



Mississippi Electric Vehicle Infrastructure Deployment Plan



August 1, 2022

Table of Contents

Acronyms and Abbreviations	v
1 Introduction.....	1
1.1 Dates of Mississippi State Plan for Electric Vehicle Infrastructure Deployment Development and Adoption	2
2 State Agency Coordination	3
3 Public Engagement	4
3.1 Stakeholders Involved in Plan Development.....	5
3.2 Public Outreach.....	6
3.3 Survey Results	10
4 Plan Vision and Goals	12
5 Contracting	14
6 Existing and Future Conditions Analysis	16
6.1 State Geography, Terrain, Climate, and Land-Use Patterns	16
6.2 Extreme Weather Events	17
6.3 Land-Use Patterns.....	19
6.4 State Travel Patterns, Public Transportation Needs, Freight and Other Supply Chain Needs	20
6.5 EV Industry Ownership/Availability	21
6.6 AFC – Corridor Networks	23
6.7 Existing Locations of Charging Infrastructure Along AFCs	24
6.8 Information Dissemination about EV Charging Station Availability	25
6.9 Known Risks and Challenges.....	26
7 EV Charging Infrastructure Deployment	27
7.1 Funding Sources	28
7.2 EV Charging Infrastructure Deployments/Upgrades	28
7.3 Increases of Capacity/Redundancy Along Existing AFC	30
7.4 Electric Vehicle Freight Considerations	30
7.5 Public Transportation Considerations	31
7.6 Infrastructure Deployment Strategy & Fiscal Years 24-26 Infrastructure Deployments .	31
7.7 State, Regional, and Local Policy	31
8 Implementation	32
8.1 Strategies for EVSE Operations & Maintenance	32

Mississippi Electric Vehicle Infrastructure Deployment Plan

8.2 Strategies for Identifying Electric Vehicle Charger Service Providers and Station Owners	32
8.3 Strategies for EVSE Data Collection & Sharing	33
8.4 Strategies to Address Resilience, Emergency Evacuation, Snow Removal/Seasonal Needs	34
8.5 Strategies to Promote Strong Labor, Safety, Training, and Installation Standards	34
9 Civil Rights	35
10 Equity Considerations	36
10.1 Identification and Outreach to DACs in the State	37
10.2 Process to Identify, Quantify, and Measure Benefits to DACs	37
10.3 Benefits to DACs through this Plan	37
11 Labor and Workforce Considerations	38
12 Cybersecurity	39
13 Program Evaluation	41
14 Discretionary Exceptions (if any)	43

Tables

Table 3-1: Stakeholder Engagement	6
Table 4-1: Overall Program Goals	12
Table 6-1: Existing DCFC Locations that are NEVI Compliant or Partially NEVI Compliant	25
Table 7-1: Minimum Number of EV Charging Stations per Interstate	28
Table 13-1: Program Evaluation Plan	41

Figures

Figure 1-1: Program Timeline	2
Figure 3-1: MAS and MML Locations Map	8
Figure 3-2: Tribal Lands Map	9
Figure 3-3: Survey Results: What do you consider the largest benefit(s) of driving an EV?	10
Figure 3-4: Survey Results: What are some concerns you have about owning an EV?	11
Figure 3-5: Survey Results: On a typical day, what form(s) of transportation do you mostly use? 11	

Mississippi Electric Vehicle Infrastructure Deployment Plan

Figure 6-1: EE/EI Stock Forecast	21
Figure 6-2: Annual EV Sales Forecast from Different Market Projection Models	21
Figure 6-3: AFCs in the State	23
Figure 6-4: Existing Public DCFC/Level 2 Locations	24
Figure 6-5: Example of MDOTtraffic.com Website	25
Figure 7-1: Study Areas for Deploying Charging Stations	29
Figure 7-2: Based in Jackson, Estimated Range of 120 and 200 Miles Resulting from an 80% Charge.....	30
Figure 9-1: Accessible EV Charging Stations	35
Figure 10-1: Mississippi's Department of Energy Justice40 DACs	36

Appendices

Appendix A: Public Survey Results

Appendix B: Supporting Materials

Acronyms and Abbreviations

AASHTO	American Association of State Highway and Transportation Officials
ADA	Americans with Disabilities Act
AEO	Annual Energy Outlook
AFC	Alternative Fuel Corridor
AFDC	Alternative Fuel Data Center
BEB	Battery Electric Bus
BEV	Battery Electric Vehicle
CE	Categorical Exclusion
CFR	Code of Federal Regulations
CMPDD	Central Mississippi Planning & Development District
CTA	Coast Transit Authority
DACs	Disadvantaged Communities
DBE	Disadvantaged Business Enterprise
DC	Direct Current
DCFC	Direct-Current Fast Charging
EEE	Edison Electric Institute
EVs	Electric Vehicles
EVSE	Electric Vehicle Supply Equipment
FAC	Freight Advisory Committee
FHWA	Federal Highway Administration
FY	Fiscal Year
GRPC	Gulf Coast Regional Planning Commission
HPFL MPO	Hattiesburg-Petal-Forrest-Lamar MPO
I-10	Interstate 10
I-20	Interstate 20
I-22	Interstate 22
I-55	Interstate 55
I-59	Interstate 59
I-69	Interstate 69
I-269	Interstate 269
IEI	Institute for Electric Innovation
kW	Kilowatts
LPA	Local Public Agency
LTAP	Local Assistance Training Program
MAS	Mississippi Association of Supervisors
MDA	Mississippi Development Authority
MDEQ	Mississippi Department of Environmental Quality
MDOT	Mississippi Department of Transportation
MEI	Mississippi Energy Institute
MML	Mississippi Municipal League
MPSC	Mississippi Public Service Commission
MPUS	Mississippi Public Utilities Staff

