Wisconsin Electric Vehicle Infrastructure Plan

Wisconsin Department of Transportation

2023 PLAN UPDATE

PENDING APPROVAL

August 1, 2023

WIEV Wisconsin Electrification Initiative

FIGURES

TABLES

WEVI PLAN AND STATE TEMPLATE CHAPTER CORRELATION

The WEVI Plan is organized into 10 chapters that contain all the enumerated content requirements from the Joint Office State Plan template that was issued with NEVI Program guidance on February 10, 2022, and updated guidance provided on June 2, 2023. This table provides the correlation of the WEVI Plan chapters to those in the State Plan template.

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ACRONYMS

Abbreviation / Acronym	Definition
23 CFR 680	National Electric Vehicle Infrastructure Standards and Requirements
AADT	Annual Average Daily Traffic
AASHTO	American Association of State Transportation Officials
AFC	Alternative Fuel Corridors
ADA	Americans with Disabilities Act
ARPA	American Rescue Plan Act
BIL	Bipartisan Infrastructure Law
CIA	Central Intelligence Agency
CISA	Cybersecurity and Infrastructure Security Agency
CCS	Combined Charging System
CFR	Code of Federal Regulations
CMAQ	Congestion Mitigation Air Quality
CRP	Carbon Reduction Program
DAC	Disadvantaged Community
DATCP	Department of Agriculture, Trade and Consumer Protection
DCFC	Direct Current Fast Charger
DBE	Disadvantaged Business Enterprise
DBSI	Division of Budget and Strategic Initiatives
DMV	Division of Motor Vehicles
DOA	Department of Administration
DOE	Department of Energy
DNR	Department of Natural Resources
DOR	Department of Revenue
DOT	Department of Transportation
ESC	Electrification Steering Committee
EV	Electric Vehicle
EVITP	Electric Vehicle Infrastructure Training Program
EVSE	Electric Vehicle Supply Equipment
EWG	Electrification Workgroup
FAC	Freight Advisory Committee
FHWA	Federal Highway Administration
FY	Fiscal Year
FTA	Federal Transit Administration
GWAAR	Greater Wisconsin Agency on Aging Resources
GW	Gigawatt
GWh	Gigawatt-hour

Abbreviation / Acronym	Definition
ICE	Internal Combustion Engine
IDEA	Integrity, Diversity, Excellence, Accountability
kW	Kilowatt
kWh	Kilowatt-hour
LMP	Locational Marginal Price
MAASTO	Mid-American Association of State Transportation Officials
MAFC	Mid-America Freight Coalition
MISO	Midcontinent Independent System Operator
MAPSS	Mobility, Accountability, Preservation, Safety, and Service
MHDV	Medium and Heavy-Duty Vehicle
MM	Mile Marker
MPO	Metropolitan Planning Organization
MTEC	Midcontinent Transportation Electrification Collaborative
MTERA	Midwest Tribal Energy Resources Association
NEPA	National Environmental Policy Act
NEVI	National Electric Vehicle Infrastructure Program
NFPA	National Fire Protection Association
NPRM	Notice of Proposed Rulemaking
O&M	Operations and Maintenance
OBOEC	Office of Business Opportunity and Equity Compliance
PCI-DSS	Payment Card Industry Data Security Standards
PEV	Plug-In Electric Vehicle
PSC	Public Service Commission
REV Midwest	Regional Electric Vehicle Midwest Coalition
RFP	Request for Proposals
ROW	Right-of-Way
RPC	Regional Planning Commission
TOD	Time of Day
VW	Volkswagen
WEDC	Wisconsin Economic Development Corporation
WEVI	Wisconsin Electric Vehicle Infrastructure
WIEV	Wisconsin Electrification Initiative
WiNDAC	Wisconsin Non-Driver Advisory Committee
WIPTA	Wisconsin Public Transportation Association
WisDOT	Wisconsin Department of Transportation

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July 19, 2023

Dear Transportation Partner:

I am pleased to present Year 2 of the Wisconsin Electric Vehicle Infrastructure (WEVI) Plan. This document incorporates guidance received from the Federal Highway Administration (FWHA) since Wisconsin's plan was originally approved in September 2022 and details the state's efforts to enhance the state's Electric Vehicle (EV) infrastructure. Each year WisDOT will be required to submit an update to the WEVI plan for FHWA approval. Over the past year, WisDOT has continued to develop its electrification program in accordance with the standards laid out by FHWA guidance.

Since the Year 1 plan was approved, WisDOT has continued to engage the public, participating in 18 presentations and 53 one-on-one meetings with stakeholders. To ensure that we were obtaining the broadest range of stakeholder input, a stakeholder gap analysis was conducted to determine which industry segments were not sufficiently represented in development of the initial plan.

WisDOT enhanced that input by publishing a website and ArcGIS map allowing users to obtain information and submit feedback to WisDOT for each potential charging station location in the state. The map allows prospective site hosts to start planning their eventual site locations as we approach WEVI Plan implementation.

Along with states across the nation, Wisconsin's electrification initiative will lay the groundwork for the wider adoption of electric vehicles. This in turn will offer a dramatic decrease in vehicle emissions and will reduce our state's carbon footprint. While there is much work to be done over these next few years, with this plan Wisconsin is one step closer to making transportation electrification a reality.

Sincerely,

Craig Thompson
Secretary
Wisconsin Department of Transportation

"Electrification is coming. The private sector has spoken. The major auto manufacturers are retooling and have announced ambitious plans to transition to producing predominantly electric vehicles in the near future. That is good for our environment because it can dramatically reduce emissions from burning fossil fuels. We in the public sector need to be ready for this transformational change – and in Wisconsin, we will be. That is why WisDOT is continuing to work with our partners to enhance Wisconsin's EV infrastructure and make the benefits of EVs available to everyone in Wisconsin."

- Wisconsin Department of Transportation Secretary Craig Thompson

1 INTRODUCTION, PLAN VISION AND GOALS

Wisconsin's Electrification Initiative (WIEV) is a collaborative, statewide government effort to strategically prepare and plan for transportation electrification in Wisconsin. WIEV began in October 2021 with the Wisconsin electrification and infrastructure planning study.[1] As this study progressed, the National Electric Vehicle Infrastructure Program (NEVI) was established and planning efforts shifted to address the components of the NEVI Program.

The Wisconsin Department of Transportation (WisDOT) was required by the Federal Highway Administration (FHWA) to develop and submit a state plan as a prerequisite to accessing new federal funding for electric vehicle infrastructure deployment. The Wisconsin Electric Vehicle Infrastructure (WEVI) Plan was submitted in August 2022 and was approved by FHWA on September 14, 2022. The initial WEVI Plan and this 2023 WEVI Plan update are components of the larger WIEV Initiative. The WEVI Plan and this 2023 WEVI Plan update were informed by the original planning study; the NEVI Program criteria; and the continuation of robust state agency, stakeholder, and public engagement.

This 2023 WEVI Plan update documents what Wisconsin has learned during the second half of 2022 and early 2023 and identifies and discusses its updated goals. As reported in this WEVI Plan update, the primary activity Wisconsin focused on in 2022 to 2023 was its continuation of robust public engagement to ensure understanding of WEVI and to gain feedback to assist in the development of the WEVI Program. Additional activities Wisconsin focused on in 2022 to 2023 were the development of an interactive GIS host site mapping tool, increasing the State's understanding of cybersecurity impacts as they relate to EVSE, initial program development, and coordination with the Wisconsin State legislature.

1.1 Updates from Prior Plan

The 2023 WEVI Plan update provides information on additional activities that have occurred since the 2022 WEVI Plan submittal. In addition, policy and program changes are outlined to align with the NEVI Final Rule. The list below describes the changes to each chapter of the WEVI plan:

[1] *Wisconsin received a $1 million planning grant from the U.S. Economic Development Administration's disbursement of American Rescue Plan Act (ARPA) funds. These ARPA funds were provided to support state economic recovery from the coronavirus pandemic and to build local economies that will be resilient to future economic shocks.*

Chapter 1: Introduction, Plan Vision and Goals

- Updated the introduction with additional 2023 WEVI Plan details, including Wisconsin's focus over the past year.
- Deleted outdated details about the Bipartisan Infrastructure Law (BIL) and NEVI.

Chapter 2: State Agency Coordination and Public Engagement

- Added information on Wisconsin's continued coordination with State agencies following WEVI Plan submittal.
- Added subsection on memoranda of understanding with state agencies.
- Added a Community Engagement Outcomes Report section providing additional information on Wisconsin's general engagement outcomes and adding information on its industry specific engagement outcomes.
- Replaced all maps to depict all Alternative Fuel Corridors (AFCs) as designated.
- Updated information on engagement tools used to obtain feedback prior to and after the submittal of the WEVI Plan, including website pageviews, contact database data and media coverage.
- Included an 'Engagement Tools and Activities' table summarizing key engagement activities held prior to and after the submittal of the WEVI Plan.
- Added a list of stakeholders WisDOT met with one-on-one following the submittal of the WEVI Plan in 2022.
- Added stakeholder meeting common themes to the table, including a row for questions and comments following Plan submittal.
- Added a 'WEVI Plan Presentations at Stakeholder Events' table listing the date of the event, the event name, the host organization and an estimated number of attendees.
- Added a Stakeholder Gap Analysis section that reports on an engagement assessment conducted in March 2023 to determine which stakeholder industries and types have had the least WEVI engagement.
- Provided an updated WEVI Plan engagement strategy based on the findings of the Stakeholder Gap Analysis focusing on continued engagement with equity organizations, counties, rural organizations, tribal governments and tourism organizations.

Chapter 3: Existing and Future Conditions Analysis

- Replaced all maps to depict all AFCs as designated.
- Deleted text that differentiated AFCs as designated and approved in 2022 and during Round 6 of the U.S. DOT AFC nomination process.
- Updated Wisconsin's charging station data.
- Provided the number of registered electric vehicles per Wisconsin county for 2022 in addition to 2021 numbers.
- Discussed Wisconsin's continued evaluation of data sources and methodologies to support forecasting potential electric vehicle deployment scenarios.
- Updated Wisconsin's net annual electric generation by fuel source data and chart.
- Updated Wisconsin's average monthly retail price for electricity data and chart.

Chapter 4: EV Charging Infrastructure Deployment

- Replaced all maps and text to depict all AFCs as designated.
- Updated the number of NEVI-complaint charger locations Wisconsin will need to reach "corridor ready" status from 61 to 64.
- Added information on the development of WisDOT's Site Candidate Interactive Webtool.

Chapter 5: Program Management, Contracting and Implementation

- Revised text to include language consistent by adding how Wisconsin anticipates developing WEVI Plan contracts.
- Updated with NEVI Formula Program final rule specifics and links.
- Updated description of evaluation criteria to ensure applicants will be selected when they sufficiently demonstrate how they will meet the federal requirements and state goals of the program.

Chapter 6: Labor and Workforce Considerations

- Updated number of contractors Wisconsin has with Electric Vehicle Infrastructure Training Program (EVITP certification).

Chapter 7: Civil Rights and Equity Considerations

- Replaced all maps and text to depict all AFCs as designated.
- Updated the percentages of AFCs outside of U.S. Census Urban Areas and in Disadvantaged Area Communities (DACs) to reflect total percentages.
- Referenced the final NEVI rule.

Chapter 8: Physical Security and Cybersecurity

- Retitled the chapter name to 'Physical Security and Cybersecurity' per FHWA guidance.
- Updated cybersecurity information.
- Added a graphic depicting Wisconsin's commitment to confidentiality, integrity and availability of cyber applications.

Chapter 9: Program Evaluation

- Referenced the requirement that site hosts will be required to abide by data submittal requirements described in 23 CFR 680.112.

Chapter 10: Discretionary Exceptions

- Added explanatory text regarding charging stations being located every 50 miles along AFCs.

Appendices

- Added table identifying all potential site candidate locations.

1.2 WEVI Plan Vision and Goals

The WEVI Plan vision is to develop an interconnected electric vehicle transportation charging network that facilitates the safe movement of people and goods throughout Wisconsin. The objectives of the WEVI Plan that support the goals described in Section 1.2.2 include the following (see Chapter 5 for details on Wisconsin's plan to aggregate data and network reliability).

Equity: Ensure equitable distribution of benefits that improve access for all populations, including rural and underserved communities in Wisconsin.

Partnership: Optimize the NEVI Program funding by building and strengthening partnerships.

Connectivity: Develop a robust, interconnected charging network that reduces range anxiety and meets the State's growing charging needs.

Safety: Employ robust safety standards that ensure all funded infrastructure is safe and reliable for travelers in Wisconsin.

Accountability: Establish performance monitoring and data analytics practices to inform and improve operations and investment.

1.2.1 Vision Statement

Develop an interconnected electric vehicle charging network that facilitates the safe movement of people and goods throughout Wisconsin.

1.2.2 Goals

WEVI Plan goals include:

1. Establish a network of publicly accessible charging stations on Wisconsin's Interstates, Alternative Fuel Corridors (AFCs) and regional routes of significance.
2. Continue stakeholder collaboration to inform planning, deployments, program evaluation, and annual plan updates.
3. Integrate EV charging infrastructure across the state including urban, rural, and suburban areas and historically underserved communities.
4. Leverage funding and partnerships to adapt the state's transportation infrastructure to facilitate electrified transportation.

Quantifiable Goals:

100% of Wisconsin Interstates and AFCs fully built out to NEVI Program standards.

85% of Wisconsin State Highway System within 25 miles of NEVI-compliant fast charging stations.

Wisconsin's long-term outlook for the program is to build out a statewide NEVI-compliant network with an emphasis on geographic equity while the short-term outlook will be focused on achieving NEVI compliance along interstate corridors. The key to achieving the plan's vision and goals are WisDOT's emphasis on education, outreach, and collaboration; stewardship; and applying a data-driven approach.

EDUCATION, OUTREACH, AND COLLABORATION

State Agency Coordination and Public Engagement describes how WisDOT has coordinated and collaborated across impacted state agencies as well as engaged with the public.

STEWARDSHIP

Program Management, Contracting and Implementation identifies how the NEVI Program will be implemented in Wisconsin including contracting considerations for building and maintaining electric vehicle supply equipment (EVSE), WisDOT program management, and EVSE data collection and sharing.

Civil Rights and Equity Considerations describes how Wisconsin will comply with State and federal civil rights laws during the planning and implementation of electrification. This includes plan development through engagement with rural, underserved, and disadvantaged communities and stakeholders, recognizing the need for these conversations to extend beyond the initial 2022 WEVI Plan submission.

DATA-DRIVEN APPROACH

Existing and Future Conditions Analysis identifies existing conditions in Wisconsin within one travel mile of the AFCs and known risks and challenges for EVSE deployment. This section explores topics such as land use patterns, travel patterns, grid capacity, industry/market conditions, and other important information related to EVSE deployment.

EV Charging Infrastructure Deployment identifies overall strategy for prioritizing installations along designated AFCs.

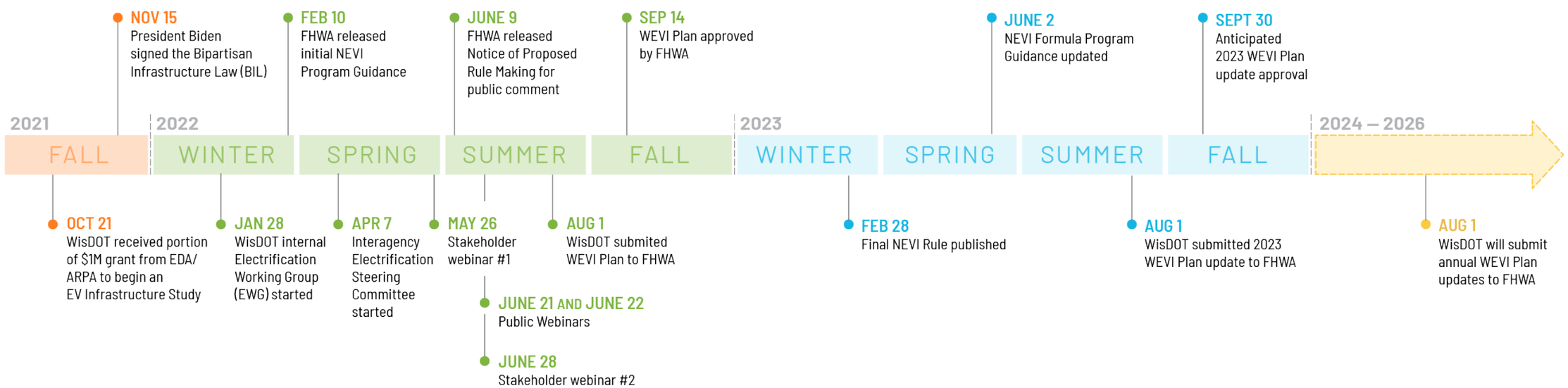
Physical Security and Cybersecurity will identify Wisconsin's approach to avoid compromising stations, vehicles, and personally identifying information or other sensitive data.

Program Evaluation identifies plans to evaluate performance in achieving Wisconsin's 5-year plan vision and goals.

1.3 State Plan for Electric Vehicle Infrastructure Deployment Development and Adoption

Below is a graphic to outline the progression of planning efforts in Wisconsin, including key dates at the state and federal level.

Figure 1-1: Planning Process Timeline



2 STATE AGENCY COORDINATION AND PUBLIC ENGAGEMENT

2.1 State Agency Coordination Introduction

Wisconsin's comprehensive approach to state agency coordination in the development and approval of the WEVI Plan includes:

- Establishment of the Wisconsin Electrification Steering Committee (ESC)
- Individual meetings and coordination with state agencies
- Coordination with the Wisconsin Economic Development Corporation (WEDC)
- Establishment of the Wisconsin Department of Transportation Electrification Workgroup (EWG)

The following sections provide further detail for each state agency coordination activity including roles and responsibilities of the committees and other groups. WisDOT continues to work with these agencies in the ways discussed below.

2.1.1 Memoranda of Understanding (MOUs) with Other State Agencies

WisDOT does not have any formal MOUs for NEVI Formula Program administration with other state agencies. However, as the following sections detail, collaboration is an important value for WisDOT as an agency, and WisDOT has taken a collaborative approach in all elements of NEVI planning and implementation to date.

WisDOT continues to convene an Electrification Steering Committee (ESC) comprised of a diverse set of state agency partners, host a continuing set of one-on-one collaboration meetings with peer state agencies, and host an internal WisDOT Electrification Workgroup comprised of various agency division staff. WisDOT will continue to approach NEVI Formula planning, annual WEVI Plan updates, and program administration with a collaborative, team-based approach.

2.2 Wisconsin Electrification Steering Committee

Electric vehicles and system electrification is not a centralized topic. Multiple Wisconsin state agencies are impacted by potential deployment decisions and strategies. To ensure Wisconsin reflects a comprehensive perspective in the WEVI Plan, an external steering committee was created with six state agencies including the Department of Transportation; Department of Natural Resources; Department of Agriculture, Trade and Consumer Protection; Wisconsin Economic Development Corporation; Department of Administration/Office of Sustainability and Clean Energy; and Public Service Commission.

As the lead agency of the ESC, WisDOT coordinated with the state agencies to collaborate on and define key roles and responsibilities relative to electrification, as summarized in **Table 2-1.** Following adoption of the WEVI Plan, the ESC continued to schedule monthly meetings to receive updates and discuss NEVI infrastructure standards and requirements, the Buy America waiver, discretionary programs, and program management. ESC will be asked to review the 2023 WEVI Plan update prior to submittal and to recommend modifications.

Table 2-1: Agency Members of the Wisconsin Electrification Steering Committee and Responsibilities

Department	Responsibilities
Wisconsin Department of Transportation	Responsible for administering the NEVI Program funds Lead for WEVI Plan Data collection and analysis - corridor mapping, vehicle data, state owned parcels/real estate Legislative considerations: State highway and Interstate restrictions County and local roads coordination Administer the existing EV registration surcharge Program administration for other EV and EVSE eligible programs (Congestion Mitigation Air Quality (CMAQ), Carbon Reduction Program (CRP)) Propose Alternative Fuel Corridors for designation
Wisconsin Department of Natural Resources	Environmental issues State parks Air quality
Wisconsin Department of Agriculture, Trade and Consumer Protection	Consumer protection regulation, specifically monitoring for unfair trade practices and deceptive advertising Regulation of commercial weights and measure devices including EVSE (by adopted standard) Fuel tank/tank attribute setback requirements in relation to hazards (EVSE)
Wisconsin Economic Development Corporation	Industry and manufacturing opportunities within Wisconsin Monitor Buy America policies U.S. Economic Development Association grant management
Wisconsin Department of Administration	Office of the Sustainability and Clean Energy Clean Energy Plan administration Volkswagen (VW) settlement funds administration Regional Electric Vehicle Midwest – point of contact Lake Michigan Circuit – point of contact Fleet upgrades
Public Service Commission of Wisconsin	Office of Energy Innovation Energy Innovation Grants Electric grid reliability Utility definitions, relationships, and regulation

Together, Wisconsin's state agencies are discussing topics ranging from consumer protection, state legislative needs, infrastructure and consumer safety, grid capacity, government roles and responsibilities, and ongoing collaboration. The agency representatives were provided the 2022 WEVI Plan and had an opportunity to comment prior to the 2023 WEVI Plan submittal. Coordination efforts continued into 2023 and the agencies were briefed on the 2023 WEVI Plan update.

2.3 Individual Agency Coordination

In addition to the ESC meetings, one-on-one meetings between WisDOT and state agencies were conducted to solicit input in the creation of the WEVI Plan. Table 2-2 lists those agencies and the topics discussed with each.

Table 2-2: One-on-One Discussions with State Agencies

Agencies	Discussion Topics
Public Service Commission of Wisconsin (PSC)	Grid capacity Utility involvement in EVSE – historical, current, future Electric rate structure
Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP)	Regulation of EVSE
Wisconsin Economic Development Corporation (WEDC)	EDA grant coordination Stakeholder recommendations

2.3.1 WEDC Economic Development and Supply Chain Analysis

During 2022, the WEDC began developing a strategy for transitioning Wisconsin's manufacturing base and innovation ecosystem toward EVs and electrified technologies. In May 2023, the WEDC released a report titled "Wisconsin's Electric Vehicle/Electrification Supply Chain Strategy." The report assessed the disruption risks faced by Wisconsin's automotive suppliers; developed strategic and policy recommendations to assist Wisconsin companies to navigate the long-term transition to EV and identified state and local assets that Wisconsin can leverage to implement these recommendations.

The WEDC is in the process of developing a set of supplementary recommendations to the original strategy focused on Wisconsin's broader electrification cluster, including power electronics, power transmission, and other electrical equipment manufacturing. This supplement will build on the recommendations of the original strategy, providing an assessment of the strengths, weaknesses, opportunities, and threats faced by the electrification cluster. Upon its completion, results of the WEDC supplemental study may be integrated into future revisions of the WEVI Plan as applicable.

The WEDC has interviewed EV equipment suppliers that are based in, or have operations in, Wisconsin. In these interviews, information was collected about their EV infrastructure development work for other states, regions, or countries. The WEDC is planning to conduct brief case studies on how other states and regions have pursued opportunities to utilize American-made EVSE as they develop their EV infrastructure.

2.4 Intra-agency Working Group

WisDOT is one of only two state DOTs in the nation with the State Patrol and the Division of Motor Vehicles as divisions of the agency organizational structure. This enables WisDOT to seamlessly develop a workgroup with all its divisions to gain a holistic understanding of transportation electrification concerns, needs and goals.

2.4.1 Electrification Workgroup

The Electrification Workgroup (EWG) is comprised of representatives from every division within WisDOT who were nominated by division leadership based on their expertise in department policies and programs. EWG works to define and implement Wisconsin's transportation electrification policies and procedures.

Table 2-3: WisDOT Division Members of the Electrification Workgroup

Division	Responsibilities
Division of Budget and Strategic Initiatives	Lead on developing WEVI Plan Budget and revenue management EVSE corridor planning EDA grant administration State and federal regulations and policies Inter-agency coordination Stakeholder and public engagement
Division of Business Management	Fleet conversion Data system needs and security
Division of Motor Vehicles	EV registration data Surcharge collection
Division of State Patrol	Vehicle safety and enforcement
Division of Transportation Investment Management	Corridor mapping and traffic data Regional planning Administration of WisDOT programs Local Programs, county and municipal program funding and contractual support Alternative Fuel Corridor program nominations and coordination Coordination with Metropolitan Planning Organizations and Regional Planning Commissions Statewide long-range planning
Division of Transportation Systems Development	Guidance on right-of-way (ROW) use, access management, utility accommodation and permitting Project development and process documentation Intelligent Transportation System deployment Roadside facilities management

Initially, group representatives received the questions/prompts a month before the meetings to ensure time for discussions to occur within the individual divisions prior to the meeting. Discussion prompts included impacts to work occurring in specific work areas, concerns regarding electrification, legal implications and barriers, brainstorming optimal partnership and placement opportunities for EVSE, data requirements, and equity considerations. Since the adoption of the WEVI Plan, discussions have been specific to the implementation of the WEVI Plan

Discussion prompts directly informed sections within the WEVI Plan such as state agency coordination, public engagement, WEVI Plan vision and goals, EV charging infrastructure deployment, implementation,

equity considerations, and cybersecurity. The EWG was also provided the opportunity to review the WEVI Plan before it was submitted and to offer any feedback to its contents.

Since adoption of the WEVI Plan, the EWG has scheduled monthly meetings to receive updates and provide input about NEVI compliance standards, the 2023 WEVI Plan update and its associated Stakeholder Gap Analysis (see **Section 2.10**). Ongoing public outreach initiatives and program deployment and management functions were also discussed. The EWG will have the opportunity to review the 2023 WEVI Plan update as it did prior to submittal of the WEVI Plan in August 2022.

2.5 Public Engagement Introduction

The values statement for WisDOT has guided the development of the WEVI Plan and will continue to do so throughout its implementation. The values statement, entitled **WisDOT IDEA**, includes the following:

> **Integrity –** Building trust and confidence in all our relationships through honesty, commitment, and the courage to do what is right.
> **Diversity –** Creating an environment, inclusive of all people and opinions, and which cultivates opportunities to bring varied perspectives to our work and decision making.
> **Excellence –** Providing quality products that exceed our customers' expectations by being professional and the best in all we do.
> **Accountability –** Being individually and collectively responsible for the impact of our actions on resources, the people we serve, and each other.

The values of WisDOT IDEA lay the foundation for the robust and inclusive public and stakeholder organization engagement strategy implemented through the WIEV Initiative and the WEVI Plan development. Included in the strategy are five public engagement objectives:

1. Identify and involve key stakeholder groups in the WEVI Plan's development.
2. Engage the public on preferred EV charging station locations, charging preferences, costs, and future use of electric vehicles.
3. Engage stakeholders to ensure EV charging infrastructure achieves equitable and fair distribution.
4. Ensure public participation opportunities are provided to facilitate audience accessibility.
5. Establish public participation opportunities when the WEVI Plan is updated, and/or new federal guidance is made available.

The following summarizes Wisconsin's community engagement outcomes, the public engagement strategies used during WEVI Plan development and in the 2023 WEVI Plan update to obtain feedback.

Website and Engagement Tools
Contact Database / Subscription and Comment Forms
Stakeholder Organization Engagement Activities
Public Engagement Activities

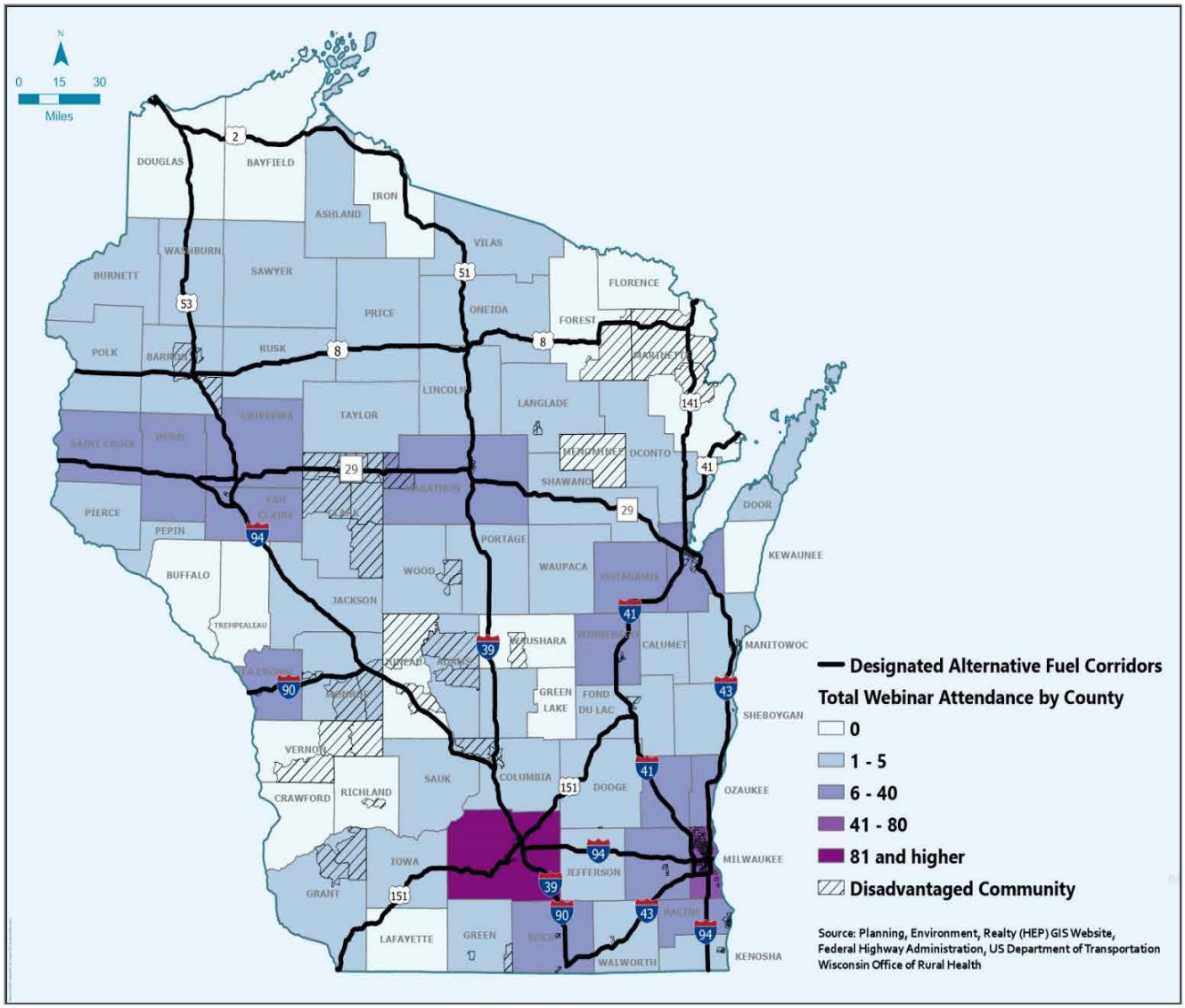
2.6 Community Engagement Outcomes Report

This section details Wisconsin's general and specific engagement outcomes. The outcomes include the reach Wisconsin has had in educating stakeholders and the public about the NEVI Program and the WEVI Plan and how this reach has led to diverse feedback that continues to develop Wisconsin's electrification approach. This approach is discussed briefly here and in more detail in Chapter 5. The sections following the Outcomes Report detail how the feedback was received and the additional information behind these outcomes.

2.6.1 General Engagement Outcomes

The 2022 WEVI Plan engagement attracted a total of **511** participants to four webinar events. Wisconsin is proud of its engagement effort that reached people within 54 of Wisconsin's 72 counties in a two-month timeframe, as shown in **Figure 2-1**. Wisconsin is pleased that 226 quality public comments were received and considered for this WEVI Plan, subsequent plans and the deployment phase of Wisconsin's Electrification Initiative.

Figure 2-1: Total Webinar Event Participants by County



2.6.1.A. COMMON WEBINAR FEEDBACK

The following ten common themes emerged from the WEVI Plan stakeholder organization and public engagement events and activities:

- Commercial entities are excited about the WEVI funding opportunity, are eager to learn about the selection criteria, and want to apply as soon as possible.
- Limiting EVSEs to a minimum of 150 kW per port is of concern to manufacturers working on new technology, such as inductive charging, and those who have already invested in DCFC EVSE.
- There is excitement about looking at land use patterns as part of the selection criteria.
- Desire for Wisconsin – already a manufacturing state – to have a major role in EVSE manufacturing to support local and state economic development and job growth.
- Electric grid supply and capacity is a concern with the requirement for 600 kW at one site, especially as more manufacturers switch to 100% electric.
- There is excitement about the ability to fund EVSE connected to renewable energy and storage.
- Supply chain concerns are prevalent since all 50 states could be procuring American-made EVSE at the same time.
- Desire for guidance on the funding availability for EVSE not on the AFCs.
- Affordability and equity concerns regarding EVs and desire for government to incentivize light-duty vehicle manufacturers to reduce EV prices.
- Funding needed for medium- and heavy- duty vehicle EVs and EVSE since shipping and freight companies, municipal fleets, and fire stations are currently investing in EVs, and they produce the most tailpipe emissions.

2.6.2 Industry Specific Engagement Outcomes

2.6.2.A. TRIBAL ENGAGEMENT

Dedicated to consistent and continuous tribal coordination and engagement, WisDOT and the Inter-Tribal Task Force hold annual tribal transportation conferences. These conferences bring together industry, tribal, federal, and state officials to discuss transportation programs, business, and labor development, as well as cultural and environmental issues. The 2022 conference was held at the Ho-Chunk Casino Hotel and participants included all eleven of Wisconsin's federally recognized tribal governments.

WisDOT presented on the WEVI Plan at the conference, responded to questions, and offered an opportunity for those interested to meet with WisDOT. The department conducted one-on-one stakeholder meetings with the Ho-Chunk Nation and Forest Potawatomi and will meet with any of Wisconsin's other nine federally recognized tribes to discuss the WEVI Plan in more detail if they request a meeting.

2.6.2.B. UTILITY ENGAGEMENT

During development of the 2022 WEVI Plan, WisDOT focused on engaging with small and rural utility cooperatives and continued this engagement into the 2023 WEVI Plan update. WisDOT will also continue to engage with larger utilities to ensure that all needs are known and incorporated into the development of the WEVI Plan as implementation approaches.

After submission of the 2022 WEVI Plan, WisDOT engaged with a variety of utilities as it sought to ensure the needs and key considerations of utilities were incorporated into future plans. These key considerations

included topics such as grid capacity, impact on consumer rates, and deployment timeline. WisDOT intends to continue these conversations as the WEVI Plan evolves.

Table 2-4 below shows the full list of utility stakeholders engaged prior to and since submission of the 2022 WEVI Plan.

Table 2-4: Utility Stakeholder Engagement for WEVI Plan

Category	2022 WEVI Plan	2023 WEVI Plan Update
Small Cooperative/Company	Consolidated Water & Power Company Dairyland Power Cooperative Jackson Electric Cooperative	Barron Electric Cooperative Central Wisconsin Electric Cooperative Kaukauna Utilities Jackson Electric Cooperative
Larger Utilities/Associations	WEC Energy Group Alliant Energy Midwest Tribal Energy Resources Association Xcel Energy	Alliant Energy Municipal Electric Utilities of Wisconsin

2.6.2.C. SITE-SPECIFIC PUBLIC ENGAGEMENT

With the majority of its stakeholder and public engagement focused on potential EVSE site hosts, Wisconsin continues to work to understand and reply to their needs and will continue to do so as the state continues developing the WEVI Program. One of the most common needs expressed by potential site hosts was a desire to know which AFC exits were most equipped electrically to host EVSE sites and which Wisconsin would rate as most preferred.

