Working group chair - Direct communication - Website and program page - "On the DOT" podcast episode 29[5]
Indiana Office of Energy Development (OED)	- Alternative fuel policy - Utility coordination - Grid capacity	- Working group member - Direct communication - Review of draft plan
Governor's Office	- Partner engagement, contracting, labor and workforce considerations, utility coordination	- Working group member - Direct communication - Review of draft plan
Indiana Department of Environmental Management (IDEM)	- Oversight and administration of Volkswagen settlement funds	- Direct communication - Review of draft plan
Indiana Utility Regulatory Commission (IURC)	- Utility coordination, direction, and regulation - Grid capacity and resource availability	- Working group member - Direct communication - Review of draft plan
Indiana Economic Development Corporation (IEDC)	- Private sector engagement - Labor and workforce considerations	- Working group member - Direct communication - Review of draft plan
Indiana Finance Authority (IFA)	- Contracting approach	- Direct communication
Regional		
Kentucky Transportation Cabinet	- Exchanging ideas on utility coordination, contracting - Establishing a regional charging network - Avoiding duplication near state borders	- One-on-one phone calls
DriveOhio (Ohio Department of Transportation)		
Michigan Department of Transportation (and plan collaborators		
Illinois Department of Transportation		
REV Midwest	- Regional EV charging coverage - Interoperability and	- Working group member (via IEDC)

[5] https://soundcloud.com/indotpod/may-2022

Agency	Interests and Impacts	Engagement Activities
	standardization - Collaboration among member states: Indiana, Illinois, Michigan, Minnesota, and Wisconsin - Avoiding duplication near state borders	- Direct Communication

Results of state agency coordination include:

- Establishment of an Indiana cross agency working group (INDOT, IURC, OED, and IEDC)
- Ongoing collaboration regarding contracting and procurement, especially between INDOT and Indiana Finance Administration (IFA)
- Identification of FY22-24 Volkswagen settlement-funded EV charging infrastructure (from IDEM) and understanding of the current program status. The planning, coordination, site host agreements, and foundational aspects of the sites will be in place in FY22, with installation ongoing into 2023 and 2024.
- Ongoing collaboration regarding implementation and points of contact for EV charging infrastructure in neighboring states
- Review, input and comment on the draft plan prior to submission to FHWA

3.0 Public Engagement

One of INDOT's primary EV goals is to provide safe, efficient, and high-quality infrastructure in an equitable manner that enables EV drivers to travel throughout the state. The network will give drivers confidence and flexibility when traveling and provide equitable consideration for infrastructure investment in disadvantaged communities. Public engagement was a vital component of INDOT's planning process. Through its public engagement efforts, INDOT:

- Gained insight into market motivations from various stakeholders that drive investment and activity into EV charging
- Gauged the level of interest and need for BIL funding opportunities, participation, and engagement with other Federal funding sources
- Identified key planning considerations for EV charging build-out, such as the public's priorities for charging station amenities
- Began the process of determining the level of interest in servicing specific communities and gauging which communities are likely to be underserved, as outlined by the Justice40 Initiative. Created by Presidential Executive Order 14008 in 2021, the Justice40 initiative

establishes a goal for 40 percent of the overall benefits of certain Federal investments flow to disadvantaged, marginalized, underserved, and overburdened communities.

- Assessed delivery readiness to successfully implement EV charging programs
- Obtained feedback on INDOT's proposed vision, goals, metrics, and site locations
- Obtained an in-depth understanding on how INDOT can directly support implementation for various stakeholder groups
- Gather input on preferred EVSE locations and equitable build out of infrastructure to ensure benefits of future infrastructure are well-distributed both geographically and socioeconomically.

One of the first efforts in the plan development process was to create a public engagement plan that was shared publicly and published on April 29, 2022.[6] The remainder of this section provides insights into the specifics of the engagement plan, including the stakeholders that INDOT engaged and how they contributed.

3.1 Stakeholders Involved in Plan Development

Consistent with FHWA guidelines, INDOT's public outreach included several specific stakeholder groups. Stakeholder engagement supplemented the Federal guidance, existing research, and past EV awareness and engagement efforts with the goal of gathering input and feedback on plan contents. This effort began with the publication of the RFI and included several in-person and virtual events in May, June, and July 2022.

Following are the groups INDOT engaged with during the planning process. Specific attendees at in-person events are noted within Section 3.2.

- General Public: INDOT made all engagement opportunities (virtual and in-person) open to the public and directed efforts to the entities listed below
    - Community based, advocacy and industry organizations, to ensure both urban and rural area representation:
        - Indiana Community Action Association
        - Electrification Coalition
        - Environmental Law and Policy Center
        - Indiana Conservative Alliance for Energy
        - Advanced Energy Economy (AEE)
        - Citizens Action Coalition

[6] https://www.in.gov/indot/files/Indiana-EV-Implementation-Engagement-Plan_Final_Web.pdf

        - Sierra Club
        - Earth Charter Indiana
        - Hoosier Environmental Council
        - Creation Care/Evangelical Environmental Network
        - Energy Systems Network
        - East End Crossing Partners
        - Pike High School
        - Lockerbie Square Neighborhood Association
        - Elkhart Environmental Center
        - St. John's Lutheran Church
        - Purpose of Life Ministries
        - PracticewiseMD
        - Thrive West Central
        - Center for Sustainable Energy
        - DriveClean Indiana
        - IN Climate
        - Indiana Food and Fuel Association
        - Indiana Motor Truck Association
    - Grassroots EV Chapters
        - Hoosier Electric Vehicle Association (EVA)
    - Disadvantaged, Underserved or Underrepresented Communities
        - National Association for the Advancement of Colored People (NAACP)
        - Black Lives Matter South Bend
        - Indiana Alliance for Equity, Diversity, and Inclusion for Electric Vehicles and Economic Opportunity
    - Metropolitan Planning Organizations (MPOs)
        - Northeastern Indiana Regional Coordinating Council (NIRCC)
        - Michiana Area Council of Governments (MACOG)
        - Area Plan Commission of Tippecanoe County
        - Anderson MPO
        - Kentuckiana Regional Planning & Development Agency (KIPDA)
        - Terre Haute Area Economic Development Corporation
        - Indianapolis Metropolitan Planning Organization (IMPO)
        - Bloomington/Monroe County Metropolitan Planning Organization
        - Evansville Metropolitan Planning Organization
        - Ohio-Kentucky-Indiana Regional Council of Governments (OKI)
        - Region 3-A Development and Regional Planning Commission (R3a)
        - Indiana Association of Regional Councils (IARC)

        - Northwestern Indiana Regional Planning Commission (NIRPC)
    - Municipal and County Governments
        - Indianapolis
        - Fort Wayne
        - Bloomington
        - Carmel
        - Fishers
        - Zionsville
        - Greendale
        - Richmond
        - Evansville
        - Town of Winona Lake
        - City of South Bend
        - Town of Speedway
        - Town of Bargersville
        - Seymour City Council
        - City of Elkhart Indiana
        - City of New Castle
        - Greensburg Redevelopment Commission
        - City of Jeffersonville
        - City of West Lafayette
        - Association of Indiana Counties Inc
        - City of Martinsville
        - Lake County
        - EDC of Greensburg/Decatur County
        - City of Madison, IN
        - City of Warsaw
        - City of Madison
        - Tippecanoe County Government
        - Town Of Centerville
        - Bartholomew County Government
        - City of Terre Haute
        - Downtown Evansville Economic Improvement District
        - DeKalb
        - Town of Wakarusa
        - City of La Porte
        - La Porte County Government
        - City of Shelbyville, IN

        - Kosciusko County
        - White County Area Plan
        - City of Scottsburg
        - River Hills EDD & RPC
        - Town of Clarksville
        - Town of Cloverdale
        - Town of Hope
        - Town of Orleans
        - Town of Newburgh
        - Pike County Economic Development Corporation
    - Public Transit Organizations
        - IndyGo
        - Fort Wayne Citilink
        - Bloomington Public Transit
    - EV Product Commission
    - 21st Century Energy Task Force
- Labor Organizations
    - Electrical contractors
    - Automobile Association of America (AAA)
    - United Auto Workers (UAW)
    - International Brotherhood of Electrical Workers
- Private Sector
    - Charging Providers. Below is a list of one-on-one meetings held, with additional companies also responding to the RFI and attending in-person and virtual events.
        - ChargePoint
        - Electrify America
        - Heartland Charging Services
        - Greenlots
        - Tesla
        - Crossroads Solar
        - Blink
        - Forsee Power
        - FMI Corporation
        - Mid-Valley EV Charging Supply
    - Original Equipment Manufacturers (OEMs, including Cummins, General Motors, Stellantis, and Blue Bird)
- Consumer-Owned and Investor-Owned Utilities
    - Duke Energy Indiana
    - AES Indiana (formerly Indianapolis Power and Light)

  - Indiana Michigan Power (I&M)
  - CenterPoint Energy (formerly Vectren)
  - Northern Indiana Public Service Company (NIPSCO)
  - Hoosier Energy
  - Wabash Valley Power Alliance
  - Indiana Municipal Power Agency (IMPA)
    - Serves 61 member communities
  - Indiana Electric Cooperatives (IEC)
    - Serves 38 member cooperatives
  - Indiana Energy Association (IEA)

- Freight and Logistics
  - Indiana Logistics Council (Conexus)
  - Indiana Motor Trucking Association (IMTA)
  - North American Council for Freight Efficiency (NACFE)
  - Green Truck Association (GTA)
  - Environmental Protection Agency (EPA) SmartWay Program
  - Truck stop provider, fleet provider, truck OEMs, transportation network companies (TNC), and convenience / grocery store; for example:
    - Indiana Food and Fuel Association
    - America's Green Line
    - Love's Truck
    - Huck's Market
    - Lassus
    - Fred's Minimart
- Academia
  - Purdue University (PU)
  - Indiana University (IU) Environmental Resilience Institute (ERI)

3.2 Public Outreach

INDOT's public engagement process incorporated strategies that allowed for in-depth electronic communication, in person and virtual sessions, and other strategies to inform and involve stakeholders and interested parties. INDOT distributed the following outreach tools to the list of stakeholders presented in the previous section and made the information publicly available through its website.

Following is a summary of specific outreach activities and their outcomes that was conducted leading up to the submittal of the draft plan on August 1, 2022:

- **RFI:** INDOT and OED issued a request for information[7] (RFI) on April 4, 2022, providing interested parties an opportunity to provide comments and data for consideration in the drafting of the State EV Implementation Plan. RFI responses were due on April 29, 2022. Below are the key takeaways from the responses:
    - Respondents indicated Federal funding, sustainability, decarbonization goals and OEM production are driving their interest in EV adoption, DC Fast Chargers, and development of EVSE in rural and underserved areas.
    - NEVI funding was overwhelmingly cited by respondents as a key accelerator to EV adoption though respondents were less clear on who they intend to partner with to access funds. Many respondents stated INDOT was a potential partner, while others are exploring other options.
    - Respondents expressed an interest in prioritizing EV build-out at locations and counties with higher EV adoption and areas adjacent to designated AFCs.
    - Infrastructure for DC fast and ultrafast chargers along highways is most desired by respondents; to avoid building stranded assets and effectively facilitate future charging expansion, respondents seek improved coordination among participants.
    - Respondents relayed the need for the public sector to support scaling charging infrastructure for rural and underserved locations through planning guidance and funding.
    - Respondents indicated that data gaps and supply chain issues would be the biggest challenges facing delivery readiness.
    - Respondents are increasingly incorporating environmental and social metrics into measuring effectiveness of EV charging infrastructure, tying program performance to increases in EV adoption across different communities.
    - Respondents expressed a desire for INDOT to provide information on suitable locations and partners, NEVI fulfillment requirements, and data on locations for existing and planned DC Fast infrastructure.
    - Respondents highlighted that EV charging can be used as an economic enabler to local communities; they separately shared “best practices” for deploying EV

[7] https://content.govdelivery.com/attachments/INDOT/2022/04/01/file_attachments/2120170/INDOT_RFI on NEVI Deployment.pdf

chargers, such as developing partnerships, utilizing solar energy and mobile charging rigs.

- **Program Web page on in.gov Website:** INDOT provided a program-specific web page, titled Electric Vehicle Charging Infrastructure Network[8], on in.gov to keep stakeholders and other interested parties informed and offer an opportunity to provide feedback and input. Resources, webinar recordings, presentations, and other materials (such as frequently asked questions) were made available as they were developed. In addition, to enable open input and comments, INDOT created a web comment form[9] and provided it on the program web page for stakeholders to submit input and comment on the plan at any time during the planning process.

- **Online Survey:** INDOT created an online survey to gather direct feedback from stakeholders and the general public. The survey was distributed electronically to stakeholders on May 13, 2022. Survey responses were due by May 27, 2022. A link to the survey was also published on INDOT's webpage. INDOT received responses from 2,304 individuals representing all counties in the state except for one (Union County). INDOT also received responses from a zip code that overlaps with 419 out of 434 (97%) of DAC areas. Following is a summary of feedback received via the survey.
    - Primary barriers to EV adoption:
        - Availability of charging stations in the community
        - Purchase price of EVs
        - Range of EVs currently available
    - Suggestions for addressing these barriers:
        - Expanding the number and accessibility of charging stations in Indiana
        - Expanding tax breaks, subsidies, and incentives for charging stations and electric vehicles
        - Encouraging more affordable and efficient charging stations and electric vehicles
        - Increased outreach and education to the public about electric vehicles and charging stations
        - Reducing the registration fee for electric vehicles in Indiana

[8] https://www.in.gov/indot/current-programs/innovative-programs/electric-vehicle-charging-infrastructure-network/

[9] https://in.accessgov.com/indot/Forms/Page/indot/public-survey/0

- Key amenities sought at EV charging stations:
  - 24-hour access
  - Safety
  - Lighting
  - Restrooms
- Factor for prioritizing implementation along the AFCs:
  - Addressing gaps in the existing charging network
  - Total traffic volumes
  - EV traffic volumes
  - Increasing EV charging in rural Indiana

Public Survey Responses by Stakeholder Type

- General Public – 78.6%
- Government – 9.4%
- Consumer- or Investor-Owned Utility – 2.9%
- Private Sector – 2.4%
- Academia – 1.4%
- Freight and Logistics – 1.1%
- Did Not Respond – 1%
- Labor Organization - .8%
- Media - .04%

- **Virtual Open House:** INDOT hosted a virtual open house / informational webinar to share information about the NEVI program, provide additional insight into the progress of the plan development, and further engage key stakeholders. The Virtual Open House was held on May 11, 2022. INDOT posted meeting slides and a recording of the meeting on its web page after the meeting and distributed them electronically to registered attendees. INDOT received 87 questions in the following areas:
  - Procurement and contracting
  - Funding
  - Charging stations, their locations, safety, costs, and fees
  - AFCs
  - Operations and maintenance of the charging stations
  - Public Engagement
  - Using renewable energy/emerging technologies
  - Power/Grid Reliability

Virtual Open House Attendance by Stakeholder Type

- Private Sector 49%
- Government 26%
- General Public 13%
- Academia 4%
- Freight and Logistics 3%
- Utility Groups 3%
- Labor Organizations 1%
- Media 1%

- **Utility Survey:** INDOT developed a questionnaire to gather vital information from Indiana's utility groups relating to funding and incentives, site installation and connection, equity and environmental justice, energy generation, and strategic and

long-term planning. Responses were due June 8, 2022. INDOT received four responses to the utility questionnaire, from AES Indiana, Duke Energy Indiana, NIPSCO, and IMPA. IMPA represents 61 towns and cities in Indiana. This feedback was extensive and is presented in detail in Chapter 6.

- **In-Person Stakeholder Meetings:** INDOT engaged directly with stakeholders and the public through three in-person meetings. Each of the stakeholder meetings was held in person in three different geographic regions of the state. The meetings were held at the Plymouth, Indianapolis, and Seymour INDOT Facilities, providing opportunities for stakeholders from across the state to participate. Throughout the three meetings, attendees primarily focused questions around the implementation phase of the program, asking questions about the RFP process, preliminary station locations, pricing structures, and local partnerships with city and county governments. In addition, questions were presented focusing on grid upgrades and reliability, coordination with the currently ongoing DCFC VW Settlement project, and equity considerations. INDOT posted meeting slides and written responses to all questions on its web site following each meeting. Details on each meeting are shown in Table 3.

Table 3. Summary of In-Person Public Meeting Summaries

Meeting	Date	Attendees	Summary of Feedback
Northern Indiana (Plymouth)	6/2/22	30 attendees representing the following stakeholders: - Private Sector 33% - Labor Organizations 27% - Utility Groups 17% - Government 13% - Freight and Logistics 7% - General Public 3%	- Insight into the accuracy of existing charging location in the region - Utility company input and comment - Electrical worker union input and follow up - MPO inquiry around additional AFC nominations
Central Indiana (Indianapolis)	6/9/22	37 attendees representing the following stakeholders: - Private Sector 45% - General Public 22% - Government 14% - Utility 8% - Labor Organizations 5% - Freight and Logistics 3% - Academia 3%	- Input and feedback on engagement approach - Equity considerations

Meeting	Date	Attendees	Summary of Feedback
Southern Indiana (Seymour)	6/14/22	35 attendees representing the following stakeholders: - Private Sector 35% - Government 31% - Utility Groups 20% - General Public 11% - Freight and Logistics 3%	- Interest in site selection, installation, operations, and maintenance (local communities) - Interest in site selection and procurement (private sector) - Utility concerns around power availability and reliability

- **Virtual public walkthrough of the draft plan:** Following the development of the draft plan, INDOT held one final virtual public meeting on July 13, 2022, so interested parties from around the state could review draft plan content. The structure of the meeting was a live stream presentation of the plan on INDOT's YouTube channel with a question-and-answer period to conclude the meeting. Presenters walked through summaries of each chapter of the plan, then fielded input and questions from attendees. The meeting was broadcast in the evening to maximize attendance and accommodate public requests. The webinar had 260 concurrent viewers and 650 registrants. A copy of the slide deck and presentation recording was posted to INDOT's NEVI webpage after the meeting. Questions reflected viewers interest in procurement and contracting; ways businesses and communities, including DAC communities, can stay engaged and be considered as potential site hosts; and charging stations requirements and considerations for potential locations.

Virtual Public Meeting Attendance by Stakeholder Type

- General Public 39%
- Private Sector 36%
- Government 17%
- Academia 3%
- Utility Groups 3%
- Freight and Logistics 2%
- Media .3%
- Labor Organizations .2%

- **One-on-One Stakeholder Meetings** INDOT met individually with several stakeholder groups throughout the planning process. Stakeholders could request a meeting through the program web page or by contacting INDOT directly. These meetings served as a means for INDOT to receive information and inputs to the plan and to share insights on the plan development process. Table 4 provides a list of one-on-one meetings.

Table 4. Summary of One-on-One Meetings

General Public: - Indiana Energy Association - Greater Indiana Clean Cities, Inc. - IN Climate	Government: - Joint Office of Energy and Transportation - REV Midwest - City of Bloomington - National Renewable Energy Lab (NREL) - Kentucky Transp. Cabinet - Illinois DOT - DriveOhio - Mid-America Association of State Transp Officials (MAASTO) - City of Indianapolis - Northwest Indiana Regional Planning Commission - FHWA Indiana Division - Working group with representatives from: IN OED, INDOT, IEDC and IURC - Michiana Area Council of Governments	Private Sector: - Electrify America - ChargePoint - Indiana Manufacturers Association - Crossroads Solar - Mid-Valley Supply - Tesla - Blink - 1820 Ventures - AEE - America's Green Line - Forsee Power - DANNAR - Simon Property Group - FMI Corporation - FII - Mid-Valley EV Charging Supply - TelTec - FoxConn Industrial Internet - LHP Engineering Solutions - KemKrest - CenterPoint Energy - LVR International - British Petroleum - Harmon Construction	DAC Engagement: - Indiana State Conference of the NAACP - Evansville Branch NAACP 3048-B - Black Lives Matter South Bend - Indiana Chapter, American Association of Blacks in Energy - Habitat for Humanity - Indiana Alliance for Equity, Diversity and Inclusion of EV Infrastructure and Economic Opportunity - EV Noire
Labor Organizations: - Indiana Brotherhood of Electrical Workers	Utilities: - Indiana Michigan Power - Duke Energy - AES Indiana - IMPA	Freight and Logistics: - Conexus - Indiana Food and Fuel Association - Indiana Motor Truck Association	Academia: - Purdue University

- **Communication Methods:** INDOT used social media, webinars, news releases, email listservs, social media accounts, a podcast, and media interviews/outlets to share communication about the plan, public meetings, and increase awareness for opportunities to engage and provide feedback. Some samples of social media outreach are shown in Figure 2.

Figure 2. Social Media Announcements

INDOT will continue its stakeholder engagement efforts throughout the life of the program to communicate progress, educate the public, and solicit additional feedback. The Public Engagement Plan that is posted publicly will be updated to include a schedule of activities planned for the first year of the program, with a focused effort around additional engagement with DAC and rural communities. The specific objective of that outreach will be to meet these communities in person and work together to define measurable outcomes for both engagement and implementation. INDOT will incorporate the results of these additional engagement efforts into the plan's regular updates.

4.0 Plan Vision and Goals

Transportation is recognized as the final frontier for major advancement in energy efficiency. In the United States, the transportation sector accounts for 27% of greenhouse gas emissions

(EPA, 2020[10]). As a result, awareness of the environmental impacts of traffic is growing rapidly. Overall, there is an increased consumer demand toward EVs and shifts in the auto manufacturers priorities and offerings to meet this current and future demand. Emphasizing the consumer and industry landscape has a more direct connection to the subsequent vision and goals. Efforts are being made towards reducing emissions, including the improvement of vehicle and fuel technology as well as the promotion of alternative, sustainable modes of transportation. The emergence of EVs is among those technological innovations that can reduce fuel consumption, emissions, and vehicle operating costs. As the owner of Indiana's NEVI program implementation, INDOT took a top-down approach to creating a vision and goals for the plan. This process started with a careful evaluation of the Federal guidance. This guidance described a state vision for strategically deploying EV charging infrastructure that supports the establishment of an interconnected network. According to the guidance, plan goals should ensure:

- Data collection (and data driven, quantifiable outcomes for at least one goal);
- Equitable access;
- Network reliability; and
- Sustainability (i.e., an outlook for the 5-year program and beyond)

With the receipt of the initial Federal guidance and feedback received through its outreach efforts, INDOT defined the following priorities for EV station siting:

- Resolve 50-mile gaps on AFCs
- Provide service in high demand areas, exceeding requirements when warranted
- Provide service in DACs and rural areas
- Leverage existing access to utility service

Next, INDOT reviewed its existing agency vision and goals and collaborated with fellow state agencies to ensure alignment with these priorities and national requirements. Before finalizing them, INDOT discussed the draft vison and goals with FHWA and the OED and presented them at the four stakeholder meetings. The results are provided below.