Mississippi Electric Vehicle Infrastructure Deployment Plan

MPO	Metropolitan Planning Organization
MTC	Mississippi Transportation Commission
NASEO	National Association of State Energy Officials
NEPA	National Environmental Policy Act
NEVI	National Electric Vehicle Infrastructure
PDCA	Plan Do Check Act
PHEV	Plug-In Hybrid Electric Vehicle
RFI	Requests for Information
RFP	Request for Proposal
STIP	Statewide Transportation Improvement Program
USC	U.S. Code
USDOT	U.S. Department of Transportation
USDOE	U.S. Department of Energy
WAN	Wide-Area Network

1 Introduction



The Mississippi Electric Vehicle Infrastructure Deployment Plan, herein referred to as the Plan, is written in response to the Bipartisan Infrastructure Law'sⁱ (BIL's) National Electric Vehicle Infrastructure (NEVI) Formula Program. The NEVI Formula Program will provide federal funding to all 50 states to invest in America's electric vehicle (EV) charging infrastructure network in an effort to support convenient, reliable, affordable, and equitable deployment of EV infrastructure for all users. The Plan provides the roadmap the Mississippi

Department of Transportation (MDOT) intends to follow in administration of Mississippi's portions of the federal NEVI Formula Program funding.

The NEVI Formula Program Guidance was released on February 10, 2022. The program required each state to submit Alternative Fuel Corridor (AFC) Nominations by May 13, 2022, followed by an EV infrastructure deployment plan by August 1, 2022, describing how the State intends to use its apportioned funds. Mississippi will receive approximately \$50M in federal funding over the next 5 years for the deployment of EV supply equipment (EVSE) throughout the state, as established in the NEVI Formula Program.



Following the guidance in the NEVI Program, and leading the effort, MDOT developed the Plan in coordination with input from stakeholders and the public. Stakeholders included surrounding states' departments of transportation, the Mississippi Department of Environmental Quality (MDEQ), the Mississippi Development Authority (MDA), the Mississippi Energy Institute (MEI), the Mississippi Public Service Commission (MPSC), the Mississippi Public Utilities Staff (MPUS), and major electric utilities providers. Additionally, MDOT coordinated with external and internal stakeholders, including the state's three Metropolitan Planning Organizations (MPOs), the Memphis MPO, MDOT's Freight Advisory Committee (FAC), and MDOT's Planning, Public Transit, Maintenance, and IT Divisions in development of the Plan. MDOT has also taken several steps to engage with the public, including county and city officials in urban, rural, and underserved or disadvantaged communities (DACs), tribal governments, and other interested parties through a variety of means.

Mississippi's Plan is intended to provide reliable, accessible, and equitable access to EV charging infrastructure for travelers across the state and lays out several high-level and outcome-oriented goals that the State will follow in achieving this mission. The Plan discusses existing and future conditions and lays out the state's needs. Although Mississippi currently has a low EV adoption rate, MDOT's implementation of the NEVI Formula Program will serve to support the current and future demands of EV owners and will work to reduce range anxiety. Mississippi's warm climate and flat terrain lend themselves to easily incorporate EVs into the state's existing transportation system, boosting the economy and clean energy usage in Mississippi communities. The Plan highlights the importance of installing resilient charging stations along evacuation routes, so EV owners have reliable fueling opportunities in emergency weather events like hurricanes, which frequently pose risks to Mississippi.



The Plan includes strategies for contracting MDOT may use to administer Mississippi's portions of the federal NEVI Formula Program funding. Additionally, the Plan discusses potential deployment and implementation strategies, provides an initial analysis of Mississippi's pending EV AFCs, and summarizes possible program evaluation metrics by which the success of the program may be measured. The Plan also includes sections detailing considerations of equity, civil rights, and labor and work force development, emphasizing the importance of equity and accessibility of EV infrastructure for all Mississippians.

1.1 Dates of Mississippi State Plan for Electric Vehicle Infrastructure Deployment Development and Adoption

Following the submission of Mississippi's Plan by August 1, 2022, MDOT anticipates to receive approval from the Federal Highway Administration (FHWA) of the Plan before the beginning of October 2022. MDOT is currently working towards developing a detailed course of action for EV charging station deployment; however, some challenges may impact the schedule including statutes which could require updates. Figure 1-1 provides a tentative timeline, subject to Plan approval.