An outcome of these meetings was the determination that there was a need for more specific information. Wisconsin met this need by developing an interactive GIS webtool identifying the EVSE charging infrastructure gap segments on the WisDOT system, as discussed in **Chapter 4.**

2.6.2.D. EQUITY ORGANIZATION ENGAGEMENT

Equity organizations, especially ethnic and minority chambers of commerce, want to ensure their communities are involved in the WEVI programming efforts in the following ways:

- Entrepreneurs in their communities are informed on how to become potential site hosts.
- Minority and rural communities have access to the EV infrastructure.
- Electricians in the communities are aware of the EVITP certification and are able to be involved in this newer EV infrastructure workforce.

Organizations were provided with the Electrification of Wisconsin website address containing state and local resources, the WEVI Plan PowerPoint presentation, the section of the WEVI Plan that discusses EVTIP, specific resources requested, the subscription form link to receive additional information and the comment form link.

WisDOT requested that the organizations post the information on their websites and/or newsletters and asked for additional contacts to speak with about the WEVI Plan and the forthcoming program. Wisconsin will ensure these equity needs are addressed in the development and implementation of the WEVI Program. Wisconsin will also continue its outreach to this important sector.

2.7 Engagement Tools

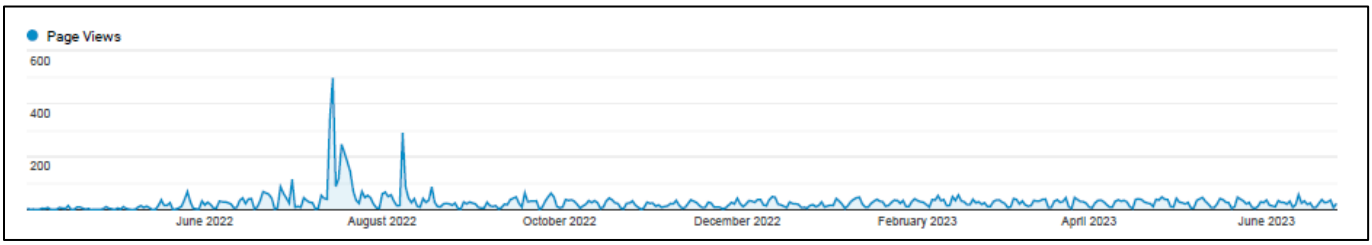
The engagement tools discussed below were implemented at the beginning of the project and continue to be applied to provide information and gain input and feedback.

2.7.1 Electrification of Wisconsin Website

WisDOT launched its Electrification of Wisconsin website on March 23, 2022. It provides information on the department's ongoing EV infrastructure efforts and WEVI Plan development. Links to the stakeholder and public webinar events, discussed in detail below, are posted on the website as are links to the database subscription and comment forms, state and federal resources and approved and pending WEVI Plans.

The public involvement activities, posted on the website, provide a road map for obtaining imperative information from the public and stakeholder organizations. The engagement tools ensure Wisconsin has a high-level of equitable public and stakeholder organization collaboration in the WEVI Plan development and that the WEVI Program is being developed in part from public and stakeholder input. The website saw traffic throughout the 2022 WEVI Plan period, especially when public input was sought prior to the Plan submittal, as indicated in **Figure 2-2.** The website continued to see traffic through the 2023 WEVI Plan update development.

Figure 2-2: Electrification of Wisconsin Website Pageviews, March 2022 – June 2023



2.7.2 Contact Database / Subscription and Comment Forms

Wisconsin developed and now maintains a stakeholder and public contact database comprised of the following groups. They were engaged throughout the development of the 2022 WEVI Plan and this 2023 WEVI Plan update

- Utility, freight and logistics, and labor and workforce companies
- Private sector partners
- State, regional, and local government representatives
- Tribal nations representatives
- Underserved and disadvantaged community representatives

The database generated a registration form for those interested in receiving WEVI Plan specific updates and a comment form. The form is posted on the Electrification of Wisconsin website. At the time of the 2022 WEVI Plan submittal, the contact database had over **800 contacts.** At the time of the 2023 WEVI Plan update submittal, the database had over **1,100 contacts.** This database enables Wisconsin to summarize public engagement continuously and effectively, and seamlessly connect with the project's contacts.

2.7.3 Media Coordination and Coverage

Multiple local and national news agencies provided coverage on the federal approval of the 202 WEVI Plan and on WisDOT's process. **Table 2-5** lists the date of the coverage, name of the media outlet, the title of the article and the general topics covered in the article. A link to the article is provided in the title column. Wisconsin will continue to coordinate with the media in subsequent WEVI Plan updates.

Table 2-5: Media Coverage

Date	Media Outlet	Title & Link	Topics
6/17/2022	Urban Milwaukee	WisDOT hosting webinars on the future of electric vehicles in Wisconsin	General Public Webinars NEVI Program
6/22/2022	NBC 15	Wisconsin Department of Transportation planning to expand electric vehicle charging stations	General Public Webinars NEVI Program
6/22/2022	WQOW Channel 18 Eau Claire	Wisconsin DOT adding 781 miles of charging-supported new routes for electric vehicles	Wisconsin's Current Charging Stations NEVI Program WEVI Plan
6/22/2022	WEAU 13 News	Wisconsin Department of Transportation planning to expand electric vehicle charging stations	General Public Webinars NEVI Program
6/26/2022	Wisconsin News	Wisconsin Department of Transportation working toward electric vehicles	General Public Webinars NEVI Program WEVI Plan
6/27/2022	Agadir-Group	Wisconsin Department of Transportation working toward electric vehicles	NEVI Program WEVI Plan
6/27/2022	Oshkosh Northwestern	As federal programs lay groundwork for electric vehicles, WisDOT is determining state's role	NEVI Program WEVI Plan
6/29/2022	Construction Equipment Magazine	Wisconsin Looks to Expand EV Charging	General Public Webinars NEVI Program
8/25/2022	Spectrum News 1	Wisconsin makes a push for electric vehicles	EV Registration NEVI Program

Date	Media Outlet	Title & Link	Topics
9/14/2022	Wisconsin Public Radio (WPR)	Wisconsin to build network of fast-charging stations for electric vehicles, but supply chain issues may slow transition	WEVI Program Supply Chain
9/15/2022	FOX 6 Milwaukee	Wisconsin gets $78M for electric vehicle network	WEVI Plan Approval NEVI Program
9/16/2022	CBS 58 Newsroom	Wisconsin to receive $78M in funding to expand electric vehicle charging stations	WEVI Plan Approval Alternative Fuel Corridor Locations
9/16/2022	WMTV NBC 15	Wisconsin to receive nearly $78.65 million for electric vehicle infrastructure	WEVI Plan Approval EVs and Infrastructure
9/16/2022	27 WKOW ABC	Federal Highway Commission approves plan to build public electric vehicle charging stations on major Wisconsin roadways	WEVI Plan Approval Alternative Fuel Corridor Locations
9/17/2022	Wisconsin State Journal	Wisconsin EV charging plan approval clears way for $78M in federal funds	WEVI Plan Approval EVs and Infrastructure
9/23/2022	Tomahawk Leader	Federal Highway Administration green-lights Wisconsin's Electric Vehicle Plan	WEVI Plan Approval Alternative Fuel Corridor Locations
9/27/2022	WSAW-TV	Wisconsin could add electric vehicle chargers on highways by Spring 2023	NEVI & WEVI Alternative Fuel Corridors
9/28/2022	Milwaukee Journal Sentinel	The U.S. DOT OK'd Wisconsin's plan to build a network of high-speed electric vehicle charging stations. Here's what it could look like.	WEVI Plan Approval EVs and Infrastructure
12/9/2022	WUWM 89.7 Milwaukee's npr	Wisconsin DOT has electric plans for the new year – add more EV charging stations	WEVI Plan Approval EV Registrations and Infrastructure
3/20/2023	Wisconsin Public Radio (WPR)	With range? Potential buyers weigh incentives and Wisconsin's infrastructure amid EV transition	EVs and Infrastructure WEVI Program
6/7/2023	Wisconsin Public Radio (WPR)	Law May Prevent Wisconsin From Using $78M in Federal Funds to Build Publicly-Available EV Charging Stations	NEVI & WEVI Electricity sold by kilowatt-hour

2.8 Engagement Activities

Prior to submittal of the 2022 WEVI Plan, Wisconsin focused its engagement on reaching as many people as possible. This was achieved by hosting four stakeholder and public webinars, meeting with Metropolitan Planning Organizations (MPOs) and Regional Planning Commissions (RPCs), and through a social media campaign.

Following submittal of the 2022 WEVI Plan, Wisconsin focused on meeting with stakeholders in-person to provide additional information specific to their needs, answer questions and obtain input and feedback. This was achieved by WisDOT presenting at conferences and meetings.

Since the beginning of the WEVI project planning in April 2022, Wisconsin has continued to focus on having in-person and online one-on-one stakeholder meetings with organizations and businesses that are interested in the WEVI planning effort.

Table 2-6 identifies the engagement activities undertaken prior to Plan submittal, through July 2022, and the activities undertaken from Plan submittal through July 2023.

Table 2-6: Key Engagement Tools and Activities

Activity	Date/s	Engagement Highlights Prior to 2022 WEVI Plan Submittal	Engagement Highlights 2023 WEVI Plan Update
Electrification of Wisconsin Website	Launched March 23, 2022	3,485 total page views	3,638 total page views
Informational Material Dissemination	Emailed in July and August 2022	Sent to over 800 contacts	N/A
Online Comment Form	Emailed to contacts with webinar invitations on 5/17/22, 6/10/22, and 6/17/22	33 online comments received	27 online comments received
Media Coverage	June 17 – June 29, 2022 August 25, 2022 – June 7, 2023	8 articles published	21 articles published
Social Media	June 14, 2022	Audience reached: 29,984 Engagements: 3,585 Clicks: 107	N/A
Press Release	June 2022	1 issued	N/A
Stakeholder Organization Webinars	May 26 and June 28, 2022	305 total participants 97 total comments	N/A
General Public Webinars	June 21 and June 22, 2022	221 total participants 58 total comments	N/A
One-on-One Stakeholder Organization Meetings	May 2022 – July 2022	58 Stakeholder Organization Meetings	53 Stakeholder Organization Meetings
Metropolitan Planning Organization (MPO) and Regional Planning Commission (RPC) Meetings	July 6, 2022 and October 11, 2022	Wisconsin's MPOs and RPCs were invited	58 MPO/RPC attendees
WEVI Plan Public Comments	July 14 – July 24, 2022	226 comments received	N/A
WEVI Presentations	September 13, 2022 – March 29, 2023	N/A	18 events

2.8.1 Engagement Activities Prior to 2022 WEVI Plan Submittal

2.8.1.A. STAKEHOLDER ORGANIZATION ENGAGEMENT ACTIVITIES

From the beginning of Wisconsin's electrification initiative, stakeholder meetings have expanded Wisconsin's understanding of EV charging infrastructure needs and technology.

Wisconsin's first stakeholder webinar was held May 26, 2022. There were **192 participants** and WisDOT received **72 questions and comments**. The webinar began with a presentation, which was followed by a half-hour question and answer period. The presentation outlined the NEVI Program and WisDOT's process, timeline, and framework for the WEVI Plan.

On June 28, 2022, WisDOT held the second stakeholder webinar. There were **113 participants** and WisDOT received **25 questions and comments.** Following a similar platform as the first webinar, the second began with a presentation and then provided an opportunity for participant comments, questions, and responses. A summary of the participant feedback from both stakeholder webinars is located below.

SUMMARY OF STAKEHOLDER WEBINARS

A total of **305 participants** attended Wisconsin's virtual Stakeholder Webinar events and WisDOT received a total of **97 questions and comments** during the events. **Table 2-7** provides common themes and concerns from attendees at the stakeholder webinars.

Table 2-7: Stakeholder Webinar Common Themes

Benefits or opportunities of transportation electrification	Thoughtfulness of EVSE locations in communities Reduction in carbon footprint Incentives for private retailers to install and maintain EVSE
Concerns with using EVs and EVSE	User fees and payment methods, taxes Impact of EVSE on energy consumption and increase in demand on energy grid Reliability and availability of technology for EVSE users Future need of ports more than 150kW ADA accessibility at charging station sites Cost of a charging station
Concerns with NEVI	Supply chain issues slowing down the installation of EVSE Funding requirements and limitations Selection criteria considerations Additional AFCs desired Maintenance responsibilities for EVSE NEVI-compliant criteria Lack of flexibility for funding projects outside of AFCs
Transparency and Coordination	Desire a public comment period Availability of NEVI Program guidance Desire that presentation maps to be publicly shared Program administration funding Clarification of federal rulemaking timeline and allocation Disadvantaged Business Enterprise (DBE) involvement
Deployment Considerations	Ability for out-of-state companies to be selected for contracts Consideration of the walkability of the area connecting charging stations to amenities Traffic count impacts on site location preferences Consideration of alternative power generation options Prioritization of projects already consistent with local zoning and comprehensive plans Consideration of new construction at a potential site exit Number of Request for Proposal (RFP) rounds Site design to allow for vehicles with trailers

2.8.1.B. PUBLIC ENGAGEMENT ACTIVITIES

Two public webinar events were held in June 2022. WisDOT relied on its social media platforms, a statewide news release, and dissemination of invitations to community- and equity-based organizations to inform the public of these events. The public webinar presentations included educational information specific to the need for fast, NEVI-compliant charging stations to meet intercity and interstate mobility, the utility infrastructure, and overall benefits of EVs and infrastructure. Recordings of these webinars were placed on the website for convenient viewing.

SUMMARY OF PUBLIC WEBINARS

A total of **206 participants**, including stakeholders from 97 organizations**,** attended Wisconsin's virtual public webinar events on June 21 and June 22, 2022.

Following WisDOT's presentation, the event was opened for comments and questions. The webinars generated **58 questions and comments**. Table 2-8 provides common themes and concerns heard from the audience.

Table 2-8: General Public Webinar Common Themes

Benefits and Opportunities of Transportation Electrification	Partnerships and coordination of existing plans to maximize effective charging coverage Opportunity to reduce energy consumption Potential for long-term job opportunities Ability for local governments, utilities, and private sites to be owners and operators of EVSE Additional revenue opportunities
Concerns with using EVs and EVSE	Consistency of service and charging speeds Affordability and cost determination methods EVSE timely repairs and maintenance Limited electrical grid supply and potential demand
Concerns with the NEVI Program	Selection criteria for sites is not consistent across states Cost of the EVSE and remaining funds after building out the AFCs Minimum 150kW per port Lack of federal NEVI Program guidance Desire for additional AFC selection Prohibition of EVSE placement at rest areas

2.8.1.C. WEVI PLAN PUBLIC COMMENT SUMMARY

Wisconsin posted the draft 2022 WEVI Plan on its Electrification of Wisconsin website from July 14, 2022, through July 24, 2022, for public comment. A total of 226 comments were received from individuals and organizations located throughout Wisconsin and from other states. Each comment was reviewed and put into one of five categories. These categories and the common themes that emerged in each are provided in Table 2-9.

Table 2-9: WEVI Plan Public Comment Categories and Common Themes

Considerations for Future WEVI Plan Updates or Discretionary Funding Programs	Future AFC and specific municipality or county suggestions Medium-and heavy-duty vehicles and electric bicycles and scooters in planning efforts Add additional renewable energy considerations Fund Level 2 charging in some locations Require charging stations to have CCS and Tesla ports
Site Requirement Suggestions	Ensure stations are maintained and reliable Post up-to-date information on charging station finder applications, i.e., state if a charging station is down and when will be back up Provide clear wayfinding signage Provide drive-through stations under canopies Assign charging station parking spaces and enforce EV-only usage
Deployment Suggestions	Prioritize rural areas Prioritize small town tourist areas Prioritize disadvantaged communities Prioritize sites located at or near specific land uses, i.e., gas stations, restaurants, malls, libraries, trail heads, shopping centers, tourist destinations Provide reimbursements to companies that choose to start the procurement process now to get ahead of supply chain issues
Reasons for Support or Opposition of Wisconsin's Electrification Initiative	Support because it will lower tailpipe emissions Oppose due to battery and charging station disposal concerns Support because it will decrease range anxiety and subsequently increase EV purchases Oppose due to grid capacity concerns Support because it will normalize EV charging and contribute to manufacturers increasing supply and lowering EV prices Oppose because EVs and the charging stations are too costly, and taxpayers shouldn't be responsible for funding the infrastructure just as they don't for gas station pumps Support because EVs are the future of transportation
Considerations for Update or Revision in Existing WEVI Plan	Provide additional details on how charging station locations will be required to meet ADA standards Alternative exits for sites other than those specified Suggestions to further address equity considerations

2.9 2023 WEVI Plan Update Engagement Activities

Identifying a need to engage stakeholders early-on, Wisconsin focused on stakeholder engagement activities prior to the submittal of the WEVI Plan and then throughout 2022 and 2023. This section describes the activities and stakeholders reached via one-on-one meetings, conference presentations and outreach and through MPO and RPC meetings.

2.9.1 One-on-One Stakeholder Organization Meetings

Identified as a central presentation and feedback approach, Wisconsin has focused its continued engagement on holding virtual and in-person one-on-one meetings with stakeholders who have identified interest in the WEVI Plan and efforts and those who Wisconsin deems important to reach out to.

2.9.1.A. MEETINGS PRIOR TO WEVI PLAN SUBMITAL

During the WEVI Plan preparation period from April through July 2022, Wisconsin conducted virtual one-on-one meetings with the **58 stakeholder organizations and businesses** listed below.

Alliant Energy Corporation
American United Transportation Group
CALSTART
Center for Independent Living in Western Wisconsin (CILWW)
Charge Point, Inc.
City of Madison
City of Milwaukee, Department of Public Works
City of Oshkosh
Climate Change Coalition
Consolidated Water & Power Company
Dairyland Power Company
Destination Door County
Eaton Corporation
Eau Claire County
Electrification Coalition
Electrify America
EnTech Solutions
EVgo
EV Public Charging Market
Faithful + Gould
Fii USA
First American Capital Corporation
Franklin Fueling Systems
Francis Energy
Great Plains Institute
Greater Wisconsin Agency on Aging Resources
Husch Blackwell Strategies
Inertial Electric
International Brotherhood of Electrical Workers Local Union 494
Kwik Trip
Midwest Tribal Energy Resources Association
Milwaukee Regional Medical Center (MRMC)
Nomad Planners, LLC
Odyne Systems, LLC
Oneida Energy Resources, LLC
Paper Transport, Inc.
Pieper Power
Powered Up Baraboo
Renew Wisconsin, Inc.
Rock County
Shell Recharge Solutions
Smart Electric Power Alliance
Tesla, Inc.
Tesla Owners Club of Wisconsin
University of Wisconsin Extension Community Economic Development
WEC Energy Group
Werner Electric Supply
Wisconsin Board for People with Developmental Disabilities
Wisconsin Clean Cities Coalition
Wisconsin Council of the Blind & Visually Impaired
Wisconsin Counties Association
Wisconsin Office of Rural Prosperity
Wisconsin Petroleum Marketers and Convenience Store Association
Wisconsin Public Transit Authority (WIPTA)
Wisconsin Technical College System
WPPI Energy
Xcel Energy

2.9.1.B. MEETINGS HELD FOLLOWING 2022 WEVI PLAN SUBMITTAL

One-on-one stakeholder meetings continued following WEVI Plan submittal. Several stakeholders requested follow-up meetings with the department and Wisconsin identified additional stakeholders to contact from referrals, research and the Stakeholder Gap Analysis conducted in spring 2023. The Stakeholder Gap Analysis is discussed in detail in **Section 2.11.**

Wisconsin conducted **53** one-on-one stakeholder meetings during the development of the 2023 WEVI Plan update, as listed below.

African American Chamber of Commerce
Alliance of Auto Innovators
Alliant Energy
American Automobile Association
Barron Electric Cooperative
BlueGreen Alliance
Central Wisconsin Electric Cooperative
Charge Infrastructure
City of Elk Horn
City of Wausau
Cole Oil and Propane
Edgerton Hospital
Electric Vehicle Association – WI Chapter
EV Energy Group
First American Capital Corporation
Fox Valley Technical College
Francis Energy
Great River Road Interpretive Center
Ho-Chunk Nation
Ingeteam
Jackson Electric Cooperative
Kaukauna Utilities
L Charge
Latino Chamber of Commerce
Loves Travel Stops
M&K Imports
Marathon County
Medical College of Wisconsin
Milwaukee Regional Medical Center
Municipal Electric Utilities of Wisconsin
Northeast Wisconsin Technical College
One Energy Renewables
Proven Power
Racine County
RV Industry Association
Schneider National
Terbine
Tesla Owners Club
The State Group
Town of Laona
Tritium
UW-Madison Extension's Community Economic Development Program
Vernon Memorial Healthcare
Village of Oakdale
Village of Phelps
Waushara County
Wisconsin Black Chamber of Commerce
Wisconsin Clean Cities Coalition
Wisconsin Department of Natural Resources – Wisconsin State Park System
Wisconsin Distributed Resources Collaborative
Wisconsin Economic Development Corporation
Wisconsin Office of Rural Prosperity
Wisconsin Procurement Institute

2.9.1.C. STAKEHOLDER MEETING SUMMARIES

Table 2-10 provides a summary of experiences stakeholders have had with EV infrastructure and their common concerns and questions.

Table 2-10: Stakeholder Meeting Common Themes

Experience with EV Infrastructure	Exploring and/or starting EV initiatives Already partnering with commercial and industrial customers Exploring EVSE in rural communities Some stakeholders have experience offering EVSE in addition to other alternative fuel sources
Benefits or opportunities of transportation electrification	Potential to decrease the carbon footprint while meeting customer needs Long-term return on investments benefit Thoughtful placement of where to place EVSE in communities
Concerns with using EVs and EVSE	The cost of EVs need to be cost neutral or better when compared to internal combustion engine (ICE) vehicles The affordability of EVs is a barrier for some Power grid capacity to support EV adoption Anxiety for some about EV battery ranges A lack of education on how to use EV infrastructure Concern regarding not being able to charge EVSE users by kWh in Wisconsin
Concerns with the NEVI Program	150 kW per port is insufficient for heavy-duty vehicles Some stakeholders are pausing current EVSE installation projects while waiting for the deployment of the NEVI Program Supply chain issues may slow EVSE installation 150 kW per port criteria may be too limiting in light of future technology, i.e., inductive charging
Questions for WisDOT prior to 2022 WEVI Plan Submittal	Will the focus of the program be on building new infrastructure or upgrading existing, non-NEVI-compliant EVSE to be compliant? Has WisDOT pre-determined the EVSE site locations or identified priority locations? What is the average cost of a NEVI-compliant EVSE? How and when will WisDOT allocate the program funds? Will the program provide for medium and heavy-duty vehicle charging? Is there the option for installing EVSE before WisDOT starts the program and being reimbursed after the program begins? Will energy demand be an issue in Wisconsin? How will the pricing of EVSE use be handled? Is there guidance on EVSE session pricing?

Questions and Comments following Plan Submittal	What happens to the program if the statutory provision to sell by kWh is not approved by the legislature? How can we help support this initiative? If a community is interested in partnering on a project, what should they do first? Could a Tribe be a partner? Which industry and workforce types is Wisconsin engaging? Detailed questions about the 80%/20% cost match. Has funding already been received? What is the management structure for EV charging? Will this work in rural counties? Are third party vendors taking advantage of the program? Out of the possible 200 site locations Wisconsin has identified, how many of them are in my region? What types of applicants are expected? Are there other incentives for businesses to take part in this program, such as tax decreases, rebates, etc. As a federal project, are there DBE requirements? Why not? Could the Community Reinvestment Act be helpful for this opportunity? Have there been conversations about a mentor-protegee program if there is a gap between the number of electricians at firms and those needed?

2.9.1.D. STAKEHOLDER TYPES

Stakeholders who informed the development of the WEVI Plan and the planning of the WEVI program in the development of the 2022 WEVI Plan broadly represent the following organization types:

- Metropolitan Planning Organizations and Regional Transportation Planning Organizations
- Counties and cities, including coordination with existing EV charging programs
- State environmental protection agency
- State economic development agency
- State public utility commission
- State weights and measurement agency
- State consumer protection agency
- County and municipal public transportation agencies
- State manufacturing extension partnerships
- Emergency/disaster preparedness and public safety agencies
- Tribal governments
- Electric utilities and transmission and distribution owners and regulators
- Community-based organizations, small business associations, Chambers of Commerce, and private entities
- Private sector EV charging station owners and network operators
- Investors in EV charging infrastructure
- Vehicle manufacturers
- Unions and other labor organizations
- Minority- and women-based organizations
- Freight industry groups
- Environmental justice, equity, and other community advocacy organizations EV industry organizations and EV advocacy groups
- Gas station owners and operators
- Ride-share drivers/taxi driver

2.9.2 MPO and RPC Meetings

Wisconsin's MPOs and RPCs were invited to a virtual meeting with WisDOT on July 6, 2022. The MPO/RPC presentation was followed by a discussion. The feedback from the participants aligned with the common themes from other stakeholder meetings as presented in Table 2-10 above.

WisDOT followed up with the MPOs and RPCs at the Bay Lake Regional Planning Conference on October 11, 2022. There WisDOT presented to nearly 60 MPO/RPC representatives about the WEVI planning efforts. MPOs and RPCs are beginning to navigate program activities and navigate NEVI funding opportunities.

2.9.3 WEVI Presentations at Stakeholder Events

WisDOT presented at a variety of events following the initial submittal of the WEVI Plan. Table 2-11 provides information on these events which were held primarily in-person. WisDOT presented to full event participation and to break-out sessions at conferences. WisDOT continues to seek presentation opportunities.

Table 2-11: WisDOT WEVI Presentations

Date	Event Name	Host Organization	Number of Attendees
9/13/2022	Wisconsin's Electric Vehicle Roundtable	Wisconsin Clean Cities	127
9/23/2022	Science Advisory Board Meeting - WI Initiative on Climate Change Impacts	Wisconsin Department of Natural Resources	33
9/30/2022	Fall Best Practices Conference	Wisconsin Economic Development Association	~50
10/6/2022	Alliant Energy Account Manager Training	Alliant Energy	35
10/11/2022	Bay-Lake Regional Planning Conference	Bay-Lake Regional Planning Commission	58
10/12/2022	Wisconsin Automated Vehicle External Advisory Committee	WisDOT	28
1014/2022	Southeast Wisconsin Transportation Symposium	WisDOT and UWM Institute for Physical Infrastructure & Transportation	50+
10/19/2022	National Disability Employment Awareness Month Meeting	WisDOT Affirmative Action Advisory Committee	30
10/25/2022	Tribal Transportation Conference	WisDOT	~50
11/2/2022	Southeast Region State/City/County Coordination Meeting	WisDOT	~10
11/14/2022	City of Milwaukee Environmental Collaboration Office Meeting	City of Milwaukee	25
12/8/2022	Wisconsin Clean Cities Transportation Conference & Annual Meeting	Wisconsin Clean Cities	97
1/20/2023	Wisconsin Distributed Resources Collaborative Meeting	Wisconsin Department of Natural Resources	10
1/26/2023	2023 Renewable Energy Summit	RENEW Wisconsin	~40
2/7/2023	Waukesha County Business Alliance Infrastructure Committee	Waukesha County	~20
3/8/2023	WisDOT Transportation Improvement Conference	The American Council of Engineering Companies of Wisconsin (ACEC WI)	~50
3/16/2023	Electric Vehicle Panel	Wisconsin Technology Association	~75
3/29/2023	Legislative Conference	Wisconsin Fuel and Retail Association	~75

2.10 Stakeholder Gap Analysis

In March 2023, Wisconsin conducted a Stakeholder Gap Analysis to determine who WisDOT had met with and to be intentional about who to meet with during the development of the 2023 WEVI Plan update. The gap analysis began with the development of a master stakeholder organization engagement list that included the type of engagement each participated. The types of engagement participation types analyzed were:

One-on-one stakeholder organization meetings with WisDOT
Attendance at an event where WisDOT presented on WEVI
Attendance at a stakeholder or public webinar held prior to WEVI Plan submittal

2.10.1 Total Stakeholder Engagement

The initial analysis determined that Wisconsin's total stakeholder organization engagement (all participation types combined) from April 2022 through February 2023 included:

210 stakeholder organizations
70 one-on-one stakeholder meetings
16 events
600+ event attendees

2.10.2 Most Engaged Stakeholder Industries and Categories

The Stakeholder Gap Analysis identified the industry types, and categories, which were **most** engaged.

Industry Type	Number of Stakeholder Organizations
Government/Tribal	96
Private Businesses	51
Advocacy Organizations	45
Utilities	25
MPOs/RPCs	17

Categories were established breaking each industry down further to ensure total engagement was had or where additional engagement is needed. The following industry type categories had the **most amount** of engagement:

Category	Industry Type
Local governments	Government
EV/EVSE companies	Private Businesses
Oil & propane companies	Private Businesses
Energy Consumption/Climate organizations	Advocacy

2.10.3 Least Engaged Stakeholder Industries and Categories

2.10.3.A. INDUSTRIES

Following the determination of which industries and categories were most engaged, WisDOT identified the industry types with the **least amount** of WEVI Plan engagement.

Industry Type	Number of Stakeholder Organizations Engaged
Education	6
Transit	6
Healthcare	4

2.10.3.B. CATEGORIES

Wisconsin examined each industry type to determine if there were gaps in the industry engagement and determined there were.

For instance, although the Government industry was identified as having the most engagement with 96 stakeholders, WisDOT determined that the concentration of this engagement was with local, state and tribal governments, whereas counties were engaged with the least.

Likewise, the Advocacy Organization industry was determined as having the third highest engagement at 45 stakeholders, however, the bulk of that engagement was with EV-related industries. Wisconsin determined that there was a gap since the Equity, Trade Union, and Tourism categories were engaged with the least.

2.11 2023 WEVI Plan Update Engagement Strategy

The Stakeholder Gap Analysis, described in **Section 2.10,** assisted WisDOT in determining where to focus its stakeholder engagement following the 2023 WEVI Plan update. **Table 2-12** provides a list of stakeholder categories WisDOT identified as necessary to engage to ensure awareness about the WEVI Plan, the process and gain feedback to assist in the WEVI Program development.

Table 2-12: Strategic Stakeholder Category Engagement

Category	Examples	Industry Type
Equity Organizations	Ethnic chambers of commerce, rural organizations, rural/small electric cooperatives, Disadvantaged Business Enterprises (DBEs)	Advocacy Organizations/Utilities
Counties	Rural counties, Counties that AFC run through that have disadvantaged communities not previously engaged.	Government
Tribal Organizations	One-on-one meetings with Tribes not previously engaged	Government
Tourism Organizations	Convention and Visitor Bureaus	Tourism

2.11.1 Equity Organizations

Wisconsin determined that a successful WEVI Program is in part contingent on it having equitable approaches. Equity is and will continue to be measured by the amount of engagement the State has with its ethnic and minority populations, DACs, their community stakeholder representatives, and rural populations and representatives. The implementation of an equitable program will also be contingent on enabling stakeholders and others to access EV charging equipment in or nearby the communities in which they live and work. More specific measurements are discussed in Chapter 7.

A strategy was developed for continued Equity Organization engagement. WisDOT will focus on engaging the following groups.

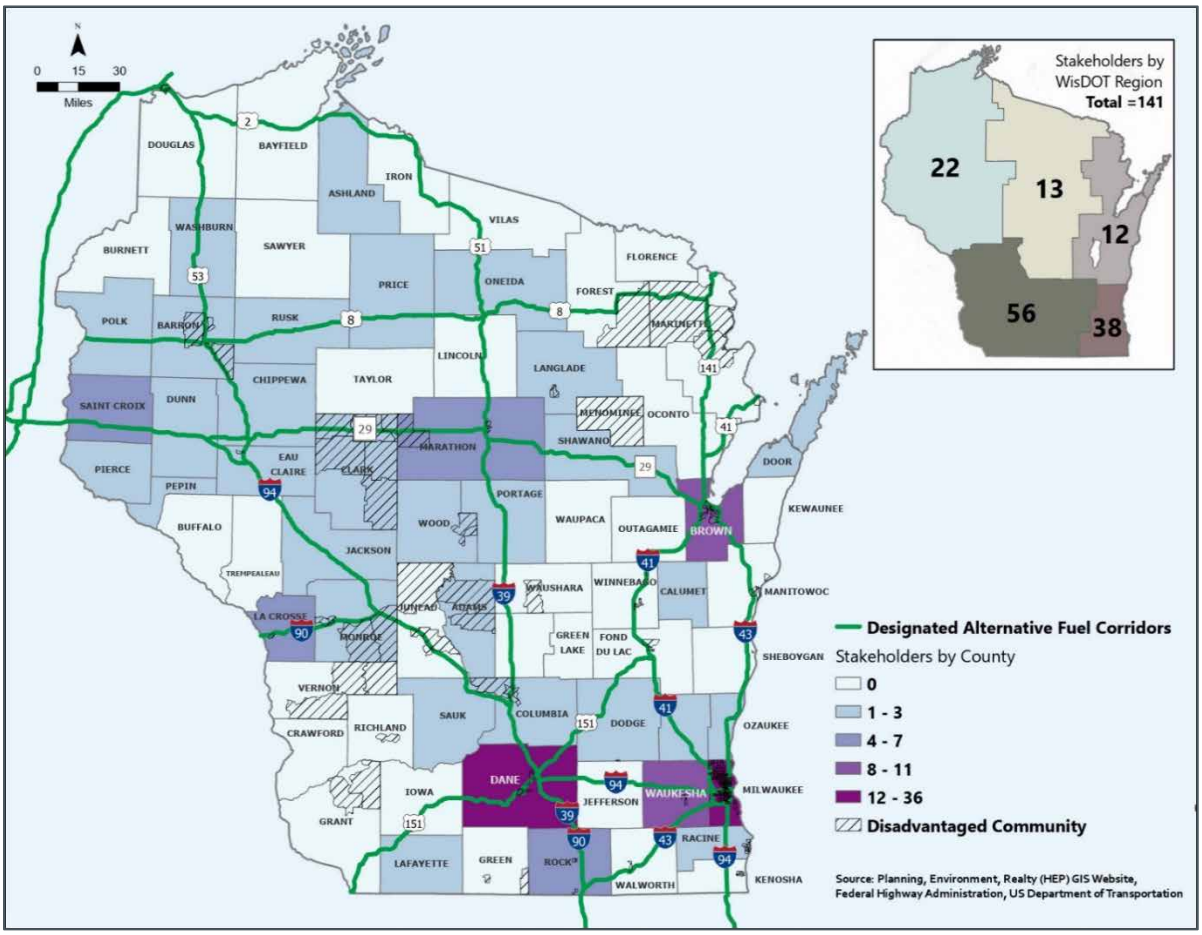
1. Ethnic Chambers of Commerce
2. Rural Electric Utility Cooperatives
3. Disadvantaged Business Enterprises (DBEs) will be engaged once the program is more established.

2.11.2 Counties

The Stakeholder Gap Analysis determined that there was not previous stakeholder engagement with 34 of Wisconsin's 72 counties and that 28 counties had limited stakeholder engagement. As identified in **Figure 2-3** it was further determined that four (4) of those total 62 counties have AFCs running through them, have DACs and had no resident engagement in the public and stakeholder webinars held prior to WEVI Plan submittal. They include:

- Forest
- Juneau
- Marinette
- Waushara, which met with WisDOT in May 2023

Figure 2-3: Stakeholder Engagement by County



2.11.3 Rural Organizations

Rural organizations were defined as both rural county governments and rural advocacy organizations. WisDOT met with Wisconsin Office of Rural Prosperity, a section of WEDC, a second time and sought additional outreach contacts. Wisconsin will engage with these contacts, such as https://wedc.org/programs-and-resources/regional-economic-development-partners/

2.11.4 Tribal Governments

Having presented at the WisDOT Tribal Transportation Conference in October 2022, WisDOT determined there was a need to reach out to additional Tribal Governments individually to ensure their awareness of WEVI and to answer any questions or concerns. This outreach will be focused on more when the WEVI Program is further established.