4.1 Indiana EV Infrastructure Vision

Indiana's proposed vision for EV implementation combines INDOT's agency-wide vision and highlights the collaboration INDOT believes will be required for successful implementation.

[10] Sources of Greenhouse Gas Emissions | US EPA

Alignment with related efforts including the IDEM VW Environmental Mitigation Trust efforts, Indiana House Bill 1221 (which is discussed in more detail in Chapter 7) was sought and will continue to validate this vision as the program moves through the planning process. The intent is for the vision to be forward thinking to be inclusive of future efforts including the discretionary grant program and other alternative fuel efforts. The vision for EV infrastructure in Indiana is to:

> 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.

INDOT intends to use NEVI funds to cover all activities needed to achieve this vision, including: 1) planning and engagement efforts that will take place in the first year of the program; 2) infrastructure installation, operations, and maintenance throughout the program; and 3) data collection, evaluation and reporting of outcomes that will be a focus of the latter years in the program. INDOT anticipates that the majority of the funding will be required for infrastructure installation, operations, and maintenance, with the remainder being used for the supporting activities. Section 8 of this Plan defines implementation activities, roles, and responsibilities and explains how they will evolve from the short-term into the longer-term. In the near-term, INDOT's priorities are to complete a more exhaustive engagement effort to ensure the equitable build out of infrastructure, and to work with state and local agencies and the private sector to evaluate and prioritize the preliminary charging locations. As the program moves into implementation, the focus will shift to building the infrastructure so that the 50-mile gaps along the AFCs are all resolved. Longer term, the efforts will focus on operating and maintaining the infrastructure and collecting and sharing data that required to monitor performance of the program.

4.2 Indiana EV Infrastructure Goals

Indiana's proposed EV goals create alignment between INDOTs agency-wide goals, fellow state agency priorities, and Federal program goals. The goals emphasize the need for public-private sector collaboration and acknowledge that data collection will be necessary to track deployment and utilization.

- **Indiana EV Goal #1**: Collaborate and communicate with customers and stakeholders regarding EV infrastructure deployment
- **Indiana EV Goal #2:** Increase understanding of Indiana's position as it relates to the EV industry and undertake initiatives to collect usage data and advance testing and research in the state
- **Indiana EV Goal #3:** Eliminate range anxiety for EVs

- **Indiana EV Goal #4:** Assess vehicle electrification needs as they evolve and update the EV plan regularly to support long-term economic competitiveness and quality of life
- **Indiana EV Goal #5:** Deliver the EV Plan to provide an interconnected, convenient, accessible, affordable, reliable, and equitable charging network
- **Indiana EV Goal #6:** Partner with the private sector so Indiana's workforce can support EV infrastructure

Recognizing that Federal guidance requires measurement and quantification of at least one goal, INDOT developed performance measures for two goals. These goals, measures, and targets are provided in Table 5.

Table 5. INDOT EV Implementation Goals

Goal	Performance Measure	Target
#3: Eliminate range anxiety for EVs	Percent of AFCs miles that are within 50 miles of a charging station	100%
	Percent of Indiana's population that is within 40 miles of a charging station	100%
#5: Deliver the EV Plan to provide an interconnected, convenient, accessible, reliable, and equitable charging network	Number of sites implemented, measured over time	TBD*
	Number of ports implemented	TBD*
	Percent of time at least one port is available at all sites	TBD*
	Number of vehicles served at an EV charging site	n/a

**The TBD goals will be dependent on the final number of sites that will be implemented and the amount of funding available each year. INDOT will set a target for the number of sites and ports to be implemented each year.*

5.0 Contracting

5.1 Contracting Approach

INDOT's contracting strategy involves decomposing the various activities involved in EV charging infrastructure build out, identifying the appropriate internal and external stakeholders involved for each, and determining the appropriate procurement method(s) and requirements.

Consistent with Federal guidance and in alignment with INDOT's priorities presented in Chapter 4, INDOT plans to contract with private entities for the design, construction, installation,

operations, and maintenance of EV charging infrastructure. In addition, INDOT may procure program support throughout the five years of the formula program.

At a high level, INDOT's current timeframe for contracting is summarized below. Following approval of its draft plan by FHWA, INDOT will continue to refine this framework throughout late 2022.

Phase I. Develop contracting plan

a. Potential timeframe:
    i. Quarter 4 (Q4) 2022 through Q4 2023
b. Conduct additional planning work:
    i. Further define site selection criteria, utility coordination, procurement support, bid/site evaluation. The work will include program planning and execution for the expected annual authorizations and the scope, number of stations, and other activities and services needed during each year of the program.
    ii. Expand the public engagement plan to accommodate additional, targeted outreach. The updates will also specify activities, schedule and outcomes for future engagement, especially with respect to targeted in-person outreach in DAC areas, with community leaders, and with diversity, equity and inclusion (DEI) representatives from key stakeholder organizations.
c. Key outcomes may include:
    i. Detailed program plan and schedule which can be used to add information to the future updates of this plan
    ii. Complete list of preliminary site locations with criteria such as potential utilization, power availability and readiness, EV traffic, and dwell time, etc.
    iii. Development of site location groupings (whether bundles of multiple sites within a certain region, bundles of multiple sites around the state, or portions of an AFC with multiple sites), and schedule and priority for their procurement, installation, and launch
    iv. Initial utility coordination to identify power providers and requirements to the sites
    v. Initial site design/development of minimum design standards for EV charging stations
    vi. Testing and verification standards for EVSE
    vii. Draft requirements, RFP, and vendor evaluation criteria
    viii. Claw back provisions for underperformance and non-performance

ix. Metrics for DBE participation (as discussed in Chapter 10, INDOT's overall goal for DBE participation is 10.1%; INDOT may also work with their Equity Initiative Service (EIS) division and Chief Equity Officer to develop a specific metric related to DBE participation for EV implementation
x. Metrics for DAC community involvement (as discussed in Chapter 10 and 13, INDOT will measure engagement and benefits to DAC communities. INDOT will develop specific, quantifiable metrics for DAC engagement and involvement in the planning and implementation of the EV infrastructure.)

Phase 2: Implement stations in high demand areas

a. Potential timeframe:
   i. RFP: Q3 2023
   ii. NTP: Q2 2024
   iii. Go-live: Q2 2025 (assuming 12-18 months lead and construction time)
b. General Scope:
   iv. All equipment and services including EVSE (hardware and software, network – including security and cybersecurity), installation, and operations and maintenance (O&M)
   v. Final site selection and site host agreements/right of way (ROW)
   vi. Final site design
   vii. On-site utility coordination (from site to EVSE)
   viii. Installation, construction (including environmental permitting, if necessary)
   ix. Testing
   x. 5-years term for O&M with INDOT defined performance and reporting requirements
c. Assumptions:
   xi. RFP to cover a group of sites (groupings to be determined in Q2 of 2023)
   xii. 20% cost share, from private entities when possible
   xiii. Direct revenue from the charging stations to be returned to the proposing team, in line with Federal requirements
   xiv. Right of way to be secured by the proposing team

Phase 3. Procure and implement stations in other high priority areas

a. Potential timeframe:
   i. RFP: Q3 2024
   ii. NTP: Q2 2025

iii. Go-live: Q2 2026 (assuming 12 months lead and construction time)

b. General Scope:

iv. All equipment and services including EVSE (hardware and software, network – including security and cybersecurity), installation, and operations and maintenance (O&M)

v. Final site selection and site host agreements/right of way

vi. Final site design

vii. On-site utility coordination (from site to EVSE)

viii. Installation, construction (including environmental permitting, if necessary)

ix. Testing

x. 5-year term for O&M with INDOT defined performance and reporting requirements

c. Assumptions:

xi. RFP to cover a group of sites (groupings to be determined in Q2 of 2023)

xii. 20% cost share, from private entities when possible

xiii. Direct revenue from the charging stations to be returned to the proposing team, in line with Federal requirements

xiv. Right of way will be secured by the proposing team

Additional procurements will be held depending on the outcome of the site evaluation and phasing completed in the previous phases. Additional procurements will be conducted as needed during the later years of the five-year program until the AFCs are fully built out.

5.1.1. Plans for Contracting with Private Entities

INDOT plans to use a public-private partnership (P3) model in contracting with private entities. Through this model, INDOT will create a contractual agreement that it enables it to fully leverage private sector expertise and resources. INDOT anticipates the model will require the private sector to share some of the project risks such as design, construction, partial financing, long-term operation, and revenue. INDOT anticipates the P3 contracts will cover final design, installation, construction, and O&M.

While details of the procurement process will not be finalized until Q2 of 2023, INDOT anticipates deploying some combination of design-build-operate-maintain and design-build-operation-maintain-finance contracts.

Small Business

INDOT anticipates the RFP will encourage participation by small business and/or disadvantaged business enterprise (DBE). More information on this topic is provided in the Labor and Workforce section below.

5.1.2 Alignment with Plan Vision and Goals

INDOT will design and implement a procurement process that satisfies several elements of its EV infrastructure vision and goals:

- Collaborate and communicate with customers and stakeholders regarding EV infrastructure deployment
    - *Collaborate with private entities on the implementation of EV infrastructure, to include the data collection necessary to track and report key metrics related to usage and deployment on a regular basis, and to empower INDOT and their partner agencies to share these results with their key stakeholders.*
    - *While private sector cost share is desired, INDOT will consider all options for the 20% cost-share requirement, whether that is offered by private companies, charging providers, site hosts, utility companies, local/county municipalities, or others.*
    - *A shared requirement in private sector contracting mechanisms to participate and collect data regarding the engagement of communities in the infrastructure deployment.*
- Increase understanding of Indiana's position as it relates to the EV industry, and undertake initiatives to collect usage data and advance testing and research in the state
    - *This goal specifically prioritizes the collection of data, a requirement that will flow down to the entities supporting implementation.*
- Eliminate range anxiety for EVs
- Assess vehicle electrification needs as they evolve and update the EV plan regularly to support long-term economic competitiveness and quality of life:
    - *The flexibility to include value-added offerings from private entities proposing on these activities can directly advance Indiana's economic competitiveness and quality of life. Proposals that highlight small business and DBE participation or incentivize and/or train site hosts and localities in the areas of O&M are examples of actions to support this goal.*
    - *In-depth planning and evolution of this implementation plan will help Indiana to incorporate emerging and evolving technologies and expand the program to*

public transit and freight transportation beyond the five years of the Federal grant.

- Deliver the EV Plan to provide an interconnected, convenient, accessible, reliable, and equitable charging network
    - *Detailed planning regarding preliminary site locations, with stakeholder input for the specific site selection (from all entities involved in deployment, including private sector, utilities, communities, and the general public), will ensure that NEVI minimum requirements are met, thus providing convenient and accessible charging infrastructure.*
    - *INDOT will define minimum O&M requirements to ensure reliability and equity in the infrastructure and its network.*
- Partner with the private sector so Indiana's workforce can support EV infrastructure
    - *Indiana's overall contracting approach is the key method by which this goal will be satisfied.*

5.2 Contract Management

INDOT will define the specific procurement method and contract terms in 2023. To ensure efficient ongoing O&M, the contract language will outline a minimum of 5 years of operations and maintenance requirements. The contracts may also include considerations for ownership/operations issues after the 5-year O&M period to ensure sustainable operations and availability after the initial O&M term is over.

Potential contracting mechanisms under consideration include:

- Milestone based payments
- Potential utilization of:
    - Incentives
    - Penalties
- Performance measurement/data collection requirements with regular reporting:
    - Infrastructure operations and maintenance
    - Engagement report to demonstrate collaboration with communities
- Minimum O&M requirements, such as:
    - Site access (24x7 the minimum)
    - Preferred charging fee structure
    - Availability of equitable payment options (i.e. non-card based payment options)

  - Minimum downtime (recent guidance indicates 97%)
  - Minimum response time for intermittent/unplanned repairs (to be defined)
  - Warrant period
  - Equipment cleaning
- Labor and workforce considerations, including contributions to equity and community engagement requirements.
  - Proposals that indicate the voluntary engagement of the communities (both businesses and residents) in their approach may be prioritized.

6.0 Existing and Future Conditions Analysis

This section provides important context for the planning process and addresses several specific topics required by Federal guidance.

6.1 State Geography, Terrain and Climate

6.1.1 Geography and Terrain

Indiana is in the Midwest between Ohio, Kentucky, Illinois, and Michigan. It borders Lake Michigan at its northwest corner and the Ohio River to the south. Since Lake Michigan serves as a barrier to east-west travel and due to its location in the U.S., Indiana is frequently referred to as the Crossroads of America. More interstate highways pass through Indiana than any other state.

Indiana has relatively low elevation overall, with the elevation above sea level ranging from 320 feet at the Ohio River to 1257 feet at Hoosier Hill in Wayne County. Generally, the terrain is flat in the northern and central areas of the state transitioning to rolling terrain and hills in the southern half. Indiana's terrain does not impede or create a challenging environment for general passenger vehicle transportation or EV operations, as both passengers and freight travel freely through and around the state year-round.

6.1.2 Current and Future Temperature and Precipitation

Indiana's climate varies by region, with temperatures typically cooler in the north and warmer in the south. Temperatures can be extreme, from below zero to more than 100 degrees, but typically only for short periods. Indianapolis, near the center of the state, averages 28 degrees

in January and 72 degrees in July. On average, Indiana gets approximately 43 inches of rain and 22 inches of snow per year.[11]

The Indiana Climate Change Impacts Assessment (IN CCIA) describes historical climate trends and provides future projections of how Indiana's climate is likely to change. Some conclusions around climate trends in Indiana referenced in the report[12] include:

- Precipitation: Since 1895, average annual precipitation in Indiana has increased by about 15%, or about 5.6 inches, based on a linear trend.
- Temperature: Similarly, since 1895, Indiana's statewide annual average temperature has risen by 1.2°F, or about 0.1°F per decade. The warming trend has sped up in recent decades. Since 1960, the average annual temperature has risen 0.4°F per decade, with warming trends identified in all four seasons.
- Weather Events: Indiana has about 15 tornadoes per year that rate at least EF1 on the Enhanced Fujita scale, in which EF5 tornadoes are the most damaging. Since 1960, tornadoes have been seen in every month, but mostly in April to June. There is significant variation year to year and no obvious trend in tornado activity.

In general, Indiana's relatively mild climate conditions are welcoming for EV. As with many areas of the U.S., weather could have an influence for short periods during winter since cold temperatures affect battery life and range.[13]

6.2 Land Use Patterns

Land use patterns across Indiana are shown in Figure 3. Approximately 22% of Indiana's population is rural, i.e., occupying locations with a population of less than 50,000. In Indiana, 46 of 92 counties are considered rural.

[11] https://www.weather-us.com/en/indiana-usa-climate

[12] https://docs.lib.purdue.edu/climatetr/2/?_ga=2.261156868.86504781.1654896817-443183128.1653997887

[13] https://www.consumerreports.org/hybrids-evs/how-much-do-cold-temperatures-affect-an-evs-driving-range-a5751769461/

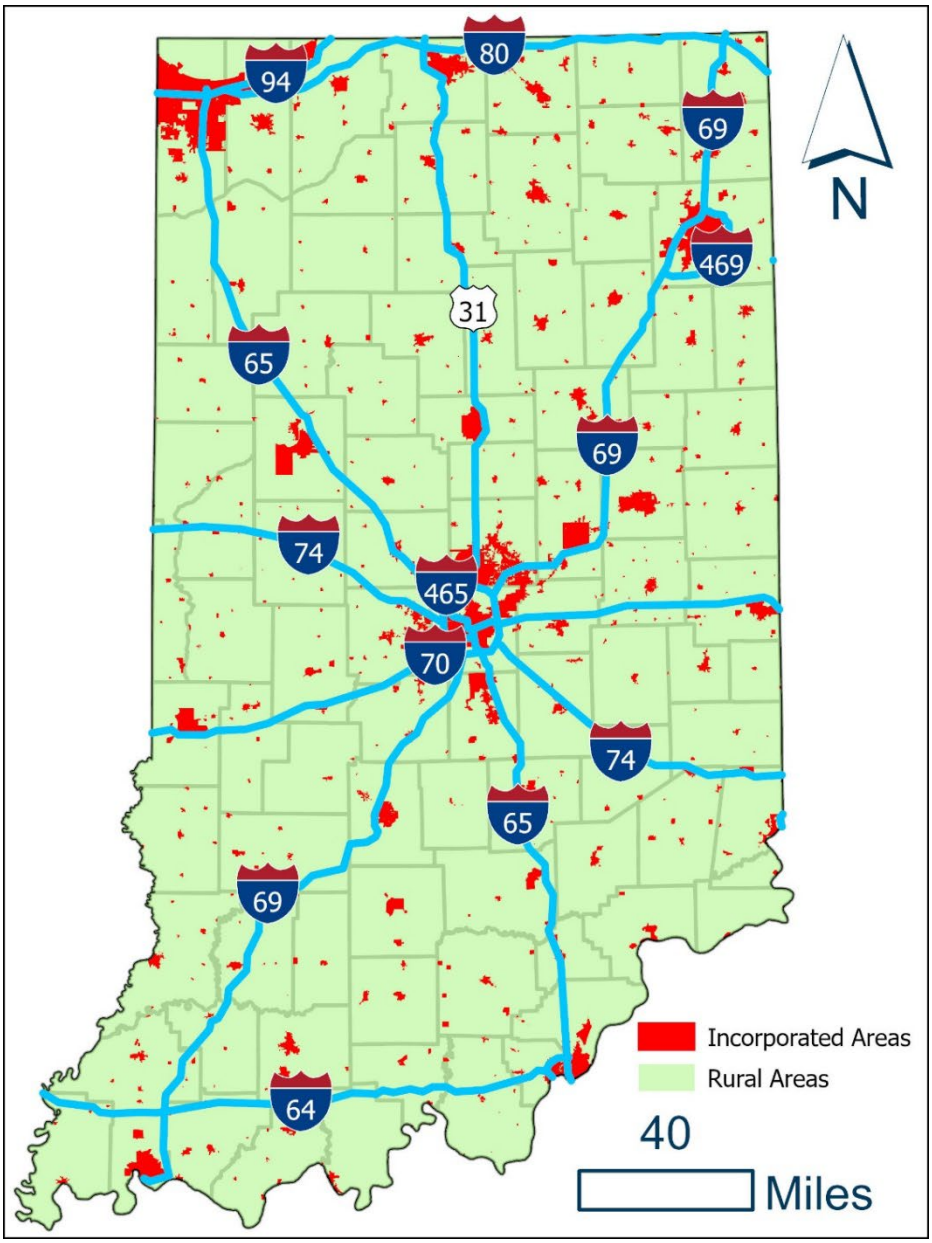

Figure 3. Land Use in Indiana[14]

[14] https://maps.indiana.edu/

Population density is shown in Figure 6 which shows the alignment of the population in and around the incorporated areas shown in Figure 4. The state's population is projected to grow by roughly 660,000 residents by 2050.[15]

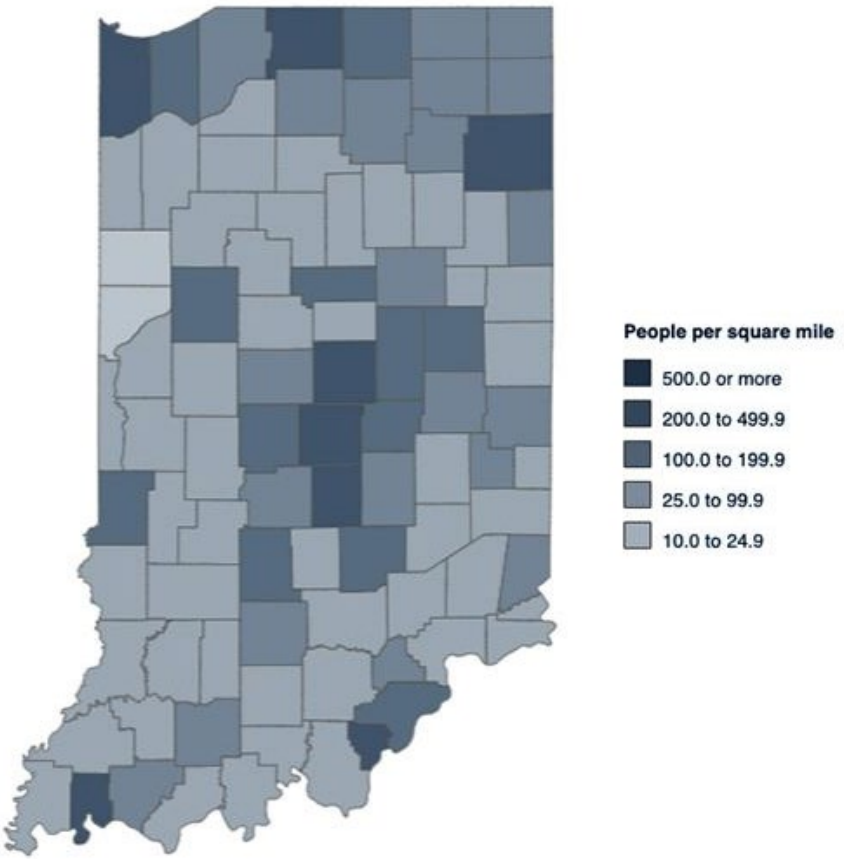

Figure 4. Indiana Population Density (2022)

6.3 EV Market Conditions in Indiana

6.3.1 EV Ownership and Availability

The total light duty EV market in Indiana was around 3% (including battery electric, hybrid electric, and plug-in hybrid EVs) in 2019 (Alliance of Automobile Manufacturers, 2019). The total number of EV registrations as of May 2022 was 6,990[16]. Figure 5 shows the battery and hybrid electric light duty market share in Indiana from 2013-2019. The total EV share in 2019 was 0.68% for battery electric and 2.39% for hybrid EVs. This share in 2019 was higher than the share in 2018 but just under the share in 2013. The majority of EVs are hybrid followed by battery EVs.