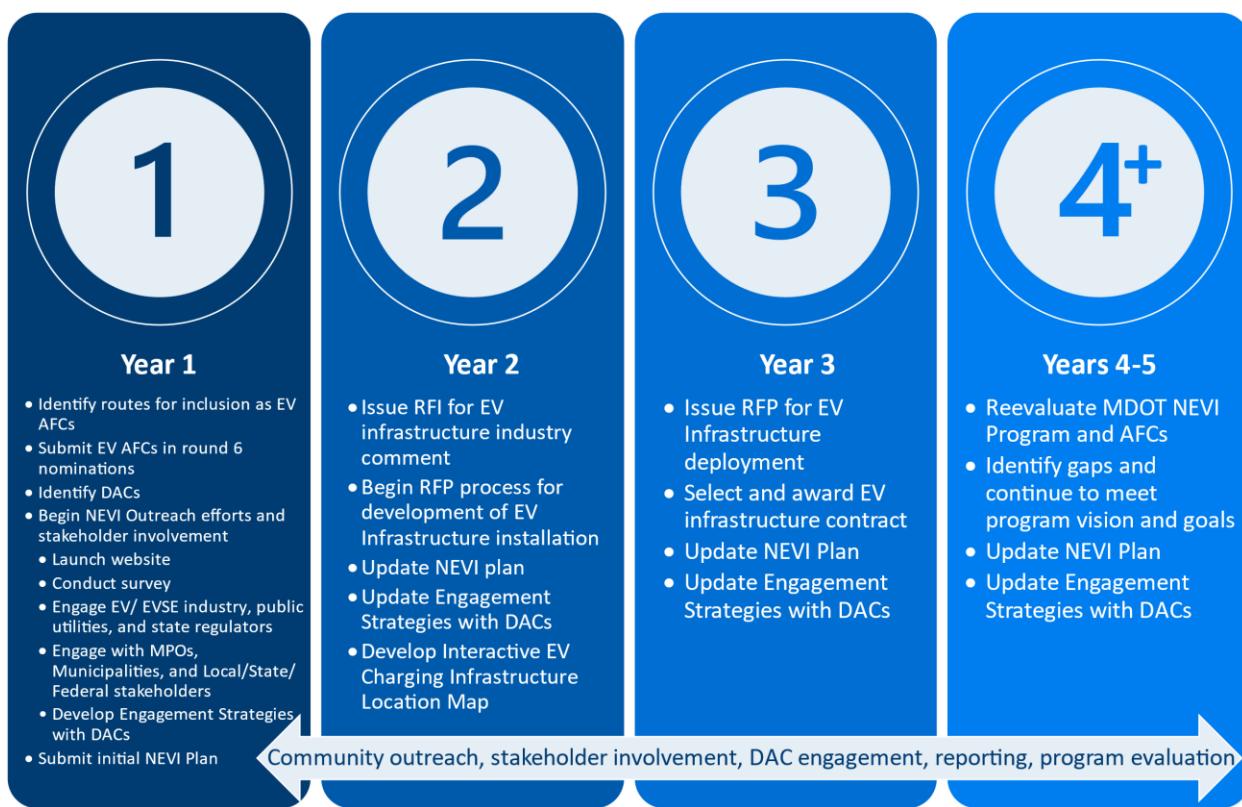


Figure 1-1: Program Timeline

2 State Agency Coordination



Once the NEVI Formula Program was announced, MDOT began coordinating and initiating discussions with Mississippi's state agencies. To date, this has included several calls and meetings between MDOT staff, various state agencies, including MDEQ, MDA, MPUS, and MPSC, FHWA, all three state MPOs (Central Mississippi Planning & Development District [CMPDD], Hattiesburg-Petal-Forrest-Lamar MPO [HPFL MPO], and Gulf Coast Regional Planning Commission [GRPC]), and the Memphis MPO. MDOT has coordinated with these agencies to discuss MDOT's plans for the NEVI Formula Program, agency goals and needs to support EV infrastructure, and has elicited feedback regarding implementation, operation, and maintenance of the EV network.

A critical part of the Plan development is ongoing collaboration within MDOT, including coordination with the Planning, Public Transit, Maintenance, and IT Divisions, along with the Mississippi Statewide Freight Plan and the Mississippi Unified Long-Range Transportation Infrastructure Plan. MDOT also announced the Plan to the FAC to raise awareness and gather additional feedback. As a follow-up to these discussions, MDOT plans to host state agency virtual meetings in the coming months once the Plan is approved. During these discussions, MDOT will collaborate with the agencies referenced above, along with any additional state agencies (as needed), to determine how best to maximize opportunities to utilize EVSE compliant with Buy America during EV infrastructure deployment. Additionally, MDOT intends to continue coordinating with state agencies during each subsequent yearly update to the Plan.

3 Public Engagement

Initial public engagement and outreach efforts were geared toward increasing awareness of the program, learning about industry needs and gaps, and identifying existing and potential risks and barriers to EV charging infrastructure installation. MDOT has taken several steps to engage with the public, including private-sector companies, freight representatives, utilities, MPOs, county and city officials in urban, rural, and underserved or disadvantaged communities (DACs), tribal governments, and other interested parties. This has included both informal calls and more formal meetings that were both in person and virtual. MDOT also made a public press release, launched a program website, and solicited input through a public online survey.



MDOT has identified seven corridor-pending EV AFCs. All AFCs traverse or serve DACs in some capacity. While MDOT has worked to inform DACs of the program, the intent is to expand engagement efforts to include DACs and other relevant stakeholders to make informed decisions regarding the program.

Going forward, MDOT plans to identify key topics to discuss with each of the various stakeholder groups, DACs, and the public to efficiently gather input as the Plan is updated annually. MDOT plans to solicit Requests for Information (RFIs) to obtain additional information from industry

professionals and the public. MDOT also intends to create and deploy an interactive location map next year to collect additional input on potential site locations and gather public comments, further improving the engagement process.

Table 3-1 lists the engagements where MDOT has informed stakeholders, groups, and organizations about the state's NEVI program. (Shown in **bold** are groups or coordination efforts that support the goal of the Justice40 Initiative.) More details regarding these engagements are described in the Stakeholders Involved in Plan Development and Public Outreach sections (Sections 3.1 and 3.2, respectively).

Note: The Justice40 Initiative establishes a goal that at least 40 percent of the benefits of federal investments in climate and clean-energy infrastructure are distributed to DACs.