2.11.5 Tourism Organizations

Wisconsin will send tourist organizations an e-blast following the selection of EVSE sites to let them know about WEVI and to encourage them to advertise forthcoming EVSE along the AFCs in or near their communities.

2.12 Continued Public and Stakeholder Engagement

Wisconsin is dedicated to continuing its robust public engagement throughout the five-year program while deploying EV charging stations across the state. Wisconsin will continue to intentionally seek out ways to engage those from disadvantaged communities who were not involved in initial outreach. These activities will continue to be reported during each of the annual WEVI Plan updates.

3 EXISTING AND FUTURE CONDITIONS ANALYSIS

3.1 Introduction

Electric Vehicle (EV) consumer adoption rates are rapidly increasing in Wisconsin, and it is anticipated this growth will have significant impacts on Wisconsin's economy, workforce, and transportation system. The following chapter provides an analysis of existing and future conditions in the state to ensure a successful build-out of Wisconsin's EV charging network.

Wisconsin is well-positioned to maximize available NEVI Program funding, build out the state's charging network, and meet the growing demand for EVs on the road.

3.2 Existing Electric Vehicle Infrastructure

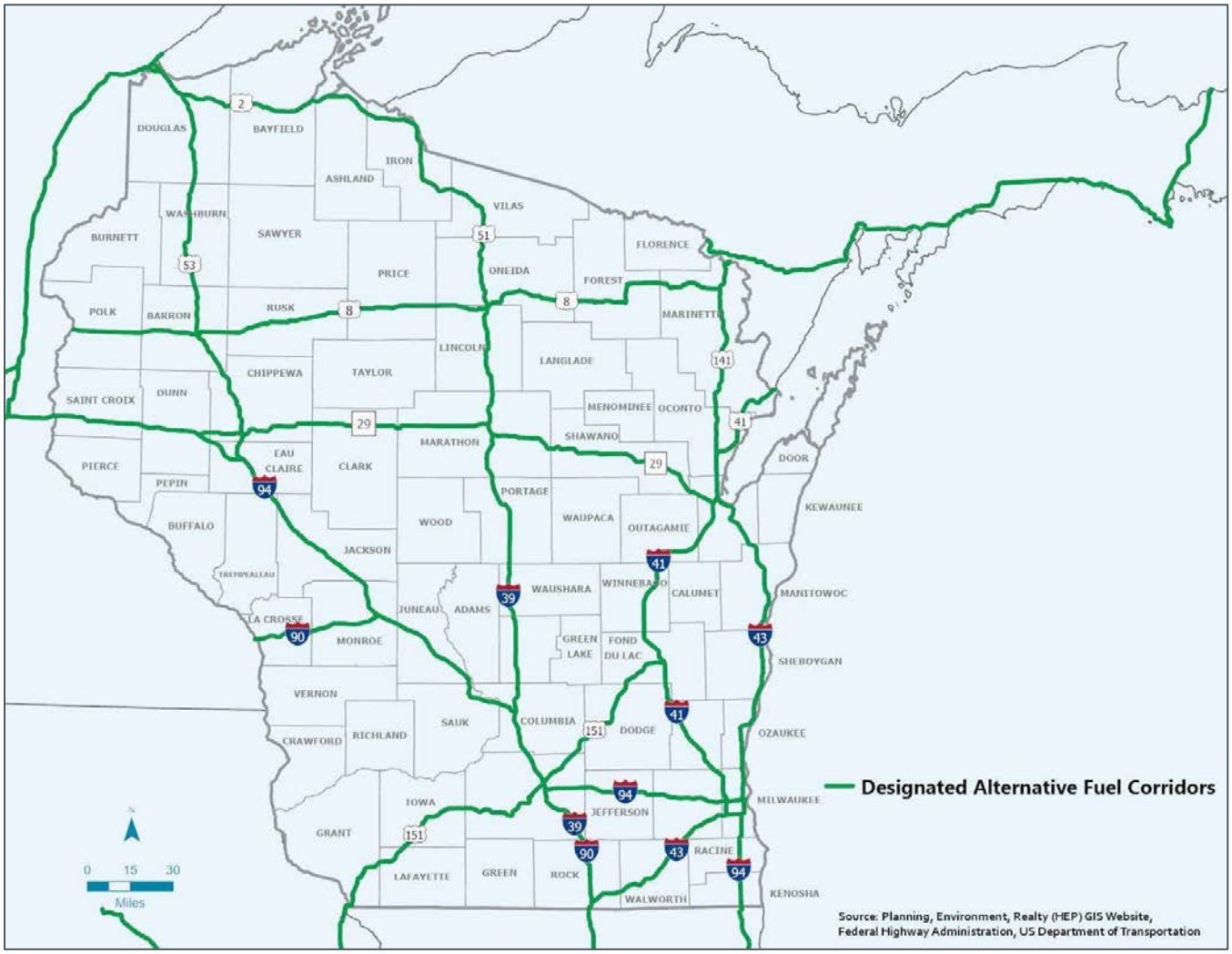
This section provides information on Wisconsin's existing EV infrastructure, including its designated Alternative Fuel Corridors (AFCs) and its existing charging station locations.

3.2.1 Alternative Fuel Corridor Designations

FHWA issued a Request for Nominations Memorandum (2022 Round 6 AFCs) dated February 10, 2022, to allow for states to nominate new corridors for the NEVI Program. WisDOT submitted new nominations to provide greater geographic equity to facilitate better connectivity and access across Wisconsin. FHWA approved all of Wisconsin's nominations on July 5, 2022. No new corridors were nominated in Round 7.

As presented in **Figure 3-1**, Wisconsin's designated Alternative Fuel Corridors are portions of I-90, I-94, I-39, I-41, I-43, I-535, U.S. 151, U.S. 53,portions of U.S. 51, WIS 29, U.S. 2, and U.S. 141, and all of U.S. 8 and U.S. 41.

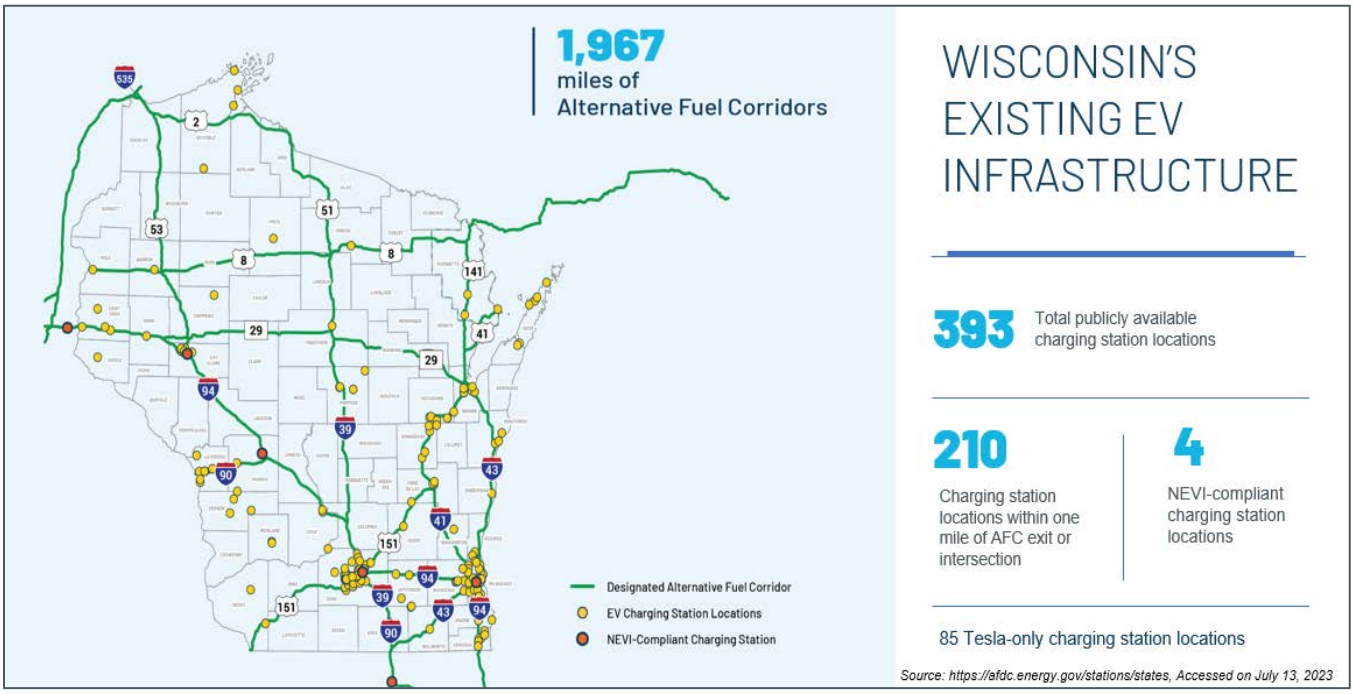
Figure 3-1: Wisconsin's Designated Alternative Fuel Corridors



3.2.2 Existing Charging Stations

Figure 3-2 provides a comprehensive view of Wisconsin's existing EV infrastructure conditions. According to the U.S. Department of Energy Alternative Fuel Data Center, there are currently 393 publicly available charging station locations in Wisconsin. Of these, 210 are located within one mile of an AFC and four are NEVI-compliant.

Figure 3-2: Wisconsin's Existing EV Infrastructure



3.2.3 NEVI-Compliant EV Charging Station Locations

The U.S. Department of Energy Alternative Fuel Data Center identifies four of Wisconsin's existing charging station locations as NEVI-compliant because they meet the minimum NEVI Program standards of having four ports able to charge EVs at 150 kW simultaneously and are within one-travel-mile from an AFC. Wisconsin will continue to report on compliant charging station locations as the program evolves. **Figure 3-3** illustrates where these NEVI-compliant charging stations are located and a 25-mile radius surrounding them, which is the base for Wisconsin to determine where attention needs to be directed to fill the first 50-mile gaps.

Figure 3-3: Wisconsin NEVI-Compliant EV Charging Stations and Alternative Fuel Corridors

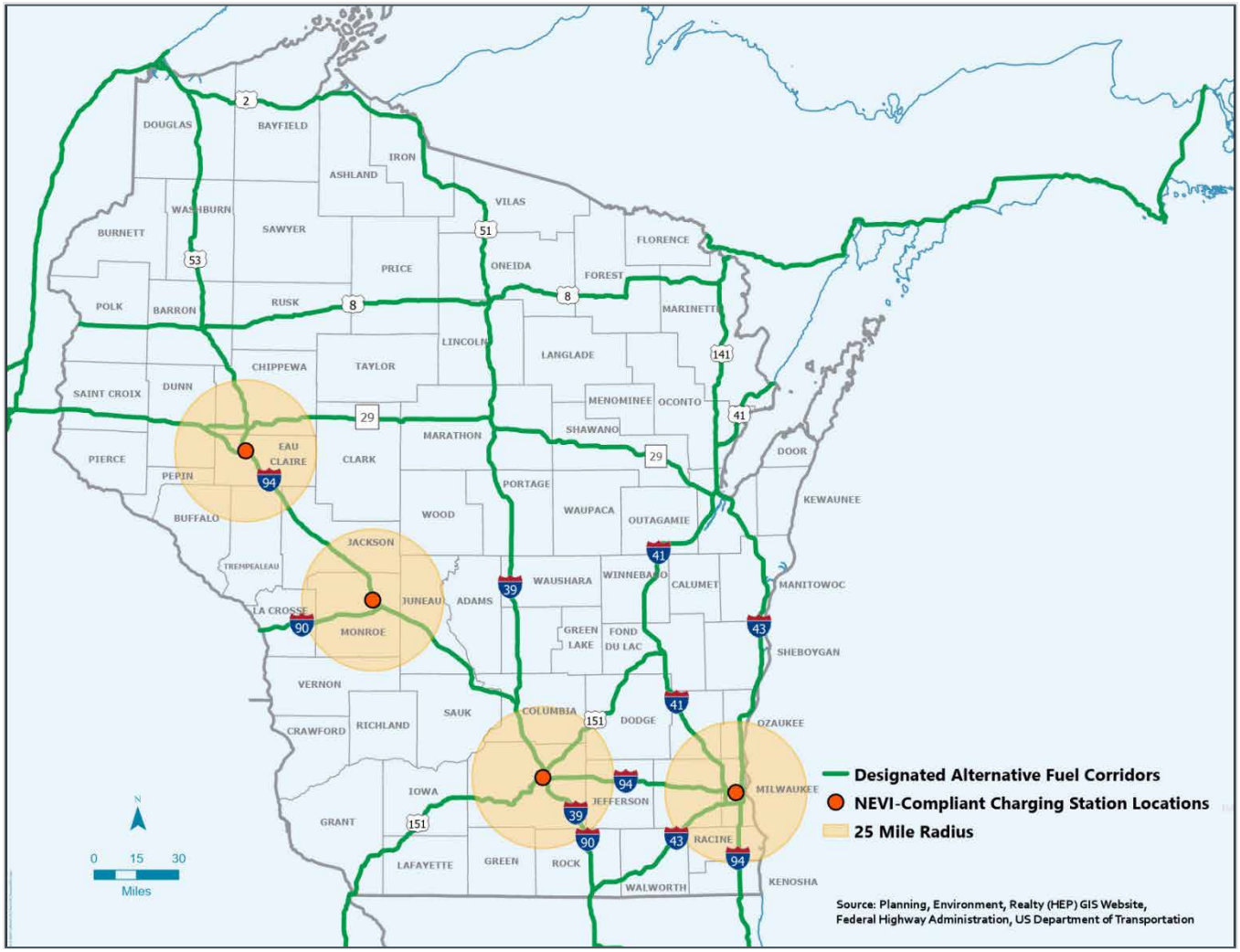


Table 3-1 provides detailed locations for each of these NEVI-compliant charging stations. WisDOT intends to work with these existing stations to gather and report all required NEVI Program information to credit these stations toward a fully built out certification as detailed in the updated NEVI Program Guidance released on June 2, 2023.

Table 3-1: Wisconsin NEVI-Compliant EV Charging Station Locations

ID	Charger Level	Route	Latitude	Longitude	EV Ports	EV Network	Meets all Relevant Requirements in 23 CFR 680	Intent to Count Towards Fully Built Out Determination
121711	DCFC	US 53 (Eau Claire)	44.774773	- 91.428375	4	Electrify America	In Discussion*	Y
122809	DCFC	I-94 (Tomah)**	44.019245	- 90.508558	4	Electrify America	In Discussion*	Y
237715	DCFC	US 151 (Madison)	43.110223	- 89.311529	6	Electrify America	In Discussion*	Y
190417	DCFC	I-94 (West Milwaukee)	43.017416	- 87.965306	10	Electrify America	In Discussion*	Y

Source: *Alternative Fuel Data Center, June 30, 2023.*
**Discussions with FHWA about 680.116(c): Third-party data sharing requirement is ongoing.*
***Electrify America chargers are going through maintenance and will be restored to 150 kW or 350 kW power levels. Electrify America only installs equipment with 150 kW or more of dedicated power.*

3.2.4 Planned Charging Stations

Currently, WisDOT does not have planned or under construction charging stations. Private companies may have charging stations planned or in construction in Wisconsin.

Table 3-2: Stations Under Construction

State EV Charging Location Unique ID*	Route (note if AFC)*	Location (street address)*	Number of ports*	Estimated Year Operational*	Estimated Cost*	NEVI Funding Sources*	New Location or Upgrade?*
N/A							

**Columns to be populated after the contracts are awarded by the State.*

Table 3-3: Planned Stations

State EV Charging Location Unique ID*	Route (note if AFC)*	Location (street address)*	Number of ports*	Estimated Year Operational*	Estimated Cost*	NEVI Funding Sources*	New Location or Upgrade?*
N/A							

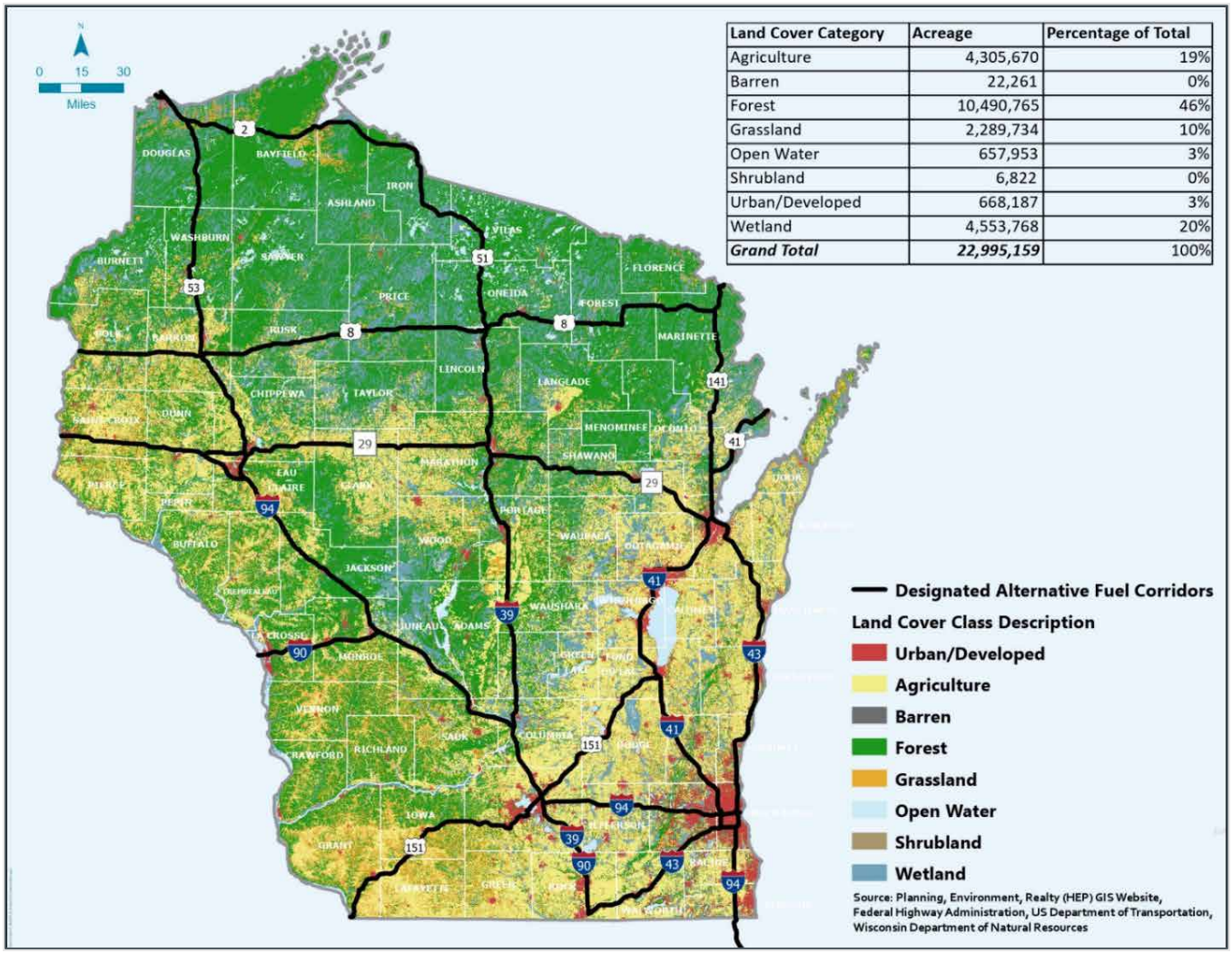
**Columns to be populated after the contracts are awarded by the State.*

3.3 State Geography, Terrain, Climate and Land Use Patterns

3.3.1 Geography and Terrain Patterns

Figure 3-4 shows Wisconsin's land cover in relationship to the designated AFCs. Primary land cover categories include forest, wetland, agriculture and grassland, with localized urban/developed areas. Wisconsin has designated AFCs located in or near each of the eight land cover categories.

Figure 3-4: Wisconsin's Land Cover and Alternative Fuel Corridors

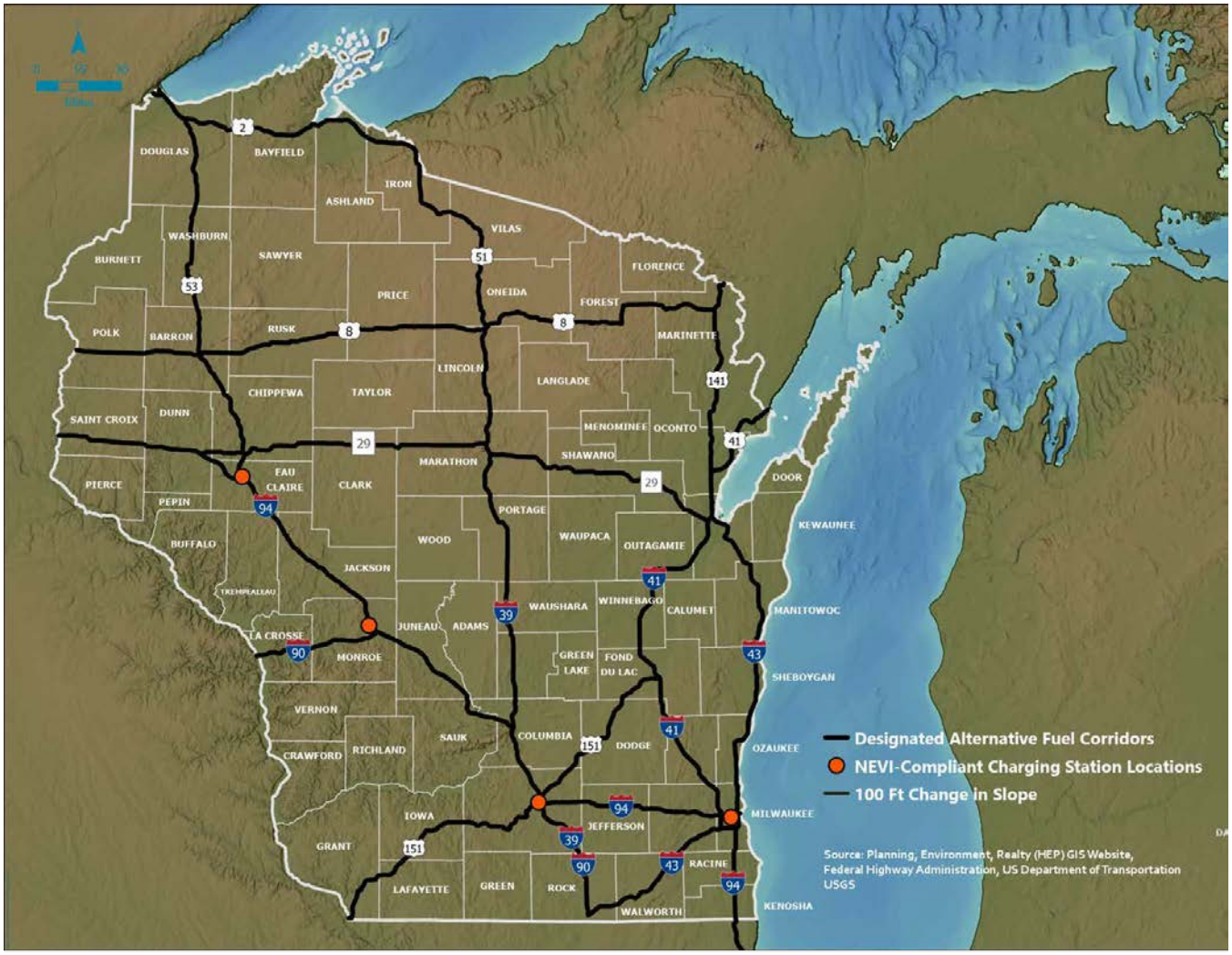


Land Cover Category	Acreage	Percentage of Total
Agriculture	4,305,670	19%
Barren	22,261	0%
Forest	10,490,765	46%
Grassland	2,289,734	10%
Open Water	657,953	3%
Shrubland	6,822	0%
Urban/Developed	668,187	3%
Wetland	4,553,768	20%
Grand Total	***22,995,159***	100%

Figure 3-5 shows Wisconsin's terrain in relationship with designated AFCs. Wisconsin's elevation and terrain are relatively mild and pose little risk.

WisDOT does not anticipate any specific EV charging infrastructure deployment challenges related to the state's geography and terrain and will coordinate with site hosts to ensure that any site-specific geography or terrain characteristics are appropriately addressed during EVSE deployment.

Figure 3-5: Wisconsin's Terrain and Alternative Fuel Corridors



3.3.2 Climate Breaks

Wisconsin experiences a variety of climate patterns, with cold air masses that usually originate from the north affecting the state during the winter months and warm. In contrast, warm humid weather from the south typically flows to the state during the summer months. The state is bordered by Lake Superior to the north and Lake Michigan to the east, which affects temperatures and precipitation up to 15 miles inland along and from the lakes' shorelines.

3.3.2.A. EXISTING TEMPERATURE PATTERNS

Annual average temperatures vary from 39 degrees Fahrenheit in the northern portion of the state to 50 degrees in the southern portion of the state. **Figure 3-6** and **Figure 3-7** display the historical trend of the average state winter and summer temperatures. The dots show the annual values whereas the bars show averages over five-year periods (last bar is a six-year average). The horizontal black lines show the long-term (entire period) averages of 16.1°F in the winter and 66.7°F in the summer.

Figure 3-6: Observed Winter Temperature

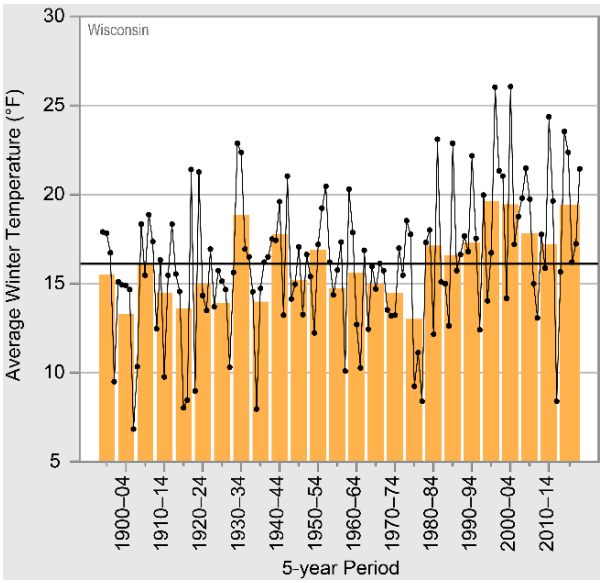
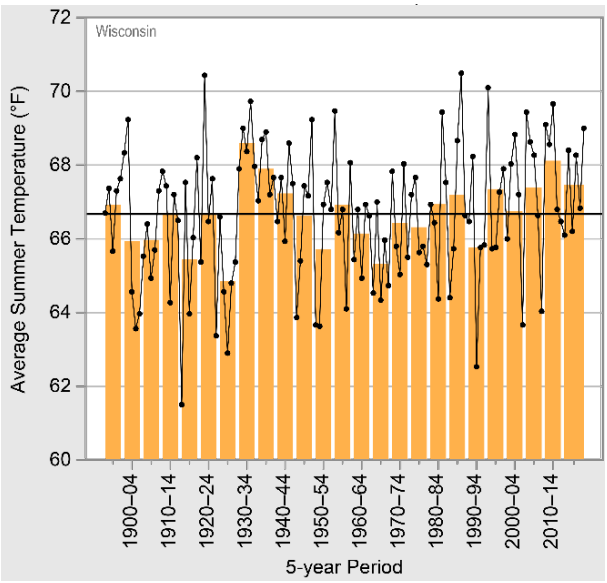


Figure 3-7: Observed Summer Temperature



Source: *Wisconsin State Climate Summary, National Oceanic and Atmospheric Administration (NOAA) National Centers for Environmental Information, 2022, https://statesummaries.ncics.org/downloads/Wisconsin-StateClimateSummary2022.pdf*

3.3.2.B. EXISTING PRECIPITATION PATTERNS

Most of the state's precipitation occurs during the warmer summer months with a range from 20.5 inches in 1910 to 44.6 inches in 2019. Due to the state's northern location, severe winter storms can be a regular occurrence. Snowfall varies within the state from 30 inches total accumulation in the south to more than 100 inches in the northern portion of the state along the Gogebic Range, which creates more lake-effect snow along the south shore of Lake Superior. Annual snowfall totals have been trending upwards since 1930. Figure 3-8 and Figure 3-9 depict these winter and summer trends over the past century.

Figure 3-8: Observed Winter Precipitation

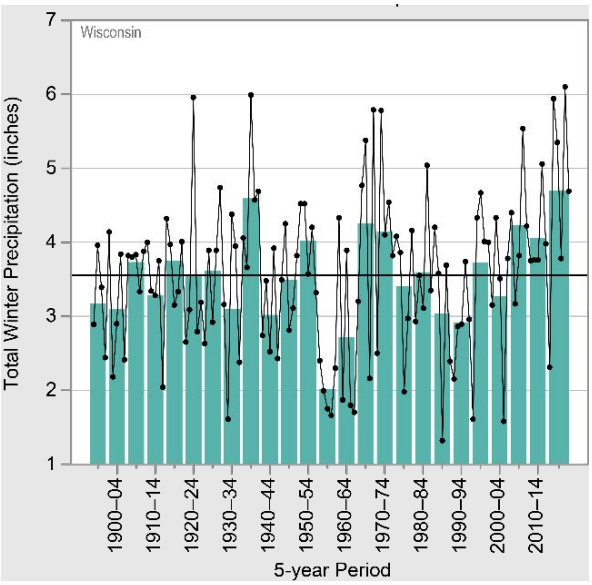
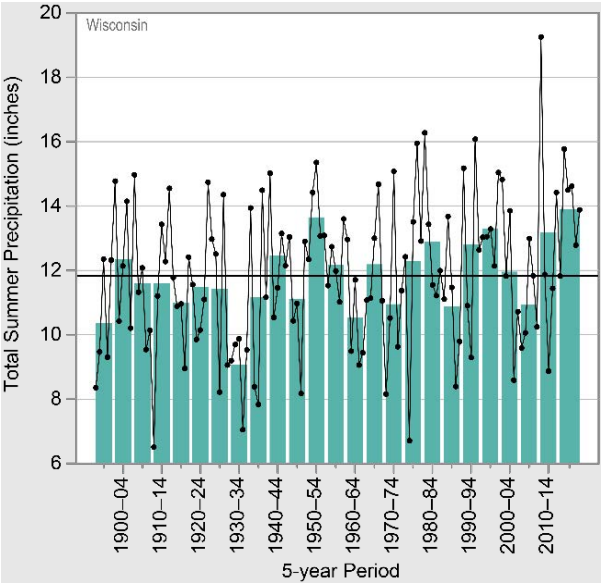


Figure 3-9: Observed Summer Precipitation



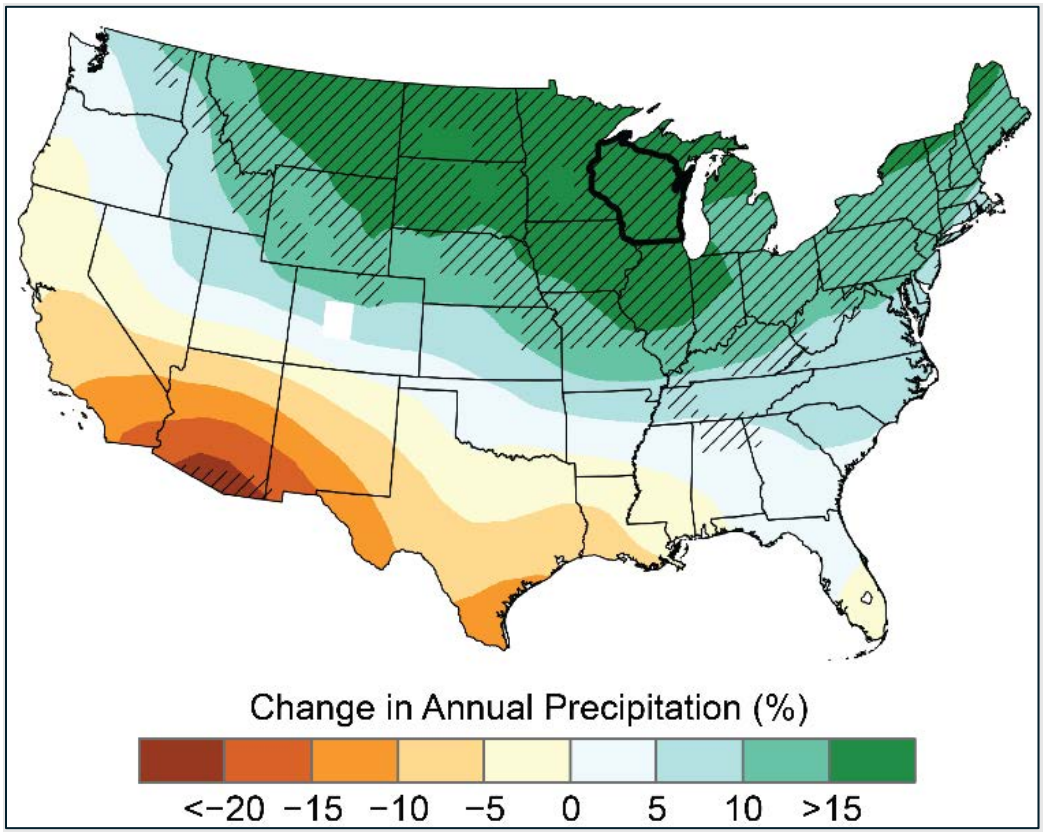
Source: *Wisconsin State Climate Summary, NOAA National Centers for Environmental Information, 2022, https://statesummaries.ncics.org/downloads/Wisconsin-StateClimateSummary2022.pdf*

3.3.2.C. FUTURE TEMPERATURE AND PRECIPITATION TRENDS

Temperatures in Wisconsin have risen more than 2°F since the beginning of the 20th century and are projected to continue to rise. Precipitation is also projected to increase for Wisconsin, with the most increases occurring during the winter and spring. This increase in precipitation includes extreme cases, which will potentially increase the frequency and intensity of floods. However, snowfall is projected to decline in Wisconsin due to warmer average temperatures.[3] The National Oceanic and Atmospheric Administration (NOAA) projections indicate average temperatures in Wisconsin increasing anywhere from 2°F warmer than the historical average, in low emissions models, to 12°F warmer than the historical average in high emissions models.[4]

Figure 3-10 depicts that Wisconsin is in the region projected to record the highest increase in the percentage of spring (March to May) precipitation from the late 20th Century to the middle of the 21st Century. The hatching on Wisconsin indicates areas where most climate models project a statistically significant change. For more details on Wisconsin's resiliency strategies, see **Section 5.5.4** of this WEVI Plan.

Figure 3-10: Projected Change in Spring Precipitation



Sources: CISESS and NEMAC. Data: CMIP5

3 Source: Wisconsin State Climate Summary, NOAA National Centers for Environmental Information, 2022, https://statesummaries.ncics.org/downloads/Wisconsin-StateClimateSummary2022.pdf

4 Source: Wisconsin State Climate Summary, NOAA National Centers for Environmental Information, 2022, https://statesummaries.ncics.org/downloads/Wisconsin-StateClimateSummary2022.pdf

3.3.2.D. CLIMATE PATTERN SUMMARY

The WEVI Plan calls for siting new EV charging stations on developed property with existing amenities along the state's major interstate highways and AFCs. While temperature and precipitation patterns will continue to change, these changes are not expected to significantly impact the siting, installation, operation, or maintenance of NEVI-compliant EV charging stations at existing facilities along the state's AFCs.