[15] https://www.stats.indiana.edu/maptools/projections.asp

[16] https://afdc.energy.gov/data/10962

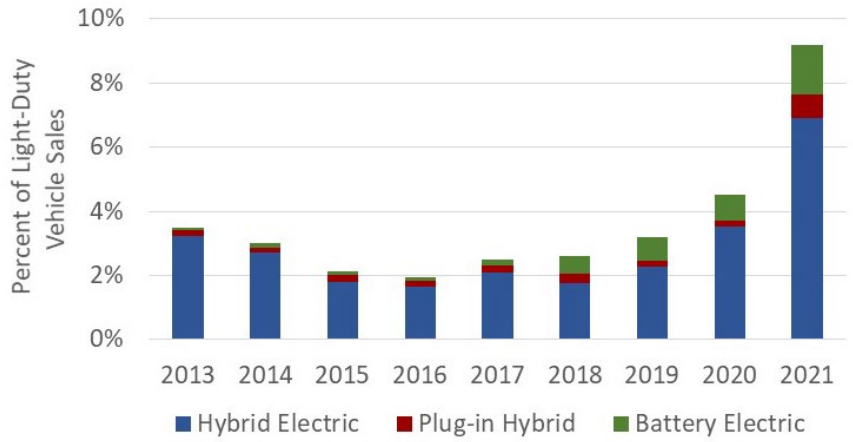

Figure 5. EV Light Duty Vehicle Market Share (2013-2019). Source: Alliance of Automobile Manufacturers, 2019.

Purdue's study "A Strategic Assessment of Needs and Opportunities for Wider Adoption of Electric Vehicles in Indiana", which is being finalized in 2022, concluded there is limited information regarding future trends for EV market penetration in Indiana (see Figure 6). Purdue's SPR 45 Analysis Results analyzed current trend and statistics for EVs in Indiana and concluded:

- There is limited information regarding future trends for EV market penetration,
- There are multiple initiatives in the state that have started to explore green transportation technologies as well as programs with the goal to accelerate EV adoption, and
- There is difficulty in performing real-world projections for the impact of EVs on electric grids.

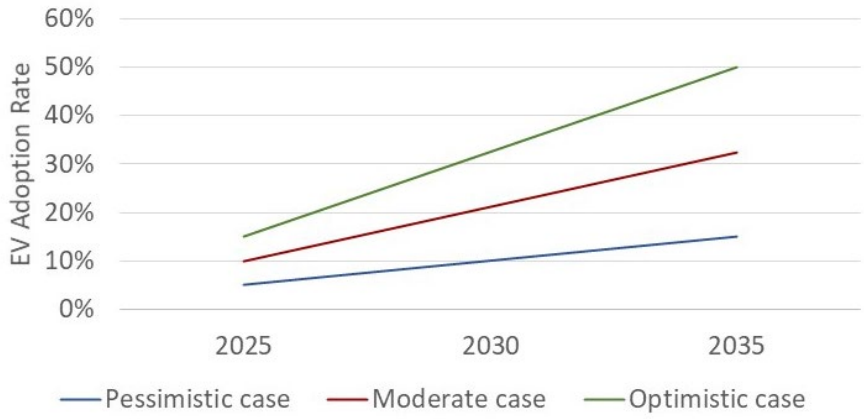

Figure 6. Projected EV Adoption Rate in Indiana. Source: Purdue University 2022

A second study completed for Duke Energy considered two different EV penetration levels between 2030 and 2050. These scenarios include a "business as usual" scenario of modest EV penetration that is based on the Energy Information Administration's (EIA) current estimates of

future EV sales, and a more aggressive scenario based on the EV penetration that would be required to get the state onto a trajectory to reduce light duty greenhouse gas (GhG) emissions by 70-80% from current levels by 2050. Duke estimated EVs could reach from 6% (for the moderate scenario) to 95% (for the aggressive scenario) of the registered vehicles in Indiana by 2050[17]. This wide range is consistent with Purdue's findings that projecting future rates is difficult.

Indiana by the numbers:

- Percentage of registered vehicles that are electric: 0.11%
- Total registered EVs: 6,990 (#25 state overall)
- Number of statewide charging stations: 354 (#29 overall)
- Number of charging ports per 100 EVs: 13.6 (#38 overall)
- Registration fees: $150 annual fee for EVs; $50 for hybrids and PHEVs.

6.3.2 Grid Capacity

Purdue SPR 4509 concluded that grid management and renewable energy integration should be a high priority as EV adoption increases and especially, as electric commercial vehicle adoption increases. Other conclusions noted in this study[18] related to grid capacity include:

- With the current adoption rates, there is currently no need for major grid updates
- Close collaboration between utility companies and the public sector is crucial, especially in the future, with increased adoption rates
- Commercial fleet electrification was the main area for which stakeholders expressed concerns regarding future grid needs
- Grid management would be of high priority as EV adoption increases
- EVs should become a grid asset with technologies like vehicle-to-grid (V2G), on-site energy generation, and on-site energy storage
- Renewable energy should be an integral part of the transportation electrification process

[17] M.J. Bradley & Associates. (2018). Electric vehicle cost-benefit analysis. Plug-in electric vehicle cost-benefit analysis: https://mjbradley.com/sites/default/files/IN%20PEV%20CB%20Analysis%20FINAL.pdf

[18] Konstantinou et al. A Strategic Assessment of Needs and Opportunities for Wider Adoption of Electric Vehicles in Indiana. February 14, 2022.

6.3.3 Electric Utilities

Three types of electric utilities exist in Indiana:[19]

- Investor-owned utility (IOU): private businesses with shareholders
- Municipal: owned and managed by cities and towns
- Rural Electric Membership Cooperatives (REMC): organizations where each customer is a voting member and an owner of the business

For the municipal utilities, an entity called the Indiana Municipal Power Agency (IMPA) jointly finances and operates electric generation and transmission facilities, relying on the purchase of wholesale power and combining it with member-owned generating facilities, member-dedicated generation, and purchased power. Not all municipal utilities are members, although 61 of the 72 are members.[20]

Oversight and regulation are provided by:

- OED (Indiana Office of Energy Development); OED focuses on energy planning, with support for a strong and growing economy. OED was a member of INDOT's EV working group and an active participant in plan development.
- IURC (Indiana Utility Regulatory Commission); IURC ensures utilities provide safe and reliable service at just and reasonable rates. IURC was also a member of INDOT's EV working group.

There are 5 IOUs in Indiana[21]:

- Northern Indiana Public Service Company (NIPSCO)
- AES Indiana (formerly Indianapolis Power and Light)
- Duke Energy Indiana
- CenterPoint Energy (Vectren)
- Indiana Michigan Power (I&M)

Thirty-eight rural electric distribution cooperatives operate in Indiana and generally receive generation and transmission electric services from either Hoosier Energy or Wabash Valley

[19] https://www.in.gov/iurc/files/IURC-Utility-Guide-LoRes_2-min.pdf

[20] https://www.in.gov/oed/indianas-energy-landscape/electricity/municipals/#:~:text=There%20are%2072%20municipally%2Downed%20electric%20utilities%20across%20Indiana.

[21] https://www.in.gov/oed/indianas-energy-landscape/electricity/investor-owned-utilities/

Power Alliance. [22,23,24] Seventy-two municipally owned electric distribution utilities provide electricity in Indiana, and 61 receive generation and transmission services through the Indiana Municipal Power Agency. [25,26] The remaining municipally owned utilities either procure their own power or have contractual arrangements with nearby investor-owned utilities for generation and transmission services.

Figure 7 provides a map showing the location of investor-owned, municipal, and REMC electric utilities in Indiana.

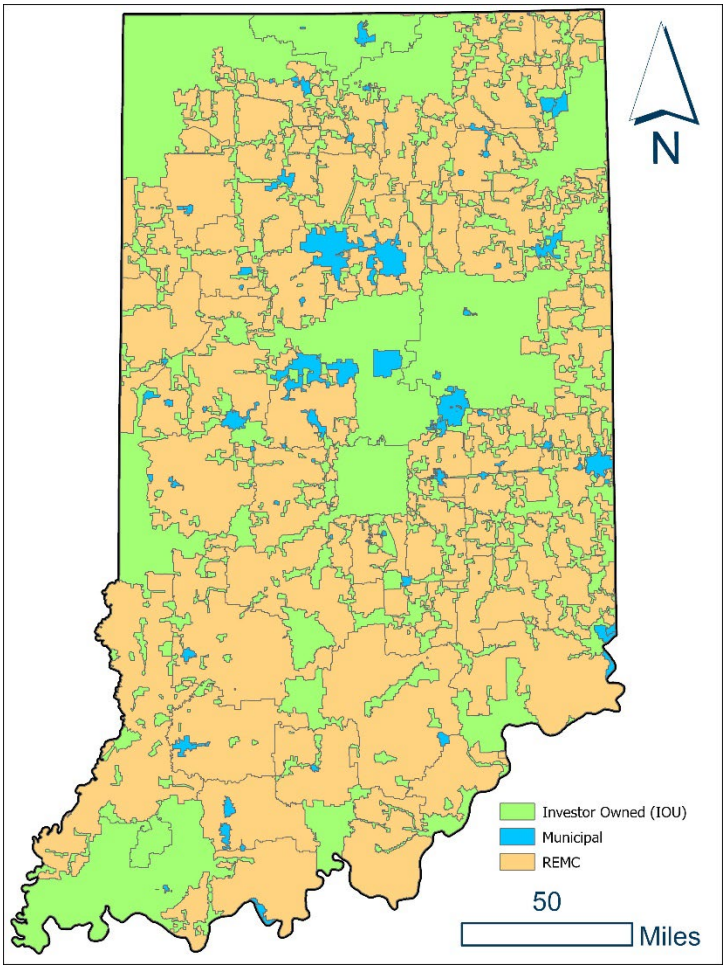

Figure 7. Utility Providers and Service Areas in Indiana[27]

[22] https://www.hoosierenergy.com/about/

[23] https://www.wvpa.com/who-we-are/

[24] https://www.indianaec.org/who-we-are/members/

[25] https://www.in.gov/iurc/energy-division/electricity-industry/

[26] https://www.impa.com/about-impa

[27] https://maps.indiana.edu/previewMaps/Infrastructure/Energy_Electric_Service_Territories.html

Indiana recognizes the critical role of the utility providers in the deployment of EV infrastructure and as such, made efforts to engage directly with the during the development of this plan. Many utilities are engaged in the deployment of EV infrastructure already through their partnership with IDEM and the VW-funded program. IDEM awarded the collaborative effort of eight utilities the most recent VW award for the deployment of sixty-one (61) DC Fast chargers. These projects are currently in various stages of progress from site host agreements through ground-breaking.

Following is a summary of INDOT's outreach to utility providers:

- A May 2022 survey of Indiana's utility companies yield four responses.
- Nine providers attended the three in-person meetings. Attendees at these meetings included:
    - Wabash Valley Power Alliance
    - Bartholomew County REMC
    - Fulton County REMC
    - Northeastern REMC
    - NiSource (NIPSCO)
    - Tipmont Wintek REMC
    - Clark County REMC
    - Hoosier Energy
    - Johnson County REMC
- One-on-one meetings, including:
    - Indiana Michigan Power
    - AES Indiana
    - IMPA
    - Duke Energy

Key feedback noted during these exchanges is summarized below:

- Some but not all utilities noted a willingness and ability to provide local match. Some utilities are proceeding with owning and operating the initial charging stations implanted within the DCFC Utility Group Grant Project funded through the VW settlement. The amount of utility investment would determine if PUC action would be a requirement prior to proceeding going forward.
- All providers expressed that utility groups should be communicated with early and often for EVSE Installation projects, noting that 24-month or more advance notice would be

ideal. The information requested relating to installation projects includes expected load, long term plan, on peak off peak charging times, staged/all on/all off, the anticipated use of the installed infrastructure, and the exact location of proposed stations. A clear timeline for the EV charger in-service date would be beneficial since some electrical components, such as transformers, have substantial lead times (over 1 year).

- Normally new utility-owned lines and equipment will be installed by the company at no cost to the customer, provided that the total estimated cost of the installation does not exceed the estimated revenue for the first 2½ years. If the estimated cost of the installation exceeds the estimated revenue, the customer must pay the difference in advance of construction.
- Utilities estimated investment between $50,000 to $125,000 to serve 600kW per station with locations requiring significant system upgrades totaling greater than $1 million. Upgrades could include new transformers, trenching, concrete/asphalt work, conduit, underground vaults, new conductor, and other miscellaneous equipment to serve the DCFC. Respondents expressed they would not deny an installation from proceeding. However, as expressed above, costs may be prohibitive for the prospective customer at certain locations.
- Most utilities are considering load balances to encourage charging during off-peak times and some are also planning to use metering infrastructure to allow for more load balancing capabilities for customers. There is interest and exploration of off-peak pricing offers through pilot efforts.
- There are resiliency efforts underway across the various utilities in the state. For example:
    - AES Indiana is investing 1.2 billion dollars in grid modernization upgrades to support future load growth and reliability.
    - Duke Energy Indiana is wrapping up a $1.4 billion first round investment in infrastructure, with plans in place to begin, in 2024, a second round of investments over six years and worth 2.1 billion dollars, with $158 million dedicated toward economic development. Other efforts at Duke include:
        - Duke Energy has multiple battery storage locations in service today, including three in Indiana and roughly 10 more within its other regulated service territories.
        - Duke Energy's proposal at the IURC to study and support V2G for school buses and a pilot to test various off-peak pricing offers was just approved.

  - Since 2016, NIPSCO has been investing a total of 2.89 billion dollars across two separate plans, which spreads across a decade, ending in 2026.
  - CenterPoint Energy Indiana (formerly Vectren) is engaged in a seven-year, $446 million effort to upgrade infrastructure and reaffirm reliability across its southwest Indiana footprint, which will conclude in 2024.
- From a DCFC infrastructure standpoint, the utilities believe weather related resiliency should be one among many factors taken into consideration when issuing an RFP for equipment.
- To improve collaboration between DOTs, EV charging station providers, businesses, broadband companies, and utility companies, coordinated group conversations and an information portal, like INDOT's permitting portal, were suggested so that all receive the same information in a timely manner.
- It was noted that maps showing three-phase power in utility service areas are proprietary and sensitive and are not shared externally.

6.4 State Travel Patterns, Public Transportation Needs, Freight and Other Supply Chain Needs

6.4.1 Light-Duty Vehicle / Passenger Travel

Annual average daily traffic (AADT) patterns mimic the distribution of land use and population density in the state, exceeding 47,000 vehicles per day in and around urbanized areas. AADT as of 2019 is shown in Figure 8.

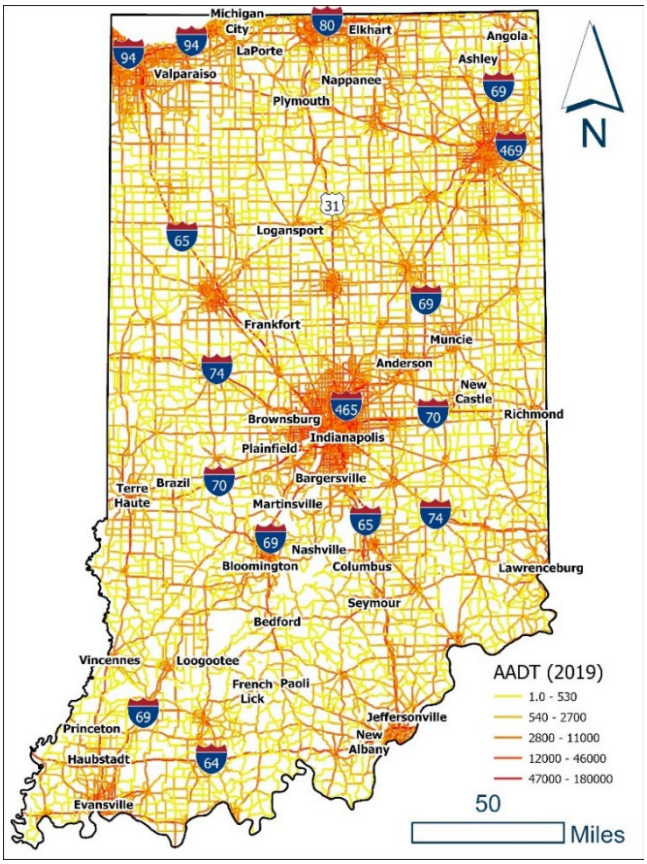

Figure 8. 2019 Travel Patterns (Annual Average Daily Trips) (Source: INDOT)

6.4.2 EV Passenger Travel

Purdue University analyzed the number of trips and the dwell time at all interchanges along Indiana's AFCs using a third-party data set. The top 50 interchanges (as of May 2022) are shown in Figure 9 and Figure 10. Purdue's methodology for this analysis is described in more detail in the September 2021

Journal of Transportation Technologies article.[28] The analysis and results include trips for EV and hybrid vehicles (HV). As expected, the traffic volumes coincide with incorporated, population dense areas.

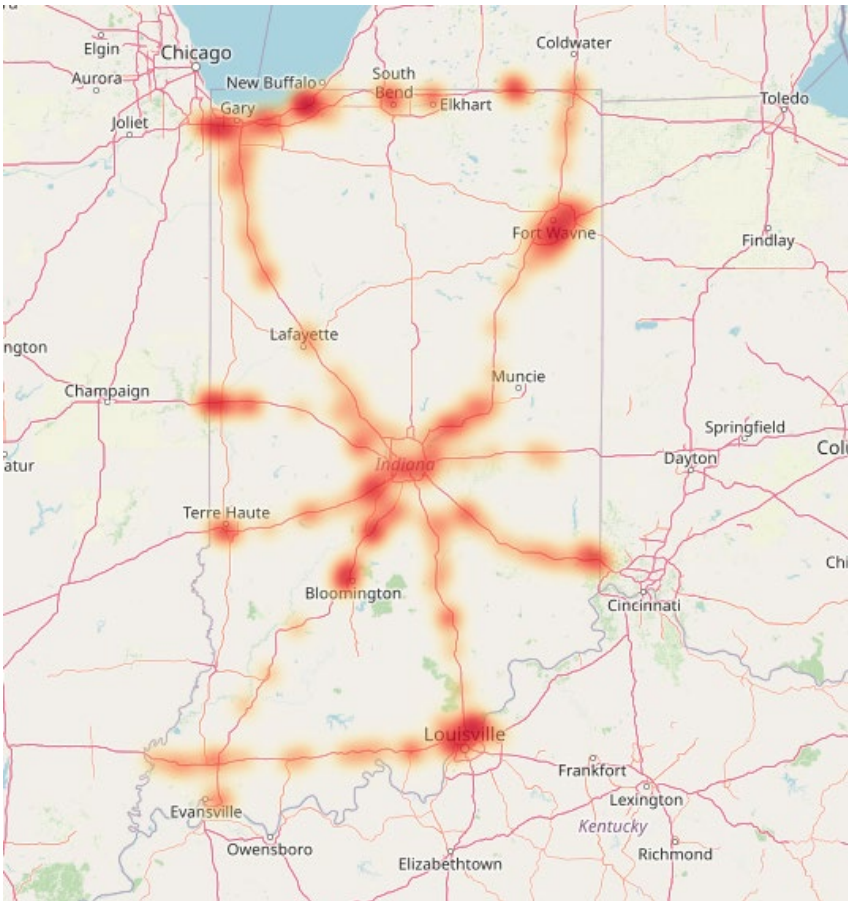

Figure 9. Heatmap of Sampled Connected Vehicle Dwell Sessions (5 mins – 3 hrs) for Indiana's Interstate System (Source: Purdue University)

[28] 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

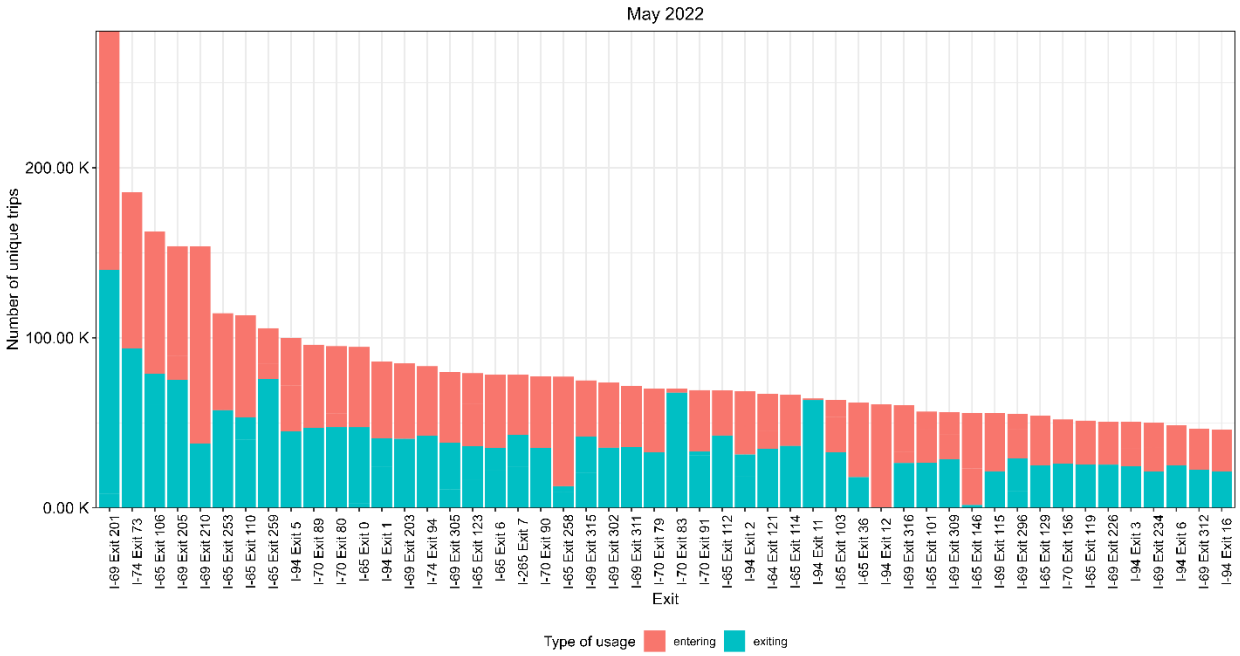

Figure 10. Top 50 Exits Utilized by Sampled Connected Vehicles On Indiana's Interstate System (Source: Purdue University)

Table 6 below shows the number of trips and dwell sessions for each of Indiana's AFCs.