Table 3-1: Stakeholder Engagement

Engagement	Forum	Date	Stakeholders/Participants*
State Agencies and Utilities	Meeting: In Person and Virtual	June 2022	MPSC, MPUS, MDA, MDEQ, Entergy, Mississippi Power, Cooperative Energy, and MEI
Freight Advisory Committee (FAC)	Meeting: Virtual	May 2022	FAC members
Hattiesburg Petal-Forrest-Lamar Metropolitan Planning Organization (HPFL)	Meeting: In Person and Virtual	April 2022	HPFL MPO, FHWA, MDOT Planning, MDOT District 6, MDOT Local Public Agency (LPA), local representatives from municipalities within the MPO boundaries, and county representatives from Forrest and Lamar Counties

Engagement	Forum	Date	Stakeholders/Participants*
Central Mississippi Planning and Development District (CMPDD)	Meeting: In Person	May 2022	CMPDD, FHWA, MDOT Planning, MDOT District 2, MDOT LPA, local representatives from municipalities within the MPO boundaries, county representatives from Hinds, Madison, and Rankin Counties
Memphis Metropolitan Planning Organization	Meeting: In Person	May 2022	Memphis MPO, FHWA, MDOT Planning, MDOT District 2, MDOT LPA, local representatives from municipalities within the MPO boundaries, representatives from Shelby, Desoto, Marshall, and Fayette Counties
Gulf Coast Regional Planning Commission (GRPC)	Meeting: In Person and Virtual	May 2022	GRPC, FHWA, MDOT Planning, MDOT District 6, MDOT LPAs, local representatives from municipalities within the MPO boundaries, county representatives from Hancock, Harrison, and Jackson Counties
Tribal Nations Webinar	Webinar: Virtual	June 2022	Tribal Nation with land interest in Mississippi included: Mississippi's Band of Choctaw Indians. The participating DOT's and state FHWA's included Louisiana (LaDOTD), Mississippi (MDOT), New Mexico (NMDOT), Texas (TxDOT), Oklahoma (ODOT), and Arkansas (ARDOT)
Mississippi Association of Supervisors (MAS)	Exhibit: In Person	June 2022	County Supervisors statewide
Mississippi Municipal League (MML)	Exhibit: In Person	June 2022	Mayors, aldermen, and county officials statewide
Rural Infrastructure Summit	Conference: In Person	June 2022	Federal and state officials, boards of supervisors, mayors, superintendents of education, first responders, and engineers representing rural communities

*List includes those invited or typical attendees.

3.1 Stakeholders Involved in Plan Development

As discussed in the State Agency Coordination section (Section 2), MDOT collaborated with many state agencies in the initial Plan development, including the MDEQ, the MDA, the MPUS, and the MPSC, along with the major utility providers. In addition to these groups, MDOT has met with all three Mississippi MPOs (CMPDD, HPFL MPO, and GRPC) and the Memphis MPO. MDOT has coordinated with these stakeholders to provide an overview of the NEVI Formula Program, MDOT's plans for the NEVI Formula Program, agency goals, efforts toward equitable deployment, EV infrastructure support needs, and operation and maintenance of the EV network. MDOT has held numerous calls and virtual meetings with others, including internal MDOT stakeholders, adjacent-state departments of transportation, private companies including EV charge operators, advocacy groups, non-profit organizations, and other interested parties.

As shown in Table 3-1, specific meetings have been held in which MDOT has presented the Plan and the NEVI Formula Program and solicited feedback regarding NEVI requirements and the Justice40 Initiative.

MDOT has coordinated with these specific agencies and groups in the development of the Plan and will continue to coordinate with them in the future.

In addition to the groups listed above, MDOT has coordinated with the Joint Office (the office established with individuals from the US Department of Transportation and the US Department of Energy to oversee the NEVI Formula Program), the American Association of State Highway and Transportation Officials (AASHTO), and the National Association of State Energy Officials (NASEO) throughout the Plan development process, including the following calls and working-group coordination meetings:

- Joint Office Calls – March, April, and May 2022
- Joint Office – NEVI Region 4 Call – June 2022
- Joint Office Equity Office Hours Session #1 – Virtual Meeting – July 2022
- Joint Office Equity Office Hours Session #2 – Virtual Meeting – July 2022
- Joint Office NEVI Workforce Office Hours – Workforce Development – Virtual Meeting – July 2022
- AASHTO Public Working Group Meetings – May and June 2022
- NASEO – SEVI Regional Infrastructure meeting – June 2022

In May 2022, there was also an Electric Vehicle Infrastructure Training Program call on EV charging in which MDOT participated.

Once the Plan is approved and published by the Joint Office/FHWA, MDOT intends to present the Plan at future meetings and events.

3.2 Public Outreach

In an effort to fully engage with the public, MDOT has presented about the Plan at numerous public agency, state agency, and professional society meetings. Additionally, MDOT has issued a public press release, engaged through MDOT's social media platforms, discussed the Plan on popular radio talk shows, developed a website, and distributed a survey to gauge public response and needs. This survey was advertised on MDOT's Facebook, Twitter, and LinkedIn pages. The results gathered from this survey will also be analyzed to determine follow-up surveys, and plan future public engagement activities.

As shown in Table 3-1 above, MDOT has presented information about the Plan and NEVI Formula Program at policy meetings for all three state MPOs (CMPDD, HPFL MPO, and GRPC) and the Memphis MPO. These meetings are open to the public and include mayors, county officials, and city officials from all areas within the MPOs. During these meetings, MDOT provided an overview of the NEVI Formula Program, elicited feedback through survey participation, and discussed the timeline for federal funding and current and future activities to develop this Plan. MDOT has also exhibited the plan at the State Transportation Improvement Program (STIP) meetings where survey participation was encouraged.

In addition to the MPO presentations, statewide engagement was pursued through participation in the Rural Infrastructure Summit, MML, and MAS. Engagement through these events was intended to educate others and build relationships with DAC leaders, residents of rural areas, and other groups to allow for additional participation in the future and enhance public engagement efforts through the online survey. Details regarding these engagements is provided below.

Rural Infrastructure Summit in Cleveland, Mississippi, June 3, 2022

The goal of the Rural Infrastructure Summit was to bring together infrastructure leadership to share information, knowledge, and resources to help enhance the state's rural infrastructure network. The

summit included both federal and state officials, boards of supervisors, mayors, superintendents of education, first responders, and engineers throughout Mississippi. MDOT served on a panel titled “Preparing Rural Mississippi to Connect with Electric Vehicles” alongside a representative from one of Mississippi’s largest utility providers. The panel was moderated by Mississippi’s Central District Transportation Commissioner, Willie Simmons.