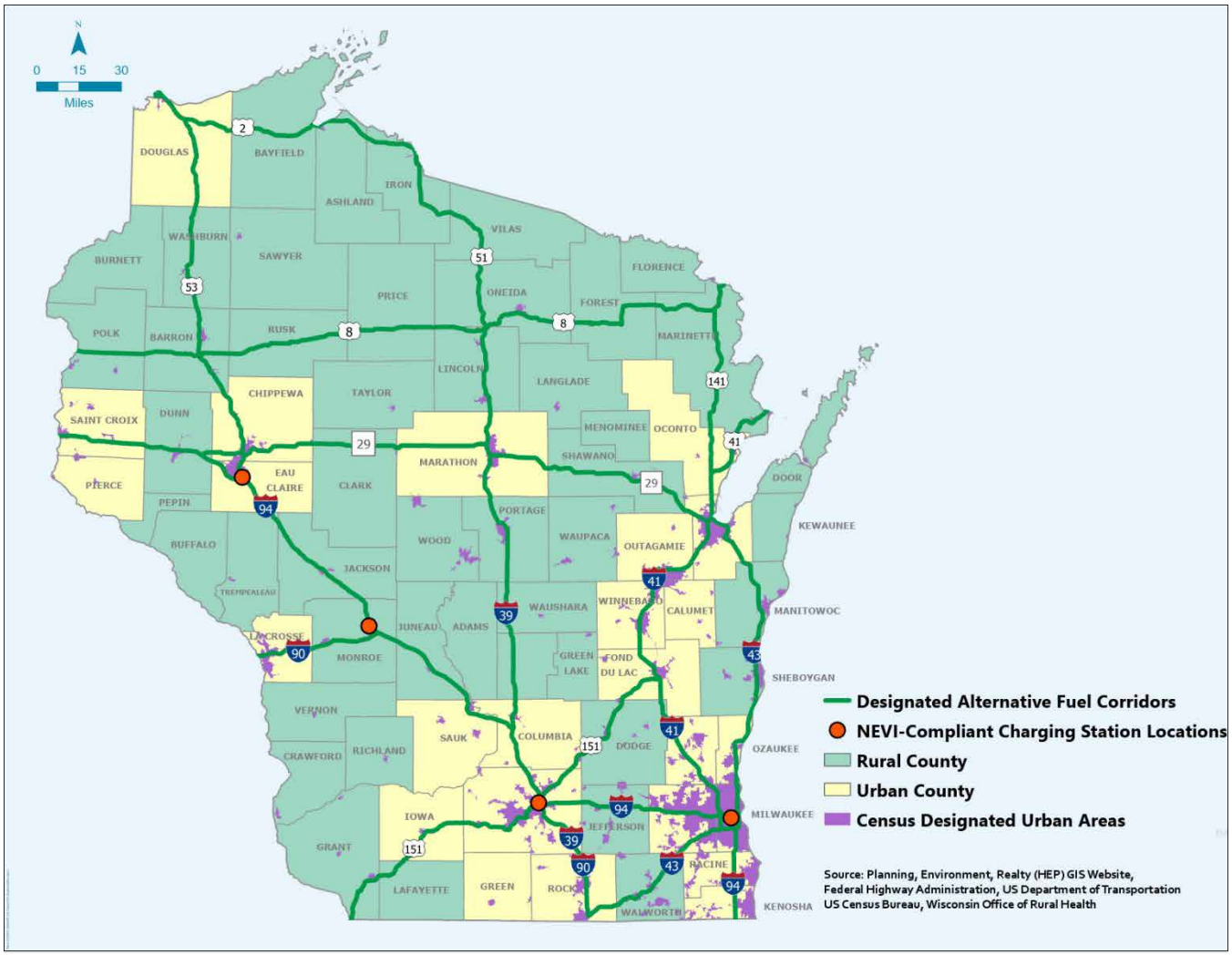
3.3.3 Land Use Patterns

Wisconsin is divided into 72 counties and, as of the 2020 census, has a population of nearly 5.9 million. An EV charging network that functions for both urban and rural Wisconsin residents is a significant priority for Wisconsin. Given Wisconsin's designated AFCs, and in accordance with NEVI Program guidance, EVSE accessibility for rural and urban Wisconsin residents will be significantly improved by the buildout of Wisconsin's AFCs.

In Wisconsin, local governments prepare comprehensive plans, determine local transportation choices, and make local land use decisions (such as zoning changes). Private entities propose development and physically develop land (such as housing subdivisions). WisDOT plans, designs, and constructs state transportation facilities to support regional as well as inter and intra-state traveling needs of the public and commerce.

Since the link between land use and transportation is critically important to economic health and livability of the state's communities, Wisconsin is working to find ways to improve coordination efforts at all levels. One important approach is to foster cooperation with key stakeholders, including private landowners and local governments. This stakeholder engagement is crucial to find ways to prevent traffic congestion, improve safety and opportunities for multi-modal transportation. This dialogue with these key stakeholders helps foster connections and cooperation between the transportation needs and priorities of Wisconsin's urban and rural counties. Urban and rural counties are shown in **Figure 3-11** in relation to AFCs**.**

Figure 3-11: Wisconsin's Urban and Rural Counties and Alternative Fuel Corridors

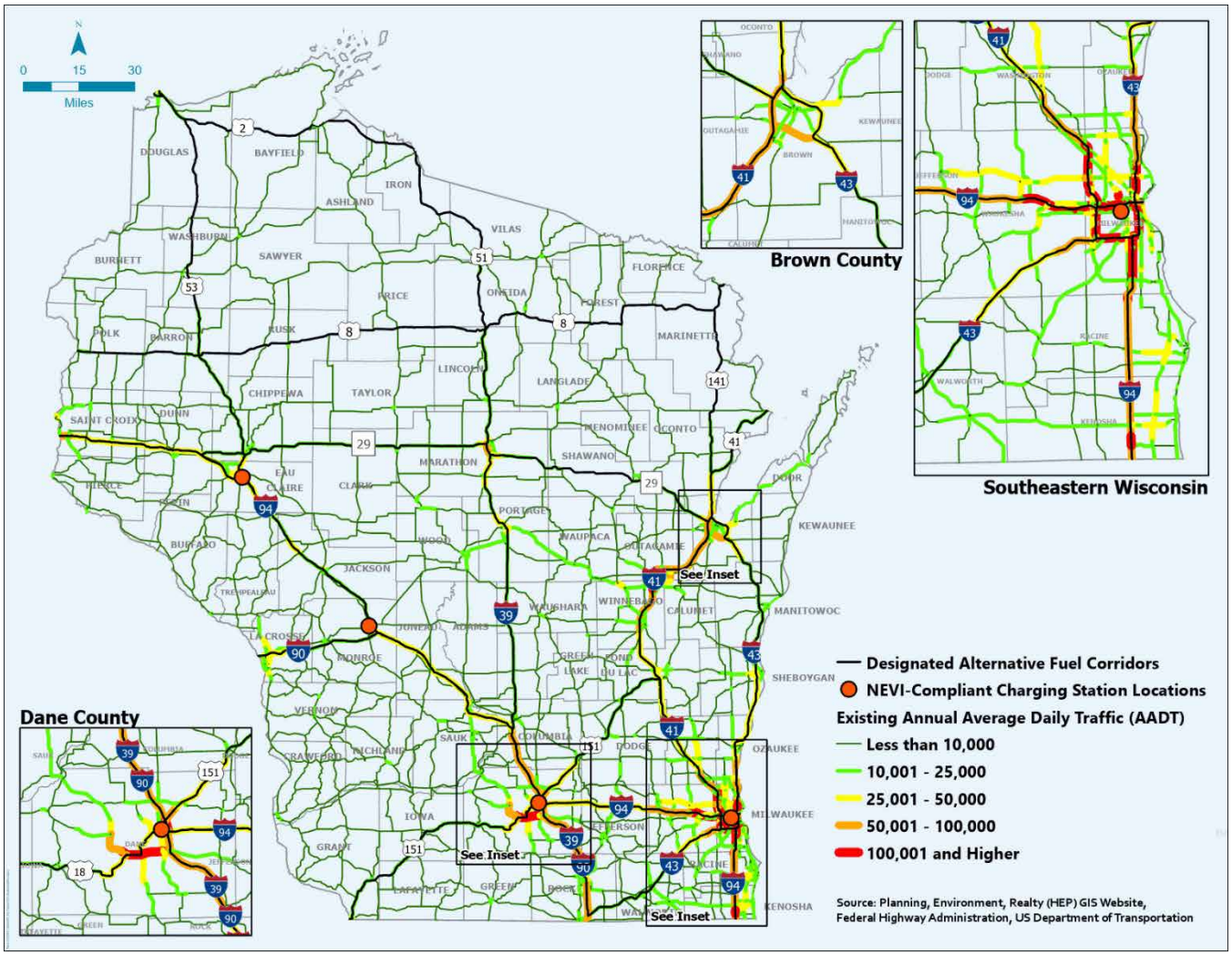


3.4 Travel Patterns and Public Transportation/Freight and Supply Chain Needs

3.4.1 Travel Patterns

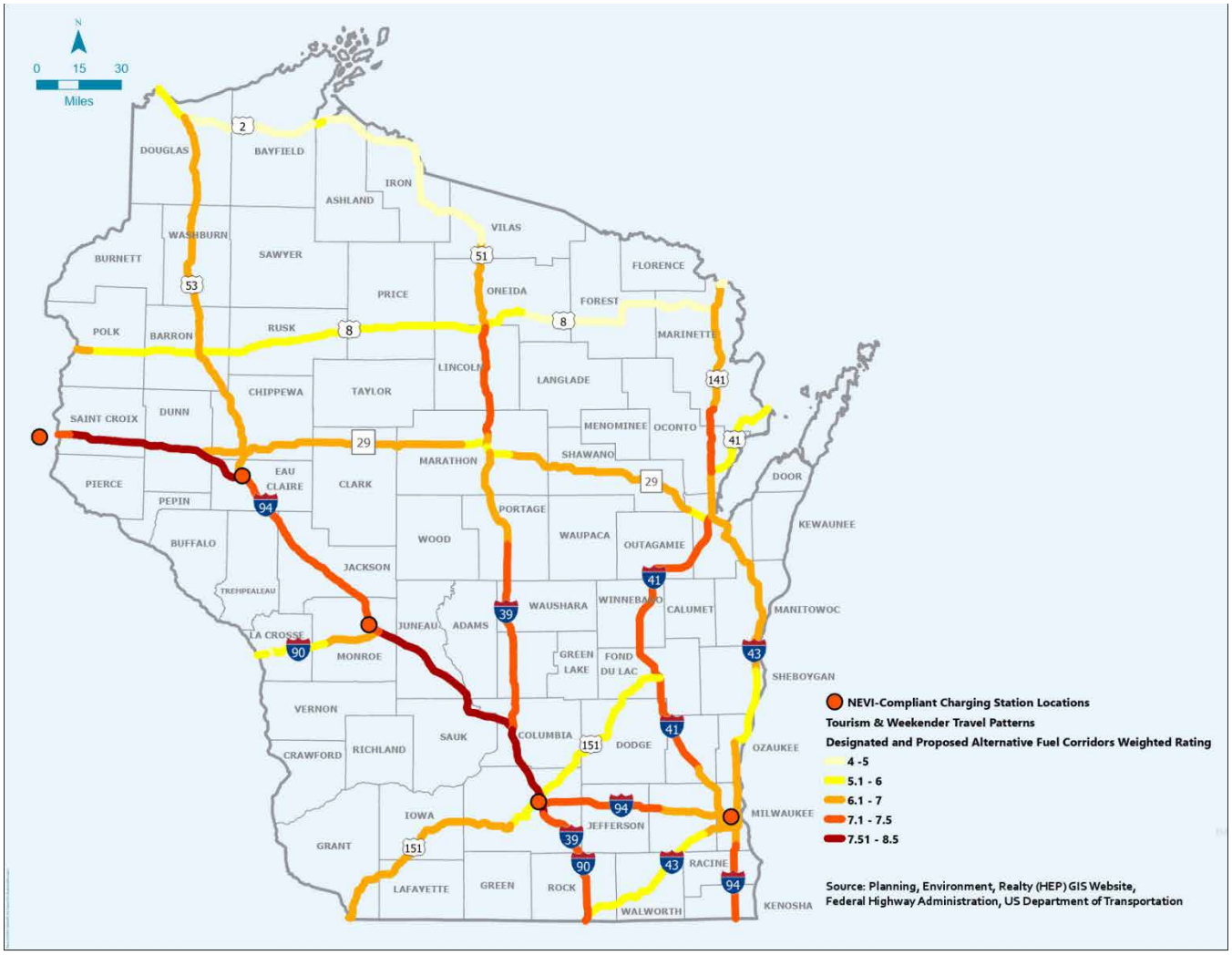
Wisconsin's annual average daily traffic (AADT) is mapped in **Figure 3-12**. Wisconsin is focusing on the full EVSE buildout of AFCs, which will respond to a latent need in the statewide EV charging network and will facilitate EV travel on some of Wisconsin's most-travelled roadways.

Figure 3-12: Wisconsin's Average Annual Daily Trips (AADT) on Alternative Fuel Corridors



Wisconsin has assigned travel demand and recreational demand scores to its AFCs based on corridor traffic data. This model is illustrated in **Figure 3-13** where a weighted rating is assigned to each AFC corresponding to its average tourism and weekend travel demand. Seasonal, weekend, and average daily traffic patterns were incorporated into the model to provide a statewide charging network that responds to these travel needs.

Figure 3-13: Alternative Fuel Corridor Travel and Recreation Demand Weighting



3.4.2 Public Transportation Needs

Public transit plays an important role in Wisconsin's statewide and local transportation networks. As presented in **Figure 3-14**. Wisconsin has 81 public transit systems that travel throughout the state's urban and rural areas. These transit systems are among the nation's best in terms of efficiency and effectiveness and connect thousands of residents to jobs, schools, and other destinations.

Wisconsin's public transit operators are key partners, with established channels for information sharing and outreach. The Wisconsin Public Transportation Association (WIPTA) and WisDOT met to discuss public transportation electrification needs. WIPTA represents a broad range of public transportation providers throughout Wisconsin.

Wisconsin has identified two principal challenges to the electrification of transit infrastructure and capital. These challenges include the cost and the logistics of charging. Many transit systems in Wisconsin report existing funding and cashflow challenges. Ongoing funding challenges mean that transit operators must make investment tradeoff decisions between maintenance and operations, making the purchase of new vehicles a challenge.

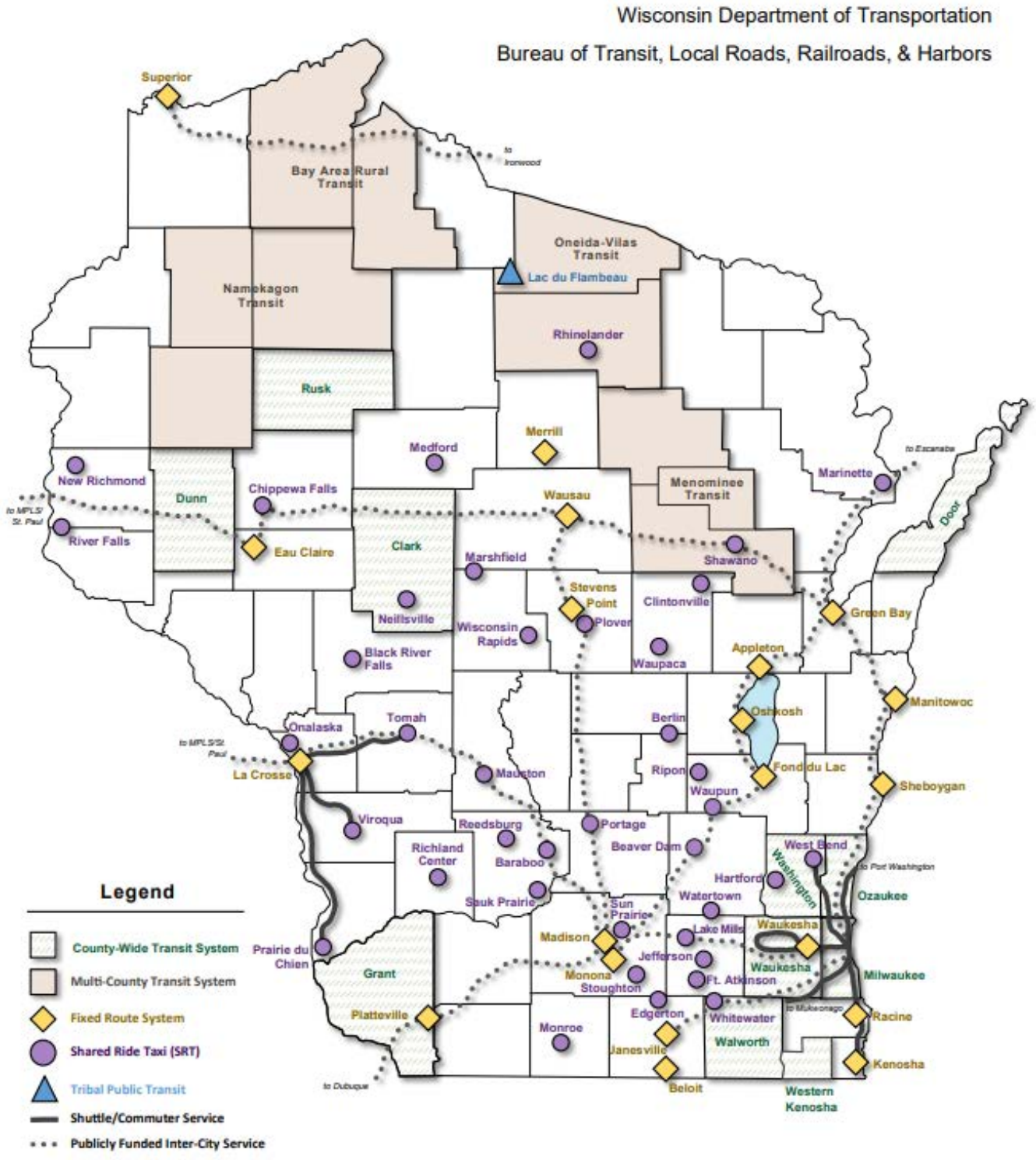
Through the award of federal grants and rebates administered by the Environmental Protection Agency (EPA) and other federal agencies, Wisconsin communities have committed to the electrification of public transportation. A key component of this commitment is replacing existing school buses with zero- and low-emission buses.

Wisconsin has been successful in securing these federal dollars over the last year, advancing its work in transitioning to low- and zero-emission vehicles. For instance, in 2022 Wisconsin was awarded a total of $25.8 million in federal funds to purchase 72 new electric school buses across 19 school districts. Additionally, in 2023 the Cities of Madison and Beloit were awarded a total of $38.6 million from the Federal Transit Administration (FTA) Grants for Buses and Bus Facilities Program to support the purchase of electric and hybrid buses and to install charging equipment.

The need for charging and specialized infrastructure presents a potential operational logistics challenge since vehicular service hours will need to accommodate hours spent charging. Location, charging infrastructure, and route-specific considerations also play a role. Additional study is needed to identify proven best practices for overcoming these challenges.

Where requested and as appropriate, Wisconsin intends to work with public transit agency partners on eligible activities.

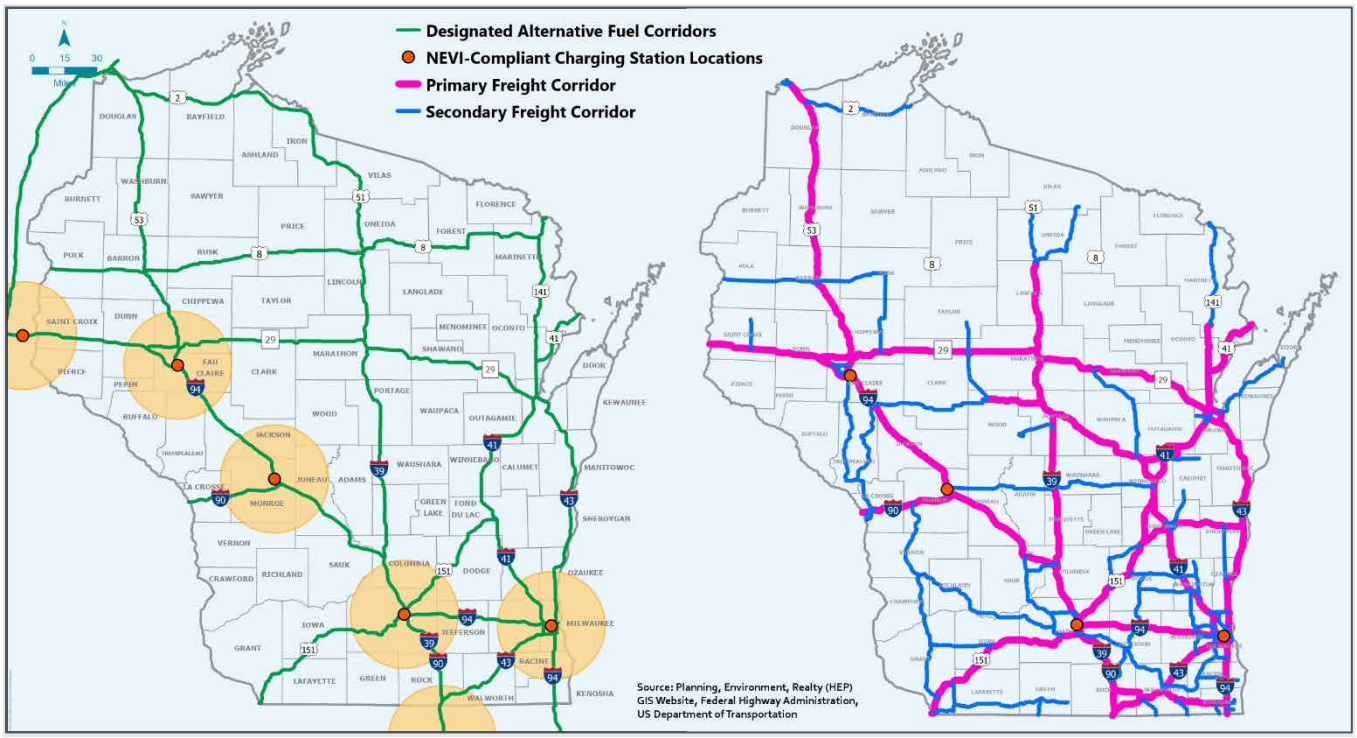
Figure 3-14: Wisconsin's Public Transit System



3.4.3 Freight and Supply Chain Needs

Wisconsin's public road system drives Wisconsin's economy by providing safe and efficient transportation of freight. Businesses throughout Wisconsin use the road system to obtain the products needed to produce their goods and bring them to the marketplace. To support efficient travel of commerce, the enhancement of freight mobility is a top priority for Wisconsin. The state has nearly 116,000 miles of public roads, from Interstate freeways to town roads to city and village streets.[5] In 2019, more than 368 million tons of freight traversed Wisconsin roadways, valued at $547 billion.[6] WisDOT maintains a State Freight Plan, which designates primary and secondary freight routes in the state, as shown in relationship to Wisconsin's AFCs in **Figure 3-15**.

Figure 3-15: Freight and Alternative Fuel Corridors



3.4.4 Freight Advisory Committee (FAC)

The Freight Advisory Committee (FAC) was established to provide guidance to WisDOT on freight related issues. FAC members were included in the development of freight-specific electrification policies and procedures. FAC members include representatives from the industrial, agriculture, logistics, warehousing, economic development, and transportation sectors. It is anticipated that this committee will continue to be an active forum for ongoing engagement of the freight sectors on electrification.

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[5] *WisDOT, Bureau of Planning and Economic Development, Traffic Forecasting Section, https://wisconsindot.gov/Documents/projects/data-plan/veh-miles/vmt2021.pdf*

[6] *2019 IHS Transearch database, https://wisconsindot.gov/Documents/doing-bus/freight/flow2021.pdf*

3.4.5 Mid-America Freight Coalition (MAFC)

Wisconsin is a member of the Mid-America Freight Coalition (MAFC) along with Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, and Ohio. MAFC works on planning, operation, preservation, and improvement of transportation infrastructure in the Midwest.[7] A current study focuses on understanding the relationship between the development of electrification, commercial truck operations, and the planning, programming, and policy functions of state transportation agencies. The study will result in new data to understand truck operations and fueling needs in relation to freight corridors and freight generators.

3.5 Industry and Market Conditions

As of 2022, there has been an acceleration of EV registration rates across the United States.[8] Wisconsin saw an increase from 319 EV registrations in 2013 [9] to 9,039 EV registrations in 2021[10] and 13,893 EV registrations in 2022.[11]The increase is driven by several factors, including advances in technology, decisions made by state policymakers, and commitments by automakers. **Table 3-4** shows the number of EVs registered by Wisconsin county as of January 9, 2023.

[7] *Mid-America Freight Coalition website, https://midamericafreight.org/*

[8] Wisconsin Office of Energy Innovation, *https://www.atlasevhub.com/materials/state-ev-registration-data#data*

[9] *Wisconsin Department of Transportation, Wisconsin DMV, Registered by Fuel Type, Calendar Year ending 2013, https://wisconsindot.gov/Documents/dmv/shared/rpt25-cal.pdf*

[10] *Wisconsin Department of Transportation, Wisconsin DMV, Registered by Fuel Type, Calendar Year ending 2021, https://wisconsindot.gov/Documents/dmv/shared/rpt-25-cal-21.pdf*

[11] *Wisconsin Department of Transportation, Wisconsin DMV, Registered by Fuel Type, Calendar Year ending 2022, https://wisconsindot.gov/Documents/dmv/shared/rpt-25-cal-22.pdf*

Table 3-4: Wisconsin's Registered Electric Vehicles by County

County	No. of EVs 2021	No. of EVs 2022	County	No. of EVs 2021	No. of EVs 2022	County	No. of EVs 2021	No of EVs 2022
Adams	15	24	Iowa	34	59	Portage	74	117
Ashland	9	11	Iron	3	7	Price	4	6
Barron	23	29	Jackson	11	10	Racine	223	366
Bayfield	17	26	Jefferson	78	137	Richland	10	17
Brown	320	517	Juneau	21	36	Rock	187	269
Buffalo	11	15	Kenosha	247	416	Rusk	4	6
Burnett	16	16	Kewaunee	10	17	Sauk	94	141
Calumet	60	95	La Crosse	146	225	Sawyer	8	9
Chippewa	48	66	Lafayette	9	15	Shawano	13	21
Clark	5	8	Langlade	11	17	Sheboygan	121	196
Columbia	78	108	Lincoln	11	16	St. Croix	185	284
Crawford	7	13	Manitowoc	81	115	Taylor	2	8
Dane	2,277	3,397	Marathon	103	187	Trempealeau	10	16
Dodge	55	107	Marinette	17	29	Vernon	47	60
Door	41	84	Marquette	7	15	Vilas	14	29
Douglas	21	36	Menominee	0	0	Walworth	242	355
Dunn	31	59	Milwaukee	1,320	1,945	Washburn	12	20
Eau Claire	158	250	Oconto	16	28	Waukesha	1,067	1,648
Florence	2	2	Oneida	21	33	Waupaca	27	60
Fond du Lac	81	133	Outagamie	216	324	Waushara	15	24
Forest	1	3	Ozaukee	344	513	Winnebago	193	333
Grant	34	65	Pepin	5	4	Wood	56	79
Green	48	67	Pierce	56	79	Vehicles kept out of state	43	74
Green Lake	14	23	Polk	39	62			
Monroe	31	42	Washington	179	270			
						Total EVs	**9,039**	**13,893**

Source: *Wisconsin Department of Transportation, Report 25 – Registered by Fuel Type, Calendar Year 2021, https://wisconsindot.gov/Documents/dmv/shared/rpt-25-cal-21.pdf; Calendar Year 2022, https://wisconsindot.gov/Documents/dmv/shared/rpt-25-cal-22.pdf.*

3.5.1. Projected EV Registrations in Wisconsin

Based on Wisconsin's EV registration trend increases, the driving age population, and IHS Markit National unit sales data, Wisconsin projects that electric light-, medium- and heavy-duty vehicles will increase from 0.1% of the existing total registered fleet[12] to 31% of the total fleet in 2050[13] as shown in **Table 3-5**. The level of growth in EV ownership is still new and could be subject to disruptions in global supply chains.

Projections should be interpreted cautiously, though they are useful for planning and to make sure Wisconsin is well-positioned to meet the demand for these new vehicles. WisDOT continues to evaluate data sources and methodologies to support forecasting potential EV deployment scenarios. Future year plan updates will include updated analysis and forecasts based on information that is currently being collected.

Table 3-5: Projected Wisconsin Electric Vehicle Registrations

Year	Projected Wisconsin EV Registrations	Percent of Total Fleet
2023	13,893	0.1%
2027	217,048	4.1%
2030	334,097	6.1%
2035	553,686	9.9%
2040	843,623	14.7%
2050	1,863,585	31.0%

Sources: *DMV Registration reports: vehicle type by fuel type and plate types by vehicle weight; Woods & Poole Economics: Wisconsin population forecast by age group; IHS Markit National unit sales data for light vehicles, light trucks, and heavy & medium trucks; U.S. Energy Information Administration*

3.6 Electric Utilities and Grid Capacity to Support EV Charging Infrastructure

3.6.1 Electric Utilities and Service Territories

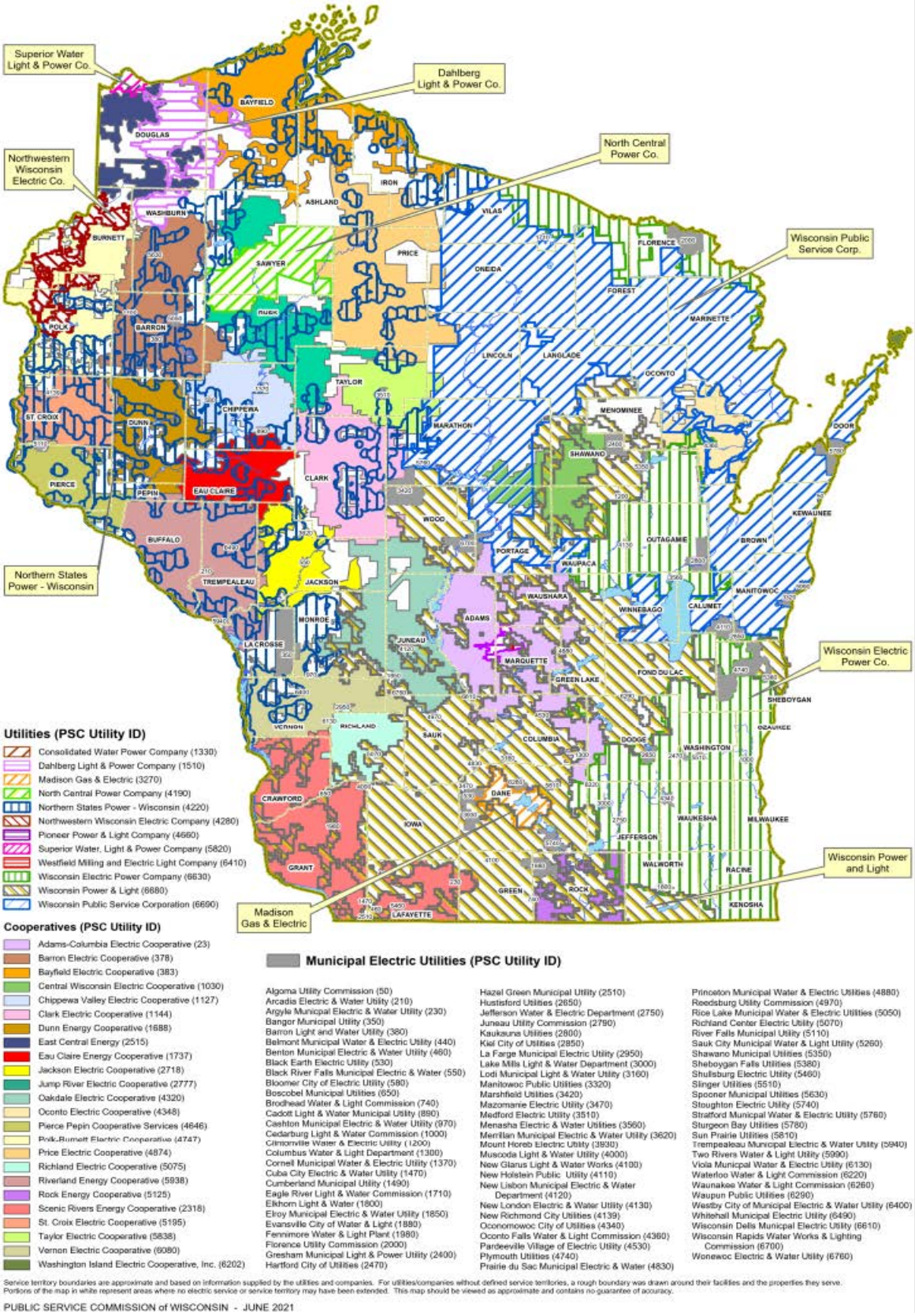
The Wisconsin electric transmission grid is overseen by the Midcontinent Independent System Operator (MISO), which is a regional transmission organization that moves energy between 15 states and one Canadian province. There are 12 investor-owned distribution utility companies in Wisconsin, with the following five serving most of the customers in the state: Wisconsin Power & Light (WPL), Madison Gas & Electric (MGE), Northern States Power Company (NSP), Wisconsin Energy Power Company (WEPCO), and Wisconsin Public Service (WPS).

Areas not served by these distribution utilities are mostly served by municipal utilities and electric cooperatives. All of Wisconsin's utilities and their service territories are shown in **Figure 3-16.**

[12] *Wisconsin Department of Transportation, Report 25 – Registered by Fuel Type, Calendar Year 2021, https://wisconsindot.gov/Documents/dmv/shared/rpt-25-cal-21.pdf*

[13] *U.S. Energy Information Administration*

Figure 3-16: Wisconsin Electric Utilities and Utility Service Territories



3.6.2 Public Service Commission of Wisconsin

The Public Service Commission of Wisconsin (PSC), established by the 1907 Public Utilities Law, is the utility regulatory authority for the state. Key components of the regulatory system developed by the 1907 Public Utilities Law include:

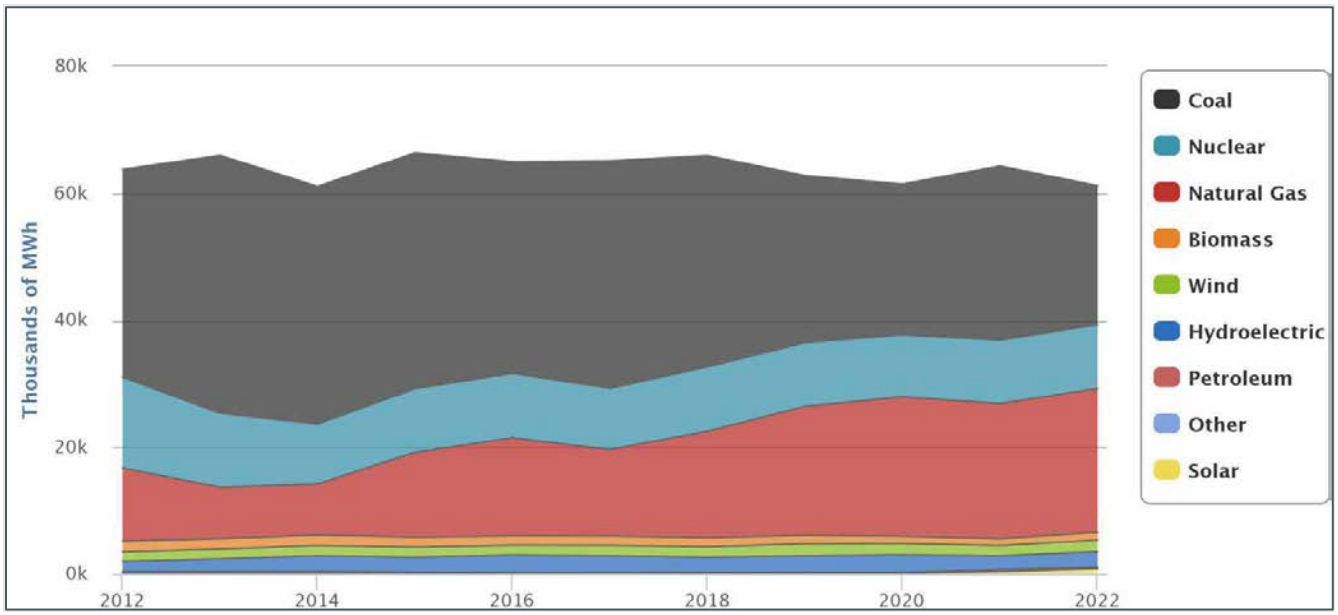
- A broad definition of "public utility."
- Centralized regulatory authority vested in the PSC.
- Monopoly status for public utilities.
- Minimum service standards.
- State regulation of rates and other charges.