Table 6. Number of Trips and Dwell Sessions by AFC, May 2022 (Source: Purdue University)

Interstate Route	Unique Sampled Trips Utilizing Exits	Dwell Sessions (5mins – 3hrs)
I-64	291,692	1,408
I-65	2,427,481	337
I-69	2,224,051	567
I-70	1,053,975	1,230
I-74	647,349	118
I-90	196,714	248
I-94	817,671	3,743
I-265	240,577	357
I-469	213,963	244

6.4.3 Public Transportation Considerations

There are 63 public transportation providers in the state of Indiana.[29] Three major public providers participated in planning process. These are listed below along with a brief description of their service area and electrification activities:

[29] https://www.in.gov/indot/multimodal/transit/indiana-public-transit-systems/

- IndyGo: IndyGo is striving to become one of the most electrified transit systems in the Midwest.[30] IndyGo currently has 31 electric buses running on its express bus rapid transit (BRT) Red Line. The Red Line is the longest electric bus line in the Midwest. There was a plan for Indianapolis to switch to an entirely electric fleet of public buses by 2035, but this is currently in question due to problems with range. There are also discussions for the upcoming Purple Line addition to the BRT, which is likely to add 30 electric buses. The Blue BRT line is currently in planning and is also likely to be electric or alternative fuel. IndyGo is exploring the potential of wireless/inductive charging capabilities[31] as well as other alternative fuel solutions such as hydrogen. In July 2021, IndyGo and Allison Transmission announced a partnership to deliver 24 electric hybrid buses to the agency for non-BRT service lines, although a delivery timeframe has not yet been publicized.[32]
- Bloomington Transit has received public funding to electrify buses in their fleet. The current fleet consists of 80% diesel vehicles and 20% hybrid. In August 2020, the Federal Transit Administration awarded the local public transit system $3.2 million to purchase electric buses and charging stations, which would allow the city to purchase four buses. As of March 2022, the city has only purchased two, and plans to conduct a study to measure the practicality of electric buses before purchasing more.[33]

Regarding other public transportation efforts around the state, different local EV projects have been initiated. Some relevant highlights include:

- The Indianapolis airport operates nine electric buses serving passengers between the ground transportation center and long-term parking. Buses can handle about 120 miles, which allows an eight to 12-hour shift (Indianapolis International Airport, 2017). Their charging time is about six hours. This project is supported by Federal grants ($3.6M) under the ZEV program along with IDEM's VW trust program awards. In addition to the EV charging stations already on-site for traveler's use, the Indianapolis airport is also installing charging equipment in the cargo handling bays for airline use starting with the VW trust funded project with United Airlines transitioning at least eight cargo "tugs" from diesel to electric.

[30] https://grist.org/sponsored/beyond-the-line-how-an-all-electric-bus-rapid-transit-system-is-transforming-indianapolis/

[31] https://www.indygo.net/indygo-implements-inductive-charging-along-the-red-line-to-charge-buses-en-route/

[32] https://www.wishtv.com/news/local-news/indygo-to-unveil-new-electric-hybrid-bus/

[33] https://www.heraldtimesonline.com/story/news/education/2022/03/28/mccscs-new-electric-buses-may-fare-better-than-bloomington-transit/7077017001/

- Bargersville police department is among the first to implement EVs into its fleet. The fleet includes a 2019 Tesla Model 3 car (May & Clark, 2021). It has been reported that the car will save the department more than $20,000 over the next six years.
- In early 2019, the city of Carmel's police department began switching its fleet of patrol cars from regular gasoline powered vehicles to Ford hybrid interceptors (Carmel Indiana, 2019). This will provide annual savings of nearly $400,000 once the entire 130-car fleet is replaced. There is also a plan to add 41 hybrid police patrol vehicles.

6.4.4 Freight Considerations

INDOT is currently updated Indiana's 2018 Multimodal Freight Plan, with an anticipated publication date of early 2023. The 2018 plan reflects the following key statistics regarding freight – specifically highway – in the state of Indiana:

- Indiana ranks first in the U.S. with 13 pass-through interstates.
- 75% of U.S. and Canadian populations live within a day's truck trip of Indiana.
- 79 billion vehicle miles traveled[34]
- By 2035, freight traffic is expected to increase substantially on state routes and U.S. highways with growth along key freight corridors in the state. The state's highway freight corridors are shown in Figure 11 and projected 2035 truck volumes are shown in Figure 12.

[34] U.S. Department of Transportation, State Transportation Statistics, 2015

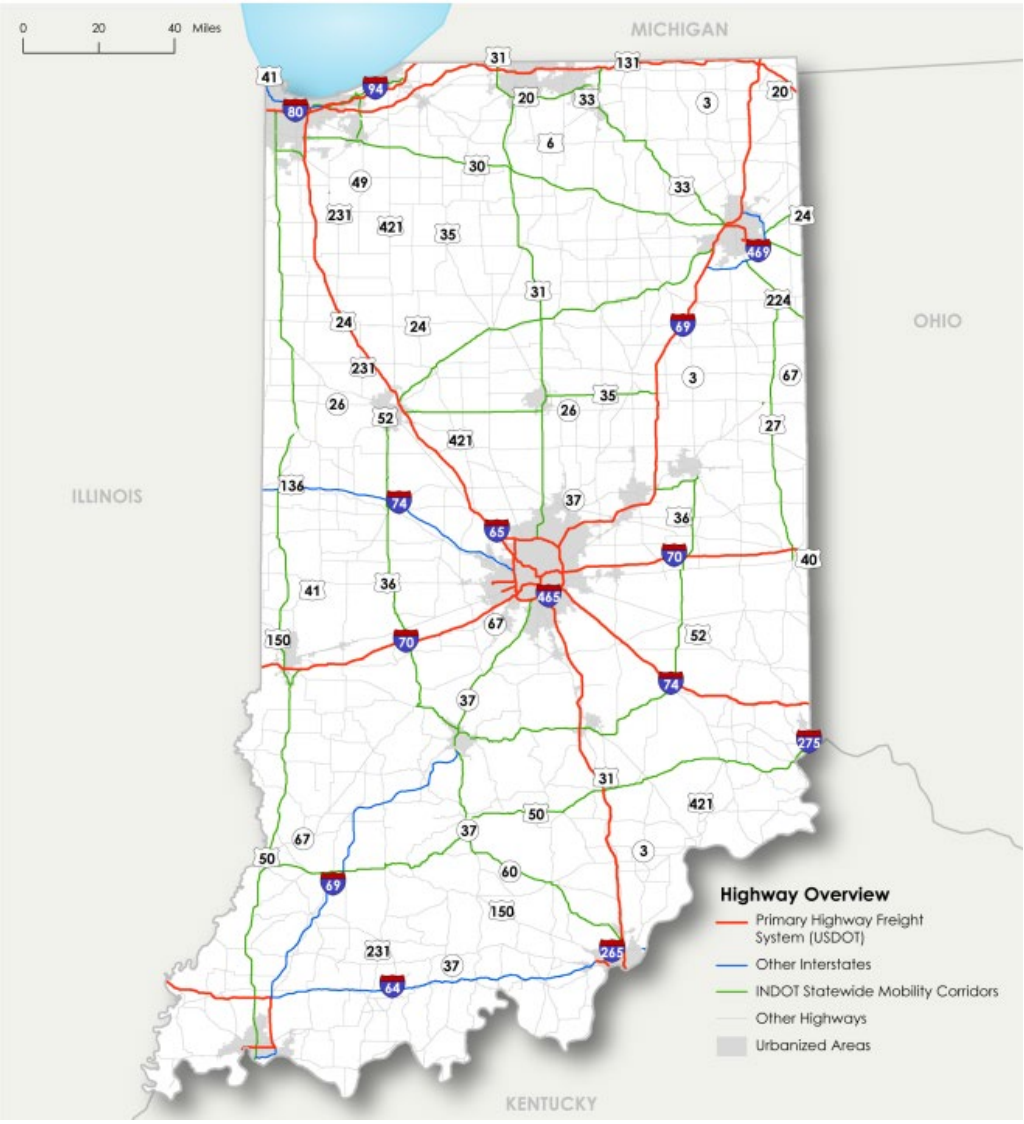

Figure 11. Indiana's Highway Freight Corridors[35]

[35] https://www.in.gov/indot/files/IN2018SFP-Chapter-2.pdf

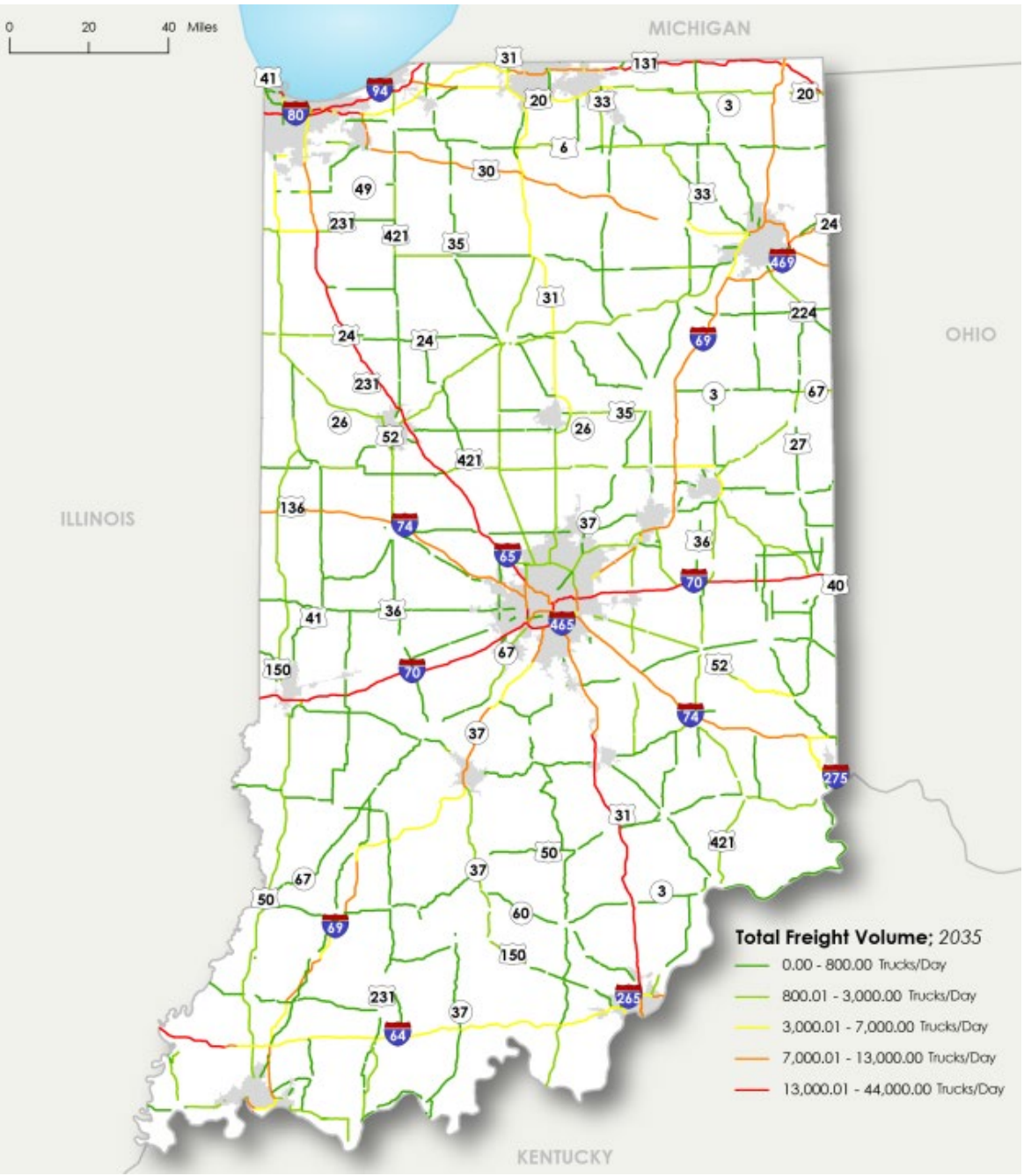

Figure 12. Projected Daily Truck Traffic (2035): Source 2018 INDOT Freight Plan

INDOT has identified several EV considerations that need to be addressed further with freight and commercial vehicle stakeholders through additional engagement. Examples include the location and design of the charging infrastructure that should be considered as part of the NEVI program. The issues mainly revolve around designing with commercial vehicles (especially heavy-duty vehicles, HDV) in mind to future proof the EVSE equipment and station design as well as the power sources that they rely on. The focus on HDV assumes that a majority of light-

and medium-duty fleet and freight EVs that perform local delivery and service would be charged via on-premise infrastructure, whether Level 2 or DC fast chargers.

These considerations include:

- Proximity to freight related infrastructure such as ports, distribution centers, warehouses, and rail yards.
- Gathering and prioritizing the needs of HDV charging (such as turning radius, truck parking, amenities for fleet operators) to identify if and where these needs can be accommodated in preliminary charging station design.
- Deployment of higher power DC Fast Charging, where supported by current and future demand, to accommodate CV needs as technology evolves.
- Incentive programs that accommodate CVs as well as infrastructure and light duty vehicles.
- Utility-related considerations[36], including:
    - Prioritizing DER and DERMS (Distributed Energy Resource Management System) installation requirements at public and private charging locations to support local utility grid resiliency and reliability.
    - Working with utility and charging providers to develop EV charging policies that support commercial vehicle needs including rate design (reduces cost per kWh) and make-ready and charger incentive programs that decrease the cost of infrastructure development.
    - Prioritizing utility upgrades at some preliminary locations [based on anticipated EV HDV adoption] by incentivizing innovative infrastructure solutions such as load monitoring software to prevent peak loading, which results in demand fees, and to manage energy requirements for commercial EV charging.

[36] http://www.calstart.org/

6.5 AFC – Alternative Fuel Corridor Networks

Figure 13 shows the AFCs in Indiana. All of Indiana's nine interstates (I-64, I-65, I-69, I-70, I-74, I-80, I-94, I-465 and I-469) and one US route (US-31) are AFCs.

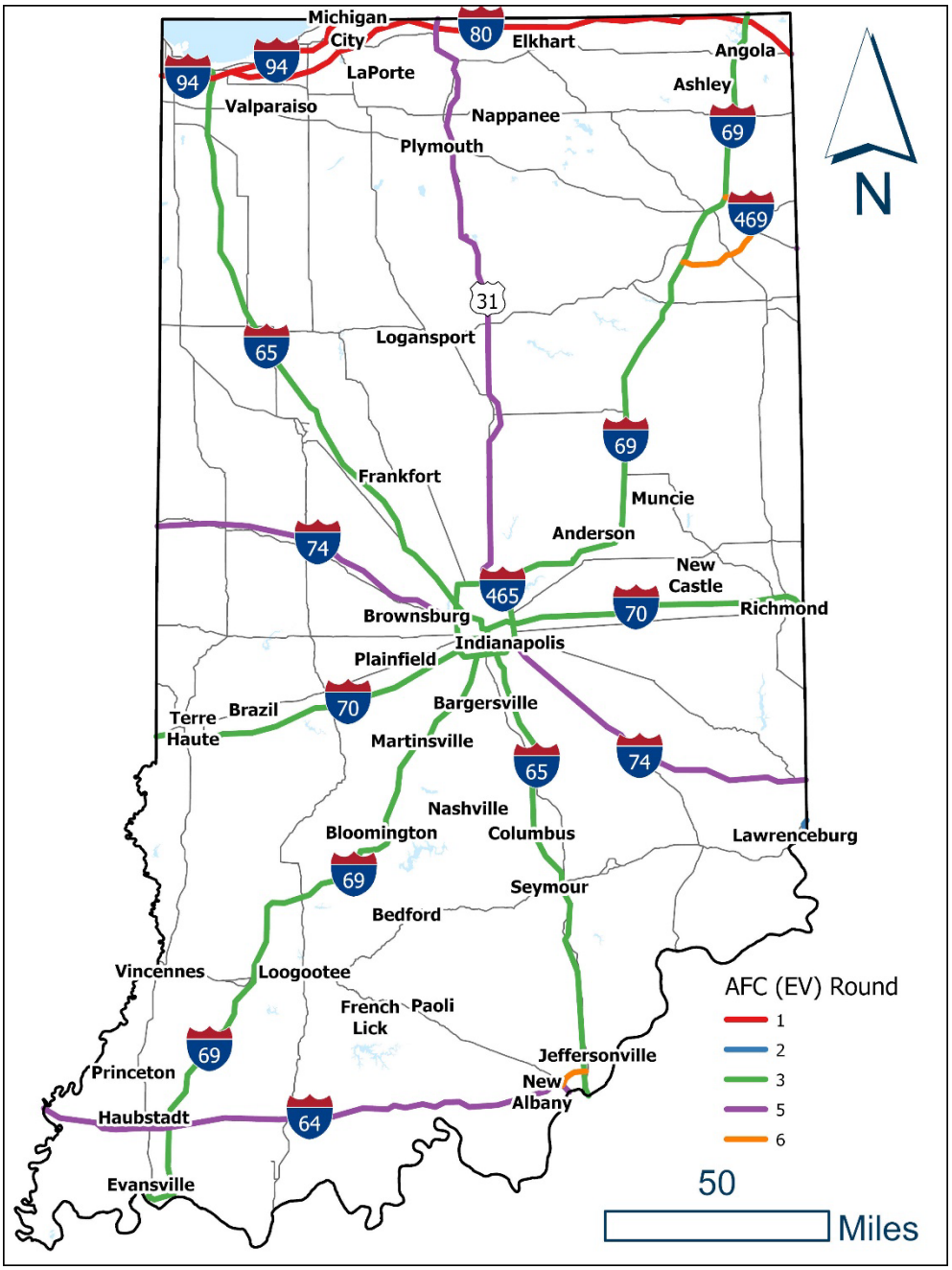

Figure 13. Indiana AFCs

6.6 Existing Locations of Charging Infrastructure Along AFCs

Indiana's EVs are currently served by the state's 325 public charging stations and 892 charging outlets (includes proprietary and non-proprietary providers). These charging stations include DC fast and level 2. These numbers refer to charging stations with public access that can be Federal or state government owned, jointly owned, local/municipal government owned, privately owned, or utility owned. The charging stations are either non-networked or networked with one of the following EV networks: ChargePoint, EV Connect, Blink, Greenlots, Tesla, Electrify America, SemaCharge, and EVgo.[37]

Information dissemination regarding the availability of the current charging station network is available through individual providers. General station information is available through third-party sites such as PlugShare and ChargeHub, through utility providers (such as AES), and on the AFDC fuel corridors page.[38] These sites do not necessarily provide data on availability or reliability of the existing infrastructure.

Regarding Tesla specifically, engagement with Tesla indicates the potential for some of these stations to be opened for public use. Therefore, Figure 14 contains the current locations of Tesla stations. This information also carries through to Chapter 7, where the table of preliminary locations identifies overlap with a current Tesla station. These locations may be opportunities to leverage Tesla infrastructure if it is opened to the public during program implementation.

[37] Alternative Fuels Data Center, n.d-c.

[38] https://afdc.energy.gov/stations/#/corridors

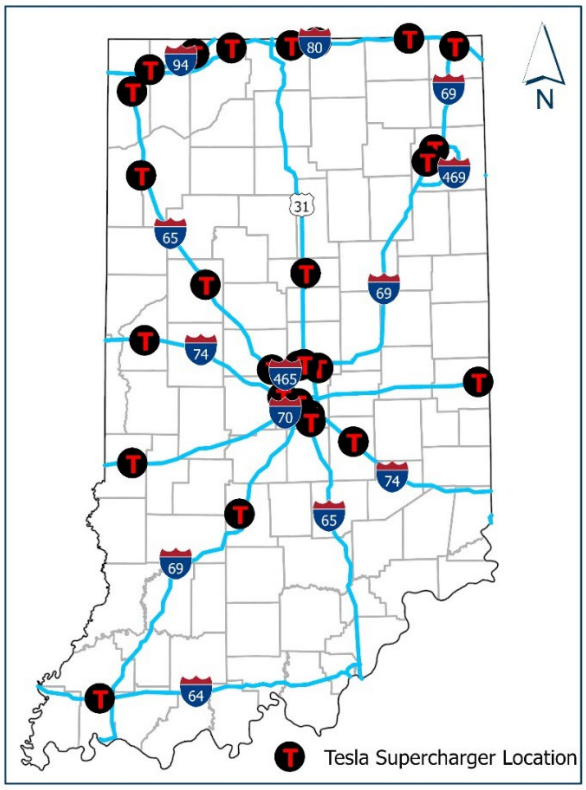

Figure 14. Tesla Supercharger Locations

When removing proprietary infrastructure, there are currently 241 Level 2 and DC Fast Charging stations around the state, as shown in the first map of Figure 15. Of these, 23 stations are DC Fast charging stations. Of those, 4 stations are NEVI compliant (located within 1 mile off an AFC). These stations are show in the third map in Figure 15.