MML and MAS Exhibit, July 2022

Information about the Plan and public survey was included as part of MDOT’s exhibit at the MML and MAS annual conference. At the MML and MAS conferences, MDOT connected with over 250 individuals representing supervisors, mayors, and aldermen through the state. Over half of those engaged with represented DACs. The locations of public representatives who were engaged at both conferences are displayed on Figure 3-1. This was one of the initial steps toward statewide public engagement. MDOT recognizes the importance of these entities and statewide leaders and intends to collaborate with them further to make informed decisions regarding the program in the future.

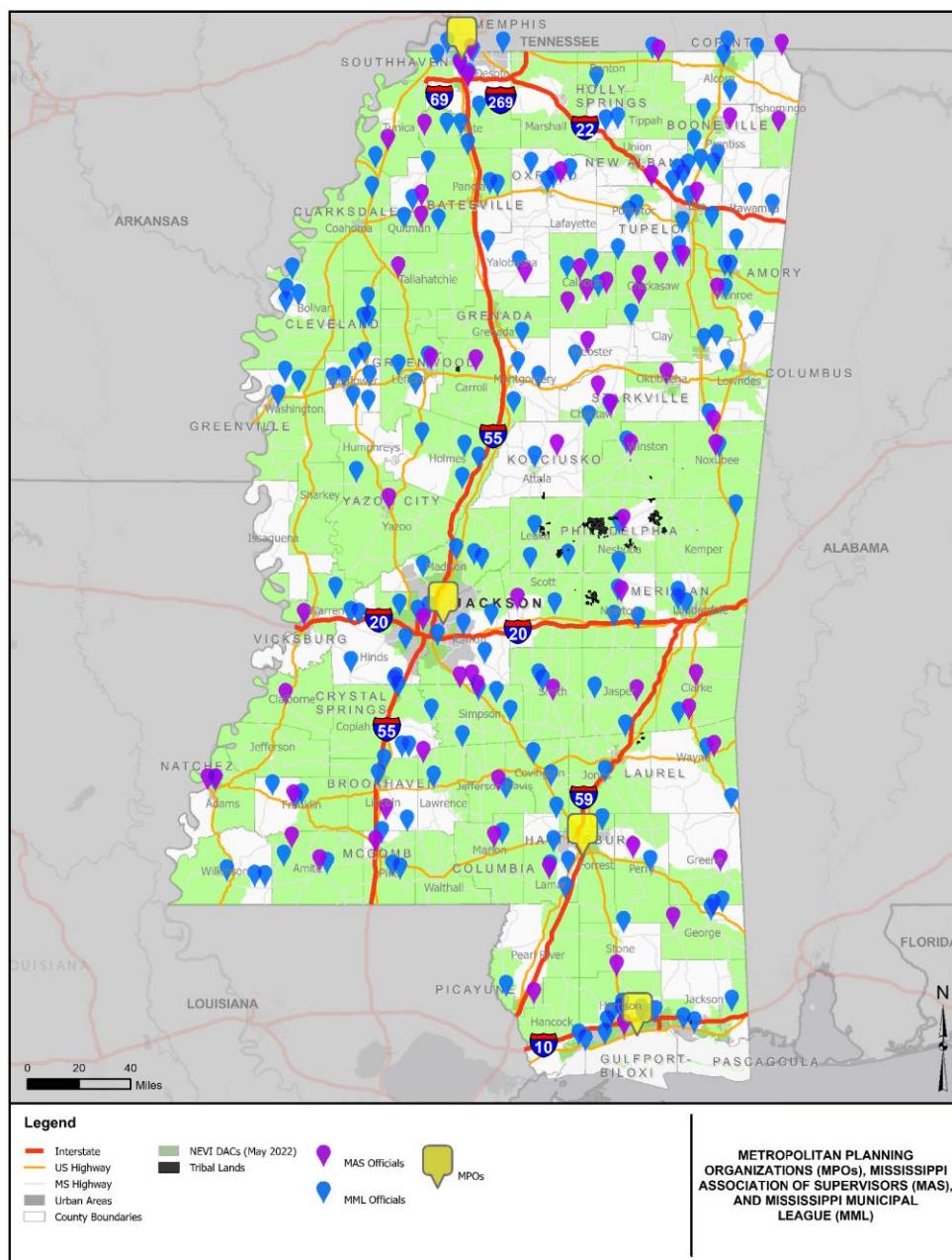


Figure 3-1: MAS and MML Locations Map

In addition to these events, MDOT participated in a joint webinar with the Tribal Nations on June 14, 2022. The webinar was hosted by the LADOTD partnering with the FHWA and other state departments of transportation (New Mexico, Texas, Oklahoma, and Arkansas). Included in the webinar was Mississippi's Band of Choctaw Indians, which is the state's only federally recognized tribe. The tribe includes eight subcommunities: Bogue Chitto, Bogue Homa, Conehatta, Crystal Ridge, Pearl River, Red Water, Standing Pine, and Tucker. These communities are located closest to the Interstate 55 (I-55) and Interstate 20 (I-20) AFCs. In addition to the virtual meeting, the Tribal Nation was provided with MDOT's survey to engage them in the Plan and gather their feedback. Figure 3-2 shows the majority of Mississippi's tribal lands east and west of I-55 and north of I-20.