The PSC is currently responsible for regulating more than 1,100 Wisconsin public utilities, which provide electric, natural gas, combined water and sewer utilities and certain aspects of local telephone service throughout the state of Wisconsin.

3.6.2.A. WISCONSIN NET ELECTRIC POWER GENERATION

Wisconsin's total electric power generation for 2022 was 61,188,505 MWh, with coal-fired power plants providing 20.3% of Wisconsin's electricity net generation in April 2023, down from a high of 82% in 1997. Natural gas fueled 45.9% of Wisconsin's in-state utility-scale generation in April 2023, a share that is almost four times larger than a decade earlier. Wisconsin's total electric generation capacity and demand have remained relatively stable over the past decade, with net annual electric generation capacity and fuel source shown in Figure 3-17.

Figure 3-17: WI Net Annual Electric Generation by Fuel Source



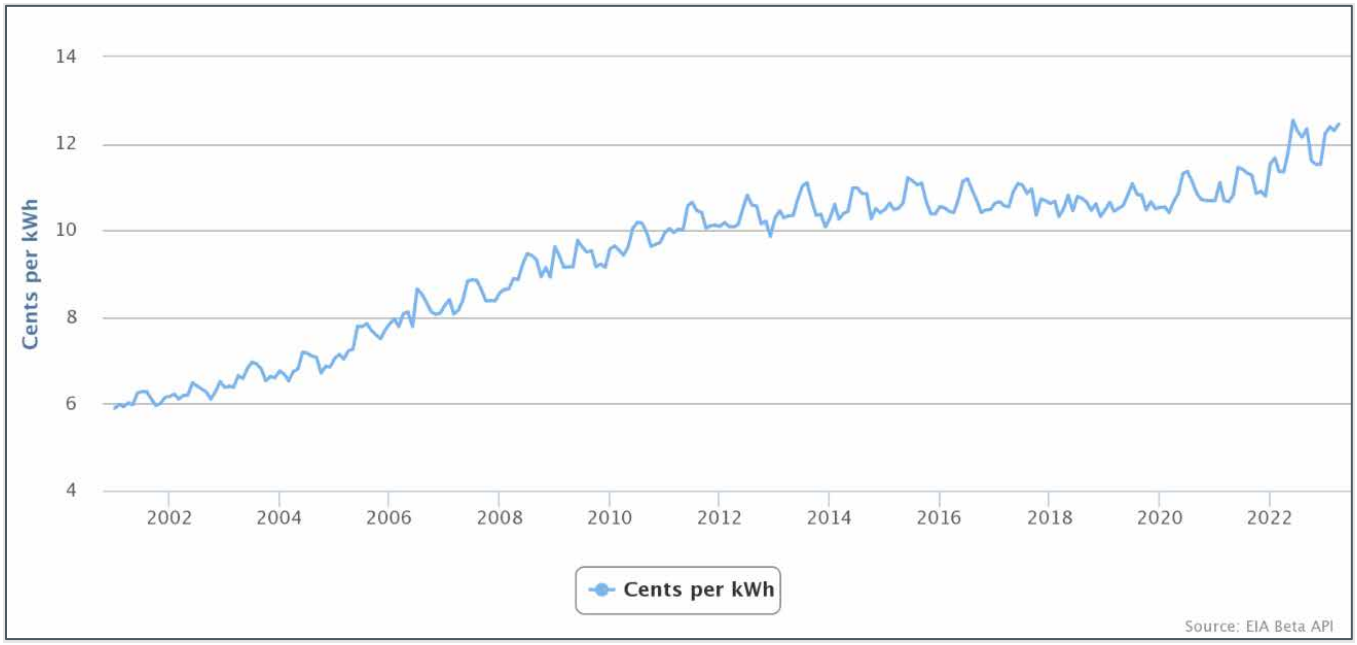
Source: EIA Beta API, updated June 29, 2023, https://powersuite.aee.net/portal/states/WI/energy_data

Wisconsin's electric utilities are members of MISO. With MISO having approval from the Federal Energy Regulatory Commission (FERC) to monitor the use of the region's electric transmission system, utilities throughout the region are required to follow MISO's order to ensure there is enough power on the electrical grid.

3.6.2.B. WISCONSIN AVERAGE RETAIL PRICE OF ELECTRICITY

Wisconsin's statewide 2022 average retail price for electricity was 12.45¢/kWh, an increase from 11.37¢/kWh in 2021. Wisconsin's average annual retail price for electricity has fluctuated between 6¢/kWh-13¢/kWh over the past decade shown in **Figure 3-18.**

Figure 3-18: WI Average Monthly Retail Price for Electricity



Source: EIA Beta API, updated June 29, 2023, https://powersuite.aee.net/portal/states/WI/energy_data

3.6.2.C. PSC REPORT ON IMPACTS OF EV GROWTH ON WHOLESALE ELECTRICITY PRICES IN WISCONSIN

PSC staff helped produce a report, published in the 2020 World Electric Vehicle Journal, exploring the impact of the rapid growth of EVs on wholesale electricity pricing through 2030.[14] PSC's goal for the report was to understand EV impacts on Wisconsin's electric grid for mid and long-range planning, and to assist the state's electricity transmission owners, distribution utilities, and regional system operators. This PSC report was produced in collaboration with researchers at the University of Wisconsin – Madison's La Follette School of Public Affairs and The Department of Electrical and Computer Engineering.

The report considered projected EV growth in Wisconsin through the year 2030, using 2018 EV registration as a baseline with reference and high EV growth rate scenarios described in **Table 3-6**, which was taken directly from 'The Impacts of Electric Vehicle Growth on Wholesale Electricity Prices in Wisconsin' report referenced in **footnote 14**.

[14] *Zielke, Megan, Adria Brooks, and Gregory Nemet. 2020. "The Impacts of Electric Vehicle Growth on Wholesale Electricity Prices in Wisconsin" World Electric Vehicle Journal 11, no. 2: 32. https://doi.org/10.3390/wevj11020032*

Table 3-6: EV Growth Rate Scenarios

The number of Plug-In Electric Vehicles (PEV) by service territory in 2018 (data from 12 service territories) and the modeled number in 2030 under the reference and high-adoption growth scenarios. PEV increases over 2018 registrations are shown below.

	Utility						
	MGE	NSP	WEPCO	WPL	WPS	Total	Increase over 2018
2018 Registrations	355	272	1,437	729	285	3,077	-
Reference Growth	3,072	2,351	12,433	6,309	2,466	26,632	765%
High Adoption	43,114	32,993	174,479	88,549	34,627	373,761	12,046%

Modeled 2030 annual load (GWh/year) in Wisconsin utilities resulting from the baseline, reference, and high adoption growth scenarios. Energy increases over the baseline scenario are shown below.

	Utility						
	MGE	NSP	WEPCO	WPL	WPS	Total	Increase over 2018
Baseline Growth	4,508	64,126	42,928	16,304	15,581	143,447	-
Reference Growth	4,518	64,133	42,970	16,326	15,589	143,536	0.06%
Progressive Growth	4,650	64,191	43,483	16,591	15,734	144,649	0.84%

For the PSC report, the price of electricity was calculated based on the locational marginal price (LMP). LMP is a way for wholesale electric energy prices to reflect the value of electric energy at different locations on the grid, factoring in locational specific price variables such as load, demand, and congestion patterns as well as physical transmission limits and local energy efficiency losses. Inefficiency losses and energy demand congestion on any transmission line can cause price differences between locations that affect final retail pricing, most commonly reflected as peak and demand charges on consumer electric bills. Overall, the report concluded that even under high EV growth assumptions, Wisconsin's grid generation capacity, pricing, and hourly LMPs would see minimal impacts as detailed in Table 3-7.

Table 3-7: Impacts of EV Growth on WI Electricity Prices

Sufficient WI Electric Generation Capacity	Modeled EV adoption in Wisconsin does not indicate that transmission system upgrades will be needed in direct response to the growth in charging load.
Minimal Impact on WI Electricity Costs	Minimal impacts on electricity prices (<2%) in Wisconsin through 2030.
Minimal Impact on WI Local Marginal Prices	Increases projected in hourly electric LMPs due to EV growth would be less than those seen in annual changes of historic electricity prices in Wisconsin.
Moderate Impact to WI Congestion Prices	Under high EV adoption scenarios, the report found relatively moderate increases in congestion prices (+16–32%), which could impact consumer demand charges.

The PSC report did show that under high EV adoption scenarios there would be moderate increases in congestion prices (+16–32%), which could provide an opportunity to align EV charging schedules with times of low transmission congestion through pricing and policies discussed below.

3.6.2.D. PUBLIC SERVICE COMMISSION OF WISCONSIN EV POLICIES

In 2019, the PSC opened an investigation in docket 5-EI-156 to consider future policies and regulations related to EVs and concluded that:

> Barriers to EV adoption in Wisconsin include insufficient charging infrastructure, upfront costs of EVs and associated charging equipment, and limited customer awareness and education.
> PSC and utility policies and regulations, such as electric rates and rate design, can significantly influence EV deployment.
> PSC can influence EV deployment by providing regulatory clarity.
> Pilot programs can serve existing EVs while preparing the PSC and utilities for future EV growth.

Informed by stakeholder feedback, PSC issued an Order in December 2020 encouraging utilities to submit pilot program proposals that address identified barriers to EV adoption, serve customer needs, and explore EV-related issues. The Order also offers regulatory clarity by establishing a framework that sets clear expectations for the information any provider must include in proposing EV pilots to PSC.[15] Multiple providers have received PSC approval for EV pilots serving residential, commercial, and fleet customers as detailed in Table 3-8.

Table 3-8: Wisconsin Utility PSC Approved & Proposed EV Pilot Programs

EVSE Make Ready Investments	Commercial programs allowing utilities to own and maintain “make-ready” infrastructure for EVs (not EVSE hardware but the wiring and equipment needed to connect EVSE to the electric grid system) and allow customers to pay for new infrastructure extensions through monthly fees or demand charges.
EVSE Station Investments	Residential programs where customers may contract with their utility to install an EVSE, the cost of which will be prepaid or paid in installments.
Time of Day (TOD) Rates	Customer options to enroll in time-of-day (TOD) rates which establish lower rates for energy use during overnight hours and higher rates during hours of peak demand, providing economic incentives for customers to charge their vehicles during periods of low demand and help utilities avoid high costs associated with serving increased peak demand.
Demand Rate Discounts	Program designed to address cost barriers associated with demand rates by offering commercial customers with meters dedicated to EV charging a discounted demand rate for up to five years.
Managed Charging Pilot	A proposed managed charging pilot would offer customers a monthly payment to deploy telematics software on EVs designed to communicate with the grid and allow the utility to manage charging timing to support reliability and load management without requiring the installation of a separate electric meter.[16]

WisDOT and PSC remain in close coordination to ensure the successful deployment of EVSE throughout the state.

15 Order of December 23, 2020. https://apps.psc.wi.gov/ERF/ERFview/viewdoc.aspx?docid=402117.

16 Electric Vehicle Managed Charging Pilot Applications. March 15, 2022. https://apps.psc.wi.gov/ERF/ERFview/viewdoc.aspx?docid=432550

3.7 Known Risks and Challenges

Increased deployment of EVSE and accelerated adoption of EVs presents Wisconsin with an opportunity to evaluate the effectiveness of the state's regulatory environment that supports transportation electrification. WisDOT is working with supporting state agencies including DATCP and PSC to determine whether changes to state statutes or administrative rules are needed. The Wisconsin Electrification Steering Committee (ESC) has identified and continues to discuss potential impacts to the following chapters of state statute:

Chapter 66: General Municipality Law
Chapter 84: State Trunk Highways; Federal Aid
Chapter 98: Weights and Measures
Chapter 100: Marketing, Trade Practices
Chapter 196: Regulation of Public Utilities

Under current state law, Chapter 196: relating to the Regulation of Public Utilities may pose a challenge for Wisconsin in the implementation of the National Electric Vehicle Infrastructure Program. As currently interpreted, Chapter 196 only provides for the direct sale of electricity to customers by kWh by public utilities. While this regulatory framework does not explicitly prohibit successful deployment of EVSE under the NEVI Program, it does provide regulatory uncertainty to many private partners who are evaluating the potential return on investment that may result from implementation under this program. Regulatory clarity on this issue could potentially enable NEVI Program dollars to act as a catalyst for future private sector investment. WisDOT has engaged in legislative discussions to address the concern and will continue to work with legislative partners when the legislative session resumes in fall 2023.

3.8 Information Dissemination about EV Charging Station Availability

As detailed further in **Chapter 5** of this WEVI Plan, Wisconsin will require NEVI Program funded EVSE stations to report data and provide it in real time via Application Programming Interface (API) to third parties free of charge to comply with the NEVI Final Rule (23 CFR 680). Wisconsin will ensure this data is accessible to the U.S. Department of Energy's Alternative Fuel Vehicle Data Center Station Locator tool, as well as to private sector apps such as Plug-Share for the dissemination and ready access of information on EV charging station availability for the general public. In addition, Wisconsin will require appropriate wayfinding signage and per any further Wisconsin agency requirements.

4 EV CHARGING INFRASTRUCTURE DEPLOYMENT

This section details Wisconsin's overarching strategy for EV charging infrastructure installations and associated policies to meet the compliance standards of the NEVI Program and vision and goals for EVSE deployment in Wisconsin.

4.1 Funding Sources

As detailed in Chapter 5, Wisconsin intends to create a competitive program that will seek applications from eligible EVSE site hosts seeking NEVI Program funding to install, own, and operate NEVI-compliant EVSE throughout Wisconsin. Currently, Wisconsin will seek to secure non-federal matching funds of at least 20% from awarded EVSE owners and operators.

Wisconsin will receive $78.65 million in federal NEVI Program funds throughout the five-year life of the NEVI Program. Federal NEVI Program funds will be made available to local governments and private entities, working collaboratively to install and operate EV fast charger systems along designated corridors. In future years, as the build-out of the designated corridors are certified as complete, other transportation corridors identified by Wisconsin may be included for WEVI Program funds, based on Wisconsin goals such as providing services in rural areas and other underserved areas of the state.

Funding made available will be used to contract with eligible applicants. The initial WEVI program will be a reimbursement program, allowing for the reimbursement of actual expenditures incurred by the project sponsor during the project's development. Applicants will be responsible for any project cost coverage beyond the award amount.

The federal cost-share for NEVI Program projects cannot exceed 80%. It is anticipated private and government funds will be used to provide the remaining cost-share. As appropriate, NEVI Program funds may be combined with other eligible U.S. DOT funding for EV charging infrastructure projects, if the eligibility requirements are met for both programs and the total federal cost-share does not exceed 80%. In addition, Wisconsin may use other eligible state program funds for EV charging infrastructure projects, if the eligibility requirements are met for both the NEVI Program and the state funded program.

Wisconsin will continue to update this information on an annual basis with updates to the WEVI Plan and as Wisconsin's EVSE infrastructure is built out and the state's needs continue to evolve.

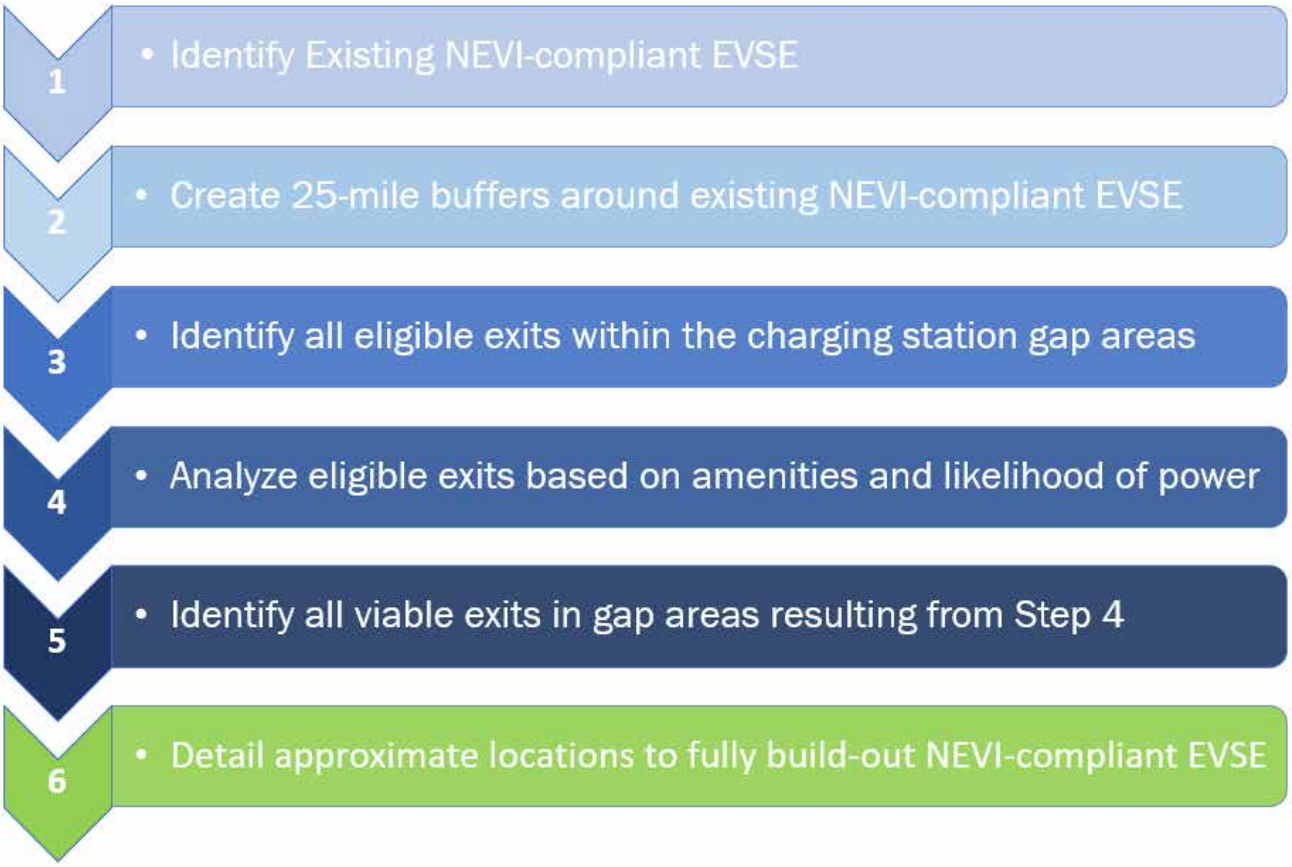
4.2 Infrastructure Deployment and Upgrades

This section details the initial locations of new EVSE installations needed to reach "fully built out" certification on Wisconsin's portions of the federal Interstate Highway System and FHWA designated AFCs. Additional information in this section identifies existing locations of EVSE chargers that could be upgraded to meet minimum NEVI Program standards. In the subsections below, information about how deployments will address which utility territories the planned installations or upgrades are in, as well as detailed additional deployment considerations including capacity redundancy, commercial freight needs, public transportation, and transit coordination, and impacts of state, regional, and local policy will be discussed.

4.2.1 WisDOT Deployment Planning Process in Planning Towards a Fully Built-Out Determination

This section describes the steps in the Wisconsin planning process, provides information on the processes and strategies behind these steps, identifies the initial approximate locations for Wisconsin's EVSE build-out on federal AFCs, and visually represents all information in a series of maps and tables. The flow chart in **Figure 4-1** below describes each of the basic steps WisDOT took to develop this deployment plan. Additional maps and tables are provided below to further visually represent and list approximate locations of NEVI-compliant EVSE needed to receive certification of "fully built out" by the U.S. DOT Secretary. WisDOT's goal is to achieve fully built-out certification with the U.S. DOT.

Figure 4-1: WEVI Plan Deployment Mapping and Process to Identify "Approximate Locations" of EVSE



As detailed in **Figure 4-1**, Wisconsin performed the following six steps to identify viable sites along the AFCs in Wisconsin.

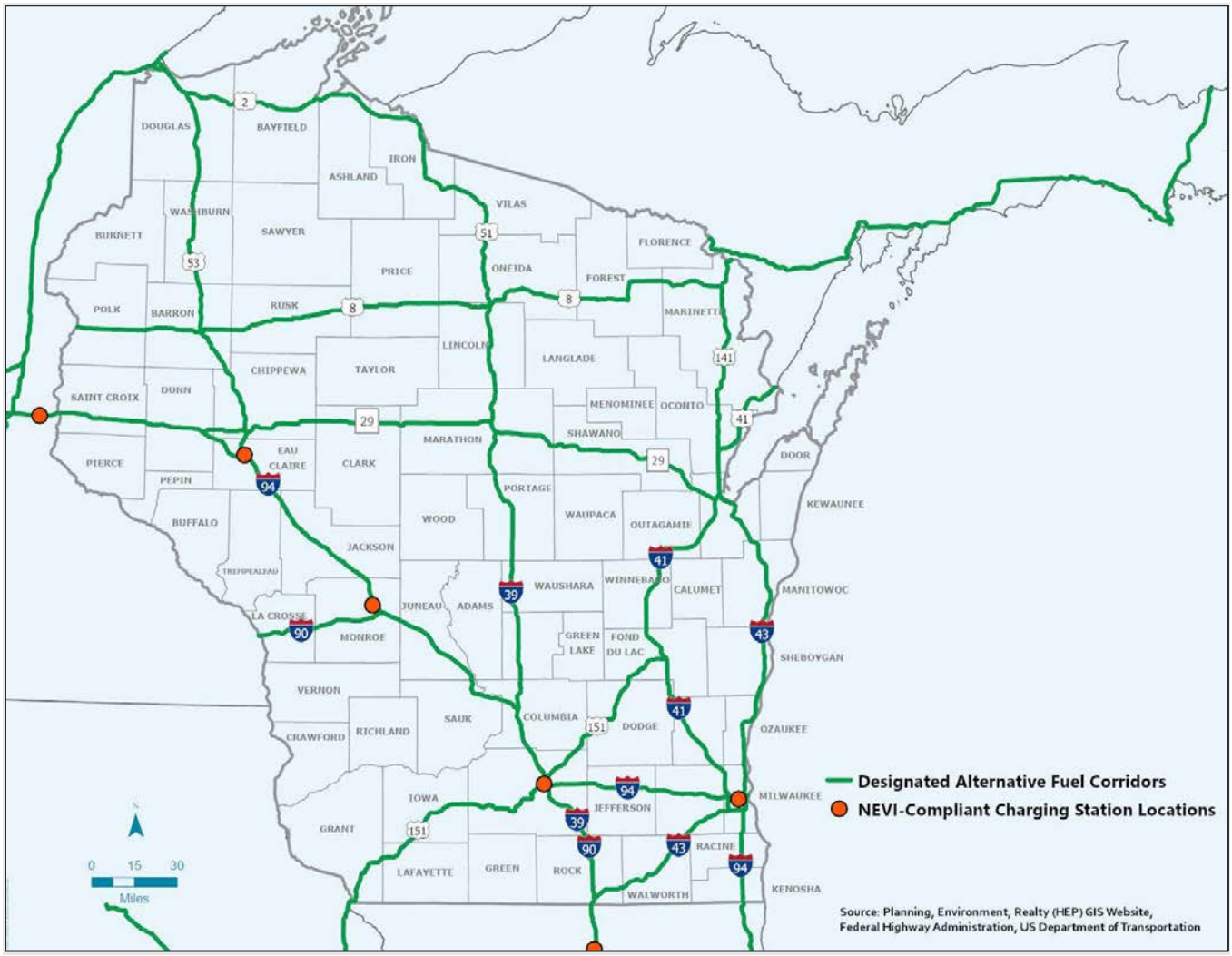
Step 1: Identify existing NEVI-compliant charging sites in the state. **Table 4-1** and **Figure 4-2** shows the existing NEVI-compliant charging sites within Wisconsin and two NEVI-compliant sites in neighboring states with coverage areas that extend into Wisconsin.

Table 4-1: Existing NEVI-Compliant Charging Sites in Wisconsin and Neighboring States

ID	Charger Power (#CCS Ports x kW)	Route	Location	EV Network
121725	1x50 3x150 4x350	I-90 (IL)	Sam's Club 7151 Walton St, Rockford, Illinois, 61108	Electrify America
237715	5x50 3x150	I-90/I-94	Walmart Supercenter 4198 Nakoosa Trail, Madison, Wisconsin, 53714	Electrify America
121711	1x50 3x150 4x350	I-94	Walmart Sam's Club 4001 Gateway Dr, Eau Claire, Wisconsin, 54701	Electrify America
145683	12x50 4x350	I-94 (MN)	Walmart Supercenter 10240 Hudson Rd., Woodbury, Minnesota, 55129	Electrify America
122809	2x50 2x150 4x350	I-94	Walmart Supercenter 222 W McCoy Blvd, Tomah, Wisconsin, 54660	Electrify America
190417	3x50 15x150 2x350	I-94	Walmart Supercenter 4140 W Greenfield Ave, Milwaukee, Wisconsin, 53215	Electrify America

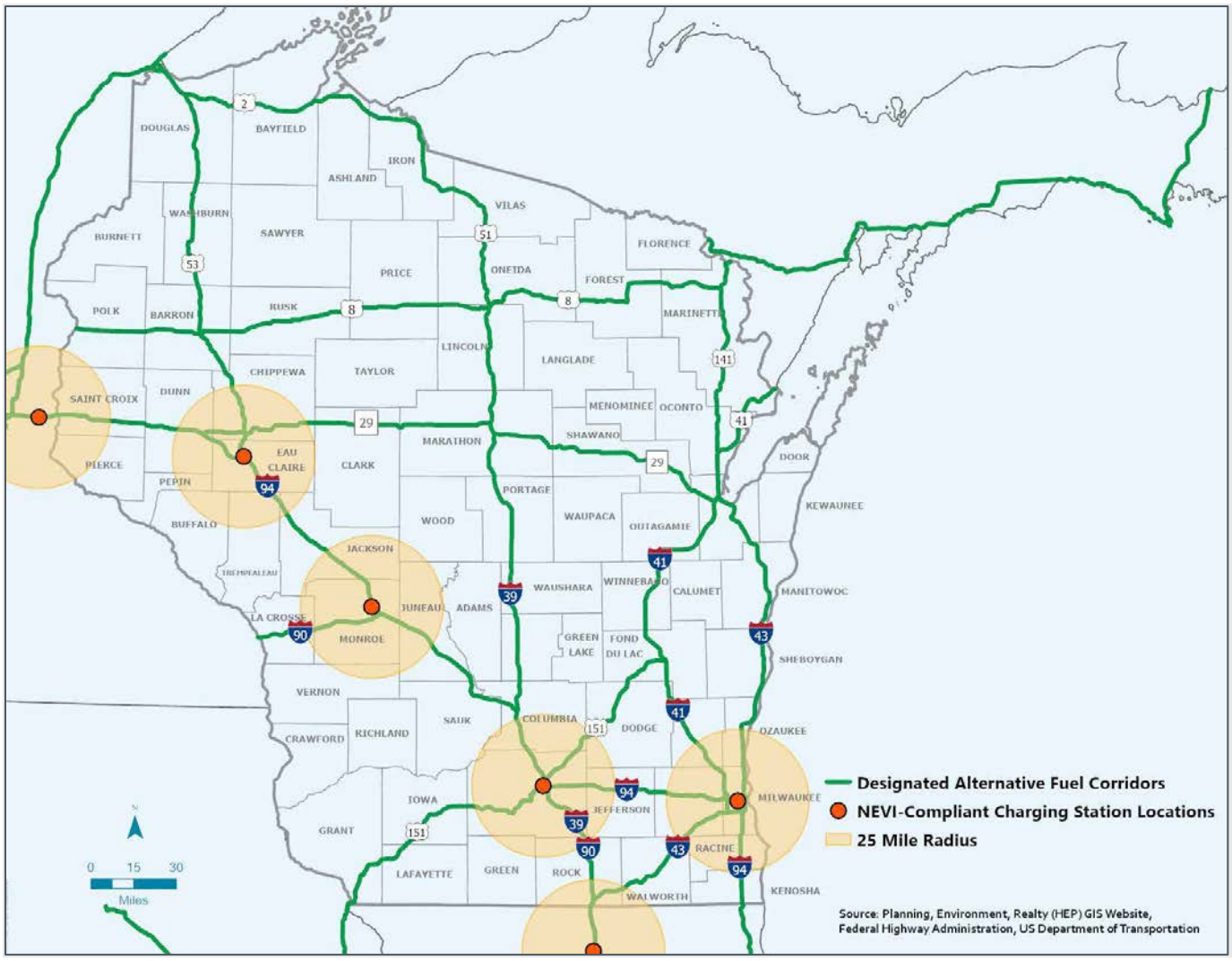
Note: Electrify America chargers are going through maintenance and will be restored to 150 kW or 350 kW power levels. Electrify America only installs equipment with 150 kW or more of dedicated power.

Figure 4-2: Wisconsin Interstates, AFCs and Existing NEVI-Compliant EV Chargers



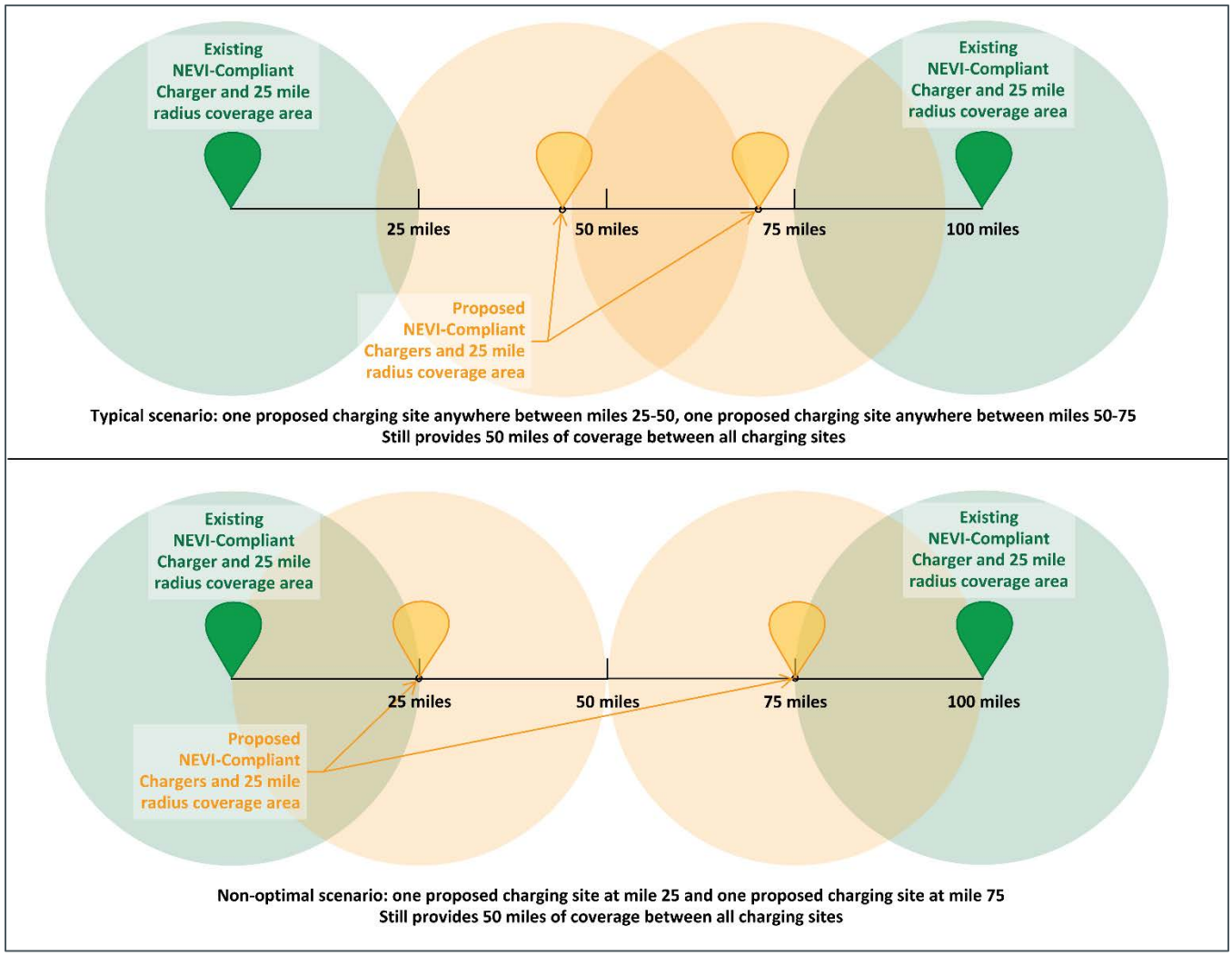
Step 2: Having identified the existing NEVI-compliant EVSE in Wisconsin and its neighboring states, Wisconsin next created a 25-mile radius buffer around NEVI-compliant sites to determine coverage gaps. See **Figure 4-3.**

Figure 4-3: Wisconsin Existing NEVI-Compliant EV Charger Coverage Areas



A 25-mile radius buffer was purposely used instead of a 50-mile radius buffer. First, it is easier to see the coverage gaps in areas between two coverage areas. Second, by using this radius there are more options to locate a charging site. For example, if there are 100 miles between two existing NEVI-compliant chargers, technically, by installing one charger in the middle at 50 miles the corridor would follow NEVI Program guidelines with the three chargers all being within 50 miles. However, in practice this is more difficult since there likely is not an exit located at the precise middle point of two NEVI-compliant chargers. Another issue with trying to space the chargers as close to 50 miles as possible, is that it limits the options for prospective charging bidders and would make the procurement more prescriptive. Figure 4-4 shows a more typical and non-optimal scenario for siting charging sites using 25-mile radius coverage areas.