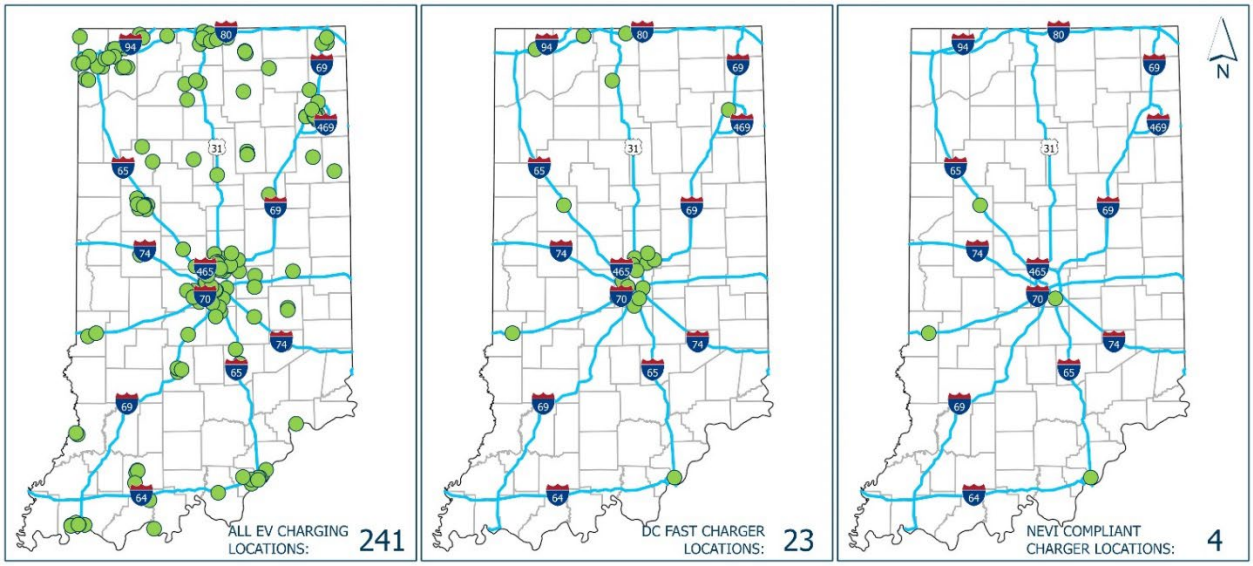

Figure 15. Location of Existing EV Charging Infrastructure in Indiana (Level 2, DC Fast Chargers, NEVI-Compliant DC Fast Chargers)

Figure 16 shows the coverage area of the existing four NEVI-compliant charging stations. The shaded areas represent the 50-mile driving range of each station.

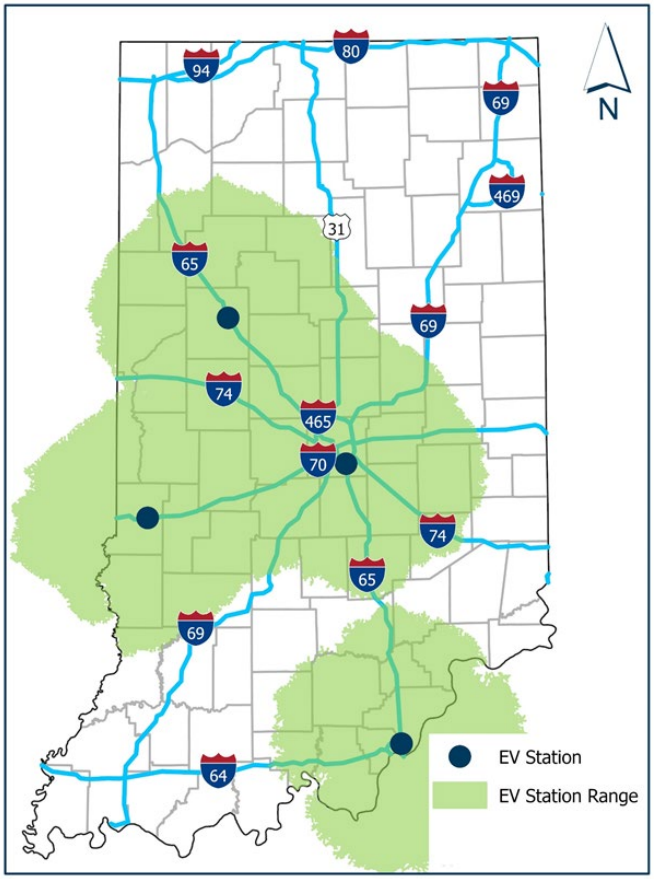

Figure 16. Coverage of Existing NEVI-Compliant Charging Stations

6.7 Known Risks and Challenges

This section defines the known risks and challenges in this early stage of Indiana's EV infrastructure deployment planning. The risks and challenges warrant additional research to identify the likelihood of occurring, impacts, and mitigation strategies. INDOT will complete its risk assessment process after the submittal of this plan. INDOT will develop this risk management approach prior to beginning procurement of any EVSE so that the public and private sector can work together to implement feasible solutions during the deployment process.

Known risks and challenges include:

- Availability and readiness of power to preliminary charging locations, in terms of:
    - Availability of three phase power at preliminary locations

  - Utility coordination and transmission facilities direct to the site
  - Support and resiliency of the distribution networks and substation to the power providing companies
  - Aligning EV charging infrastructure deployment with planned utility upgrades throughout the state
- Overbuilding infrastructure where demand has not indicated a significant need (for either the number of sites or amount of power being provided), especially in rural areas
- Effective management of stakeholder coordination; this is a broad risk that affects many areas including:
  - Final, specific site selection
  - Roles and responsibilities for stakeholders, including site hosts, site operators, Tier 1 and Tier 2 suppliers, utility companies, O&M staff, etc.
  - Definition of equity-related outcomes and benefits
- Uncertainty and availability of technology with respect to EVSE:
  - Potential for rapid technology change in EVSE
  - Ability to meet Buy America requirements for required equipment given INDOT and their state agency partners to utilize U.S. made supply equipment.
    - *IEDC, a state agency partner, indicated in their draft plan review the priority of the BuyAmerica requirement, a priority shared by other state agency partners. A commitment to U.S. made equipment will be carried forward into procurement, and Indiana does not intend to seek exceptions to the requirement, if this is considered by the Joint Office.*
  - Uncertain availability of EVSE and associated components (such as microchips, conduit, fiber, and transformers) due to supply chain issues and increased demand

7.0 EV Charging Infrastructure Deployment

Indiana's plan will leverage the available funding of over $99M ($99,605,738) in formula funding to deploy the appropriate number of stations that satisfy both Federal and state priorities. INDOT will continue to work with state and Federal partners, along with the stakeholders identified in Chapter 3 of this plan, to continue preliminary site selection. INDOT's objective is to identify the appropriate number of stations to develop an effective strategy for operations and maintenance so that Indiana's network of charging infrastructure may self-sustain at the end of the five-year formula program. This section outlines the various elements

of deployment Indiana has begun and will continue to work through in the first year of the program.

7.1 Funding Sources

NEVI program guidance requires 20 percent non-Federal match for the formula funds. As described in the contracting section above, Indiana will require leveraging private-sector matching funds as part of a competitive selection process. Proposing teams could be scored in part based on the percentage of matching funds proposed above the required 20 percent.

Second, INDOT will continue to engage with local, utility, and MPO leadership to identify and understand interest in these entities contributing to the 20% non-Federal match requirements. During initial stakeholder engagement activities, some of these entities indicated interest in a financial investment in EV charging infrastructure. These opportunities are one item that will be considered and potentially added to the evaluation criteria for prioritization of preliminary sites.

Third, Indiana will continue to coordinate with the VW-funded charging infrastructure deployments. If the timing and location of the planned stations align with preliminary locations contained in this plan, there may be opportunity to leverage this funding to upgrade some of these deployments. As with the availability of local entities, MPOs, or utility companies, INDOT will continue to coordinate with the VW-funded projects to identify opportunities for project and potentially funding alignment. Any alignment between the VW-funded stations and the preliminary locations shown later in this chapter are also noted in Table 8.

7.2 Planned Infrastructure Deployments/Upgrades

The EV infrastructure planned for deployment in 2022-2023 is primarily being funded through the Volkswagen (VW) Mitigation Settlement fund, overseen in Indiana by the Indiana Department of Environmental Management (IDEM). The Indiana VW Committee was formed in 2017 to help disburse Indiana's share of the funds from Volkswagen's settlement over clean air violations. While most of those funds were earmarked to be used for HDVs — such as electric school buses, city buses, and heavy-duty trucks — states were able to designate up to 15% for EV charging infrastructure. Indiana dedicated the full 15%, or $6.15 million to charging infrastructure, awarding $600,000 for level 2 chargers and $5.5 million for DC fast chargers. Thus far, there have been two procurements, the second of which was released in May 2022. The specific location of the planned charging stations (and their schedule to be operational) is still being finalized with site hosts and utility companies, but high-level information is presented

in Figure 17 and Table 7. These stations will be installed beginning in late 2022. Installation will continue through 2023 and 2024.

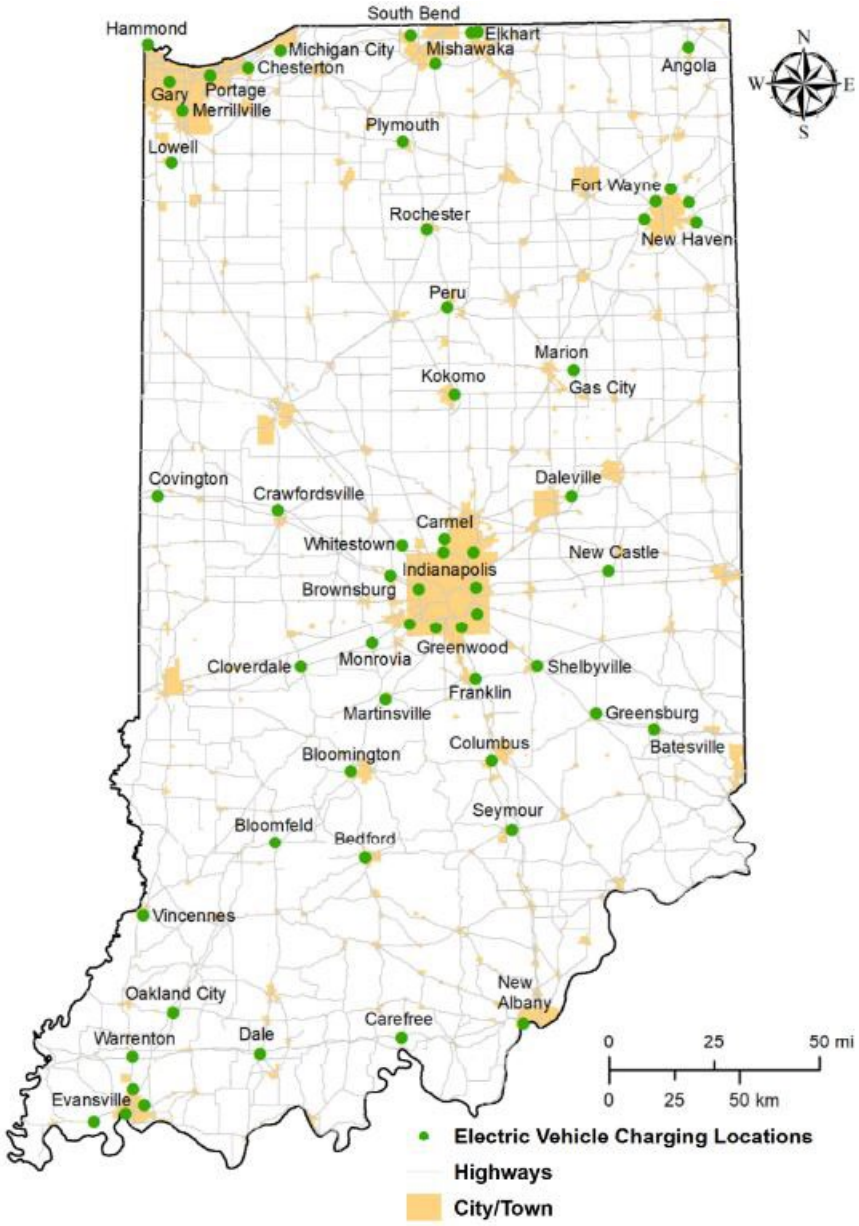

Figure 17. FY22-23 Planned Infrastructure Deployments (VW-Funded)

Table 7. IDEM/Indiana Utility Group - Volkswagen Master EV Fast Charge List - Updated 3/8/2021

#	Site City	Approximate Location	Utility	Amenities	Site Host Contacted	Draft Site Plan Completed	Letter of Support
1	Rochester	US31 & SR25	DUKE	Restaurants, Retail	Yes	Yes	Yes
2	Kokomo	US31 & SR22	DUKE	Restaurants, Retail	Yes	Yes	Yes
3	Franklin	I65 & SR44	DUKE	Restaurants	Yes	Yes	In Progress
4	Columbus	I65 & SR46	DUKE	Restaurants, Retail	Yes	Yes	In Progress
5	Seymour	I65 & US50	DUKE	Restaurants, Retail	Yes	Yes	Yes
6	Bedford	US50 & SR37	DUKE	Restaurants, Retail, Healthcare	Yes	Yes	Yes
7	Bloomington	I69 & 3rd St.	DUKE	Grocery, Retail	Yes	Yes	In Progress
8	Martinsville	I69 & Ohio St.	DUKE	Restaurants, Retail, Grocery	Yes	Yes	Yes
9	Carmel	US31 & Old Meridian	DUKE	Restaurants, Retail, Grocery	Yes	Yes	Yes
10	Cloverdale	I70 & Main St.	DUKE	Restaurants	Yes	Yes	Yes
11	Brownsburg	I74 & N. Green St.	DUKE	Restaurants, Retail	Yes	Yes	Yes
12	Shelbyville	I74 & SR44	DUKE	Restaurants, Retail	Yes	Yes	In Progress
13	Greensburg	I74 & SR3	DUKE	Restaurants, Retail	Yes	Yes	Yes
14	Batesville	I74 & Walnut St.	DUKE	Restaurants, Retail, Grocery	Yes	Yes	Yes
15	Vincennes	US41 & Hart St.	DUKE	Restaurants, Retail, Grocery	Yes	Yes	Yes
16	Carefree	I64 & SR66	DUKE	Restaurants	Yes	Yes	Yes
17	New Albany	I64 & Main St.	DUKE	Restaurants, Retail	Yes	Yes	Yes
18	Dale	I64 & US231	HOOSIER	Restaurants, Hotels	Yes	Yes	Yes
19	Bloomfield - GAP Fill	I69 & US231	HOOSIER	Convenience Store, Hotel	Yes	Yes	Yes
20	New Castle - Gap Fill	I70 & SR3	HOOSIER	Armory, Restaurants, Convenience Store	Yes	Yes	Yes
21	South Bend	I80 & US31	IM	Restaurants, Retail	Yes	Yes	Yes
22	Mishawaka	I80 & Cassopolis St.	IM	Restaurants, Retail	Yes	Yes	No
23	Elkhart	I80WB & Edwardsburg Rd.	IM	Restaurants	Yes	Yes	No
24	Mishawaka	US20 & SR 331	IM	Restaurants, Retail	Yes	Yes	Yes
25	Muncie/Daleville	I69 & SR67	IM	Restaurants, Retail	Yes	Yes	No
26	Marion/Gas City	I69 & SR18	IM	Restaurants, Retail	Yes	Yes	No
27	Fort Wayne	I469 & US30	IM	Restaurants, Retail	Yes	Yes	No
28	Fort Wayne	I69 & SR3	IM	Restaurants, Retail	Yes	Yes	Yes
29	Fort Wayne	I69 & SR14	IM	Restaurants, Retail	Yes	Yes	Yes
30	Fort Wayne	I69 & SR1	IM	Restaurants, Retail	Yes	Yes	Yes
31	Fort Wayne	US24 and SR37	IM	Restaurants, Retail	Yes	Yes	Yes

#	Site City	Approximate Location	Utility	Amenities	Site Host Contacted	Draft Site Plan Completed	Letter of Support
32	Elkhart	I80EB & Edwardsburg Rd.	IM	Restaurants	Yes	Yes	No
33	I74 W	I465 & Crawfordsville Rd.	IPL	Restaurants, Retail, Grocery, Hotel	Yes	No	No
34	I70 SW	I70 & Ameriplex Pkwy	IPL	Restaurants, Retail, Hotel	Yes	No	No
35	I69S	I69 & Southport Rd.	IPL	Restaurants, Retail, Grocery	In Progress	No	No
36	I 65 S	I65 & Southport Rd.	IPL	Restaurants, Retail, Grocery, Hotel	Yes	No	Yes
37	I 74 SE	I74 & Post Rd.	IPL	Restaurants, Car dealer	Yes	No	No
38	I70E	I70 & Post Rd.	IPL	Restaurants, Retail	Yes	No	No
39	I69 NE	I69 & 96th St.	IPL	Restaurants, Retail, Grocery, Hotel	Yes	No	Yes
40	Indianapolis (off I465)	I465 & US31	IPL	Restaurants, Retail, Hotel	Yes	No	No
41	Gary	I94 & Burr St.	NIPSCO	Restaurants, Retail, Wi-Fi, entertainment	Yes	Yes	Yes
42	Chesterton	I94 & SR49	NIPSCO	Restaurants, Retail, Grocery, Convenience Store	Yes	Yes	In Progress
43	Michigan City	US20 & US421	NIPSCO	Restaurants, Retail, Grocery, Convenience Store	Yes	Yes	Yes
44	Hammond	I90 & US41	NIPSCO	Restaurants, Retail, Wi-Fi, entertainment	Yes	Yes	In Progress
45	Portage	I90EB & I94	NIPSCO	Restaurant, Convenience Store, Wi-Fi, Restrooms	Yes	Yes	In Progress
46	Portage	I90WB & I94	NIPSCO	Restaurant, Convenience Store, Wi-Fi, Restrooms	Yes	Yes	In Progress
47	Angola	I69 & SR127	NIPSCO	Restaurants, Retail, Grocery	Yes	Yes	Yes
48	Plymouth	US30 & Oak Dr.	NIPSCO	Restaurants, Retail, Grocery	Yes	Yes	In Progress
49	Merrillville	US30 & SR53	NIPSCO	Restaurants, Retail, Grocery	Yes	Yes	Yes
50	Lowell	SR2 & Clark St.	NIPSCO	Restaurants, Retail, Grocery	Yes	Yes	In Progress
51	Evansville	SR62 & Green River Rd.	Vectren	Grocery, Retail	Yes	No	yes
52	Oakland City	SR57 & Co Rd 350 S.	Vectren	Restaurants, Retail	No	No	No
53	Warrenton	I64 & US41	Vectren	Restaurants, Retail	No	No	No
54	Evansville University Blvd - USI	SR62 & Franklin Rd.	Vectren	Grocery, Retail	Yes	No	Yes

#	Site City	Approximate Location	Utility	Amenities	Site Host Contacted	Draft Site Plan Completed	Letter of Support
55	Downtown Evansville	Vet. Mem. Pkwy & W. Lloyd Expy	Vectren	Restaurants, Retail	Yes	No	Yes
56	Hwy 41 (Evansville airport)	US57 & US41	Vectren	Restaurants	No	No	No
57	Peru	US31 & US24	WVPA	Restaurant, Convenience Store, Wi-Fi, Restrooms	Yes	Yes	Verbal
58	Covington	I74 & SR63	WVPA	Restaurant, Convenience Store, Wi-Fi, Restrooms	In Progress	Yes	No
59	Whitestown	I65 & Whitestown Pkwy	WVPA	Restaurant, Convenience Store, Grocery, Wi-Fi, Restrooms	Yes	Yes	Yes
60	Monrovia	I70 & SR39	WVPA	Restaurant, Convenience Store, Wi-Fi, Restrooms	In Progress	Yes	No
61	Crawfordsville - GAP Fill	I74 & US231	Crawfordsville Muni	Restaurant, Convenience Store, Wi-Fi, Restrooms	Yes	Yes	Yes

7.2.1 Upgrades of Corridor Pending Designations to Corridor Ready Designations

As depicted in Section 6.5 of this plan, the following AFCs are currently considered corridor-ready per the prior definition (every 50 miles and within 5 miles of the interstate) as of 2022:[39]

- I-465
- I-94
- I-80 from South Bend to the IN/IL border

As shown in Figure 18, the remainder of Indiana's AFCs currently have "corridor-pending" status for EV.

Figure 18. AFCs with "Corridor Pending" Status

[39] https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/ready/

The focus of Indiana's efforts during this formula program will be to ensure the state's current "corridor-ready" AFCs are compliant with the new NEVI requirements, as well as upgrading the state's current "corridor-pending" designations to "corridor-ready." This was validated by the RFI results which indicate most respondents support the build out of DC fast and ultra-fast chargers along highways for light duty vehicles.

7.2.2 Increases of Capacity/Redundancy Along Existing AFCs

Indiana's near-term goal will be to prioritize initial investment to resolve charging network gaps in the AFC network, first focused on filling the 50-mile gaps in each corridor (i.e., Indiana's interstate system and US 31). These gaps will be prioritized, with specific criteria and methodology being developed in Indiana's initial planning efforts during the first year of the program. Indiana will continue the selection process for preliminary (candidate) sites, using both a data- and stakeholder-driven approach, as described earlier in this plan.

Adding redundancy or exceeding requirements where demand warrants is one of Indiana's priorities following the resolution of the 50-mile gaps in AFC network as discussed in the Plan Vision and Goals section of this plan. This priority was validated by both the public survey and the RFI responses conducted in April-May 2022.

7.2.3 Electric Vehicle Freight Considerations

As shown in Figure 19, RFI respondents articulated a direct link between DC Fast Charging to support not only public charging along AFCs, but also to support truck charging depots and government and corporate fleets. This will contribute to sustaining the charging stations and scaling them to additional use cases. Certain stakeholders such as the utilities understand that freight considerations are important, but not as urgent currently. If some elements of station infrastructure can accommodate the future needs of freight stakeholders, this helps to future-proof the design. Therefore, freight considerations, especially proximity of final charging locations to freight-significant interchanges, may be considered as INDOT refines the preliminary locations identified in this plan during the first year of the program. This may also be a greater focus of guidance developed for the discretionary grant program, once announced.