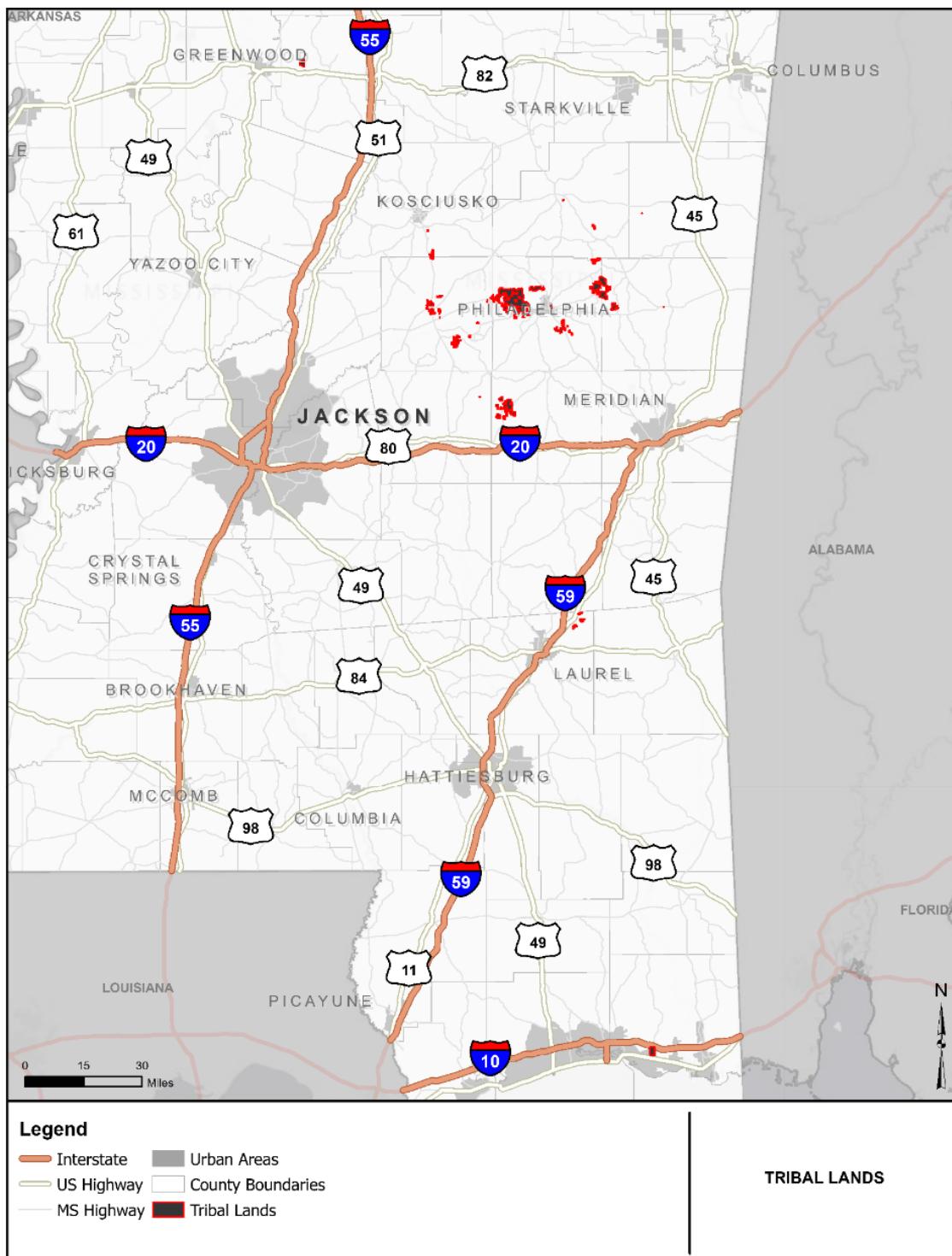


Figure 3-2: Tribal Lands Map

MDOT plans to continue to engage with these groups and the public by hosting both in-person and virtual meetings to gather feedback and present the Plan. MDOT will continue to update their EV infrastructure deployment website with Plan updates and further solicit feedback from the public via an interactive location map, surveys, and social media.

Survey Results

As previously discussed, MDOT opened a survey and has solicited stakeholder and public participation. Evidenced in the survey results and engagement feedback, most of the reactions to the Plan have been positive, and many Mississippians have been interested in learning more and are supportive of MDOT's EV infrastructure deployment efforts. As discussed in the EV Industry Ownership/Availability section of this report (Section 6.2), the proliferation of EV ownership in the state of Mississippi is less than surrounding states. As such, survey results did show that there is some hesitancy and concern regarding EVs in the state. This was reflected in some comments and in many of the cases where respondents selected "other." However, both the survey and the website were published in early May, and through MDOT's outreach efforts, the department has received 2,780 responses. In looking at the survey results, key metrics, including what individuals saw as the greatest benefits of EVs, what some respondents listed as concerns in owning an EV, and the percentage of respondents that drive an EV, have provided MDOT with additional insight and helped to shape some of the strategies in this Plan. Figures 3-3 through 3-5 illustrate these results. Complete survey results are provided in Appendix A.