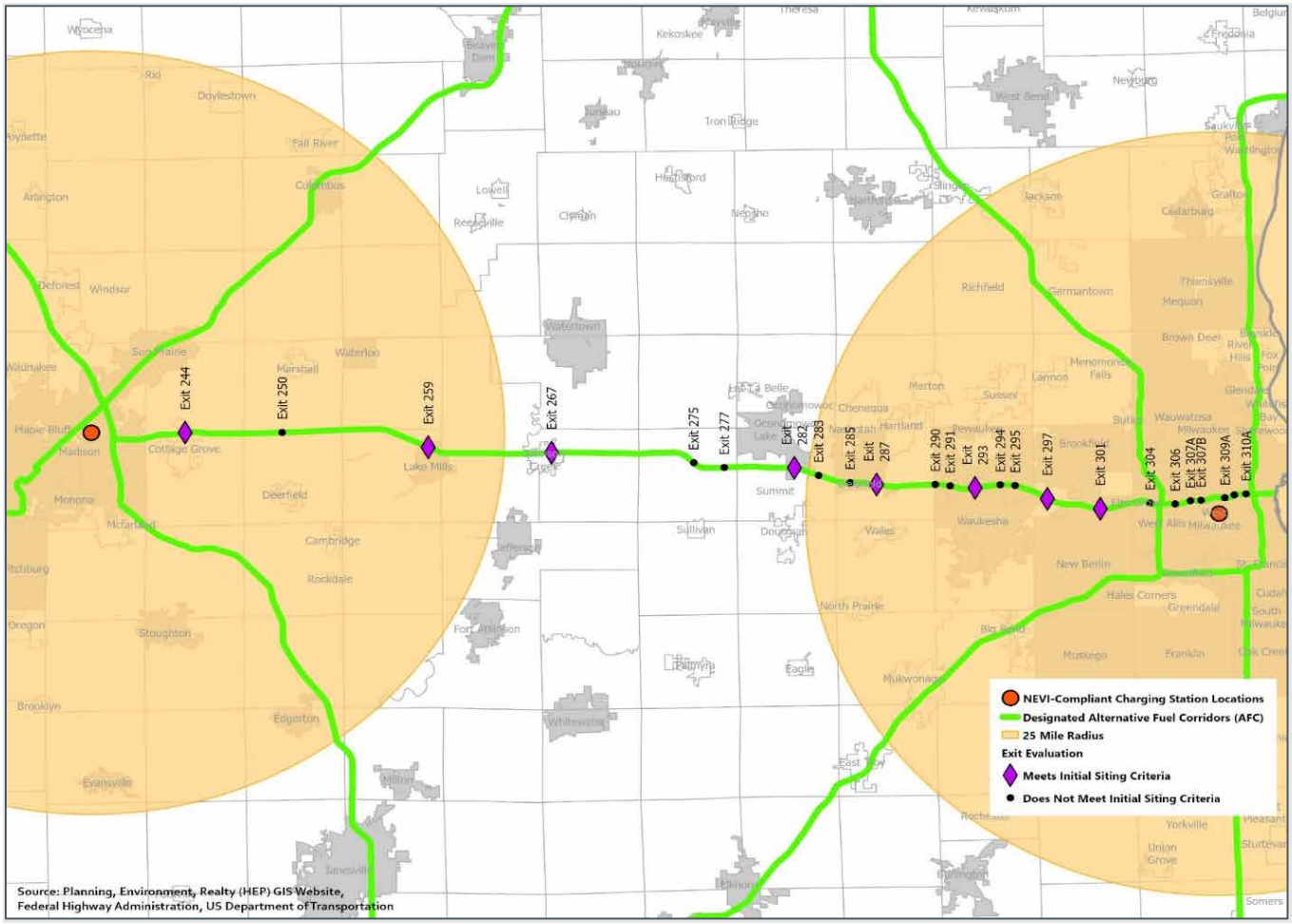
Figure 4-4: WEVI 25-Mile Coverage Area Scenarios



Step 3: Having identified all existing charging stations and coverage areas, Wisconsin next worked to identify all exits within the coverage gaps, or the regions not currently covered by an existing NEVI-compliant EVSE.

Figure 4-5 shows the coverage gap between two existing NEVI-compliant EVSE coverage areas on I-94 between Madison and Milwaukee.

Figure 4-5: Example NEVI EV Charging Station Gap Area on I-94 between Madison and Milwaukee



Step 4: After identifying all gap areas not covered by NEVI-compliant EVSE, Wisconsin further sought to analyze the number and type of amenities within one-mile driving distance from each "eligible exit" within a gap area. Wisconsin chose this process to be more method based and quantifiable. The number and types of available amenities such as fueling stations, restaurants, retail locations, and big box stores were determined. The number of available businesses was used as a proxy to determine the likelihood of 3-phase power availability.

To determine the likelihood of available 3-phase power, Wisconsin's analysis used the following broad assumptions. Wisconsin assumed 3-phase power is available if one of the following is true:

- The exit has a truck stop or a retail/big box store, or
- The exit has at least two gas stations/convenience stores and one high turnover restaurant or vice versa

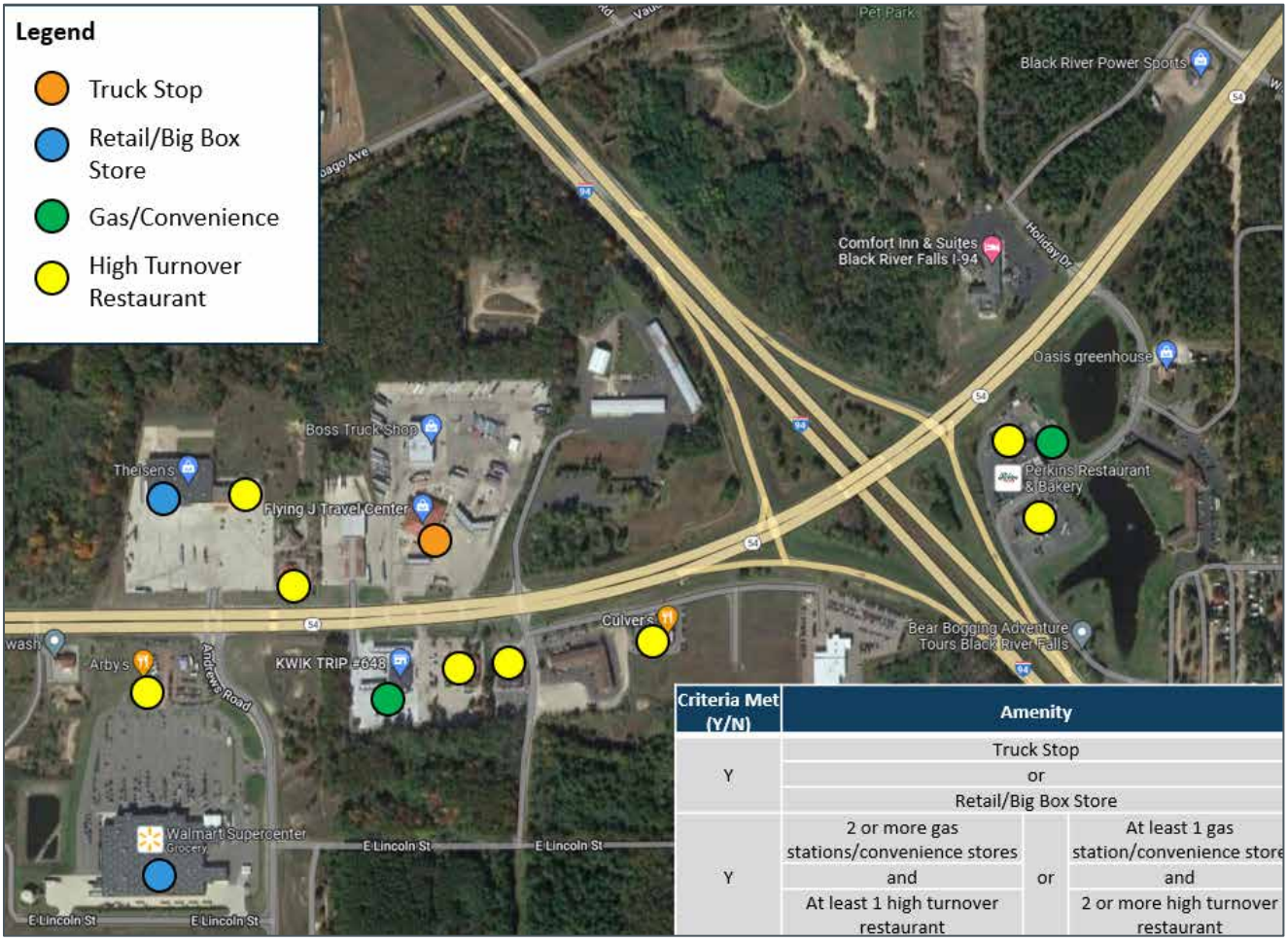
Figure 4-6 shows another exit along I-94 within the coverage gap that does not meet the exit evaluation criteria since there is only one gas station/convenience store off the exit.

Figure 4-6: Example Exit Not Meeting Wisconsin "Viability" Criteria for Siting NEVI-Compliant EVSE

Criteria Met (Y/N)	Amenity		
N	Truck Stop		
	or		
	Retail/Big Box Store		
N	2 or more gas stations/convenience stores	or	At least 1 gas station/convenience store
	and		and
	At least 1 high turnover restaurant		2 or more high turnover restaurant

Figure 4-7 shows Exit 116 on I-94 met the exit evaluation criteria in terms of amenities available and likelihood of 3-phase power available with four restaurants, two gas stations/convenience stores, and one truck stop.

Figure 4-7: Example Exit Meeting Wisconsin "Viability" Criteria for Siting NEVI-Compliant EVSE



Criteria Met (Y/N)	Amenity		
Y	Truck Stop or Retail/Big Box Store		
Y	2 or more gas stations/convenience stores and At least 1 high turnover restaurant	or	At least 1 gas station/convenience store and 2 or more high turnover restaurant

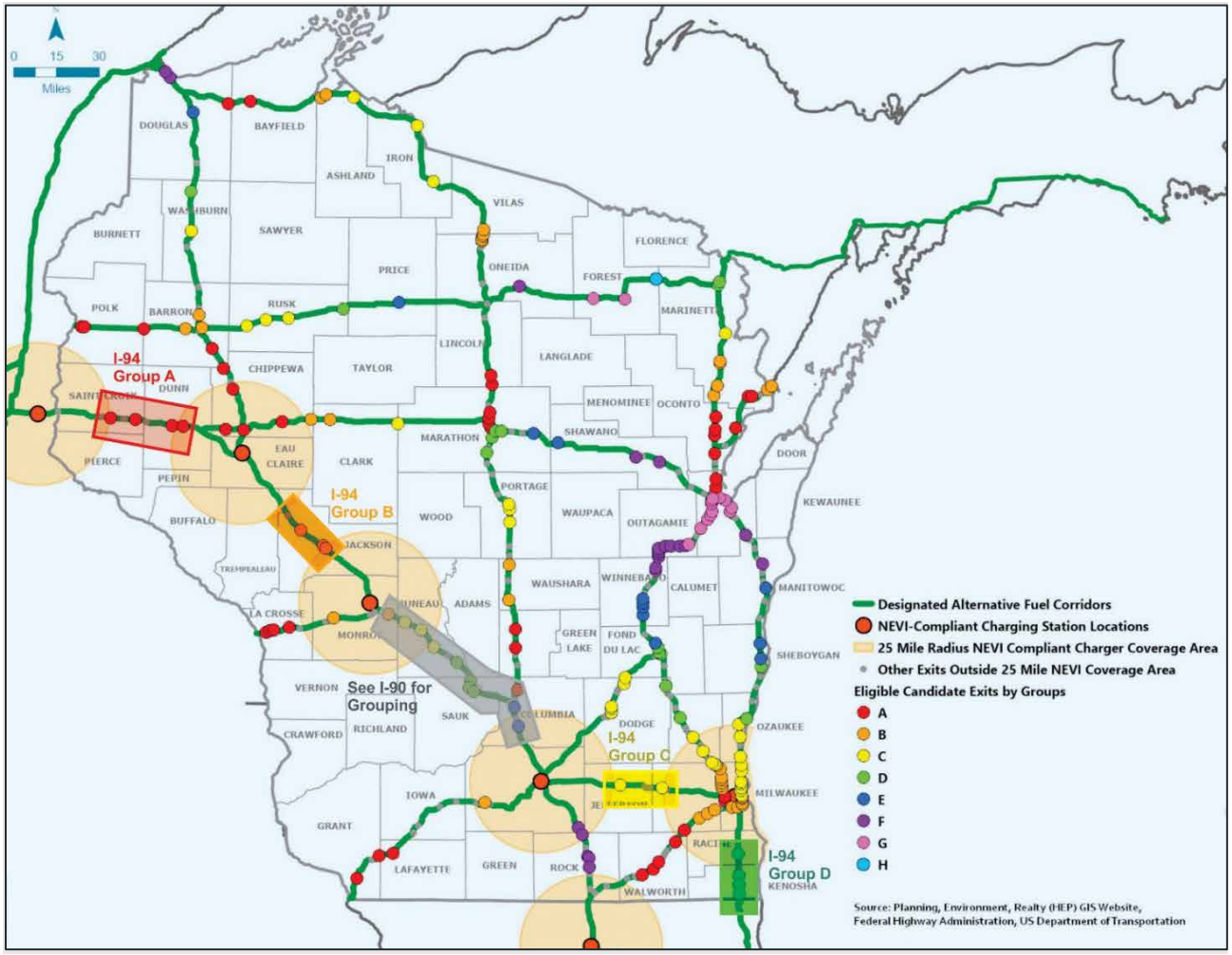
Step 5: A list of all the viable exits along I-94 outside of the existing NEVI-compliant charger coverage areas groups them in such a way that regardless of which exit is chosen in each group, they are no more than 50 miles apart. In other words, only one charging site is proposed per group. Table 4-2 shows all the viable exits identified in the exit evaluation process in four groups labeled A-D. Only one charging site will be installed per group. Rows that are highlighted show the existing NEVI-compliant coverage areas and the mile markers along I-94 that they cover.

Table 4-2: Example I-94 Viable Exit Groups

Group	Exit	# of Gas Stations/Conv Stores (none=0, 1=1, >=2=2)	# of Restaurants (none=0, 1=1, >=2=2)	Truck Stop Facilities (Y/N)	Retail Center/Big Box Store (Y/N)
Existing NEVI-Compliant Charger Coverage Area – Woodbury, MN - MM 251 (MN) to MM 17 (WI)					
A	Exit 19: I-94 ALT	2	2	Y	N
	Exit 28: State Rt 128	2	1	Y	N
	Exit 41: N Broadway St	2	2	Y	N
	Exit 45: County Rd B	2	2	Y	N
Existing NEVI-Compliant Charger Coverage Area - Eau Claire - MM 47 to MM 94					
B	Exit 105: WI-95	2	1	Y	N
	Exit 115: U.S.-12	2	2	N	N
	Exit 116: WIS-54	2	2	Y	Y
Existing NEVI-Compliant Charger Coverage Area - Tomah - MM 118 to junction with I-90					
I-90/I-94 Continues to Madison (See exit evaluation for I-90)					
Existing NEVI-Compliant Charger Coverage Area - Madison - MM 114 (I-90) to MM 263 (I-94)					
C	Exit 267: WI-26	2	2	Y	Y
	Exit 282: Summit Ave	2	2	N	Y
Existing NEVI-Compliant Charger Coverage Area - MM 284 to MM 333					
D	Exit 333: Washington Ave	1	2	Y	N
	Exit 340: Burlington Rd	0	1	Y	Y
	Exit 344: 75th St	2	2	N	Y
	Exit 347: 104th St	1	2	N	Y

This list of viable exits on I-94 is visually represented on the map in Figure 4-8 which shows the four groups labeled A-D and the viable exits within each group on the I-94 corridor.

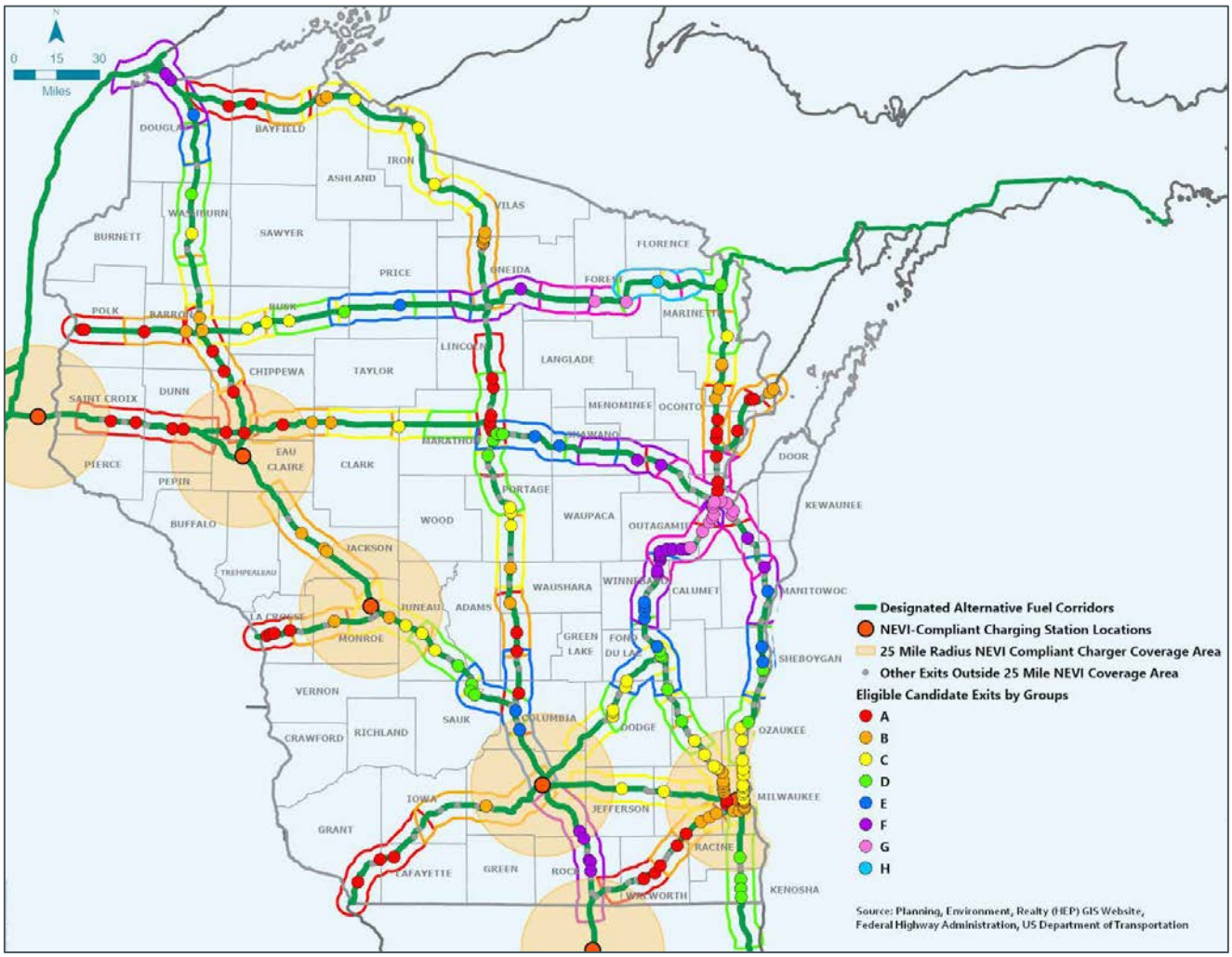
Figure 4-8: Example Coverage Gap Groupings and Viable Exits on I-94



Step 6: After completing this step-by-step analysis for all designated AFCs, a total of 200 sites were identified as viable. Of these 200 viable sites, installing 64 charging locations (i.e., the total number of groups) would provide EVSE coverage for all AFCs in Wisconsin. The coverage map representing the entire build-out along all AFCs in Wisconsin is shown in **Figure 4-9.**

The identified 64 charging station locations represent the maximum number of stations that could be required using the 25-mile radius coverage areas and facilitates the least prescriptive process. Wisconsin is evaluating strategies to optimize the procurement groupings by narrowing certain groupings to meet the 50-mile criteria more efficiently and also to accelerate station deployments across the AFCs. **Appendix A** lists all possible site locations that meet the WEVI siting criteria.

Figure 4-9: Wisconsin Full NEVI-Compliant EV Charging Station Build-Out Coverage Map



4.2.2 Infrastructure Deployment Next Steps

The steps identified in **Section 4.2.1** provide Wisconsin's preliminary analysis for the purposes of identifying "approximate locations" for this initial version of the WEVI Plan, but further planning and coordination remains. For example, further analysis can be conducted to aid in the site selection process to prioritize the best-suited sites by evaluating sites based on factors such as equity, proximity to other DCFCs, tourism, freight and transit routes, AADT, EV adoption, and more. In addition, Wisconsin can further coordinate with local utilities for each of the viable exits to verify 3-phase power and available capacity.

To further the deployment planning detailed in the maps and figures above, and to aid in the creation of the future NEVI competitive procurement process, Wisconsin anticipates conducting the following additional steps:

1. Coordinate further with utilities on power availability
2. Review and incorporate updates from U.S. DOT NEVI Program Final Rule (23 CFR 680)
3. Refine and update site prioritization criteria based on feedback from utilities, public, and U.S. DOT
4. Review all eligible exits and interchanges based on updated criteria and considerations
5. Update list of priority exits, and interchanges based on above
6. Publish all details for public review to accompany procurement solicitation
7. Establish a NEVI competitive procurement process

It is important to note that Wisconsin does not intend to proscribe or restrict final EVSE locations to those identified in this preliminary process. As detailed in **Chapter 5**, Wisconsin intends to create a contracting process for eligible applicants to identify their preferred EVSE sites based on local market conditions and to apply for their chosen sites through WisDOT's process. Wisconsin will select locations that meet all NEVI Program minimum requirements, as well as likely evaluate applicants based on objective criteria such as the EVSE location's ability to provide maximum gap coverage, site readiness, available utility power, proximity of other available amenities, and cost. At this time Wisconsin does not intend to restrict its procurement process solely to exits deemed viable in this WEVI Plan but rather allow applicants to propose alternatives and exemptions where necessary.

For the purposes of this WEVI Plan, Wisconsin considers all existing EVSE along identified gap segments meeting the NEVI Program distance requirements from the Interstates and AFCs "eligible for upgrade." Site hosts and owner and operators of existing EVSE that meet the NEVI Program driving distance requirements will be encouraged to apply for funding through WisDOT's future NEVI process.

4.2.3 Upgrades of Interstates and AFCs to "Corridor Ready" Status

As detailed in the maps and figures above, Wisconsin will need, at most, 64 NEVI-compliant charger locations across all existing federal interstates and FHWA designated AFCs to reach "corridor ready" and "fully built out" status as certified by FHWA and the U.S. DOT Secretary.

4.2.4 Plans for Increased Capacity and Redundancy on Wisconsin AFCs

As described in **Chapter 1**, two of Wisconsin's four main goals for the use of NEVI Program funds are:

> Establish a network of publicly accessible charging stations on Wisconsin's Interstates, AFCs, and regional routes of significance.
>
> Equitable integration of electrification across the state including urban, rural, and suburban areas and historically underserved communities.

Since much of the state of Wisconsin and the state's highway system are not within proximity to NEVI-compliant EVSE, Wisconsin plans to focus on fully building out the state's interstate highways and AFCs. Once certified as fully built-out by U.S. DOT, Wisconsin will proceed to fill in EVSE gaps along other regional routes and within key equity-based areas. Wisconsin's priorities will not focus on redundancy until EVSE is sufficiently built-out in all areas of the state.

4.2.5 EV Freight and Goods Movement Considerations

As described in detail in **Chapter 3**, Wisconsin's Interstate Highways and AFCs support the majority of commercial truck freight and goods movement in the state. As such, Wisconsin will fully build out NEVI-compliant EVSE on the major commercial freight corridors in the state. While not all locations are likely to be designed to fully support medium and heavy-duty commercial freight, WisDOT is considering the addition of criteria to its competitive procurement process that will allow the agency to prioritize and select applicant sites that are designed with "pull through" charging configurations that will support both personal vehicles towing trailers as well as commercial trucks of various sizes.

4.2.6 Public Transportation and Transit Considerations

As described in **Chapter 3,** Wisconsin coordinates and collaborates closely with public transportation providers and transit agencies throughout the state. Wisconsin recognizes that NEVI Program funds are restricted to use for publicly available charging. Public transit agencies in particular face further specific restrictions due to transit operational needs, safety requirements, and security concerns that may prevent any transit agency EVs from charging at publicly available EVSE stations. However, Wisconsin will seek to identify specific opportunities to site NEVI Program funded EVSE at locations that can serve the needs of public transit agencies and the public. Wisconsin will continue to coordinate with its transit agency partners, MPOs, local communities, and other stakeholders to identify any such opportunities which can be included in the "additional Wisconsin EVSE priorities" for remaining NEVI Program funding phases.

4.2.7 FY24- FY26 EVSE Infrastructure Deployments

As described above, the WEVI Plan focuses on fully building out the state's interstate highways and AFCs Once certified fully built out by U.S. DOT, WisDOT will move on to filling in EVSE charging gaps along regional routes of significance and key equity-based areas.

4.2.8 State, Regional, and Local Policy

Wisconsin understands that to effectively deploy EVSE throughout the state, WisDOT must work collaboratively with governmental bodies at the local, regional, state, and neighboring state levels. Wisconsin plans to continue coordinating state, regional, and local policy with related stakeholders, on a wide variety of topics. A high-level summary of key topics to coordinate with each level of peer stakeholder is included in **Table 4-3**.

Table 4-3: Local, Regional and State Policy EVSE-Related Topic Areas for Continued Engagement

Local Government Policy	Regional Planning	State Policy
Develop community based equitable charging plan with multi-unit dwelling, workplace, public and fleet charging.	Regional DCFC and Level II EVSE planning for motorists and fleets.	Corridor DCFC Planning; State Parks and Tourism Level II Charger Planning.
Identify priority EVSE locations and set deployment goals.	Coordinate with local governments on EVSE deployments.	EVSE incentives, grants, and funding.
Enact best practice local policies to stimulate EV adoption and EVSE deployment, including “right to charge” and “EV make ready;” as well as building zoning, permitting, parking, signage, and other codes.	Educate MPO government members on model EV local policies and encourage adoption.	EVSE vendors on state contracts for agency and local government purchases.
	Consider use of MPO attributable funding sources for EVSE deployment.	PSC support for investment in EVSE development and regulation of EVSE specific rates.
	Facilitate partnerships between local governments, utilities, and vendors for EVSE deployment.	Update state building codes with EVSE “make ready” goals.

4.2.9 Inter-state Coordination

WisDOT is a member of multiple inter-state efforts related to electrification. These efforts offer an opportunity for Wisconsin to learn from and coordinate with other states on best practices and participate in thoughtful discussions.

4.2.9.A. AMERICAN ASSOCIATION OF STATE HIGHWAY TRANSPORTATION OFFICIALS (AASHTO)

The American Association of State Highway Transportation Officials (AASHTO) created the EV Practitioner's Working Group in the spring of 2022. A WisDOT representative attends the monthly meetings.[17] The intent of the Working Group is to facilitate discussions between states and offer the opportunity to share best practices and act as a sounding board for electrification plans.

4.2.9. B. MID-AMERICAN ASSOCIATION OF STATE TRANSPORTATION OFFICIALS (MAASTO)

The Mid-American Association of State Transportation Officials (MAASTO) Board of Directors established the Electric Vehicle Infrastructure Committee for member states (Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Ohio, and Wisconsin). The intent of this group is to facilitate cooperation on the development of EV charging infrastructure strategy, as well as other state, local, and private EV charging initiatives. One committee goal is to identify opportunities for pooled funds and the implementation of an EV charging network across MAASTO states. Meeting topics include rate structuring and contracting.

4.2.9.C. REGIONAL ELECTRIC VEHICLE (REV) MIDWEST COALITION

In September 2021, the governors of Illinois, Indiana, Michigan, Minnesota, and Wisconsin signed a memorandum of understanding to form the Regional Electric Vehicle (REV) Midwest Coalition. REV Midwest created a regional framework to accelerate vehicle electrification in the Midwest and provides the foundation for cooperation on fleet electrification along key commercial corridors. REV Midwest hopes to future proof the region's manufacturing, logistics, and transportation leadership. It will position the region to realize additional economic opportunity in clean energy manufacturing and deployment through a coordinated approach to advance electrification that is informed by industry, academic, and community engagement. Goals of REV Midwest include the acceleration of medium- and heavy-duty fleet electrification; elevation economic growth and industry leadership; and the advancement of equity and a clean air environment.

4.2.9.D. LAKE MICHIGAN CIRCUIT

Illinois, Indiana, Michigan, and Wisconsin have partnered to establish the Lake Michigan Circuit, a network of EVSE around Lake Michigan highlighting tourism locations. The network will decrease range anxiety while promoting ecotourism around the Lake. Wisconsin is coordinating with the state of Michigan to identify EVSE placement opportunities.

4.2.9.E. MIDCONTINENT TRANSPORTATION ELECTRIFICATION COLLABORATIVE (MTEC)

The Midcontinent Transportation Electrification Collaborative (MTEC), facilitated by the Great Plains Institute, is comprised of automakers, state governments, electric utilities and cooperatives, EV charging companies, and environmental organizations. In these regular meetings, conversations are facilitated around technologies and current efforts regarding electrification. WisDOT participates in MTEC.

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[17] *2022 meeting dates include March 30, April 27, May 25, June 22, July 27, and August 24.*

4.2.9.F. GREAT LAKES ZERO EMISSIONS CORRIDOR

In January 2017, WisDOT provided a letter of support for the Great Lakes Zero Emissions Corridor. This letter supported the designation of I-94 by FHWA as an AFC from Port Huron, MI to Moorhead, MN. The efforts officially kicked off in 2016.

4.2.9.G. MIDWEST TRIBAL ENERGY RESOURCES ASSOCIATION (MTERA)

In spring 2022, WisDOT collaborated with the Minnesota Department of Transportation and Michigan Department of Transportation to facilitate a discussion with the Midwest Tribal Energy Resources Association (MTERA).[18] MTERA is a resource for Tribes across the Midwest who are looking to understand and act on the energy challenges and opportunities unique to their Tribal circumstances and represents Tribal Nations from Wisconsin, Minnesota, and Michigan.

4.2.9.H. NEIGHBORING STATE COLLABORATION

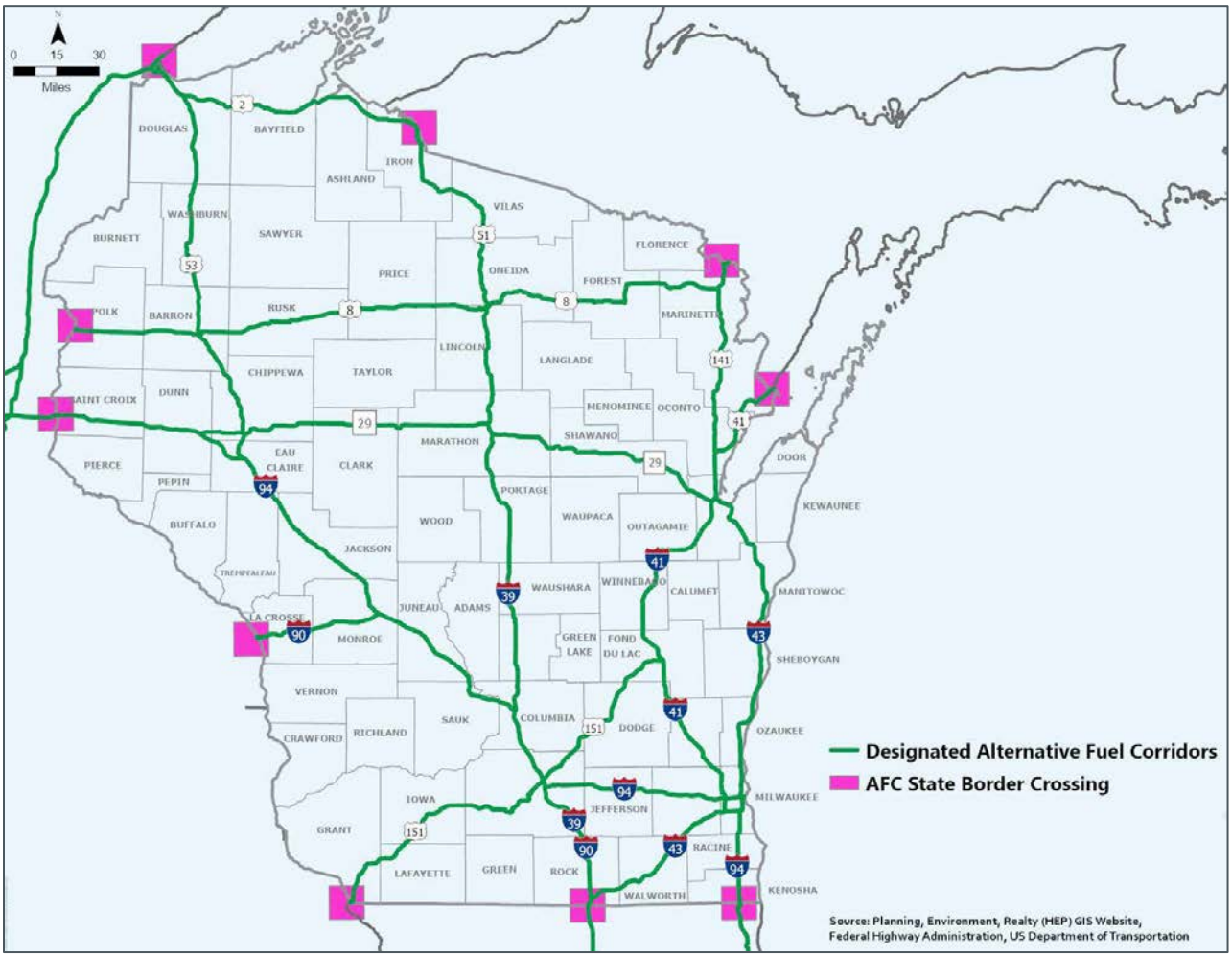
As Wisconsin explores EVSE placement on designated AFCs, staff continue to coordinate with colleagues from neighboring states. This collaboration allows for holistic planning across the region on an interconnected network of EVSE.

Also, to attain fully built-out status, at every AFC terminus at the border of Wisconsin, there must be an existing or proposed NEVI compliant charger within 25 miles of the terminus. This new addition to the Fully Built Out Criteria is from the FHWA NEVI Formula Program Guidance Update (June 2, 2023).

[18] Membership includes Bad River Band of Lake Superior Chippewa, Fond du Lac Band of Lake Superior Chippewa, Forest County Potawatomi Community, Ho-Chunk Nation, Lac du Flambeau Band of Lake Superior Chippewa, Leech Lake Band of Ojibwe, Little River Band of Ottawa Indians, Mille Lacs Band of Ojibwe, Minnesota Chippewa Tribe, Oneida Nation, Saginaw Chippewa Indian Tribe, Sault Ste. Marie Tribe of Chippewa Indians, St. Croix Chippewa Indians, Stockbridge-Munsee Band of Mohican Indians, White Earth Nation, and Keweenaw Bay Indian Community.

Figure 4-10 shows Wisconsin's AFCs in relation to the borders of neighboring states

Figure 4-10: Wisconsin AFCs and AFC State Border Crossings



The following designated Wisconsin AFCs cross the border into neighboring states:

- I-94 crosses near the city of Kenosha/Paddock Lake into Illinois
- I-90 crosses at the city of Beloit into Illinois
- I-94 crosses at the city of Hudson into Minnesota

The following designated Wisconsin AFCs end at the border of neighboring states:

- U.S. 2 / U.S. 51 stop near the city of Hurley at the Michigan border
- U.S. 141 / U.S. 8 stops near the city of Niagara at the Michigan border
- U.S. 8 stops at the Minnesota border
- U.S. 41 stops near the city of Marinette at the Michigan border
- I-90 stops near the city of La Crosse
- U.S. 151 stops at the border of the city of Dubuque, Iowa
- I-535 stops at the Minnesota border

4.2.10 WisDOT Site Candidate Interactive Web Tool

WisDOT has developed an interactive website that is used to illustrate the WEVI Plan and potential locations for the construction of EVSE under the requirements of the NEVI Program. It is anticipated that this Interactive Web Tool will be used by municipalities, utilities and potential site hosts. The Interactive Web Tool can be accessed at the following web address:

https://experience.arcgis.com/experience/8405604ccc034f7c8c4e95e6776951a7/.