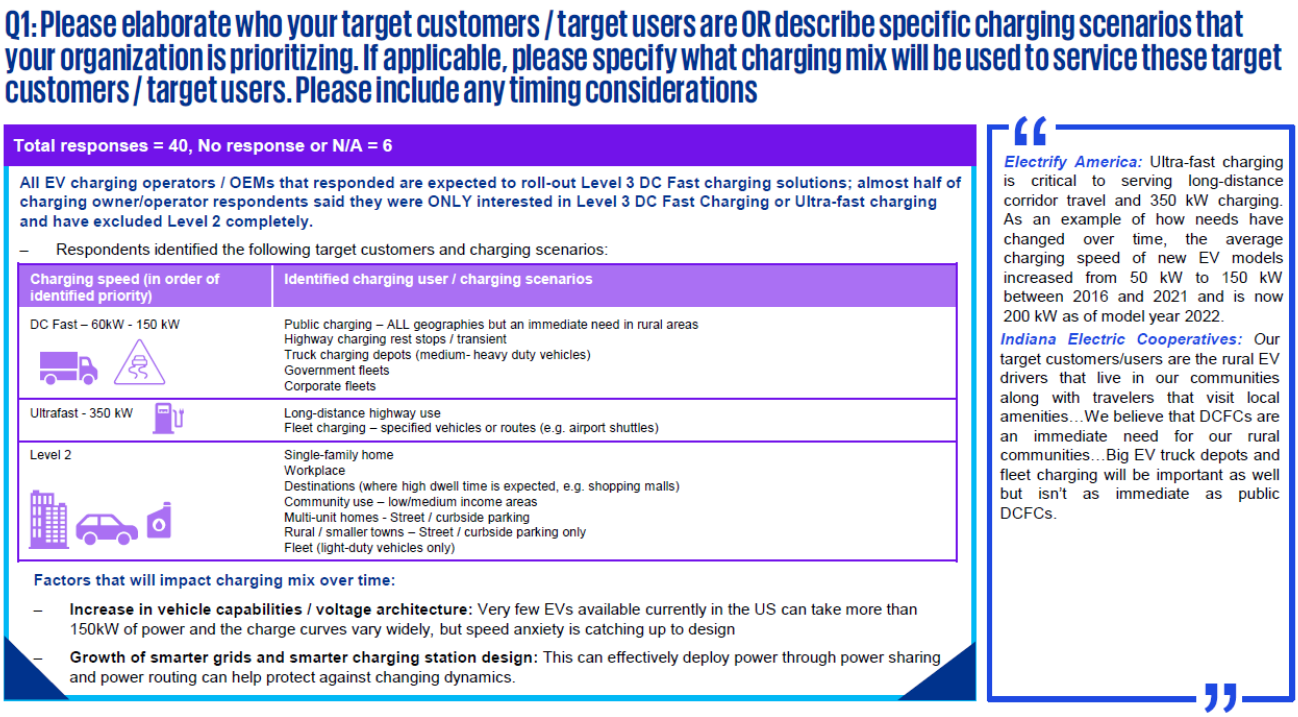

Figure 19. Freight Considerations for EV Charging Implementation

7.2.4 Public Transportation Considerations

For later deployments (FY23-26), RFI respondents did indicate a desire a focused EV build-out for DC fast and ultra-fast chargers along highways for light duty vehicles apart from some municipalities citing a need locally for their bus fleets. An interest in developing Level 2 chargers at residential and workplace locations was also noted. Therefore, public transportation may be a factor in final selection in terms of identifying the most optimal locations.

7.3 FY 23-36 Infrastructure Deployments

VW settlement funds will be used to deploy an additional 61 stations beginning in early 2023 with full buildout expected to be completed by early 2024. The planned locations of these stations are shown in Figure 17.

Additionally, there is private investment that continues to take place. These deployments will be further pinpointed to understand the specific power and design considerations of these stations. For example, Chase Bank announced in April 2022 that they will pilot electric vehicle charging stations at 50 of its branches this summer, including in Indiana, Illinois, and California, among others, providing access to 100kW and 350kW chargers. These stations are expected to

be operational by the end of 2023, although details about the number of stations and their location in Indiana is not yet public information.[40]

Figure 20 below shows preliminary locations that would account for the placement of EV charging infrastructure every 50-miles along the currently designated AFCs.

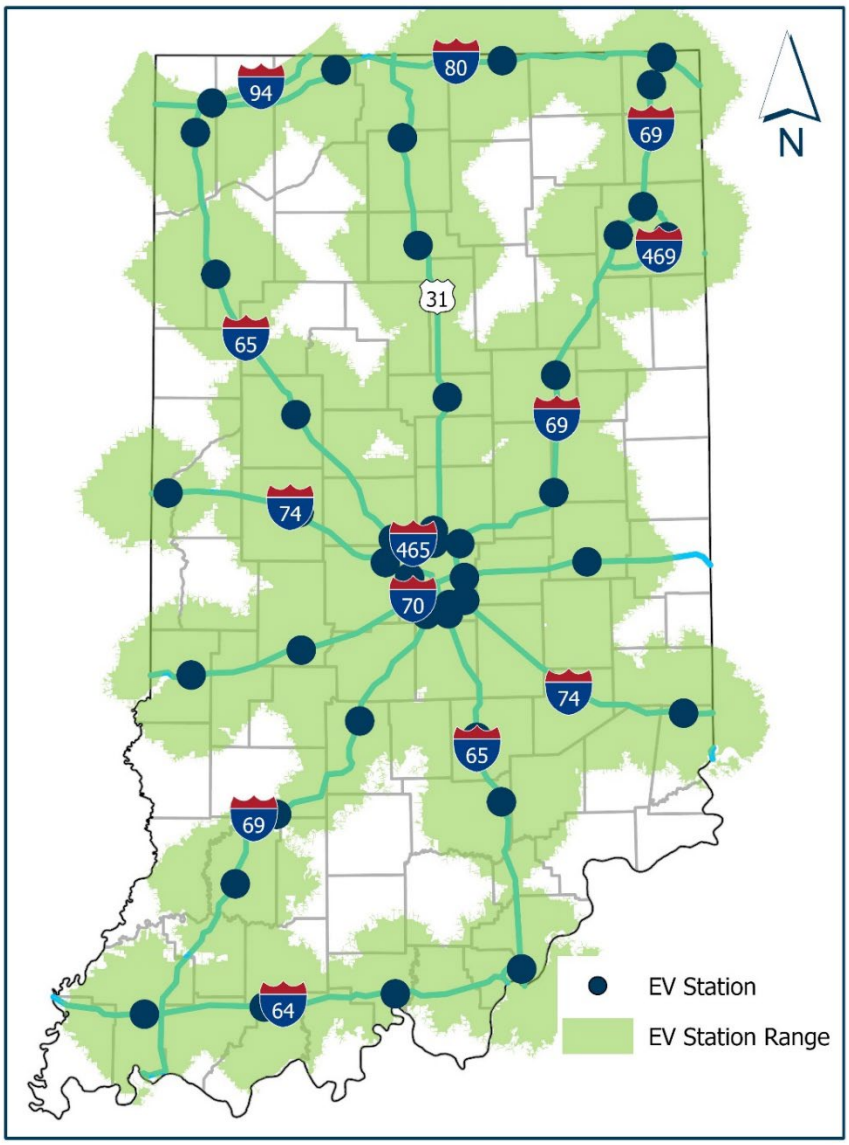

Figure 20. Preliminary EV Charging Infrastructure

[40] https://www.insideindianabusiness.com/articles/chase-to-pilot-electric-vehicle-charging-stations

There are still many details to be determined regarding utility access, anticipated station ownership, and funding per station. Therefore, INDOT has identified a set of alternate station locations in the event that a preliminary location is not feasible due to one of these variables. These alternate locations, identified with yellow dots in Figure 21, may also serve as potential candidates for additional station locations to add capacity near high-use areas.

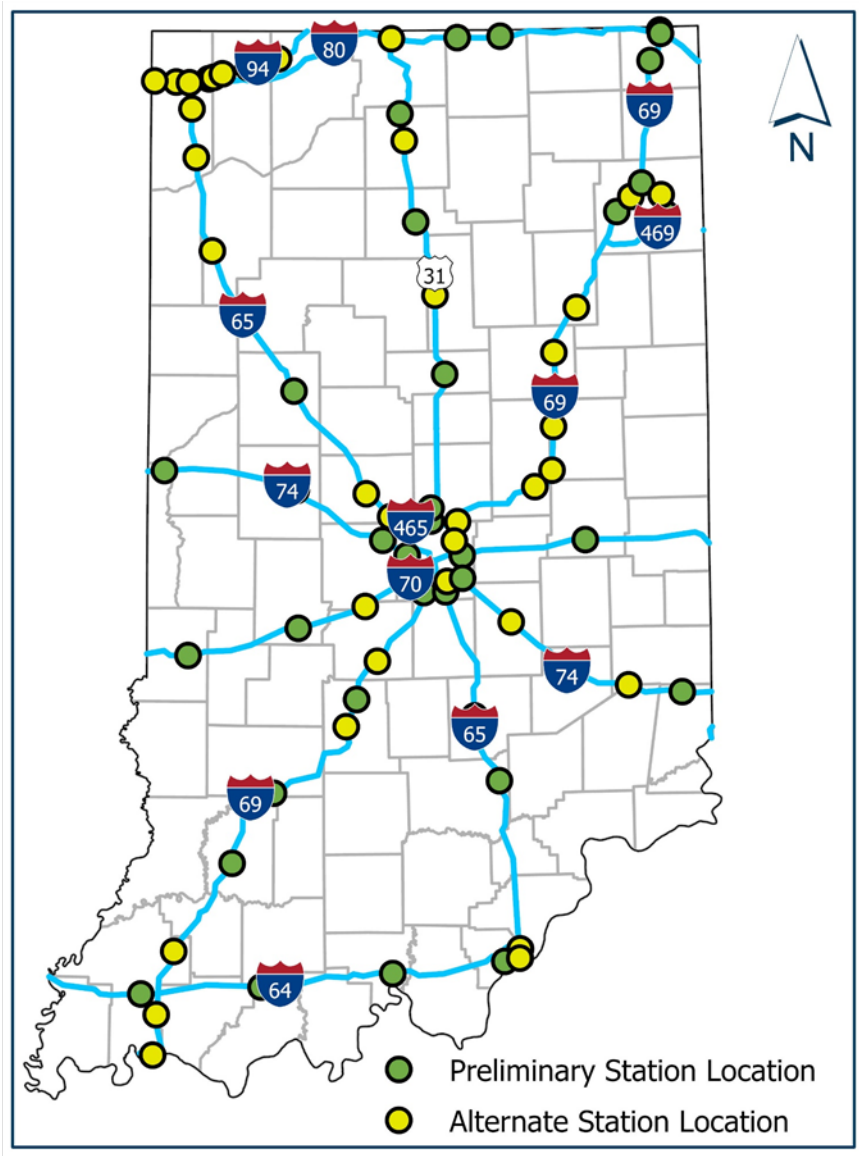

Figure 21. Preliminary and Alternate Station Locations

Table 8 identifies the general location of both the preliminary and alternate NEVI charging station installations shown in the preceding figures. (Maps of each location are provided in Appendix A.) At this point, INDOT has not identified some of the information requested by the guidance including anticipated EV network, utility territory and the potential funding amount.

Likewise, INDOT and their partner agencies have not yet identified specific existing or planned VW locations that may be upgraded to meet minimum NEVI Formula Program standards. These may be identified in the additional planning and preliminary site location analysis to be conducted in the first year of the program.

With some details still to be determined, Table 8 provides a location identifier, AFC and interchange for each location. At this point, anticipated station ownership is all assumed to be private, although this is another item that may change during the procurement process. The table also shows the locations that align with the planned VW-funded and existing Tesla stations.

Table 8. Preliminary and Alternate Locations of EV Charging Infrastructure FY24-26

State EV Charging Location Unique ID	Route (note AFC)	Location	Anticipated Station Ownership	Alignment with VW?	Alignment with Tesla?
I46501601	I-465	Exit 16 /US 136	P	Yes	Yes
I46502701	I-465	Exit 27 /US 421	P	No	No
I46503101	I-465	Exit 31 /US 31	P	Yes	No
I46504001	I-465	Exit 40 /56th St	P	No	No
I46505201	I-465	Exit 52 /Emerson Ave	P	No	Yes
I46901901	I-469	Exit 19 /US 30	P	Yes	No
I46902501	I-469	Exit 25 /SR 37	P	No	No
I06402501	I-64	Exit 25 /US 41	P	Yes	Yes
I06405701	I-64	Exit 57 /US 231	P	Yes	No
I06409201	I-64	Exit 92 /SR 66	P	Yes	No
I06412301	I-64	Exit 123 /State St	P	Yes	No
I06500401	I-65	Exit 4 /Veterans Pkwy	P	No	No
I06505001	I-65	Exit 50 /US 50	P	Yes	No
I06506401	I-65	Exit 64 /SR 58	P	No	No
I06506801	I-65	Exit 68 /SR 46	P	Yes	No
I06510301	I-65	Exit 103 /Southport Rd	P	Yes	Yes
I06513001	I-65	Exit 130 /Whitestown Pkwy	P	Yes	Yes
I06513901	I-65	Exit 139 /SR 39	P	No	No
I06517201	I-65	Exit 172 /SR 26	P	No	Yes
I06521501	I-65	Exit 215 /SR 114	P	No	No
I06524001	I-65	Exit 240 /SR 2	P	No	No
I06525301	I-65	Exit 253 /US 30	P	No	Yes
I06900101	I-69	Exit 1 /Eastern Blvd	P	No	No
I06900301	I-69	Exit 3 /Green River Rd	P	No	No

State EV Charging Location Unique ID	Route (note AFC)	Location	Anticipated Station Ownership	Alignment with VW?	Alignment with Tesla?
I06901501	I-69	Exit 15 /New Harmony Rd	P	No	No
I06902301	I-69	Exit 23 /SR 64	P	No	No
I06906201	I-69	Exit 62 /US 150	P	No	No
I06908701	I-69	Exit 87 /US 231	P	Yes	No
I06911801	I-69	Exit 118 /SR 48	P	Yes	Yes
I06912601	I-69	Exit 126 /Sample Rd	P	No	No
I06913801	I-69	Exit 138 /Ohio St	P	Yes	No
I06916001	I-69	Exit 160 /Southport Rd	P	Yes	No
I06920201	I-69	Exit 202 /96th St	P	Yes	No
I06923301	I-69	Exit 233 /SR 67	P	Yes	No
I06926401	I-69	Exit 264 /SR 18	P	Yes	No
I06927801	I-69	Exit 278 /SR 5	P	No	No
I06930501	I-69	Exit 305 /SR 14	P	Yes	Yes
I06931101	I-69	Exit 311 /US 27	P	Yes	Yes
I06931601	I-69	Exit 316 /SR 1	P	Yes	No
I06934801	I-69	Exit 348 /US 20	P	No	No
I06935701	I-69	Exit 357 /Lake George Rd	P	No	No
I06924501	I-69	Exit 245 /US 35	P	No	No
I06922601	I-69	Exit 226 /SR 109	P	No	No
I07001101	I-70	Exit 11 /SR 46	P	No	Yes
I07004101	I-70	Exit 41 /SR 231	P	Yes	No
I07005901	I-70	Exit 59 /SR 39	P	Yes	No
I07009101	I-70	Exit 91 /Post Rd	P	Yes	No
I07012301	I-70	Exit 123 /SR 3	P	Yes	No
I07400401	I-74	Exit 4 /SR 63	P	Yes	No
I07403401	I-74	Exit 34 /US 231	P	Yes	No
I07403901	I-74	Exit 39 /SR 32	P	No	No
I07406601	I-74	Exit 66 /SR 267	P	Yes	No
I07409601	I-74	Exit 96 /Post Rd	P	Yes	No
I07411301	I-74	Exit 113 /SR 9	P	No	Yes
I07413401	I-74	Exit 134 /SR 3	P	Yes	No
I07414901	I-74	Exit 149 /SR 229	P	Yes	No
I07416401	I-74	Exit 164 /SR 1	P	No	No
I08000101	I-80	Exit 1 /SR 41	P	Yes	No
I08000601	I-80	Exit 6 /Burr St	P	Yes	No
I08001001	I-80	Exit 10 /SR 53	P	No	No

State EV Charging Location Unique ID	Route (note AFC)	Location	Anticipated Station Ownership	Alignment with VW?	Alignment with Tesla?
I08001501	I-80	Exit 15 /SR 51	P	Yes	No
I08002201	I-80	Exit 22 /Travel Center	P	Yes	Yes
I08002601	I-80	Exit 26 /SR 49	P	Yes	No
I08005601	I-80	Exit 56 /Travel Center	P	No	Yes
I08007201	I-80	Exit 72 /US 31	P	Yes	No
I08009001	I-80	Exit 90 /Travel Center	P	Yes	Yes
I08010101	I-80	Exit 101 /SR 15	P	No	No
I08014401	I-80	Exit 144 /I-69	P	No	No
I09401901	I-94	Exit 19 /SR 249	P	No	No
I09403401	I-94	Exit 34 /US 421	P	No	No
U03112701	US-31	Exit 127 /W Main St	P	Yes	Yes
U03116201	US-31	Exit 162 /SR 22	P	No	Yes
U03118301	US-31	Exit 183 /US 24	P	Yes	No
U03120301	US-31	Exit 203 /SR 25	P	Yes	No
U03122501	US-31	Exit 225 /US 30	P	No	No
U03123301	US-31	Exit 233 /US 6	P	No	No

7.4 State, Regional, and Local Policy

Relevant state regional and local policies regarding EV charging infrastructure are provided below. INDOT will reference these policies as required during contracting, procurement, and plan updates.

7.4.1 State Policies Related to EV

- States legislature
    - HB 1221 – Electric Vehicles and Electricity Pricing (signed into law March 2022. Public Law 94.)
    - HB 1220 – Establishes the 21st Century Energy Policy Development Taskforce (signed into law April 2021. Public Law 131.)
    - HB 1168 – Establishes the Indiana EV Product Commission (signed into law April 2021. Public Law 128.)
- Utilities
    - Indiana is a traditional utility regulation state, meaning state laws allow energy public utility monopolies and provide for regulatory oversight. With this

exclusive service territory for utilities, comes an obligation to meet all requests for service within a utility's service territory with prices, terms, and conditions of service set by the regulatory agency. In Indiana, the regulatory agency is known as the Indiana Utility Regulatory Commission (IURC).[41]

7.4.2 Regional Policies Related to EV

INDOT will continue engagement with external partners to collaborate on regional policy and continue coordination of EV infrastructure buildout. These efforts will include:

- Continued work with REV Midwest Coalition. The REV Midwest Coalition is an MOU between the states of Illinois, Indiana, Minnesota, Michigan, and Wisconsin signed in September 2021 that creates a regional framework to accelerate vehicle electrification in the Midwest. REV Midwest provides the foundation for cooperation on fleet electrification along key commercial corridors to safeguard economic security, reduce harmful emissions, improve public health, and advance innovation. REV Midwest will future proof the region's manufacturing, logistics, and transportation leadership and position the region to realize additional economic opportunity in clean energy manufacturing and deployment.

- Continued participation in Mid-America Association of State Transportation Officials (MAASTO,) especially the EV working group. This engagement has been ongoing and will continue to share best practices and lessons learned and understand the progress of member states as they work toward implementation of NEVI-compliant infrastructure build out.

- Continued work with the Lake Michigan Electric Vehicle (EV) Circuit Tour. Established through an MOU, this Tour is a multistate collaboration project between Illinois, Indiana, Michigan, and Wisconsin to build the best new road-trip for EV drivers in America. The states will work together with a united effort to design, facilitate the development, maintenance, and marketing of a scenic route with reliable light-duty vehicle charging options along the Lake Michigan coastline (the "Lake Michigan EV Circuit Tour"). The Lake Michigan EV Circuit Tour will target electric vehicle service equipment (EVSE) installations at key coastal communities and tourism attractions such as event venues, parks, lighthouses, resorts, lodging, eateries, and small businesses. The Tour's main goal is to link the new EVSE sites together with existing charging

[41] https://indianaenergy.org/energy-overview-public-utility/

infrastructure networks at tourist attractions in population centers along the Lake Michigan EV Circuit Tour route.

- With initial one-on-one meetings held with Indiana's immediate neighboring states during the development of this plan, INDOT will also plan for regular coordination calls (at least annually) with border states Michigan, Ohio, Kentucky and Illinois. The purpose of these calls will be to continue coordination as site selection moves from preliminary to final to ensure proper placement of infrastructure.

7.4.3 Local Policies Related to EV

Local policies will be reviewed with respect to the zoning and permitting required for the final sites that are selected. As such, stakeholder engagement with these entities will continue during the planning process as site selection proceeds. INDOT has compiled a list of example local policies that represent both best practices and roadblocks that can require additional time to resolve. These examples provide a representative sample of local policies that deployment teams can expect to encounter:

- Examples of supportive policies:
    - City of Bloomington Climate Action Plan EV goals: Strategy TL 2-B: Support and encourage electric vehicle and alternative fuel (hybrid/ hybrid electric, plug-in hybrid electric) vehicle adoption citywide. [42]
    - Bloomington MPO 2045 Metropolitan Transportation Plan "The community further supports the installation of additional electric vehicle charging stations within the urban area in preparation for a new generation of personal, commercial, and fleet vehicles." [43]
    - Unified Development Ordinance [44]
- Example of local funding sources:
    - Local Income Tax[45]
    - Local Infrastructure Bonds[46]

[42] City of Bloomington Climate Action Plan EV goals

[43] Bloomington MPO 2045 Metropolitan Transportation Plan

[44] Unified Development Ordinance

[45] Local Income Tax

[46] Local Infrastructure Bonds

8.0 Implementation

INDOT envisions a phased approach to deploying EV charging infrastructure along the AFCs. The steps below are outlined at a high level in these early stages. INDOT will repeat the detailed planning process in some fashion for each phase of sites that are procured.