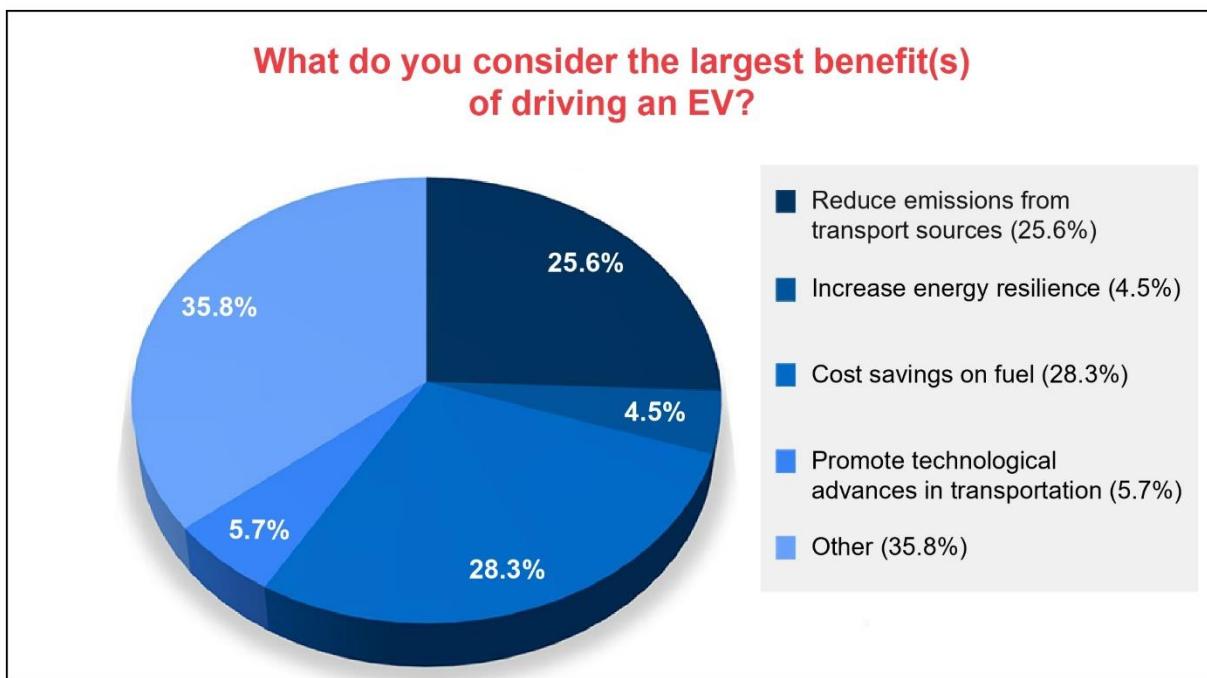


Figure 3-3: Survey Results: What do you consider the largest benefit(s) of driving an EV?

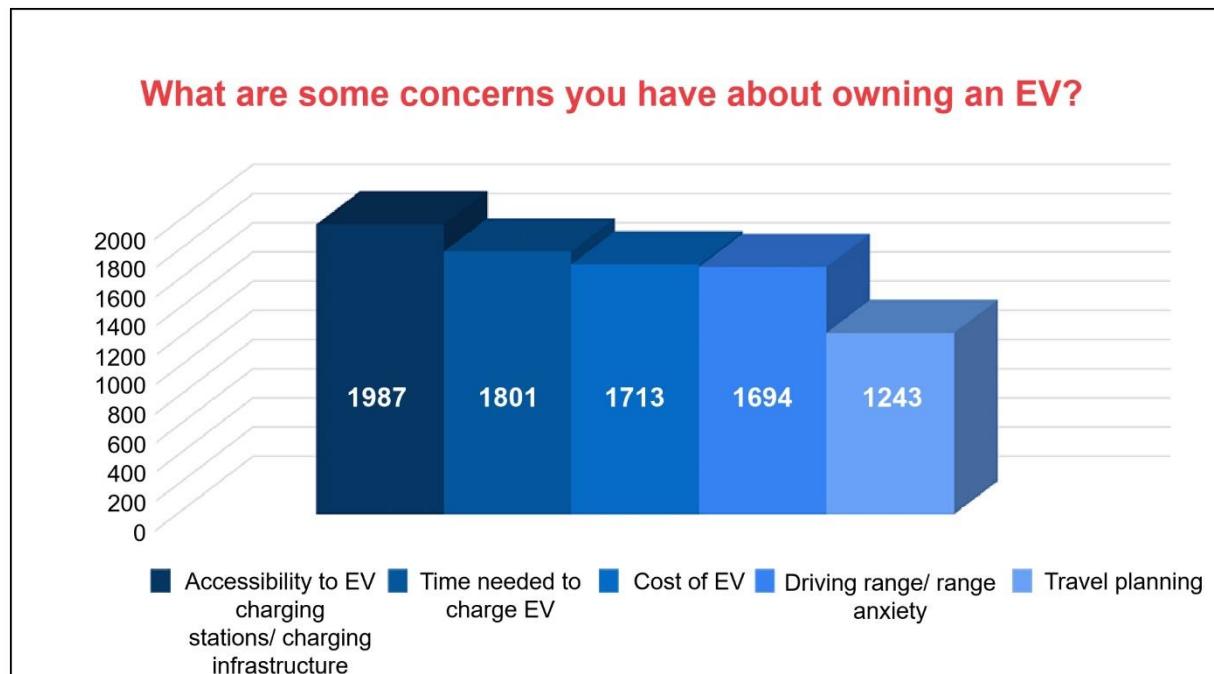


Figure 3-4: Survey Results: What are some concerns you have about owning an EV?