5 PROGRAM MANAGEMENT, CONTRACTING AND IMPLEMENTATION

This section details Wisconsin's plans for contracting with private entities, including plans for the participation of small businesses and local industries while ensuring an open, fair, and competitive process that provides a broad opportunity for applicants to compete for NEVI awards. This section also describes how Wisconsin's contracting strategy will ensure that EVSE is delivered in a manner that leads to efficient and effective deployment consistent with the program's goals. The section further details compliance with applicable federal requirements, including 23 CFR 680. The WEVI Plan implementation section of this chapter also discusses Wisconsin's anticipated implementation strategy for ensuring entities contracted for NEVI funded stations achieve efficient delivery of ongoing operations and maintenance as required by federal rules and state goals.

5.1 Program Management

Wisconsin is developing its approach to the NEVI Program in compliance with federal guidance and 23 CFR 680. Wisconsin will focus its initial efforts on Interstate Highways and designated AFCs to achieve full NEVI-compliance. Wisconsin will be seeking to contract with private sector, third party site hosts, owners, and operators. WisDOT is currently developing a contracting method in compliance with federal procurement statutes (23 CFR, 2 CFR 200, etc.), NEVI Formula Program final rules (23 CFR 680) requirements, and Wisconsin state laws. Wisconsin is not proposing to deploy charging stations on WisDOT property and will not own or operate charging stations, but site selection may be on private or public land. Participation will be open to all eligible vendors and business model types. Applicants will need to demonstrate how their proposal best meets the NEVI Program requirements and the WEVI Plan goals.

Wisconsin's initial NEVI Program is anticipated to be a reimbursement program, allowing for the reimbursement of actual expenditures incurred by the project sponsor, during the project's development. Project sponsors will be responsible for any project cost coverage beyond the maximum federal award and required to provide the minimum non-federal matching funds. The contractual terms with the private vendors will include all federal statutory procurement requirements, NEVI Formula Program rules (23 CFR 680), and state requirements to ensure performance and monitoring of EVSE operations and compliance.

The initial 2022 WEVI Plan focused on program policy and development goals. Lessons learned and best practices from contracting, deployment, and implementation will be incorporated into future WEVI Plan updates as they are identified, and the program moves forward.

5.2 Plan for Compliance with Federal Requirements

Wisconsin is fully committed to meeting all federal requirements for receiving federal funds, complying with the Bipartisan Infrastructure Law (BIL), and satisfying all the requirements of 23 CFR 680. Wisconsin is evaluating and incorporating the National Electric Vehicle Infrastructure Formula Program Guidance, NEVI Formula Program Q&A and 23 CFR 680 so Wisconsin's program will be fully compliant, and its contracts will incorporate the minimum standards and requirements for the implementation of the NEVI Program. Program applicants will be required to abide by all state and federal requirements throughout the life of the WEVI program. **Table 5-1** details the main federal, state, and NEVI program requirements.

Table 5-1: Plan for WEVI Program Federal, State, and NEVI Rule Compliance

Compliance Category	Plan for Compliance
Federal Law Compliance 23 U.S.C. 2 CFR 200 FHWA-1273 Buy America and Build America Davis Bacon Federal Wage Rate American with Disabilities Act (ADA) Title VI of the Civil Rights Act of 1964 Title VIII of the Civil Rights Act of 1968 The Uniform Relocation Assistance and Real Property Acquisition Act National Environmental Policy Act (NEPA)	WisDOT will ensure all contractual program elements and final award agreements with NEVI funded vendors comply with all federal laws involving the use of FHWA funding for highway construction projects. WisDOT's planning, program management, environmental, right-of-way, legal, and administrative staff are contributing expertise in development and review of the NEVI program contractual development process and related documents to ensure compliance with all applicable federal statutes. Furthermore, FHWA-WI staff will be consulted throughout development of the contractual process to ensure compliance at each stage of program development, contracting, design, construction, operations, maintenance, invoicing, and performance period reporting.
Wisconsin Laws Compliance with applicable Wisconsin Statues and Administrative Transportation codes	WisDOT's WEVI contracting process is being developed to comply with all applicable Wisconsin procurement statutes, to evaluate proposals based on competitive methods, with awardees required to maintain projects under final WEVI program contractual terms.

Wisconsin understands NEVI Program funds must comply with existing state laws and agency rules as well as with existing federal laws and U.S. DOT rules. WisDOT's Division of Budget and Strategic Initiatives (DBSI) has completed an analysis on how EVSE deployment could be impacted by Wisconsin state statues and administrative rules. This research identified federal and state statutory barriers to contracting and commercial activities along highways, rest areas and public right-of-way. As discussed earlier, a major barrier identified is a Wisconsin utility regulation restricting the ability for non-utility entities to sell electricity by the kilowatt hour ($/kW) as required of EV charging station operators by NEVI Program rules (23 CFR 680.116(a)1).

The Public Service Commission of Wisconsin and the Wisconsin State Legislature are aware of this barrier, but an amendment will need to be made to state law to allow WisDOT to create a contracting program that requires EV charging station operators display and base fees in $/kWh and be fully compliant with NEVI Formula Program rules.

5.3 WisDOT NEVI Program Contracting Strategies and Objectives

Wisconsin is working to create a NEVI Contracting Program that will provide funding for the deployment of EVSE. A competitive process is being established to advertise the opportunity with industry, select preferred entities, and enter into contractual agreements with awarded vendors to install and maintain NEVI compliant EV charging stations. The process will be designed to facilitate private sector innovation and flexibility while not being overly prescriptive on siting requirements.

Wisconsin conducted a thorough review of statutory requirements to identify the appropriate contracting strategies and objectives for the NEVI Program. Wisconsin will continually analyze existing and proposed state statutes as well as federal laws, rules and regulations to ensure legal and regulatory compliance of the program. While Wisconsin continues to develop the final details around the contracting approach, Table 5-2 identifies the core contracting objectives being addressed by WisDOT.

Table 5-2: WEVI Program Contracting Objectives

Objective	Description
Market-Driven	Wisconsin will seek input from private industry to develop a program that will attract private investment, is flexible, has minimal siting prescription and has a balanced risk allocation and commercial terms.
Inclusive Approach	Eligibility is intended to be broad to accommodate multiple business models, local and small businesses, and DBE contractors or entities.
Minimum Requirements	Strategies are being developed to potentially pre-qualify bidders that meet minimum program requirements.
Evaluation Criteria	Criteria are being developed for how applications will be scored, with a focus on ensuring selected applicants sufficiently demonstrate how they will meet the federal requirements and state goals of the program.
Financial Competitiveness	Methods to include a financial component in the scoring are being developed to factor in capital and operational subsidy requests.
Maximize Coverage	Strategies are being developed to identify exits and interchanges for approximate siting locations that will meet minimum NEVI Program location requirements.
Ensure Compliance	Operational, performance and monitoring requirements are being developed to comply with the NEVI Program's rules and requirements.

5.4 Status of Contracting Process

Based on the strategies and objectives described above, the WisDOT WEVI contracting process under development spans the spectrum from initial planning activities to ultimate release of the program, competitive project evaluation, conditional award agreements, executing final contracts with awarded vendors, and five-year NEVI Formula Program (23 CFR 680.106(i)) requirements for continued operations, maintenance and reporting duties of the contracted vendors.

WisDOT's WEVI contracting processes will:

Establish the methods to select specific site hosts and the contract will define the responsibilities and terms that must be performed over the life of the contract.

Focus its first phase of activities on achieving NEVI Formula Program fully built out requirements of all Wisconsin Interstates and AFCs in accordance with NEVI Formula Guidance released June 2, 2023.

As additional NEVI Program funding becomes available on an annual basis, Wisconsin will replicate the contracting process as additional sites are deployed, and once fully built out certification is attained from USDOT, WisDOT will use any remaining NEVI funds to build out publicly accessible EV charging stations along other travel corridors of significance throughout Wisconsin.

The following list of activities illustrates the full project lifecycle for planning, implementing, operating, maintaining, and managing EVSE.

Table 5-3: WEVI Program Contracting Process Categories and Activities

Process Category	Activities
Program Development	Outreach, coordination, prioritization, procurement terms and documents.
Contracting Process	Prequalification, RFP, evaluation, selection, contracting.
Pre-construction	NEPA clearances, FHWA authorization, design compliance reviews.
Construct/Install EVSE	Construction oversight, compliance inspection, certification.
Reimbursement	Eligible cost reimbursements and accounting of non-federal match costs.
Operations & Maintenance	Awarded vendor operates and maintains station at 97% uptime per 23 CFR 680.116.
Contract Administration	Monitoring and enforcement of contract provisions.
Evaluation and Reporting	Performance assessment, reporting, WEVI Plan annual updates.

The WEVI Program contracting process objectives establish the methods that Wisconsin will utilize to encourage broad participation from disadvantaged, local, and small businesses, as well as a process to pre-qualify entities capable of identifying qualified sites and performing the operations and maintenance responsibilities required by the NEVI and WEVI programs.

Wisconsin is working to create its final contracting process details, ensuring a process that is compliant with federal statutes, state laws, NEVI final rules (23 CFR 680), and WEVI program goals. These interlocking requirements will be embedded in the solicitation and submittal material requirements, contracting evaluation, and award processes. In addition, compliance will be incorporated into the program and site host contractual agreements, and enforced through reviews, inspections, and reporting throughout the project performance period. The final contract will include all provisions required from the NEVI Program and comply with federal and state laws. Additionally, the contract will include performance requirements and non-compliance regimes to meet NEVI Program operational targets. Wisconsin will facilitate and encourage local contractors to engage local communities through educational outreach, transparent pricing, workforce development initiatives, electrician trade groups and high-performance standards. Details on these implementation process results will be reported in future annual WEVI Plan updates.

5.4.1 Scoring Methodologies Utilized

As described above, WisDOT is working toward the completion and release of a final, first round WEVI Program contracting process. As the WEVI contracting process is not yet final, no scoring methodologies have been used to date to award contract. However, WisDOT is developing scoring methodologies to ensure an open, fair, and transparent competitive evaluation process. WisDOT's contracting evaluation methodologies will seek to ensure proposed projects are compliant with all laws and program requirements, meet NEVI and WEVI program objectives, and will help build a convenient, affordable, reliable, and equitable national network of EV chargers throughout Wisconsin.

To achieve all NEVI and WEVI Program goals and objectives, WisDOT's contracting evaluation methodologies will likely include, but not be limited to, the categories and considerations detailed in **Table 5-4.**

Table 5-4: WEVI Program Competitive Contracting Evaluation Methodology Development

Evaluation Category	Evaluation Responsiveness Considerations
Project Location, Access & Available Amenities	Evaluates how project location, accessibility features, and available amenities on-site or nearby best meet user needs and program goals.
Team Qualifications and Experience	Evaluates the project team's qualifications and experience meet NEVI program requirements and will result in quality project performance.
Project Approach and Plan	Evaluates project design, equipment, and approach to meeting all NEVI (23 CFR 680) and WEVI program requirements for operations, maintenance, physical safety, cybersecurity, and reporting compliance.
Project Site Readiness and Anticipated Project Schedule	Evaluates site utility service and make ready needs for NEVI compliance as well as environmental readiness for NEPA clearance process. Evaluates project timeline for reasonableness, efficiency, and implementation risks.
Project Cost-Effectiveness	Evaluates project budget items, requested federal share, and match to determine eligibility, reasonableness, and to identify sites that require less capital or operational subsidy from federal NEVI Program funds.
Justice40 and Equity	Evaluates Justice40 communities benefited, team DBE participation, local and small business participation, and Civil Rights compliance.
Innovations & Future Proofing	Evaluates projects more highly for innovation and future proofing.

5.4.2 Awarded Contracts

No NEVI Formula Funding awards or contracts have been issued by WisDOT through the WEVI program to date. WisDOT is working to finalizing the WEVI Program contracting process and its related evaluation methodologies and award agreements. Final details on the WEVI contracting program will be available once published and in future WEVI Plan updates.

5.5 WEVI Plan Implementation

As described in **Chapter 1**, the electrification objectives related to implementation include:

Connectivity: Develop a robust, interconnected EV charging network that reduces range anxiety and meets the state's growing charging needs.

Safety: Employ robust safety standards that ensures that all funded infrastructure is safe and reliable for travelers in Wisconsin.

Accountability: Establish performance monitoring and data analytics practices to inform and improve operations and investment.

As described above, WisDOT will create a competitive WEVI program contracting process to award NEVI funding. Ultimately through executed award contracts with vendors, WisDOT will ensure that the highest levels of connectivity, safety and accountability are attained. As stated, the prime mechanism to achieve these objectives will be to execute a robust contract with each party awarded NEVI Program funding, containing applicable federal laws, 23 CFR 680 requirements, and Wisconsin terms and conditions as detailed in **Table 5-5.**

Table 5-5: WEVI Program Federal, NEVI Program and State Laws Compliance Approach

Category	Federal Statutes	NEVI Program Rules (23 CFR 680)	Wisconsin Statutes	WEVI Program Requirements
Submission Phase	Applicants required to comply with 23 CFR, 2 CFR 200, and other statutes	Applicants required to comply with to 23 CFR 680	Applicants required to comply with Wisconsin law	Applicants encouraged to incorporate WEVI program priorities
Evaluation Phase	WisDOT will follow federal law in review and scoring	WisDOT will follow 23 CFR 680 in review and scoring	WisDOT will follow Wisconsin law in review and scoring	WisDOT will follow WEVI Priorities in review and scoring
Awardee Contracting	Federal statute flow down, incorporated by reference	23 CFR 680 flow down, incorporated by reference	Wisconsin law flow down, incorporated by reference	WisDOT WEVI priorities, incorporated by reference
EVSE Construction	Awardees are required to follow federal law	Awardees are required to follow 23 CFR 680	Awardees are required to follow Wisconsin law	Awardees are encouraged to incorporate DBEs
O&M Period	Awardees are required to maintain federal law compliance and reporting for five years	Awardees are required to maintain 23 CFR 680 compliance and reporting for five years	Awardees are required to maintain Wisconsin law compliance and reporting for five years	Awardees are required to maintain WEVI program compliance and reporting for five years

Wisconsin will ensure these contracts address all FHWA regulations along with minimum standards and requirements for projects funded under the NEVI Program.

5.5.1 EVSE Installation, Operations, and Maintenance

Wisconsin's contracts with parties awarded under the NEVI Program will require EVSE stations to comply with 23 CFR 680. Wisconsin will ensure all EVSE installed with NEVI Program funds comply with the following standards for installation, operation, and maintenance:

Table 5-6: EVSE Installation, Operations, and Maintenance Implementation Compliance

Rule Section	NEVI Rule Section Title	NEVI Final Rule Subsection Detail	
§680.106	Installation, Operation, and Maintenance by Qualified Technicians of Electric Vehicle Charging Infrastructure	Procurement process Number of charging ports Connector type Power level Availability Payment methods Equipment Certification	Security (physical, cyber) Long-term stewardship Qualified technician Customer service Customer Data Privacy Use of program income

Wisconsin will ensure that its final contracts with parties awarded NEVI Program funding comply with 23 CFR 680.106. In addition, Wisconsin will consider adding any additional items that best serve the state's overall vision, goals, and program objectives.

5.5.2 EVSE Interoperability, Signage, Network Connectivity and Real-Time Information

Wisconsin's contracts with parties awarded under the NEVI Program will require EVSE stations to comply with 23 CFR 680; Wisconsin will ensure all EVSE installed with NEVI Program funds comply with the following standards for EVSE Interoperability, Signage, Network Connectivity, and Real-Time Information:

Table 5-7: EVSE Interoperability, Network Connectivity, and Real-Time Information Compliance

Rule Section	NEVI Final Rule Section Title	NEVI Final Rule Subsection Detail
§680.108	Interoperability of Electric Vehicle Charging Infrastructure	Charger-to-EV communication Charger-to-Charger-Network Communication Charging-Network-to-Charging-Network Communication Network switching capability
§680.110	Traffic Control Devices or On-Premises Signs Acquired, Installed, or Operated	Manual on Uniform Traffic Control Devices for Streets and Highways On-premises signs
§680.114	Charging Network Connectivity of Electric Vehicle Charging Infrastructure	Charger-to-charger-network communication Interoperability Charging-network-to-charging-network communication (see also §680.108) Charging-network-to-grid communication Disrupted network connectivity
§680.116	Information on Publicly Available Electric Vehicle Charging Infrastructure Locations, Pricing, Real-Time Availability, and Accessibility Through Mapping Applications	Communication of price Minimum uptime (definition and calculation) Third-party data sharing

Wisconsin will ensure that its final contracts with parties awarded NEVI Program funding comply with 23 CFR 680.106-116. In addition, Wisconsin will consider adding any additional items that best serve the state's overall vision, goals, and program objectives.

5.5.3 EVSE Data Collection and Reporting

The deployment of EVSE across the state provides for opportunities to collect and share a variety of data that may be used to enhance the overall program and customer experience. The bulleted list below depicts the proposed rule for charging station use, cost, reliability and maintenance data that may be collected, maintained, and submitted to FHWA. Wisconsin will ensure all EVSE installed with NEVI Formula program funds comply with 23 CFR 680.112 regarding the following standards for quarterly, annual, one-time, and community engagement outcomes reporting:

Table 5-8: EVSE Data Collection and Reporting Implementation Compliance

Rule Section	NEVI Final Rule Section Title	NEVI Final Rule Subsection Detail
§680.112	Data Submittal	Quarterly data submittal Annual data submittal One-time data submittal Community engagement outcomes report

Wisconsin's intention is to include EVSE data collection and reporting requirements into the agreements with EVSE owner and operators.

5.5.4 EVSE Resilience, Emergency Evacuation and Snow Removal

Wisconsin currently engages in a variety of best practices to ensure the safety and operational needs of the state owned and managed roadway system are met. These strategies are critical to ensuring that the roadway is resilient and is prepared for emergencies, such as evacuations and Wisconsin's weather events. The following information provides an overview of the best practices and their importance to the successful implementation of EVSE.

5.5.4.A. SNOW REMOVAL/SEASONAL NEEDS

Being an upper-Midwest state, Wisconsin experiences cold temperatures and snow in addition to the typical seasonal needs affecting other states. WisDOT utilizes its Highway Maintenance Manual (HMM) to prepare and react to the seasons and weathering affecting its roadways. The HMM reflects the policies, guidelines, and practices used by the department regarding all aspects of highway maintenance. The Winter Maintenance chapter of the HMM provides information on how WisDOT ensures roadway operational safety during the winter months by roadway classifications, storm management responsibilities, snow removal and snow removal materials, and weather services.

WisDOT intends to incorporate all snow removal and seasonal needs requirements into the agreements with third party owners and operators who receive NEVI Program funds for EVSE. The third-party owners and operators will be responsible for all aspects of snow removal and seasonal needs for the area surrounding the EVSE.

5.5.4.B. EMERGENCY EVACUATION/EMERGENCY INCIDENT MANAGEMENT

In the event of an emergency evacuation or emergency incident management, WisDOT's Division of State Patrol (DSP) coordinates its response with a variety of partners such as, local law enforcement and first responders, local government, state/local emergency management agencies, and WisDOT's Division of Transportation System Development (DTSD) Regional Incident Management Coordinators. WisDOT's DSP and DTSD Regional Incident Management Coordinators have built relationships over the years with local partners

to better meet the needs of a safe and operational roadway. Through these relationships, WisDOT's DSP and DTSD's Regional Incident Management Coordinators can assist local partners in pre-planning for weather events and social events such as Summerfest, Wisconsin State Fair, music festivals, etc. The pre-planning efforts have the potential to create strategies for event management needs such as efficient traffic and crowd control. These strategies can be augmented to include EVSE as critical infrastructure for transportation.

WisDOT's DSP has two steps when encountering an emergency incident, such as a road closure due to a snow emergency, on the roadway.

1. Scene management – take the necessary steps to stop or mitigate further safety risks by securing the scene.
2. Detour route - establish alternative routes for traffic as needed. WisDOT's DSP communicates with WisDOT DTSD's Regional Incident Management Coordinators to determine detour routes to flow traffic away from the incident.

If an emergency evacuation or incident were to occur, WisDOT's DSP and DTSD Regional Incident Management Coordinators will coordinate with local partners using existing standard operation procedures and potentially develop new procedures to ensure the operational safety of the roadway system.

5.5.4.C. RESILIENCE

Through the existing and future conditions analysis, WisDOT identified rainfall and snowfall as potential risks for flooding. WisDOT is in the process of creating a system risk assessment tool to identify the locations with the highest risk of experiencing flooding and/or being significantly impacted by flooding. This tool will be integrated with an asset management approach to design policy considerations. The rainfall confidence interval products of NOAA Atlas 14 are key inputs in the model.

WisDOT anticipates that the system risk assessment tool, once operationalized, will be applied to placement analysis for EV charging infrastructure. A normalized flooding vulnerability risk score can be assigned to roadway segments. Based on a risk score, WisDOT will be able to identify areas of high flooding risk and avoid placing charging stations in areas of high risk.

5.5.5 Labor, Safety, and Training Standards

Wisconsin's contracts will seek to ensure parties awarded NEVI Program funds for EVSE installation, operation, and maintenance will comply with the standards for strong labor, safety, training, and installation as described in the list below, as well as further expanded on in **Chapter 6.**

Disadvantaged Business Enterprise and Small Business Participation and Prevailing Wage Requirements: Federal Highway Administration (23 CFR 230.107) to require: that all federal-aid highway construction contracts include specific equal employment opportunity requirements and prevailing wages.

Licensed Electricians with EVSE Credential: Wisconsin's contracts will require that all electricians are licensed per Wisconsin Law, as well as require all electricians have Electric Vehicle Infrastructure Training Program (EVITP) or similar credential as currently required by 23 CFR 680.

Equipment and Site Safety Requirements: Charging stations must meet relevant technical or safety standards, including but not limited to UL 2202, and Code of Federal Regulations, Title 47, Part 15 (47 CFR 15), and must have valid certification(s) from an OSHA recognized national lab. Charger enclosures must be constructed for use outdoors in accordance with UL 50E Standard for Safety for Enclosures for Electrical Equipment, Environmental Considerations, Type 3R exterior enclosure or

equivalent. Chargers must incorporate a cord management system or method to eliminate potential for cable entanglement, user injury, or connector damage from lying on the ground.

Americans with Disabilities Act (ADA) Compliance: EVSE stations will be required to be compliant with ADA per final NEVI Program rules.

EVSE Fire Code and First Responder Safety Training: The National Fire Protection Association (NFPA) codes on EVs and EVSE and any code relevant to install locations will be followed. The NFPA is delivering a report to provide updated training programs and code compliance readiness for EVs. Other than the NFPA, the SAE J2990 document (Hybrid and EV First and Second Responder Recommended Practice, July 2019) provides training and information they must have on hand on when dealing with an EV thermal event.

5.5.6 Contractor Community Engagement

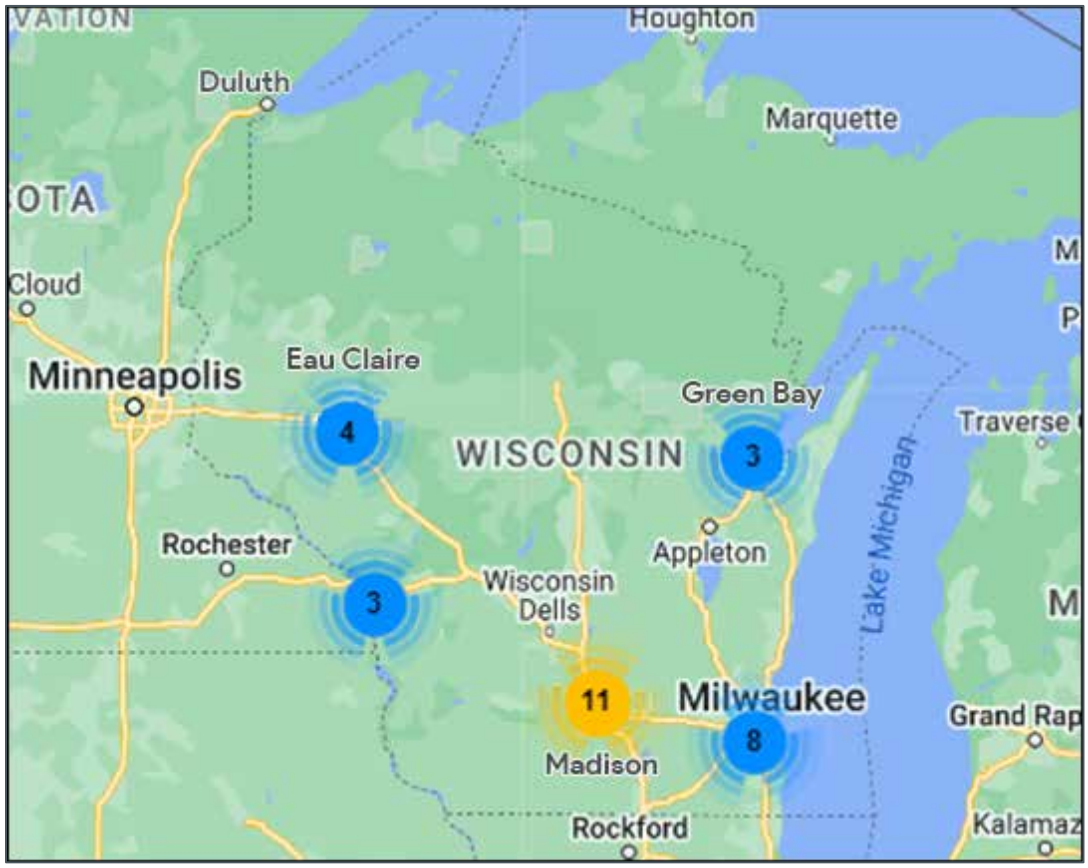
The WEVI Program contracting process objectives in **Section 5.4** are designed to establish the methods that Wisconsin will utilize to encourage broad participation from disadvantaged, local, and small businesses, as well as a process to pre-qualify entities capable of identifying qualified sites and performing the operations and maintenance responsibilities required by the NEVI and WEVI programs. This final process will include requirements in various project implementation phases for the awarded contractors to meaningfully engage with communities where EV charging stations are being installed, from the environmental clearance process through the operations and maintenance phases of project implementation.

6 LABOR AND WORKFORCE CONSIDERATIONS

The deployment and operation of Wisconsin's EV charging infrastructure will provide new opportunities to engage an emerging industry, establish support for the development of a skilled workforce and ensure equitable access to employment opportunities for communities across Wisconsin. Wisconsin has already engaged multiple state agencies and stakeholder groups to understand the breadth of existing programs and capabilities and is developing strategies to meet the needs and requirements of the program. Consistent with our program goals, Wisconsin will undertake proactive steps to achieve equitable participation from under-represented and under-served communities and work to establish entry-level training programs to improve access to employment.

Wisconsin will leverage the guidance and requirements outlined for certification from the EVITP as well as current in-state requirements for safety and performance considerations across the charging network. Engagement and support activities will increase awareness of requirements, promote training and certification programs, and seek opportunities to overcome or subsidize barriers and costs (i.e., the 18-hour certification requirement). Wisconsin currently has 29 contractors with EVITP certification, and this number is expected to increase over time as EVSE deployments become commonplace throughout Wisconsin. Figure 6-1 identifies the location of Wisconsin's certified EVITP contractors.

Figure 6-1: Location of Wisconsin Certified EVITP Contractors



Source: EVITP

Wisconsin has already started efforts to promote strong labor, safety, training, and installation standards in addition to opportunities for small businesses. WEDC and their consultant are developing a detailed assessment of Wisconsin's automotive and manufacturing workers who are at risk of displacement by the state's transition to EVs. This assessment includes a survey of relevant training programs in Wisconsin's higher education institutions and a review of statewide labor and training standards as they relate to EV charging operations and maintenance. A key objective of the WEDC assessment is to develop recommendations for retraining and reskilling potentially displaced workers in Wisconsin.

Encouraging a diverse workforce for the EV network will also be an important focus. To the extent that data is available, WEDC and their consultant will examine the training and qualifications required for occupations related to the installation and maintenance of EV charging infrastructure. They will then evaluate these standards in the context of Wisconsin's skilled technical workforce to identify potential skills gaps. Additionally, the assessment will break down relevant occupations by race and gender to identify opportunities to increase diversity within the workforce.

In short, Wisconsin is currently working on and is thoroughly committed to providing a strong workforce for all EV infrastructure deployments and on-going maintenance and monitoring needs.

7 CIVIL RIGHTS AND EQUITY CONSIDERATIONS

EVs could soon be a major component of all transportation systems. As such, it is vital that charging infrastructure be accessible and inclusive. Wisconsin recognizes the importance of including voices from all members of the traveling public in the planning conversation for this transformative technology. To ensure the WEVI Plan works for all members of the traveling public, Wisconsin has worked with representatives of various communities and the public to provide meaningful, inclusive, and ongoing opportunities to provide insight into the WEVI Plan. Wisconsin will continue to develop its approach and monitor federal guidance and best practices to identify, prioritize and measure benefits for disadvantaged communities from EV charging infrastructure development.

7.1 Identification and Outreach to Disadvantaged Communities in Wisconsin

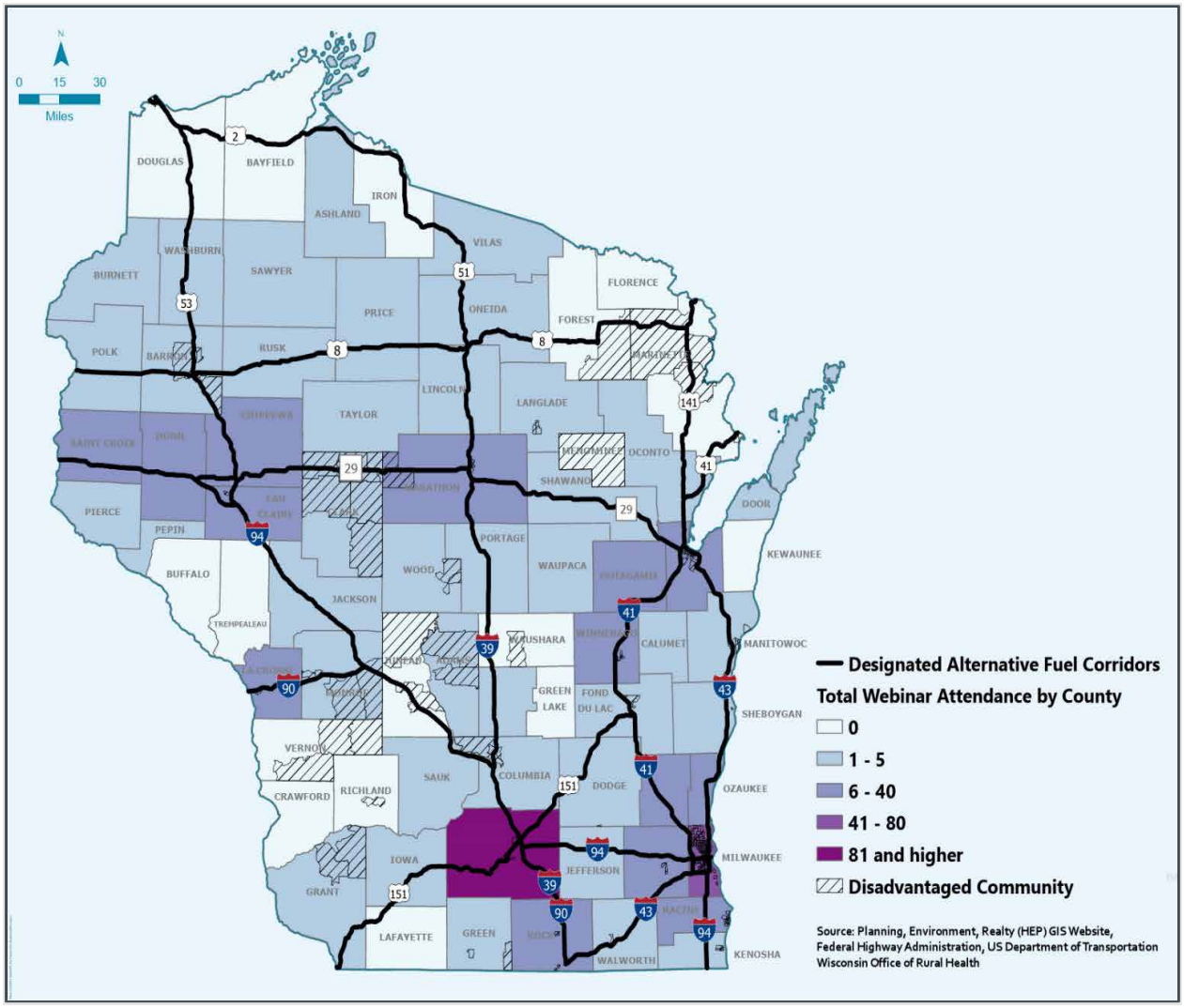
Wisconsin is working toward identifying a Wisconsin-specific approach to addressing EVSE needs of Disadvantaged Communities (DACs). This approach will be based on cross agency coordination and analysis of different populations in Wisconsin and may include considerations such as rural population and disability status.

Through Wisconsin's outreach efforts, 67 different equity organizations were invited to participate in webinars held prior to WEVI Plan submittal. Equity organizations were also invited for one-on-one conversations with WisDOT about WEVI. These organizations included those with rural focus, municipalities, counties, various chambers of commerce, and tribal contacts. In addition to direct outreach, Wisconsin also welcomes conversations with any equity organization that reaches out and expresses a desire to discuss electrification. This framework will continue throughout the lifetime of the WEVI Plan to ensure that input from all communities is heard throughout the electrification planning and implementation process.

Wisconsin has actively sought to engage with a variety of stakeholders to ensure a range of voices are included when planning for transportation electrification. For more context on that engagement, see **Chapter 2**, State Agency Coordination and Public Engagement. Wisconsin has engaged with rural, underserved, and DACs on the topic of transportation electrification.

On June 21 and June 22, 2022, WisDOT led two public webinars. **Figure 7-1** shows attendance from these webinars as it relates to the DACs in Wisconsin.

Figure 7-1: Public Engagement Webinar Attendance by County



During these webinars, questions and comments were welcomed and are summarized in **Section 2.6.** These themes were taken into consideration in this planning effort and will continue to be used to inform future WEVI plans as well as program development.

In addition to the webinars, Wisconsin is conducting one-on-one meetings with various stakeholder groups including groups that work directly with DACs. The intention of these meetings is to engage in conversations on how transportation electrification can be accessible for all and to understand potential benefits and opportunities for DACs. Through the equity-based discussions, a few themes remain consistent. These themes include access to accessible EVs, safety and accessibility of charging infrastructure, and best practices of current gas stations that could or should be carried forward to electric charging stations. These concepts will be carried forward as Wisconsin plans the programmatic side of the WEVI Plan.

ONGOING EQUITY-BASED COMMUNITY ENGAGEMENT

Wisconsin recognizes the importance of continuous involvement with our DACs. During implementation of this WEVI Plan, Wisconsin will seek out opportunities for public engagement, especially with those from DACs who have not previously been engaged. Specifics on this engagement will be determined based on target audiences and local community-based organizations. This may include opportunities such as:

- Public webinars
- Continuing the public comment form online, as well as opportunities for email and mail
- Continual updates to the WisDOT Transportation Electrification page, which can be translated into other languages
- Involvement in WisDOT advisory committees such as the Wisconsin Non-Driver Advisory Committee (WiNDAC)
- Freight Advisory Committees (FAC)
- Others

These interactions will inform Wisconsin's efforts to continually refine and update its electrification efforts and ensure those efforts are meeting the needs of Wisconsin's traveling public.

7.2 Process to Identify, Quantify and Measure Benefits to DACs

Wisconsin has a large rural population in addition to our DACs. **Figure 7-2** shows each Wisconsin county and their classification, rural or urban, and how they relate to Wisconsin's designated AFCs. **Figure 7-3** depicts Wisconsin's AFCs and how they overlay with both tribal lands and DACs.