8.1 Strategies for EVSE Operations and Maintenance

8.1.1 Planning: INDOT Lead

Since the announcement of the Federal NEVI program, INDOT has considered their role in implementation. Ultimately, INDOT will facilitate the integration of EV charging infrastructure into statewide transportation through a careful and considerate planning process. INDOT will lead the process during the first year of the program, with the additional stakeholder engagement necessary to move from preliminary to final site selection, structure and execute a competitive, vendor-agnostic procurement. INDOT's initial planning efforts will include:

- Develop and implement a methodology to evaluate and prioritize the preliminary sites
- Compile and analyze additional data as needed to support the prioritization process, such as:
    - Location of key tourist and visitor destinations, both public and private
    - Location of health care facilities
    - Location of job centers
    - Locations of major truck stops and truck parking areas
    - Location of major transportation hubs, both public and freight transportation focused
    - County boundary locations
    - Average Annual Daily Traffic (AADT) and vehicle miles travelled (VMT) for both traditional and EVs.
    - Utility coverage areas
    - Vehicle registration data
- Develop high-level site design and site requirements
- Conduct additional engagement with DAC communities. The first year of program will expand outreach efforts to:
    - Include more in-person meetings in DAC communities and with the community- and faith-based organizations within them

  - Engagement of INDOT's Chief Equity Officer (within the EIS office) to define measurable outcomes
  - One-on-one meetings with DEI representatives from public and private stakeholder companies to help define outcomes and share best practices and lessons learned
  - Expansion of DAC and DEI stakeholders; for example, INDOT has already arranged a one-on-one meeting with EVNoire after plan submittal to engage in conversation about engagement practices and implementation ideas relative to equity and EV infrastructure
- Develop collaboration tools and forums to foster public-private partnerships and understand potential risks and opportunities that may inform the procurement process
- Develop minimum operations and maintenance requirements, including but not limited by the guidance in the NEVI Notice of Proposed Rulemaking (NPRM) released on June 8, 2022:[47]
  - Site access (is 24x7 the minimum)
  - Preferred charging fee structure
  - Requirement for equitable payment options (i.e., non-card-based payment options)
  - Minimal downtime
  - Response time for intermittent/unplanned repairs
  - Equipment Certification (per NEVI guidelines):
    - EVSE certified by an Occupational Safety and Health Admin National Testing Lab
    - LII EVSE Energy Star Certified
  - Warranty
  - Equipment cleaning
- Outcomes:
  - Procurement plan to document schedule and approach
  - Draft RFP
  - Site selection criteria
  - Update(s) to EV Implementation Plan
  - Updates to AFC nominations, if necessary

[47] FHWA (23 CFR Part 680 [Docket No. FHWA-2022-0008] RIN 2125-AG10)

8.1.2 Procurement: INDOT Transitions to Private Sector

INDOT will manage and execute the procurement for EV charging infrastructure. INDOT envisions a competitive procurement process for EVSE installation, operations, and maintenance. Using the procurement plan and approach created in the planning process, INDOT will determine the number, type, and schedule for each procurement/contract. INDOT anticipates there will be multiple procurements over the five years of the program.

INDOT will evaluate potential requirements in the following areas:

- Availability/provision of spare parts inventories
- Maintenance procedures, including seasonal and snow removal considerations
- Expanded safety protocols
- Availability of skilled labor
- Commitment to using local labor and offering training opportunities to engage them.
- Availability of data related to state and national performance measures including how and how often it is provided. For example:
    - Real-time operational feed
    - Publicly available metrics
- Processes for incidents and maintenance inspections
- Processes for software and hardware updates
- Innovative cybersecurity practices
- Use of independent verification of station performance
- Availability of an asset information and tracking mechanism
- Outcomes:
    - Regular reporting of key metrics (as defined by NEVI guidance)
    - Continued identification of potential exceptions and charging stations that may be upgraded (based on usage)
    - Continued engagement to gather stakeholder feedback

In some cases, INDOT may formalize these issues into contractual requirements. In others, INDOT may use them when evaluating the proposals that provide value beyond the minimum requirements. Key outcomes of this phase will be:

- RFP(s)
- Contract(s)

8.1.3 Installation, Operations and Maintenance: Private Sector with INDOT Oversight

After procurement, INDOT's primary role will be to manage the contracts and provide oversight throughout the O&M phase. INDOT will also monitor the performance of the charging infrastructure and update the Deployment Plan as needed throughout the life of the program.

8.2 Strategies for Identifying Electric Vehicle Charger Service Providers and Station Owners

In preparation for procurement, INDOT will engage EV charging service providers, installation/construction entities, local communities, utility companies, and potential site hosts is a key area where INDOT can provide support and build relationships. During the in-person meetings described earlier in this document, INDOT heard a need and desire from various stakeholders to continue participating. They are interested in events that help to inform the final station locations and potential partnerships to bid on the installation, operations, and maintenance. Therefore, INDOT's strategies are rooted in a robust engagement strategy. They include:

- Regular and frequent communication:
    - Coordinating with vendors, suppliers, site hosts, etc. – each with targeted outcomes:
        - Vendors: business models, operations, and maintenance criteria
        - Suppliers: opportunities for complementary infrastructure
        - Site hosts: moving from high level to specific locations
    - Soliciting feedback on site selection methodology and phasing
    - Identifying cost-share opportunities
- Tools and methods to encourage communication and facilitate teaming:
    - Web page available through INDOT
    - Potential vendor prequalification (development of criteria and list of vendors)
    - Industry forums, vendor days and/or open house that provide networking opportunities
    - Regular information sessions to report status and notify stakeholders of opportunities for engagement
    - Mailing list and social media campaigns

- Competitive and transparent procurements within the boundaries of the final procurement approach

8.3 Strategies for EVSE Data Collection and Sharing

INDOT will define data requirements that align with Federal requirements and INDOT goals and performance measures during the planning process. INDOT will vet draft requirements with stakeholders during additional engagement efforts. Final requirements will be included in the procurement process to support contracting, performance monitoring, and potential innovation. INDOT will develop data strategies to accomplish the following:

- Align with recent NPRM (6/8/22) to the extent possible
    - Continue engagement with EVSE vendors and suppliers and utilities to understand implications of the data and reporting frequency required
- Define data sharing requirements and expectations for companies who will be supporting implementation, operations, and maintenance for inclusion in contracting documents
- Monitor operational performance, such as equipment down time and contractor response time
- Monitor trends and conditions impacting future deployments, such as:
    - Charing station usage
    - Adoption rates
    - EV vehicle miles travelled
    - EV traffic assessment along AFCs (including most travelled interchanges and dwell times)
    - Land use
    - Utility and roadway improvements
- Track and report the progress of plan implementation

8.4 Strategies to Address Resilience, Emergency Evacuation, Snow Removal and Seasonal Needs

When developing the procurement documents, INDOT will evaluate potential strategies related to the resiliency of future EV charging infrastructure and, when appropriate, incorporate them into the procurement process and/or subsequent plan updates. Examples include:

- Resilience:
    - Considerations for complementary renewable energy alternatives such as solar panels
    - Considerations for energy storage capacity to provide backup options such as solar power, generator hookups, and battery storage and recycling.
    - EVSEs who can help adapt to areas lacking necessary power
    - Encouraging and prioritizing innovative maintenance procedures – see list above related to asset management systems, etc.
- Evacuation:
    - Prioritization of AFC build out
    - Consideration for additional AFCs (such as US 30) to fill remaining gaps
    - Coordination with neighboring states
- Snow removal and seasonal needs:
    - Options for including snow removal at charging stations in the O&M contracts
    - Options for hardening stations to withstand storms and ensure operator safety, such as auto station shut-off, waterproofing, and structures built to withstand severe thunderstorms and tornadoes

8.5 Strategies to Promote Strong Labor, Safety, Training, and Installation Standards

Section 11 of this plan addresses specific considerations for labor, training, and workforce including Indiana's plan for creating opportunities for small and disadvantaged businesses. Indiana's strategy relative to the labor, safety, training, and installation standards will leverage the Federal NEVI requirements. These requirements reference application of existing standards such as the Electric Vehicle Infrastructure Training Program (EVITP), which provides training and certification for electricians installing electric vehicle supply equipment. Both the local and national leadership of the International Brotherhood of Electrical Workers (IBEW) have adopted this training to mandate it as part of the apprenticeship program, which means that all journeymen electricians will eventually receive this training. In the development of the contracting strategy and in alignment with final Federal rulemaking, Indiana may require this training as part of competitive bids.

Second, during the additional planning and engagement that will continue beyond the submittal of this draft plan, INDOT will continue stakeholder engagement with electric utilities,

EV infrastructure providers, site hosts, trade associations, environmental groups, and other interested parties. This ongoing engagement will be key to creating educational and awareness opportunities consistent with INDOT's goal to develop their 21st century workforce. Additional planning efforts may include training and workforce focused efforts to develop programs extending to utilities, other public agencies, and academia (including trade schools and technical colleges).

9.0 Civil Rights

Indiana is committed to compliance with all Federal and state civil rights laws. These are specified in the subsections below. INDOT will have oversight and responsibility for compliance, which will flow down to private entities that will work on the installation, operations, and maintenance of the charging infrastructure. These requirements will be incorporated into the procurement and contract documents.

9.1 Applicable Laws

9.1.1 Federal

Per the NEVI NPRM, all applicable Federal statutory and regulatory requirements from USDOT apply including, but not limited to:

- U.S. Code Title 23, Part 200
- Uniform Relocation Assistance and Real Property Acquisition Policy Act of 1970
- National Environmental Policy Act (NEPA)
- Title VI/VIII of the Civil Rights Act OF 1964
- "Americans with Disabilities Act of 1990," 104 Stat. 327, 42 U.S.C.A. 1210
- Section 504 of the Rehabilitation Act of 1973, 29 U.S.C. 794

9.1.2 State

In addition to the Federal statutory and regulatory requirements, the state of Indiana has relevant civil rights legislation that will be referenced. This legislation originated in 1961 and has been updated and expanded over time, most recently in the mid-1990s. Indiana civil rights laws and regulations include:[48]

- Indiana Code (IC) 22-9

[48] https://www.in.gov/icrc/about-icrc/indiana-civil-rights-laws-and-regulations/

- Administrative Code 910

Likewise, INDOT has stated requirements for compliance with relevant civil rights legislation including:[49]

- Title VI of the Civil Rights Act of 1964, as amended, 42 U.S.C. Section 2000d et seq., 49 CFR part 21, and all related regulations and directives.
    - Assures that no person shall on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity under any INDOT program, activity, or service.
- Title II of the Americans with Disabilities Act as amended (ADA) of 1990 (42 U.S.C. §§12101 et seq.) and Section 504 of the Rehabilitation Act of 1973, as amended (Section 504) (29 U.S.C. §794) and implementing regulations found in 28 CFR 35 and 49 CFR 27
    - INDOT does not discriminate against qualified individuals with disabilities in its policies, or in the admission of, access to, treatment of or employment in its programs, services, or activities.

In addition to referencing and requiring compliance with these relevant regulations in procurement and contract documents, INDOT will also ensure that relevant implementation requirements contribute to meeting these requirements. For example:

- Minimum design standards for EV charging stations to ensure compliance with ADA guidelines
- Additional engagement based on Section 504
- DBE goals during contracting and procurement (see Section 11).

10.0 Equity Considerations

Justice40 is a Federal effort to deliver at least 40% of the overall benefits from Federal investments in climate and clean energy to Disadvantaged Communities (DACs). Executive Order 14008 and the Federal NEVI guidance use publicly available data sets to identify DACs; in these areas, the population is characterized by lack of access to health or transportation, are economically or equitably disadvantaged, carry a negative energy burden, or are adversely impacted by fossil dependence, resilience, and environmental and climate hazards.

[49] https://www.in.gov/indot/multimodal/transit/transit-related-civil-rights/

10.1 Identification and Outreach to DACs

Engagement and outreach conducted as part of the planning process focused on DACs in Indiana. With approximately 59% of Indiana's population in a DAC and/or rural area[50], equitable deployment of charging infrastructure is one of the state's primary priorities.

Indiana's plan was developed (and will be updated in the future) through engagement with stakeholders representing rural and disadvantaged communities to ensure that diverse views were heard and considered throughout the planning process, and to ensure that the deployment, installation, operation, and use of EV charging infrastructure achieves equitable and fair distribution of benefits and services. For example, Table 9 lists the groups that specifically represent DAC communities that INDOT engaged with as part of the planning process.

Table 9. Summary of Outreach to DACs

Stakeholder	Date(s)
NAACP (State)	5/27/22, 6/17/22
Indiana State Conference of the NAACP	5/27/22, 6/17/22
Evansville Branch of NAACP 3048-B	5/27/22, 6/17/22
Black Lives Matter South Bend	5/27/22, 6/17/22
Indiana Chapter, American Association of Blacks in Energy	6/9/22
Indiana Alliance for Equity, Diversity, and Inclusion of EV Infrastructure and Economic Opportunity	5/27/22, 6/17/22
Rural community representation at in-person meetings (City of Scottsburg, Seymour, Hope)	6/14/22

[50] Some DAC areas are also rural, but not all rural areas are also classified as a DAC per the Federal mapping and project tools.

10.2 Process to Identify, Quantify, and Measure Benefits to DACs

Indiana will extend the quantifiable outcomes from the program to specifically track them for DAC communities. These include:

- Percent of AFC miles that are within 50 miles of a charging station (and AFC miles in a DAC community). The goal for proximity is 100% by the end of the NEVI program.
- Percent of Indiana's population (and DAC community population) that is within 40 miles of a charging station. The goal is 100% by the end of the NEVI program.
- Metrics for robust and reliable infrastructure. These metrics will be applied consistently for all stations regardless of location.
    - Number of sites implemented (total and in and near a DAC)
    - Number of ports implemented (total and in and near a DAC)
    - Percent of time at least one port is available at all sites (total and in and near a DAC)

In addition, INDOT will conduct additional engagement with DAC and rural communities to identify other potential benefits that could be incorporated into subsequent planning and implementation phases. This work will be done in a collaborative fashion working with DAC communities, faith-based and community organizations, DEI experts from partners and stakeholders, and through the sharing of best practices with other states in the region. Potential metrics may include:

- Metrics related to EV education and awareness
- Metrics related to the clean energy job pipeline and training opportunities
- Site selection criteria which avoid or minimize residential areas, helping to mitigate potential gentrification-induced displacement due to new charging infrastructure

10.2.1 Equity Resources and Tools

INDOT has identified several resources and tools to help in evaluating equity considerations for the EV program. The following tools were either used as part of the planning process and/or have potential to support subsequent efforts such as finalizing site selection and vetting projects once procurement begins.

- Mapping tools:
    - Low- and moderate-income (LMI) communities: https://www.arcgis.com/home/item.html?id=92e085b0953348a2857d3d3dac930337

  - Environmental justice (EJ) communities: https://ejscreen.epa.gov/mapper/
    - Map descriptions: https://www.epa.gov/ejscreen/ejscreen-map-descriptions
    - Layer descriptions: https://www.epa.gov/ejscreen/ejscreen-map-descriptions
  - Disadvantaged communities (DACs): https://anl.app.box.com/s/760hcxns7jsqckynqpyg2pvnd22fjvw
  - EV Charging Justice40 Mapping Tool: https://www.anl.gov/es/electric-vehicle-charging-equity-considerations
- Equity-related data sources:
  - Persistence poverty tracts: https://www.transportation.gov/RAISEgrants/raise-app-hdc
  - Transportation disadvantaged tracts: https://usdot.maps.arcgis.com/apps/dashboards/d6f90dfcc8b44525b04c7ce748a3674a
- Project screening tools:
  - FHWA Equity Analysis Screening Tool (aka Screening Tool for Equity Analysis of Projects (STEAP)): https://hepgis.fhwa.dot.gov/fhwagis/buffertool/
  - EPA EJScreen tool: https://ejscreen.epa.gov/mapper/
  - Low-Income Energy Affordability Data (LEAD) Tool: https://www.energy.gov/eere/slsc/low-income-energy-affordability-data-lead-tool

10.3 Benefits to DACs Through This Plan

Figure 22 presents the relationship between the preliminary charging station location and the DAC and rural areas in Indiana. A few key metrics identified with the current AFC's and these preliminary station locations include:

- Approximately 13% of AFC mileage is within a DAC area
- 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 a DAC area

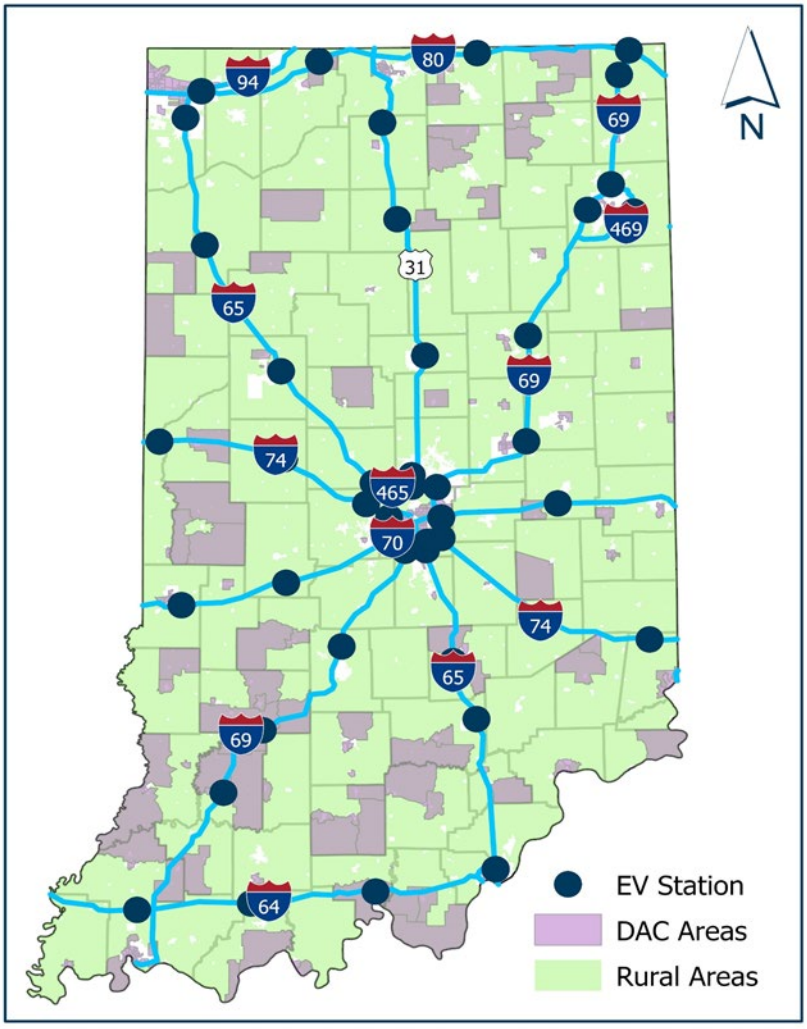

Figure 22. Preliminary Charging Locations Relative to DAC Areas

Additionally, metrics and findings specific to the DAC- and rural focused outreach conducted as part of plan development include.

- Of the 2,000+ public survey responses, 419 out of 434 (97%) of the DAC areas overlapped or was within a zip code area that was represented in the survey. Key findings include:
    - Respondents indicated several suggestions related to adoption barriers that readily reflect the concerns of DAC and rural communities including:
        - Expanding the number and accessibility of charging stations in Indiana
        - Expanding tax breaks, subsidies, and incentives for charging stations and electric vehicles
        - Encouraging more affordable and efficient charging stations and electric vehicles

        - Increasing outreach and education to the public about electric vehicles and charging stations
        - Reducing the registration fee for electric vehicles in Indiana
    - Respondents ranked criteria INDOT should consider when prioritizing alternative fuel corridors. The top four criteria included addressing gaps in the existing charging network, total traffic volumes, EV traffic volumes, and increasing traffic in rural Indiana. The full ranking is below, with DAC and rural criteria highlighted in **bold.**
        - Addressing gaps in the existing charging network (18%)
        - Total traffic volumes (14%)
        - EV traffic volumes (10%)
        - **Increasing EV charging in rural Indiana (10%)**
        - Population density (8%)
        - **Proximity to communities with air quality concerns (7%)**
        - Proximity to job centers (7%)
        - Proximity to tourism destinations (7%)
        - Add capacity at existing charging locations (7%)
        - Proximity to health care facilities (7%)
        - **Increasing EV charging in disadvantaged communities (6%)**

11.0 Labor and Workforce Considerations

Per INDOT's NEVI goals, INDOT seeks to enable the private sector equal opportunities to develop the workforce needed to support EV infrastructure. As with equity, INDOT will evaluate opportunities to incorporate labor and workforce considerations as an evaluation metric for EVSE installation, operations, and maintenance procurement. The remainder of this section descries elements that may be included as evaluation criteria, either as a requirement or a value-add feature.

11.1 Training

To ensure that the workforce that will install/construct, operate, and maintain charging infrastructure is adequately trained, INDOT will likely encourage or adopt the Federally recognized training curriculum called EVITP, Electrical Vehicle Infrastructure Training

Program.[51] This training is targeted to the workforce that constructs and maintains Level 2 and DC fast charging for both light- and medium-duty vehicles.

INDOT may authorize the cost of this training to be a part of the bid package and if so, this opportunity will be noted in the procurement documents.

11.2 Experience

The previously referenced FHWA NPRM released on June 8, 2022, provides additional guidance on the experience related to installation, operations, and maintenance of EVSE. In terms of technician qualifications, the guidance would provide minimum skill, training, and certification standards for technicians installing, operating, and maintaining EVSE to ensure consistency around quality installation and safety across the network.

Engagement with vendors and installers who have supported EVSE installation in Indiana suggest additional qualifications and experience questions that INDOT should consider as part of procurement and potentially prequalify or categorize vendor eligibility. This is an element of the planning process INDOT intends to further define as part of the additional planning activities during the first year of the program. Potential considerations relative to the experience of the companies interested in supporting EVSE installation, operations, and maintenance include:

- Does the company have working knowledge of utilities?
- Does with company have staff and subject matter experts with experience installing charging stations?
- Can the company provide examples of completed site plans that demonstrate quality planning that has been vetted and verified with end customers?
- Has the company been involved in selecting specific sites for EVSE and can they demonstrate an understanding of the local environment in terms of a site that benefits drivers, visitors, and residents alike?
- Can the company demonstrate quality and specifications of their proposed product(s) with respect to the following:
    - Backup and support, testing, inspection, etc.
    - Type and approach to maintenance
    - Resources to fix it and timeframe for repair

[51] https://evitp.org/

11.3 Diversity

Title 49, Part 26 of the US Code of Federal Regulations requires recipients of Federal transportation funding to develop a DBE program. INDOT has established a DBE program that meets these requirements. It is the policy of INDOT to ensure that DBEs have an equal opportunity to receive and participate in contracts that use Federal funds, without regard to race, color, national origin, or sex.

INDOT regularly submits a DBE goal and methodology report to the FHWA. The latest report covers Federal fiscal years 2020 through 2023. While DBE goals often vary within the state based upon the availability of firms in a specific geographic area and the types of expertise required, INDOT's overall goal for DBE participation is 10.1%. INDOT's Equity Initiative Service (EIS) Division will develop an approach for incorporating this goal into the EV program. When implementing this approach, INDOT will leverage its existing DBE certification process.

Additionally, INDOT's EIS Division strives to provide opportunities to traditionally underrepresented people and businesses through education, certification, and workforce development. INDOT EIS provides services such as DBE certification, resources for Federal aid contractors, on-the-job training, and external workforce programming. Their external workforce programming ensures contractors provide training and improve the skills of minorities, women, and disadvantaged persons (as defined by Federal guidelines) so they have access to skilled trade jobs and journey-level positions in highway construction classifications.[52] This is in alignment with stated goals from the International Brotherhood of Electrical Workers (IBEW), who, through direct engagement, indicated that they are programming a requirement for the EVITP training into their curriculum for the apprenticeship program.