Figure 7-2: Wisconsin Urban and Rural County Classifications

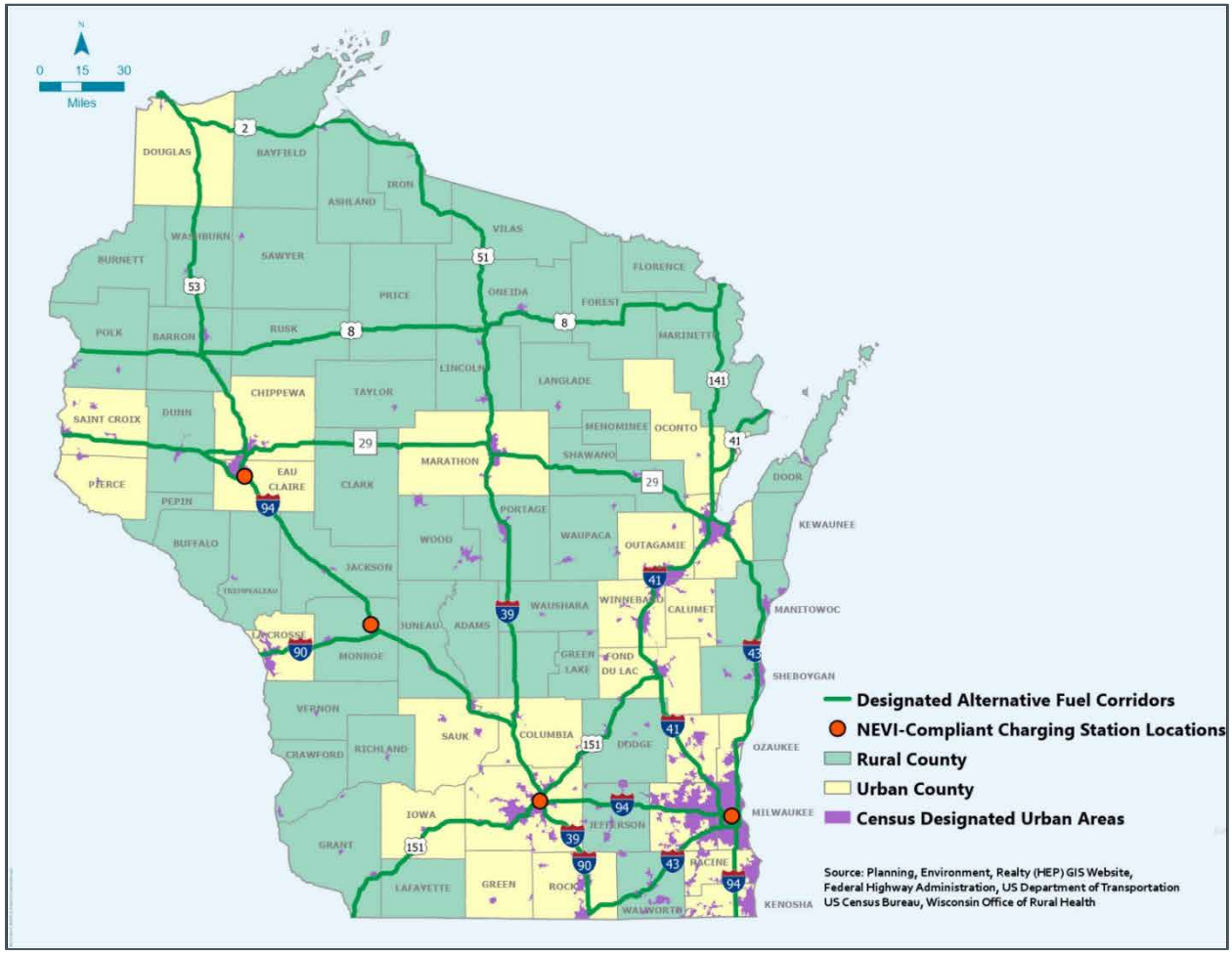
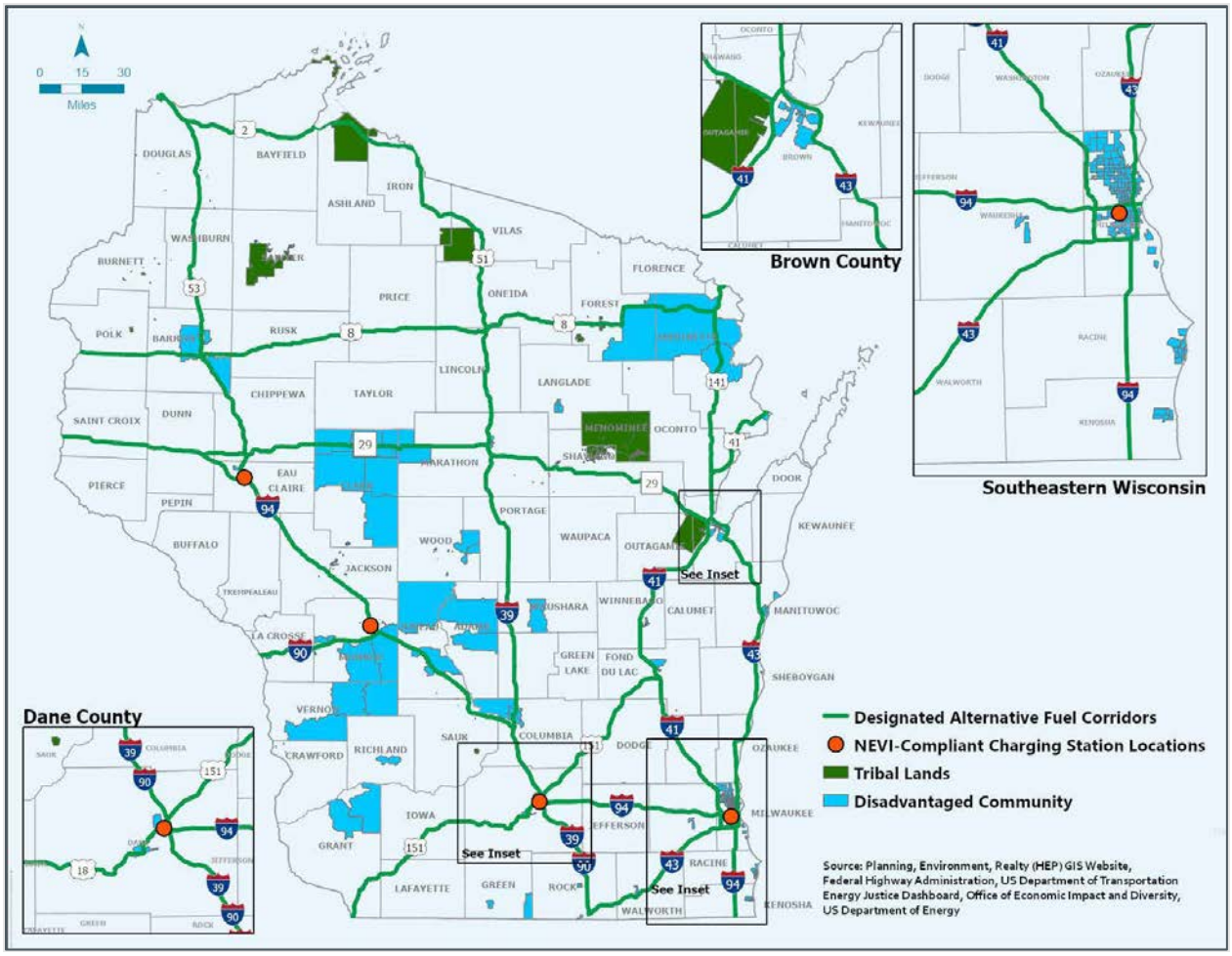


Figure 7-3: Wisconsin Tribal and Disadvantaged Communities



Wisconsin is committed to engaging with DACs throughout the state during the development of this WEVI Plan and subsequent updates. Engagement has and continues to be open and inclusive to ensure that everyone is represented.

7.2.1 Process to Identify, Quantify and Measure Benefits to DACs

It will be important to measure benefits to both rural populations as well as DACs as Wisconsin plans for EVSE infrastructure. Wisconsin is committed to providing EVSE opportunities to all areas of the state through the program. At present, the following statistics summarize the location of Wisconsin's AFCs.

Table 7-1: Wisconsin Rural Area Statistics based on Roadway Miles

Element	Percentage
Percent of AFCs outside of U.S. Census Urban Areas	85%

Table 7-2: Wisconsin DAC Statistics based on Roadway Miles

Element	Percentage
Percent of AFCs in DACs	9%

To measure benefits to equity-based communities, Wisconsin will:

- Measure reduction in tailpipe emissions as a result of charging infrastructure placement
- Continually monitor EV registration throughout the state
- Determine increased access to charging infrastructure
- Evaluate the decreasing transportation cost burden
- Calculate percent of miles of AFCs through DACs

Additionally, Wisconsin will explore how to measure the following benefits or similar benefits as the ones listed below:

- Percent of overall site contracts awarded to small/disadvantaged businesses
- Number of EVSE sites built in DACs
- Emissions benefits generated for DACs

Additional benefits include:

- Increased job creation or repurpose toward electrification
- Create opportunities for disadvantaged businesses and job training

Wisconsin will comply with the benefit measurements defined in 23 CFR 680.

7.3 Benefits to DACs through this Plan

Mobility and transportation choices are at the core of an efficient and effective transportation system and critical to Wisconsin's economic vitality and quality of life. Regardless of transportation mode, it is important for all users of the transportation system to experience the benefits of transportation vehicle electrification.

Though not directly tied to the WEVI Plan, the users of public transportation should see the benefits of transportation electrification. These benefits are evidenced in the Wisconsin Department of Natural Resources' Clean Bus Program and in the Wisconsin VW Mitigation Fund efforts. In future years, Wisconsin is

anticipating including medium- and heavy-duty electrification into the WEVI Plan including opportunities for public transportation to engage in electrification.

Users who do not have access to a personal vehicle or public transportation should benefit from electrification too. WisDOT formed the WiNDAC[19] in spring 2020 as an advisory forum to develop recommendations to improve transportation for non-drivers in Wisconsin. WiNDAC meets twice a year.

As part of WisDOT's commitment to improving transportation mobility, safety, and accessibility for non-drivers in Wisconsin, representatives from the Wisconsin Counsel of the Blind and Visually Impaired, Wisconsin Board of People with Developmental Disabilities, and Greater Wisconsin Agency on Aging Resources (GWAAR) met with WisDOT to discuss transportation electrification. These conversations highlighted several important considerations to allow for EVSE to be inclusive of all members of the traveling public.

One main theme was the need for education across a number of communities. There is a need for education on topics such as safety of the vehicles, how to use or charge an EV, reliability of the vehicle and the grid, and overall operation of charging infrastructure. Another consideration that emerged from the conversations is charging station accessibility, with concern expressed over the current lack of standardization of accessibility measures in place at EVSE.

These conversations featured important considerations to enable a more inclusive approach with the traveling public for EV ownership and EVSE participation. Another consistent theme across most communities was the need for additional education around the EV ecosystem. There is a need for education on topics related to the vehicles (safety, charging, reliability, costs), charging infrastructure and electric grid impacts.

7.4 Civil Rights

WisDOT complies with Title VI of the Civil Rights Act of 1964, the American Disabilities Act of 1990, and Section 504 of the Rehabilitation Act of 1973. To assist in compliance, WisDOT employs staff in the Office of Business Opportunity and Equity Compliance (OBOEC), including a Title VI and ADA Coordinator. OBOEC was consulted in the planning efforts for the WEVI Plan.

To ensure compliance with the ADA and Title VI of the Civil Rights Act of 1964, electrification planning should include:

- Program review by appropriate OBOEC staff[20]
- Consideration be given to ensuring ADA compliant EVSE
- Recommend following ADA Requirements for Workplace Charging Installation[21] as recommended by the U.S. Department of Energy
- Compliance with the final NEVI rule 23 CFR 680, 49 CFR 37 Transportation Services for Individuals with Disabilities (ADA), 28 CFR 35 Nondiscrimination on the Basis of Disability in State and Local Government Services, and 28 CFR 36 Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities.

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[19] *Wisconsin Department of Transportation Improving transportation for non-drivers (wisconsindot.gov)*

[20] *WisDOT staff make up an ADA Managing Committee consisting of representatives from across the Department. This group discusses various types of transportation infrastructure to ensure ADA compliance and review opportunities for increased compliance.*

[21] *https://afdc.energy.gov/files/u/publication/WPCC_complyingwithADArequirements_1114.pdf*

Table 7-3: Summary of Important ADA Requirements for EVSE

Element	ADA/ABA 2004 ANSI A117.1 2003
Number of Spaces	4% of parking spaces, or 1 for every 25 spaces, in any given lot, be designated as accessible; 1 out of every 6 spaces should be van accessible
Parking Stall	8x18 feet for a car and 11x18 feet for a van
Accessible Route Width	Minimum 36 inches wide
Accessible Route Slope/Cross Slope	Maximum 1:20 (5%) running slope and 1:48 (2%) cross slope; Accessible vehicle spaces 1:48 (2%) in all directions and 90-inch clearance for vans
Reach Range	48 inches front and side to allow reach to all operable parts from a wheelchair
Accessible Controls	Operable with one hand and not requiring grasping, pinching, or twisting of the wrist or force more than 5 lbs. Exception: Gas pumps
Accessible Ramps	A ramp or curb-cut must be accessible to allow for operation of charging station
Facility Accessibility	Must be connected by a minimum of 50-inch-wide accessible route in proximity (not necessarily adjacent) to the entrance of the building
Side Access Aisle	Side access aisle of 60 inches wide to allow space for wheelchair and equipment in and out of space
Accessible Card Reading Devices	Must be connected by a minimum 50-inch-wide accessible route in proximity (not necessarily adjacent) to the entrance of the building
Other Considerations	Ensure that bollards, wheel stops, or curb do not obstruct use of charging station

Source: https://afdc.energy.gov/files/u/publication/WPCC_complyingwithADArequirements_1114.pdf

WisDOT continues to review the U.S. Access Board's recently released "Design Recommendations for Accessible Electric Vehicle Charging Stations," a technical assistance document that summarizes existing requirements and new recommendations for making EV charging stations accessible. Wisconsin's program will be consistent will any additional ADA requirements defined in the 23 CFR 680.

8 PHYSICAL SECURITY AND CYBERSECURITY

The U.S. Cybersecurity and Infrastructure Security Agency (CISA) defines cybersecurity as "the art of protecting networks, devices, and data from unauthorized access or criminal use and the practice of ensuring confidentiality, integrity, and availability of information." The State of Wisconsin and WisDOT recognize the critical role cybersecurity plays in the successful deployment of EVSE across the state. Protecting the EVSE network, the surrounding infrastructure, and the personal or business information of EVSE users, owners, and operators is integral for EVSE cybersecurity. Table 5-1 identifies many of Federal Law, NEVI Program Rules, and Wisconsin Laws that will be adhered to with the WEVI program.

Ensuring Wisconsin assets and programs are secure from cyber threats is a high priority. Wisconsin will apply the same level of cybersecurity rigor it applies to all its infrastructure needs as EVSE are deployed across the state. WisDOT will comply with FHWA guidance regarding cybersecurity as provided in the NEVI Final Rule 23 CFR 680.

EV charging stations transmit information at three connections that may be subject to a cyberattack:

- The transmission of payment information
- The connection of the electrical grid to the charging station
- The connection of the EV to the charging station

8.1 Transmission of Payment Information

Traditional petroleum based refueling has one avenue of cyberattack through the transmission of payment information. The use of a debit or credit card transmits personal identifiable information of the customer between the fueling infrastructure and their financial institution. This process is comparable to EV charging stations.

NEVI requires that chargers and charging networks be compliant with appropriate Payment Card Industry Data Security Standards (PCI-DSS). Any security measures taken by the site operator shall meet or exceed published standards and software updates must be made in a timely manner to prevent a breach of cardholder data.

8.2 Encryption

The connection of EVs to EV charging stations and then to the electrical grid require an ongoing exchange of data. The encryption of this data is the primary method to defend against cyberattacks.

Encryption is used to protect data from being stolen, changed, or compromised and works by scrambling data into a secret code that can only be unlocked with a unique digital key.

NEVI recommends following the National Institute of Standards and Technology (NIST) guidelines for data encryption. The three core principles that guide encryption are derived from the Central Intelligence Agency (CIA) triad of confidentiality, integrity, and availability.

Confidentiality: Ensuring information is readable only by intended recipients and is protected from unauthorized third parties
Integrity: Ensuring any modification can only be done by authorized agents
Availability: Ensuring queries by the user are responded to within an appropriate timeframe

8.3 Potential Additional Best Practices

Wisconsin continues to evaluate additional requirements to enhance security, which may include:

In case of any data security breach, site Owner/Operator must contact the Department within 24 hours and advise means being taken to mitigate adverse circumstances.

Employees or others involved in operation and maintenance with access to equipment and data shall be located within the United States.

Independent audits shall be performed at least annually by a third-party qualified security assessor.

9 PROGRAM EVALUATION

WisDOT will perform an annual assessment of program progress based on the goals identified in **Chapter 1** of this WEVI Plan. This includes monitoring overall statewide EVSE build-out, analyzing data submitted by site hosts, and working with partners to develop new locations and make necessary adjustments to existing EVSE locations. Site hosts will be required to abide by data submittal requirements as described in 23 CFR 680.112. In accordance with NEVI Program guidance, WisDOT will continue to annually update the WEVI Plan.

WisDOT has an existing performance improvement program, called MAPSS (Mobility, Accountability, Preservation, Safety, and Service), which focuses on the five core goals and associated performance measures that guide WisDOT in achieving its transportation mission "to provide leadership in the development and operation of a safe and efficient transportation system." The department is committed to quarterly reporting of progress, with updates published in January, April, July, and October. As part of our ongoing program development, WisDOT will evaluate how to best operationalize NEVI Program evaluation within the MAPSS program.

10 DISCRETIONARY EXCEPTIONS

Wisconsin has reviewed the National Electric Vehicle Infrastructure Formula Program Guidance that states exceptions will only be granted under very limited circumstances on a case-by-case basis, and adjudicated prior to the approval of a Plan.

Currently, Wisconsin has not identified any specific locations for charging sites, so no exceptions have been identified. Chapter 4 describes the mapping approach used to identify approximate areas for charging stations located a maximum of every 50 miles along an AFC and has additionally identified amenities and likelihood of high-power transmission lines within one mile of exits/interchanges.

Wisconsin's approach to procurement is to not be overly prescriptive in identifying exact sites or exits/interchanges. As we continue our due diligence and begin procurements around potential locations, utility constraints, amenities, rural limitations, and DAC opportunities, it is possible that future WEVI Plan updates may include exception requests. Wisconsin will work with our local and federal partners to discuss the rationale for any such requests and, if needed, submit the exception template on a limited basis

APPENDIX A

Potential EVSE Site Locations

Site #	Corridor	Group	Exit Interchange/Intersection Name	Latitude	Longitude
1	I-39	A	Exit 92: Korean War Veterans Mem Hwy	43.57646556	-89.47098352
2	I-39	A	Exit 106: State Rt 23	43.79082834	-89.48309352
3	I-39	A	Exit 113: E 2nd St	43.88551625	-89.48296733
4	I-39	B	Exit 124: W Follett Dr	44.03504293	-89.52855491
5	I-39	B	Exit 136: State Rt 73	44.21338063	-89.52443526
6	I-39	C	Exit 151: State Rt 54	44.43023377	-89.51852871
7	I-39	C	Exit 156: McDill Ave	44.49719431	-89.51821543
8	I-39	C	Exit 158 A/B: U.S. Rt 10	44.52121401	-89.52513029
9	I-39	D	Exit 179: State Rt 153	44.78590745	-89.6802255
10	I-39	D	Exit 185: Old Hwy 51	44.86322308	-89.64109081
11	I-41	A	Exit 2 A: W National Ave	42.99824903	-88.0379596
12	I-41	A	Exit 1 D: State Rt 59	43.01620298	-88.0363161
13	I-41	B	Exit 42 A: W North Ave	43.05949093	-88.05303629
14	I-41	B	Exit 43: W Burleigh St	43.07410926	-88.05796202
15	I-41	B	Exit 44: I-94 ALT	43.08849478	-88.0578182
16	I-41	B	Exit 45: W Hampton Ave	43.10458075	-88.05795663
17	I-41	B	Exit 46: W Silver Spring Dr	43.11680087	-88.0572959
18	I-41	B	Exit 48: N 124th St	43.15973769	-88.06327819
19	I-41	B	Exit 50 A: Main St	43.17743498	-88.08970677
20	I-41	C	Exit 51 A: Pilgrim Rd	43.18279325	-88.10183521
21	I-41	C	Exit 52: County Line Rd	43.19140686	-88.12060015
22	I-41	C	Exit 57: Holy Hill Rd	43.25120585	-88.18160952
23	I-41	C	Exit 64 B: State Rt 60	43.3236197	-88.24939525
24	I-41	D	Exit 72: WIS-33	43.423694	-88.33611082
25	I-41	D	Exit 85: I-41 ALT	43.58698834	-88.43083411
26	I-41	D	Exit 97: S Hickory St	43.75012612	-88.46196451
27	I-41	D	Exit 98: S Military Rd	43.75856472	-88.47465997
28	I-41	D	Exit 99: US-45	43.78424689	-88.48241937
29	I-41	E	Exit 101: County Rd OO	43.80641993	-88.49933977
30	I-41	E	Exit 113: I-41 ALT	43.95039833	-88.58297139
31	I-41	E	Exit 116: WI Trunk 44	43.99008544	-88.58247483
32	I-41	E	Exit 117: W 9th St Rd	44.01067318	-88.58213286
33	I-41	E	Exit 119: Omro Rd	44.03225277	-88.58249902
34	I-41	F	Exit 131: Winneconne Ave	44.17582703	-88.48824433
35	I-41	F	Exit 132: Main St	44.18945378	-88.4874504
36	I-41	F	Exit 136: W Prospect Ave	44.24365627	-88.46614301
37	I-41	F	Exit 137: WIS-125 / W College Ave	44.26168381	-88.46624279
38	I-41	F	Exit 138: WIS-96 / W Wisconsin Ave	44.27289402	-88.46619059
39	I-41	F	Exit 139: W Northland Ave / WIS-15	44.28792193	-88.46610345
40	I-41	F	Exit 142: WIS-47 / N Richmond St	44.29851043	-88.41567272
41	I-41	F	Exit 144: N Ballard Rd	44.29825968	-88.37530456
42	I-41	F	Exit 146: Freedom Rd	44.2979273	-88.31328959
43	I-41	F	Exit 148: Delanglade St	44.29928478	-88.27234079
44	I-41	G	Exit 150: Hyland Ave	44.3056341	-88.24959597
45	I-41	G	Exit 157: Freedom Rd	44.38597423	-88.1623711
46	I-41	G	Exit 161: Scheuring Rd	44.43048489	-88.11218691
47	I-41	G	Exit 163A: Main Ave	44.45254727	-88.08978586

Site #	Corridor	Group	Exit Interchange/Intersection Name	Latitude	Longitude
48	I-41	G	Exit 164: S Oneida St	44.46995743	-88.07917967
49	I-41	G	Exit 167: Lombardi Ave / Hazelwood Ln	44.50895201	-88.08245138
50	I-41	G	Exit 168A: WIS-32 / WIS-54	44.5239587	-88.08218136
51	I-41	G	Exit 170: Velp Ave	44.55728281	-88.05971753
52	I-43	A	Exit 21: Geneva St	42.62768329	-88.61851262
53	I-43	A	Exit 25: S Lincoln St	42.65543662	-88.54154701
54	I-43	A	Exit 29: State Rt 11	42.69179474	-88.5036185
55	I-43	A	Exit 38: North St	42.79222377	-88.38485091
56	I-43	A	Exit 43: S Rochester St	42.85138438	-88.32182436
57	I-43	B	Exit 50: Big Bend Dr	42.91096883	-88.21742649
58	I-43	B	Exit 54: Racine Ave	42.93308668	-88.15915886
59	I-43	B	Exit 57: S Moorland Rd	42.95175057	-88.10986408
60	I-43	B	Exit 7: S 60th St/I-894	42.96229108	-87.98891674
61	I-43	B	Exit 9: S 27th St/I-894	42.96273885	-87.94979642
62	I-43	B	Exit 314 A: W Howard Ave/I-94	42.97326658	-87.91548065
63	I-43	B	Exit 314 B: W Holt Ave/I-94	42.98215719	-87.91634388
64	I-43	B	Exit 312 A: W Becher St/I-94	43.00666142	-87.91602224
65	I-43	B	Exit 312 B: W Lapham Blvd	43.0127032	-87.91594927
66	I-43	C	Exit 311: W Walker St (equivalent of ~mm 70)	43.02230477	-87.92040511
67	I-43	C	Exit 72 E: W Winnebago St	43.04728306	-87.92637737
68	I-43	C	Exit 73 B: W North Ave	43.0601253	-87.92100148
69	I-43	C	Exit 75: W Keefe Ave	43.08136182	-87.92040105
70	I-43	C	Exit 76: N Green Bay Ave	43.09021954	-87.9216625
71	I-43	C	Exit 80: Good Hope Rd	43.14567823	-87.91548469
72	I-43	C	Exit 82 A: W Brown Deer Rd	43.17468936	-87.9161917
73	I-43	C	Exit 85: Mequon Rd	43.21889373	-87.92133987
74	I-43	C	Exit 92: Washington St	43.32012849	-87.91943229
75	I-43	C	Exit 96: State Rt 33	43.38307185	-87.92741002
76	I-43	D	Exit 100: I-43 ALT	43.4118892	-87.87155771
77	I-43	D	Exit 120: S Business Rd	43.67403012	-87.76055856
78	I-43	E	Exit 123: Washington Ave	43.71540333	-87.76063338
79	I-43	E	Exit 128: State Rt 42	43.79189016	-87.7640197
80	I-43	E	Exit 149: U.S. Highway 151	44.07309303	-87.71211861
81	I-43	F	Exit 157: Hillcrest Rd	44.19649918	-87.73037356
82	I-43	F	Exit 171: Depere Rd	44.3460892	-87.84472679
83	I-43	G	Exit 181: Manitowoc Rd	44.4682289	-87.95115555
84	I-43	G	Exit 183: E Mason St	44.48688514	-87.94036149
85	I-43	G	Exit 187: E Shore Dr	44.52581136	-87.98501749
86	I-43	G	Exit 189: Atkinson Dr	44.53988071	-88.02512033
87	I-90	A	Exit 3: Rose St	43.86415432	-91.23769219
88	I-90	A	Exit 4: US-53 / I-90 ALT	43.87371844	-91.21000231
89	I-90	A	Exit 5: WIS-16 / I-90 ALT	43.87657381	-91.18470082
90	I-90	A	Exit 12: County Rd C	43.89185559	-91.07530123
91	I-90	B	Exit 28: I-90 ALT	43.94152537	-90.76429654
92	I-90	B	Exit 48: Oakwood St	43.96272526	-90.37790319
93	I-90	C	Exit 55: County Rd C	43.92186393	-90.26255118

Site #	Corridor	Group	Exit Interchange/Intersection Name	Latitude	Longitude
94	I-90	C	Exit 61: WIS-80	43.88303508	-90.14768072
95	I-90	C	Exit 69: WIS-82 / Gateway Ave	43.79665362	-90.0568547
96	I-90	D	Exit 79: County Rd HH	43.71752929	-89.89400718
97	I-90	D	Exit 87: WIS-13	43.62426161	-89.79919481
98	I-90	D	Exit 89: WIS-23	43.58867621	-89.81040259
99	I-90	D	Exit 92: US-12	43.56979313	-89.77877999
100	I-90	E	Exit 108A: WIS-78	43.48785059	-89.49345883
101	I-90	E	Exit 115: County Rd CS	43.39183094	-89.46675396
102	I-90	F	Exit 160: US-51 / WIS-73	42.87316192	-89.05606443
103	I-90	F	Exit 163: WIS-59	42.83591678	-89.02812383
104	I-90	F	Exit 171A: WIS-26 / Milton Ave	42.72484244	-88.99361892
105	I-90	F	Exit 171B: US-14 / I-90 ALT / I-39 ALT	42.71741964	-88.98477551
106	I-90	F	Exit 175: US-14 / E Racine St	42.67067897	-88.9834363
107	I-94	A	Exit 19: I-94 ALT	44.93758188	-92.37517743
108	I-94	A	Exit 28: State Rt 128	44.93339479	-92.19746919
109	I-94	A	Exit 41: N Broadway St	44.90699618	-91.93328684
110	I-94	A	Exit 45: County Rd B	44.90495528	-91.85547892
111	I-94	B	Exit 105: WI-95	44.38714677	-91.00250432
112	I-94	B	Exit 115: US-12	44.3093359	-90.84276274
113	I-94	B	Exit 116: WIS-54	44.2961007	-90.82328987
114	I-94	C	Exit 267: WI-26	43.08665397	-88.76139577
115	I-94	C	Exit 282: Summit Ave	43.06879584	-88.47137553
116	I-94	D	Exit 333: Washington Ave	42.72564629	-87.95393633
117	I-94	D	Exit 340: Burlington Rd	42.61491958	-87.95228384
118	I-94	D	Exit 344: 75th St	42.56746048	-87.95273366
119	I-94	D	Exit 347: 104th St	42.5237631	-87.95183999
120	US-141	A	Exit 173: Lineville Rd	44.59118215	-88.04854564
121	US-141	A	Exit 176: County Rd B	44.6350211	-88.04600258
122	US-141	A	Exit 185: County Rd D	44.7645529	-88.05076024
123	US-141	A	Chicken Shack Rd	44.8567343	-88.04842489
124	US-141	A	WIS-22	44.88665836	-88.04373085
125	US-141	A	County Rd A / W Main St	44.95062648	-88.03633006
126	US-141	B	County Rd B / US-141	45.05922429	-88.04690655
127	US-141	B	WIS-64	45.10922914	-88.01949129
128	US-141	B	South St	45.22443716	-87.99687155
129	US-141	B	Henriette Ave	45.23293181	-87.99642792
130	US-141	C	Van Buren Ave	45.37413148	-87.95186955
131	US-141	D	US-8	45.62303568	-87.99568994
132	US-141	D	Cedar St	45.637194	-87.985806
133	US-151	A	Exit 8: County Rd HH	42.61685964	-90.58645606
134	US-151	A	Exit 21: County Rd XX / US-151	42.73288915	-90.43403201
135	US-151	A	Exit 26: 1st Capitol Ave	42.74472044	-90.33851072
136	US-151	B	Exit 69: US-18 / Springdale St	43.00452143	-89.70286676
137	US-151	C	Exit 132: WIS-33	43.45598414	-88.81561913
138	US-151	C	Exit 134: E Industrial Dr	43.47703743	-88.81549651
139	US-151	C	Exit 135: Gateway Dr	43.48687833	-88.81457721
140	US-151	C	Exit 144: WIS-26	43.60267457	-88.72542002

Site #	Corridor	Group	Exit Interchange/Intersection Name	Latitude	Longitude
141	US-151	C	Exit 146: WIS-49 / I-41 ALT	43.63312721	-88.71495086
142	US-2	A	US-2/County Rd 27	46.55056076	-91.57691268
143	US-2	A	US-2/N Bohn St	46.56497805	-91.41394397
144	US-2	B	US-2/9th Ave W	46.58802478	-90.89392512
145	US-2	B	US-2/22nd Ave E	46.60446688	-90.85634468
146	US-2	C	US-2/Maple St	46.59252444	-90.65007478
147	US-41	A	Exit 198: WIS-22 / Charles St	44.8919693	-87.89676839
148	US-41	A	Kasal Ln	45.05069722	-87.7998569
149	US-41	A	Exit 212: County Rd Y / US-41 / French St	45.05064941	-87.77374555
150	US-41	B	Roosevelt Rd	45.08251785	-87.66046431
151	US-41	B	Pierce Ave / Riverside Ave	45.09995813	-87.63077077
152	US-51	A	Exit 188: Rib Mountain Dr	44.91195956	-89.6508435
153	US-51	A	Exit 190: County Rd NN	44.93289153	-89.66434228
154	US-51	A	Exit 192: WIS-52	44.96057319	-89.66326711
155	US-51	A	Exit 194: Badger Ave / County Rd K	44.9893307	-89.65630787
156	US-51	A	Exit 205: County Rd Q	45.13193991	-89.63970319
157	US-51	A	Exit 208: WIS-64	45.17809621	-89.64686409
158	US-51	B	Country Club Rd	45.86301557	-89.70842583
159	US-51	B	Milwaukee St	45.87059009	-89.70990717
160	US-51	B	WIS-70	45.8876363	-89.70373688
161	US-51	B	WIS-47 / 1st Ave	45.89661596	-89.69788146
162	US-51	B	WIS-70	45.92070592	-89.69550451
163	US-51	C	Lakeview Ave	46.16562809	-90.06317468
164	US-51	C	Silver St	46.44987939	-90.18181177
165	US-53	A	Exit 110: State Rd 40	45.09945298	-91.50356062
166	US-53	A	Exit 118: W Main St	45.2033789	-91.57334149
167	US-53	A	Exit 126: County Rd I	45.30362592	-91.65819543
168	US-53	B	Exit 140: South Access Rd	45.47295166	-91.75862569
169	US-53	C	US-53/Oak Hill Rd (MM171 equivalent)	45.89957449	-91.82767899
170	US-53	D	US-53/W Hokah St (MM195 equivalent)	46.09980329	-91.83719035
171	US-53	E	US-53/E County Rd B (MM215 equivalent)	46.50311097	-91.83497077
172	US-53	F	US-53/50th Ave E (MM230 equivalent)	46.67782085	-92.01054527
173	US-53	F	US-53/22nd Ave E (MM232 equivalent)	46.70661554	-92.04740286
174	US-8	A	US-8/Glacier Dr	45.39730799	-92.6059388
175	US-8	A	US-8/208th St	45.39730559	-92.5853918
176	US-8	A	US-8/Prosser Ave	45.39535291	-92.15510596
177	US-8	B	US-8/S 3rd St	45.40147195	-91.85406885
178	US-8	B	US-8/E Main St	45.40854569	-91.73541743
179	US-8	C	US-8/5th St	45.42263015	-91.41110451
180	US-8	C	US-8/N Main St	45.45510602	-91.27365018
181	US-8	C	US-8/WI-27	45.4651076	-91.11111807
182	US-8	D	US-8/Main St	45.51495508	-90.71470418
183	US-8	E	US-8/Granberg Rd	45.55001236	-90.31147281
184	US-8	F	US-8/WI-47	45.63126296	-89.43752644
185	US-8	G	US-8/W Pioneer St	45.56471527	-88.90288565
186	US-8	G	US-8/WI-32	45.55926966	-88.67513388
187	US-8	H	US-8/WI-101	45.65825501	-88.44678349

Site #	Corridor	Group	Exit Interchange/Intersection Name	Latitude	Longitude
188	WI-29	A	Exit 69: WI-29/60th St	44.89385615	-91.54990709
189	WI-29	A	Exit 75: A: US-53	44.89277814	-91.42051733
190	WI-29	A	Exit 91: WI-27	44.93762196	-91.14689893
191	WI-29	B	Exit 101: County Rd H	44.95166994	-90.93829479
192	WI-29	B	Exit 108: WI-73	44.95137455	-90.80241756
193	WI-29	C	Exit 132: WI-13	44.93279549	-90.31656068
194	WI-29	D	Exit 171: Grand Ave	44.89618873	-89.61561187
195	WI-29	D	Exit 173: WI-29	44.89434356	-89.57461918
196	WI-29	E	Exit 185: County Rd Y	44.88163496	-89.34461231
197	WI-29	E	Exit 195: US-45	44.8334596	-89.16934624
198	WI-29	F	Exit 225: WI-22	44.75461387	-88.61452357
199	WI-29	F	Exit 234: WI-117	44.72719203	-88.44640483
200	WI-29	G	WI-29/N Taylor St (MM 258 equiv.)	44.53485236	-88.07336182