12.0 Cybersecurity

The NEVI Notice of Proposed Rule Making issued on June 8, 2022, included the following requirements for cybersecurity and data privacy:

- Cybersecurity
    - Strategies "may address" user identity and access management, encryption systems, malware detection, event logging, management of software updates, and secured operations during communication outages
- Customer data privacy:

[52] https://www.in.gov/indot/doing-business-with-indot/equity-initiative-services/what-we-do2/

- Only gather personal info "strictly necessary" to provide charging service
- Must take all reasonable measures to safeguard data

Looking beyond this guidance, privacy of the individuals using the EV charging stations is of utmost importance to INDOT and providing cybersecurity and privacy will be a major consideration in how the NEVI program will be implemented. INDOT will develop requirements for cybersecurity as part of its RFP development effort. INDOT will develop these requirements based on state guidance, such as the State of Indiana Cybersecurity Strategic Plan[53], and in consultation with stakeholders such as Indiana Office of Technology and Indiana Cybersecurity Hub.

In addition, the Indiana Executive Council on Cybersecurity (IECC) includes additional stakeholders (many of whom were engaged in the development of this plan). The stakeholders who overlap in areas related to EV charging infrastructure and cybersecurity include:

- Indiana Economic Development Corporation
- Indiana Utility Regulatory Commission
- Indiana Energy Association
- Purdue University

In 2021, the IECC developed an implementation plan for cybersecurity in Indiana[54] which will serve as an overall guidepost for the requirements in this area. One of the council's committees was focused on energy and outlined specific deliverables and objectives that specifically affect this industry. Elements of the committee's work that will help inform INDOT's approach include:

- Critical Infrastructure Information:
  - Review state policy changes to protect critical infrastructure information while maintaining public access and freedom of information.
- Training:
  - Identify needs and opportunities specific to training the energy industry in the area of cybersecurity (at all levels: state, vocational, higher education).
- IURC Cybersecurity Forum:

[53] https://www.in.gov/cybersecurity/executive-council/indiana-cybersecurity-strategic-plan/

[54] https://www.in.gov/cybersecurity/files/cybersecurity-plan-2021.pdf

  - IURC has recently hosted a cybersecurity forum for small natural gas utilities to share industry information and best practices.
  - IURC is currently planning to host a Cybersecurity Forum in October 2022 with larger utilities.
- Resource Guide:
  - The IECC Energy Committee will define emerging technology and supply chain issues related to the grid in Quarter 3, 2022.
  - The IECC Energy Committee will determine whether best practices and information are widely available Qtr. 3 2022.
  - The IECC Energy Committee will develop an industry specific resource guide Qtr. 4 2022.

Regarding implementation, it is likely that the third-party contractors installing the EV charging stations will be required to submit a cybersecurity plan and obtain approval before installation begins. INDOT anticipates that these cybersecurity plans will demonstrate what data will be received and how the contractors will maintain and store the data collected. The plan will demonstrate how the contractors will maintain cybersecurity throughout the life cycle of the NEVI program. INDOT will require disclosure of any security or privacy breach and how the issue will be handled following all rules and guidelines listed in the cybersecurity plan. The third-party contractors will be responsible for updating the cybersecurity plan with any ongoing changes in any local, state, and Federal law related to cybersecurity or privacy.

During the operations and maintenance phase, contracts may require regular cybersecurity audits or reviews to ensure adherence to these requirements. Additionally, INDOT anticipates requiring reports and debriefs for any security or privacy breaches to understand the cause, impact, and future mitigations implemented to ensure future protection.

While INDOT will rely heavily on state cybersecurity policy and strategies, it will also review national resources to ensure alignment with the requirements and priorities of the Joint office. Examples include:

- NIST Cybersecurity Framework (referenced in the DriveElectric tool kit)[55]
- US DOE Resources on EVSE Cybersecurity R&D, Challenges, Best Practices[56]

[55] https://www.nist.gov/cyberframework

[56] https://www.osti.gov/servlets/purl/1706221

- US DOT Volpe Report on EVSE Cybersecurity57
- Symposium on Federally Funded Research on Cybersecurity of EVSE – NIST report[58]
- Office of Energy Efficient and Renewable Energy's Federal Fleet Cybersecurity[59]

13.0 Program Evaluation

FHWA, in its release of a NPRM, proposed to outline quarterly and annual data submittal requirements for projects funded under the NEVI Formula Program. INDOT is committed to complying will all program evaluation requirements. Following are the potential requirements, as provided by FHWA.[60] In general, these align and will support the measurement of the quantified outcomes identified in Chapter 4.

- **Quarterly Data Submittal**. States must ensure the following charging station use, cost, reliability, and maintenance data are collected, maintained, and submitted on a quarterly basis in a manner prescribed by the FHWA:
    - Charging station location identifier that the following data can be associated with;
    - Charging session start time, end time, and successful session completion (yes/no) by port;
    - Energy (kWh) dispensed to EVs per session by port;
    - Peak session power (kW) by port;
    - Charging station uptime calculated in accordance with the equation in §680.116(b) for each of the previous 3 months;
    - Cost of electricity to operate per charging station in each of the previous 3 months;
    - Maintenance and repair cost per charging station for each of the previous 3 months;
    - Charging station real property acquisition cost, charging equipment acquisition and installation cost, distributed energy resource acquisition and installation cost, and grid connection and upgrade cost on the utility side of the electric meter; and

[57] https://rosap.ntl.bts.gov/view/dot/43606

[58] https://nvlpubs.nist.gov/nistpubs/ir/2020/NIST.IR.8294.pdf

[59] Federal Fleet Cybersecurity | Department of Energy

[60] NEVI Formula Program, NPRM

  - Distributed energy resource installed capacity, in kW or kWh as appropriate, of asset by type (e.g., stationary battery, solar, etc.) per charging station

- **Annual Data Submittal**. States must ensure the following data are collected, maintained, and submitted on an annual basis in a manner prescribed by the FHWA for each charging station:
  - The name, address and type of private entity involved in the operation, maintenance, and installation of EVSE.
  - For private entities (as specified in the Federal guidance,) identification of and participation in any state or local business opportunity certification programs including but not limited to minority-owned businesses, Veteran-owned businesses, woman-owned businesses, and businesses owned by economically disadvantaged individuals.
- **Community Engagement Outcomes Report**. States must make publicly available in a manner prescribed by the FHWA an annual report describing the community engagement activities conducted as part of the development and approval of their most recently-submitted State EV Infrastructure Deployment Plan, including engagement with DACs. This report should include community engagement type, date, number of attendees, communities represented by attendees, and how information on that engagement was reflected in the State's EV Infrastructure Deployment Plan.

INDOT will also collect the any additional data to measure and report on the quantitative program outcomes provided in Section 4.2. INDOT may define additional performance measures and targets as planning continues, and the data necessary to measure these outcomes will be added in future updates to this section. For example, as charging infrastructure moves from implementation to operations, INDOT will collect the necessary financial data to calculate the amount of charging leverage per Federal dollar.

INDOT will review its evaluation process regularly and adjusted it as necessary throughout the life of the program.

14. Discretionary Exceptions

To date, INDOT has not identified any specific discretionary exceptions. However, INDOT will continue to evaluate the need for exceptions during their first year of planning. Specific areas of focus will be the location of the final charging stations and the type and amount of charging proposed at each one. For example, the following potential scenarios and associated exceptions were identified through the INDOTs' stakeholder engagement process:

- Scenarios where a combination of individual stations within proximity may satisfy the station requirement of 4 ports of 150 kW each.
- Scenarios where a station or combination of stations may satisfy operational requirements but are located more than 50 miles apart
- Scenarios where a station or combination of stations may satisfy operational requirements but are located more than 1 mile from the AFC.

INDOT plans to work with stakeholders and potential EVSE vendors, utilities, and communities to identify these potential exceptions during the planning activities of the first year of the program so specific locations can be documented and justifications are built out.

15. Conclusion

This document presents a plan for how Indiana will deploy EV infrastructure over the next 5 years and beyond leveraging nearly $100 million in Federal NEVI funding. This plan will enable INDOT to achieves its EV vision, which is to:

> 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.

The plan:

- Reflects INDOT's understanding of the current state of EV charging in Indiana;
- Was developed in coordination with Federal partners to ensure compliance with Federal requirements; and
- Incorporates input INDOT received through an extensive stakeholder outreach and public involvement process.

After submittal of this plan, INDOT will continue to develop the details needed for a successful EV program and provide additional opportunities for interested parties to continue to participate in the process. This plan is living document that INDOT will update throughout the life of the program.

Appendix A. Preliminary Station Maps

This appendix contains maps of each preliminary station location.

[Maps will be included in final version.]

Appendix B. Check List of Federal Requirements

INDOT developed this Plan in accordance with FHWA's NEVI Formula Program Guidance memorandum dated February 10, 2022. This appendix lists the requirements provided in the memorandum and shows where in the Plan INDOT addressed each requirement. INDOT addressed all requirements in the Plan.

Plan Requirements

1. Each State is required to develop a Plan in accordance with this guidance and submit their final Plan not later than August 1, 2022 to the Joint Office.

   Requirement addressed in Plan: Yes
   Section: N/A
   Notes: INDOT submitted the final Plan to the Joint Office on July 29, 2022.

2. States should work directly with the Joint Office during Plan development and to remedy any issues with their Plans before submitting final Plans not later than August 1, 2022.

   Requirement addressed in Plan: Yes
   Section: N/A
   Notes: INDOT met with the Joint Office on April 8, 2022 to discuss its planning process and ask clarifying questions regarding the national guidance. Subsequently, INDOT participated in all Joint Office office hours sessions. INDOT sent a Draft to FHWA Indiana Division on July 1, 2022 and to the Joint Office on July 8, 2022. INDOT met with the Joint Office on July 20, 2022 to review its comments and incorporated feedback into the final Plan.

Plan Format

Introduction

3. This section of the Plan should introduce the Plan and the Plan development process to include a discussion of topics such as the Plan's study area, the dates of the analysis and adoption.

   Requirement addressed in Plan: Yes
   Sections:
   - Discussion of the Plan's study area: Section 1
   - Dates of analysis: Section 1.1.1

- Dates of adoption: Section 1.1.2

State Agency Coordination

4. The Plan should describe how the State DOT has coordinated with the State's energy and/or environment department in the development and approval of the Plan.

   Requirement addressed in Plan: Yes
   Section: Section 2
   Notes: INDOT coordinated with several state agencies, including both Indiana's energy and environmental departments.

5. The Plan should address any steps the State's DOT has taken or plans to take to maximize opportunities to utilize U.S.-made EV supply equipment.

   Requirement addressed in Plan: Yes
   Section: Section 6.7
   Notes: The Plan flags the ability to meet Buy America requirements for required equipment as a risk.

Public Engagement

6. This section should discuss the involvement of particular stakeholder groups in the Plan's development to include the general public, governmental entities, federally recognized Tribes, labor organizations, private sector/industry representatives, representatives of the transportation and freight logistics industries, state public transportation agencies, and urban, rural, and underserved or disadvantaged communities.

   Requirement addressed in Plan: Yes
   Sections:
   - Overview of involvement approach: Section 3.0
   - List of stakeholder groups involved in Plan development: Section 3.1
   - Feedback received from stakeholder groups: Section 3.2

7. States should engage stakeholders and communities to ensure the deployment, installation, operation, and use of EV charging infrastructure achieves equitable and fair distribution.

   Requirement addressed in Plan: Yes
   Sections:

- Addressed in overall public engagement strategy - Sections 3.0, 3.1, and 3.2
- Summary of targeted outreach to DACs - 10.1

Plan Vision and Goals

8. The Plan should describe how it supports a convenient, affordable, reliable, and equitable statewide and national EV network.

   Requirement addressed in Plan: Yes
   Section: Section 4.2
   Notes: This requirement is addressed in Indiana EV Goal #5

9. The Plan should describe how the State intends to use the funds distributed under the NEVI Formula Program to carry out the Program in each fiscal year in which funds are made available.

   Requirement addressed in Plan: Yes
   Section: Section 5, Section 7, and Section 8

10. Each State should provide 5-year goals for the duration of the program that include at least one outcome-oriented goal with a quantitative target.

    Requirement addressed in Plan: Yes
    Sections:
    - Goals – Section 4.2
    - Outcome-oriented goal with a quantitative target – Section 4.2

    Notes: The Plan includes 2 goals that have quantitative targets.

11. This section of the Plan should also identify the overall vision and goals specific to the geography, demographics, and network of the State as consistent with the NEVI Formula Program.

    Requirement addressed in Plan: Yes
    Sections: Section 4.2 and Section 10.2
    Notes: This requirement is addressed in Indiana EV Goal #5 and in the quantifiable outcomes listed in the Equity section of the Plan.

Contracting

12. The Plan should detail whether the State intends to contract with third-party entities, and if so, how the State will ensure that those entities deliver EV charging infrastructure in a manner that leads to efficient and effective deployment against Plan goals.

    Requirement addressed in Plan: Yes
    Section: Section 5.1

13. This section should also include a strategy for achieving efficient delivery and deployment and ongoing operation and maintenance. A contracting strategy that makes maximal efficient use of Federal funding will be an important consideration for approval of State plans.

    Requirement addressed in Plan: Yes
    Section: Section 5.2

14. This section should also discuss how States will ensure that third-party entities contracted to install, operate, or maintain EV charging infrastructure will engage communities where EV charging infrastructure will be installed.

    Requirement addressed in Plan: Yes
    Section: Section 5.1.2
    Notes: INDOT intends to require the third-party entities to compile data required to engage communities.

15. Plans should also include a discussion of how the State will include opportunities for small businesses as provided at 23 U.S.C. 304.

    Requirement addressed in Plan: Yes
    Sections: Section 5.1.1 and Section 5.1.2, and Section 8.5

Existing and Future Conditions Analysis

16. This section should identify the existing conditions within the study area at the time of the Plan creation. It should include the best available information regarding the State's geography and terrain as it pertains to its EV charger deployment vision and challenges, current and future temperature and precipitation patterns, industry/market conditions (to include an overview of the existing state of EV charging, current and projected EV ownership, the location of existing EV charging, and a discussion of the roles of DC Fast Charging stations), public transportation needs, freight and other supply chain needs,

grid capacity necessary to support additional EV charging infrastructure, electric utilities that service the study area, land use patterns, travel patterns, EV charging infrastructure, information dissemination about the EV charging station availability.

Requirement addressed in Plan: Yes
Sections:

- State's geography and terrain – Section 6.6.1
- Current and future temperature and precipitation patterns – Section 6.1.2
- Industry/market conditions – Section 6.3
- Public transportation needs – Section 6.4.3
- Freight and other supply chain needs – Section 6.4.4
- Grid capacity necessary to support additional EV charging infrastructure – Section 6.3.2
- Electric utilities that service the study area – Section 6.3.3
- Land use patterns – Section 6.2
- Travel patterns – Section 6.4
- EV charging infrastructure – Section 6.6
- Information dissemination about the EV charging station availability – Section 6.6

17. This section should also include a discussion on known risks and challenges for EV deployment.

    Requirement addressed in Plan: Yes
    Section: Section 6.7

EV Charging Infrastructure Deployment

18. This section should discuss EV charging infrastructure installations and associated policies to meet the vision and goals of the Plan.

    Requirement addressed in Plan: Yes
    Sections

    - Installations – Section 7.3
    - Policies - Section 7.4

19. The Plan does not need to include a list of exact EV charging infrastructure locations, but rather should include an overall strategy for installations along designated corridors that prioritizes build-out along the Interstate Highway System.

Requirement addressed in Plan: Yes
Section – Section 7.3

20. Components of this section should include information about planned new EV charging infrastructure deployment location types, as well as existing EV charging infrastructure locations planned for upgrade or expansion.

    Requirement addressed in Plan: Yes
    Section: Section 7.1, and Section 7.2
    Notes: While INDOT currently has no specific plans for upgrading existing charging locations, Section 7.1 describes the how INDOT will be evaluating upgrade opportunities at the planned VW locations identified in Section 7.2.

21. Plans should also identify which utility's territory the planned installations or upgrades are located in.

    Requirement addressed in Plan: Yes
    Section: Section 6.3.3

22. The section should also include a map of the corridors that are planned for EV charging infrastructure installation or upgrade. The Joint Office can provide assistance to States to help develop these maps. Specifically, maps should include:
    a. Approximate locations of planned EV charging infrastructure;
    b. Approximate locations of existing EV charging infrastructure along those corridors, specifically noting existing EV charging infrastructure targeted for upgrade or improvement to meet the requirements of the NEVI programs;
    c. EV charging infrastructure density along Alternative Fuel Corridors and the Interstate Highway System; and
    d. Analysis on anticipated usage rates and peak demand, if available.

    Requirement addressed in Plan: Yes
    Sections:
    - Approximate locations of planned infrastructure – Section 6.6 and Section 7.3
    - Approximate location of existing EC charging infrastructure – Section 6.6
    - EV charging infrastructure density – Section 6.6
    - Anticipated usage rates and peak demand – this information is not yet available. Section 6.4.2 summarizes existing demand

23. This section should also identify the source of non-federal funding for EV charging infrastructure deployments. It can include both immediate and longer-term actions but

should identify actions to build-out Alternative Fuel Corridors, particularly those along the Interstate Highway System.

Requirement addressed in Plan: Yes
Sections: Section 7.1

24. It can include both immediate and longer-term actions but should identify actions to build-out Alternative Fuel Corridors, particularly those along the Interstate Highway System.

    Requirement addressed in Plan: Yes
    Sections: Section 7.3

25. It should also include actions that will be taken after the build-out of the State's Alternative Fuel Corridors has been accomplished, including ensuring that any portions of the Interstate Highway System not part of the designated Alternative Fuel Corridors for electric vehicles will be fully built-out. Funding topics covered should include funding amounts and sources (including the NEVI Formula Program at a minimum), use of public-private partnerships, and information about EV charging infrastructure ownership.

    Requirement addressed in Plan: Not applicable, because INDOT's AFC network covers all interstates
    Section: Section 1.0

26. Funding topics covered should include funding amounts and sources (including the NEVI Formula Program at a minimum), use of public-private partnerships, and information about EV charging infrastructure ownership.

    Requirement addressed in Plan: Yes
    Sections:
    - Funding amounts and sources – Section 7.0 and Section 7.1
    - Use of public-private partnerships – Section 5.1.1
    - EV charging infrastructure ownership – Section 7.3

27. The overarching goal of the NEVI Formula Program is a seamless national EV charging network, so the Plan should also address how a State will coordinate and connect regionally with other States and adjoining networks.

    Requirement addressed in Plan: Yes
    Section: Section 7.3

Implementation

28. Implementation considerations should include EV charging operations and maintenance programs, and EV charging infrastructure data collection and sharing. The Plan should identify installation, maintenance, and ownership responsibilities for the charging infrastructure and take into account how those roles will ensure the long-term sustainability of the station. Critical to this will be the State's strategy to contract with private entities in a way that makes efficient use of Federal funds to ensure maximal deployment at efficient unit cost.

    Requirement addressed in Plan: Yes
    Sections: Section 8.1, Section 8.3

29. The Plan should also demonstrate how the implementation will promote strong labor, safety, training, and installation standards as well as opportunities for the participation of small businesses.

    Requirement addressed in Plan: Yes
    Section: Section 8.5, Section 11.1, and Section 5.1.1

30. The Plan should also address emergency and evacuation needs, snow removal and seasonal needs, and ways for EV charging to support those needs.

    Requirement addressed in Plan: Yes
    Section: Section 8.4

31. The Plan should also describe strategies for resilience for operation during emergencies and extreme weather.

    Requirement addressed in Plan: Yes
    Section: Section 8.4

Civil Rights

32. This section of the Plan should discuss how the State planning and implementation will ensure compliance with State and Federal civil rights laws, including Title VI of the Civil Rights Act and accompanying USDOT regulations, the American with Disabilities Act, and Section 504 of the Rehabilitation Act.

    Requirement addressed in Plan: Yes
    Section: Section 9.0

Equity Considerations

33. The Plan should be developed through engagement with rural, underserved, and disadvantaged communities and stakeholders, including relevant suppliers and contractors, and describe how the Plan reflects that engagement (defined further in Section III-C).

    Requirement addressed in Plan: Yes
    Sections: Section 3.0, Section 3.1, Section 3.2, Section 8.1 and Section 10.1

Labor and Workforce Considerations

34. This section of the Plan should consider the training, experience level, and diversity of the workforce that is installing and maintaining EV charging infrastructure. See Section III-D for additional information.

    Requirement addressed in Plan: Yes
    Sections:
    - Training – Section 11.1
    - Experience – Section 11.2
    - Diversity – Section 11.3

Cybersecurity

35. This section of the Plan should discuss how the State will address cybersecurity. The Plan should identify considerations when software updates are made to ensure the station or vehicle is not compromised by malicious code, or that a vehicle infects other stations during future charges.

    Requirement addressed in Plan: Yes
    Section: Section 12

Program Evaluation

36. This section of the Plan should describe the State's schedule and plan for evaluating performance in achieving its 5-year goals and vision. Evaluation of the effectiveness of this plan should include monitoring performance metrics, such as EV charging infrastructure usage, EV charging infrastructure reliability, customer satisfaction, equitable distribution and access to EV charging infrastructure within the State, greenhouse gas emissions, or other metrics that support creating a national network.

This should include an assessment of a State's efficient use of Federal funding, measured by the amount of charging leveraged per Federal dollar.

Requirement addressed in Plan: Yes
Sections: Section 13, Section 4.2, and Section 10.2

Discretionary Exceptions

37. As part of the development and approval of State Plans, and in very limited circumstances, a State may submit a request for discretionary exceptions from the requirement that charging infrastructure is installed every 50 miles along that State's portion of the Interstate Highway System within 1 travel mile of the Interstate, as provided in the Alternative Fuel Corridors request for nominations criteria. All approved exceptions will be supported by a reasoned justification from the State that demonstrates the exception will help support a convenient, affordable, reliable, and equitable national EV charging network. Exceptions must be clearly identified and justified in State plans.

    Requirement addressed in Plan: Yes
    Section: Section 14