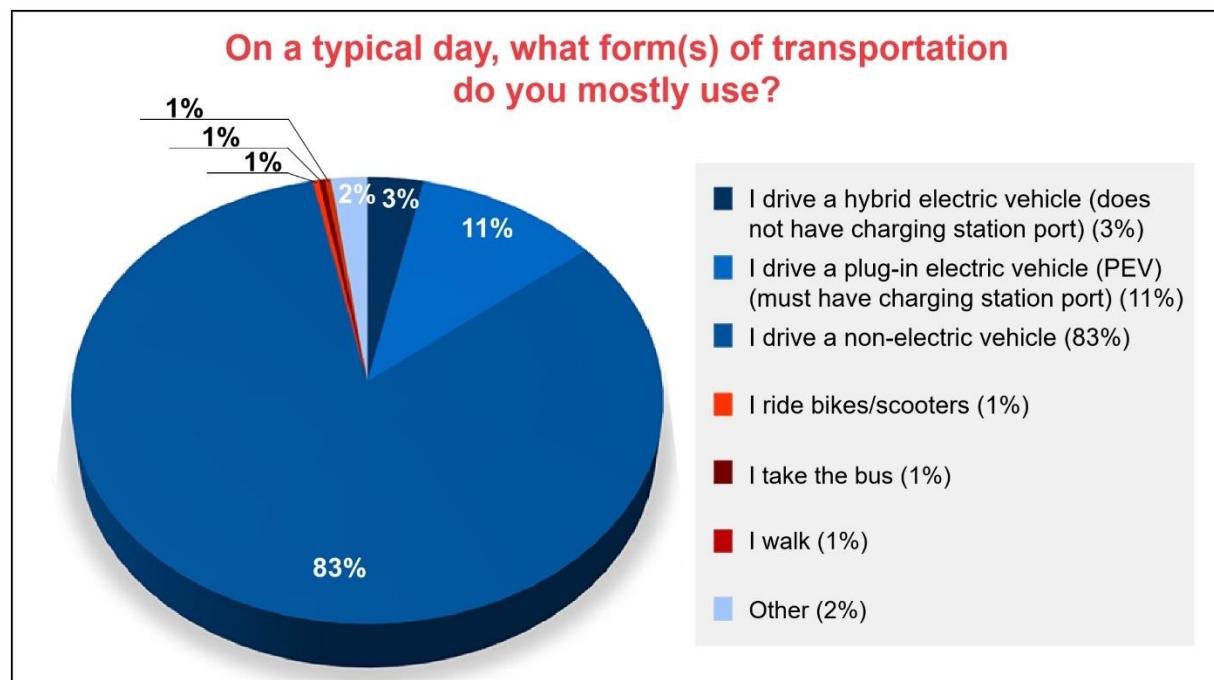


Figure 3-5: Survey Results: On a typical day, what form(s) of transportation do you mostly use?

4 Plan Vision and Goals

MDOT has developed and refined the vision, mission, and goals for this Plan in compliance with the NEVI Formula Program guidelines. The vision statement encapsulates MDOT's ambition regarding EV infrastructure, and the mission statement lists core values that will be adhered to during EV infrastructure deployment. The goals provide overall guidance to be used while developing strategies and deploying projects. The vision, mission, and goals for the program are summarized below:

Vision

"Position Mississippi to be active in deployment of EV charging infrastructure within the state."

Mission

"Provide reliable, accessible, and equitable EV charging infrastructure across the state."

Goals

The Plan has the overall goal of deploying a comprehensive EV charging network along Mississippi's main interstates; this has been further broken down into several categories by year to meet the overall goal, as displayed in Table 4-1 below.

Table 4-1: Overall Program Goals

Goal Category	Overall Goal	Year 1 Goals	Year 2 Goals	Year 3-5 Goals
Charging Infrastructure	Establish a public charging infrastructure that enables Mississippi residents and visitors to drive and charge an EV as they travel, working toward eliminating EV range anxiety.	Identify routes for inclusion as EV AFCs and existing corridor-pending and corridor-ready charging stations.	Identify potential new locations for EV charging stations that comply with current and future NEVI requirements.	Identify potential new locations for EV charging stations that comply with current and future NEVI requirements. Implement the master planning schedule to deploy NEVI Formula Program EV charging infrastructure.
Economy	Consistent with Buy America, support the creation of economic opportunity through the deployment of EV infrastructure.	Perform industry outreach to EVSE and utility providers to gain cost estimates of NEVI-compliant EV charging infrastructure.	Monitor the EVSE industry and other states' deployment costs to ensure MDOT is maximizing efficient use of federal funds.	Monitor the EVSE industry and other states' deployment costs to ensure MDOT is maximizing efficient use of federal funds.

Goal Category	Overall Goal	Year 1 Goals	Year 2 Goals	Year 3-5 Goals
Policy	Identify and evaluate consistent, innovative, and supportive policies across Mississippi at the state, county, city, and utility levels.	Identify current barriers that may prevent MDOT from meeting NEVI requirements during EV infrastructure deployment.	Work to remove barriers that may prevent MDOT from meeting NEVI requirements during EV infrastructure deployment. Monitor policies and regulations to ensure MDOT is meeting NEVI Formula Program guidelines and state, federal, local, and industry requirements.	Reevaluate barriers that may prevent MDOT from meeting NEVI requirements during EV infrastructure deployment. Follow all current and future NEVI Formula Program guidelines and federal, state, and local requirements.
Social	Ensure the deployment of EV infrastructure is equitable.	Identify DACs. Engage with MPOs, municipalities, and local/state/federal stakeholders. Perform public engagement, including developing engagement strategies with DACs.	Engage with MPOs, municipalities, and local/state/federal stakeholders. Engage with the EV/EVSE industry, public utilities, and state regulators. Perform community and public engagement to define measurable benefits of deploying EV charging infrastructure in Mississippi, including the DAC areas.	Engage with MPOs, municipalities, and local/state/federal stakeholders. Engage with the EV/EVSE industry, public utilities, and state regulators. Perform community and public engagement to refine the benefits of deploying EV charging infrastructure in Mississippi, including the DAC areas. Adjust deployment strategies according to feedback received from stakeholders, MPOs, DACs, and public outreach and future NEVI requirements.
Awareness	Provide awareness of NEVI Formula Program opportunities and Mississippi's implementation efforts.	Launch a website and conduct a survey.	Monitor the website and survey results. Deploy an interactive location map.	Monitor the website and survey results.

5 Contracting

MDOT may consider contracting with private entities on a competitive basis for the installation, operation, maintenance, and reporting of EV charging infrastructure funded through the NEVI Formula Program.

MDOT intends to limit the number of contracts to be maintained. Contracting language will include all existing and future local, state, federal, and NEVI Formula Program requirements and guidelines.

Additionally, MDOT plans to ensure that all contracted third-party entities deliver EV charging infrastructure in a manner that leads to equitable, efficient, and effective deployment consistent with Plan goals. MDOT plans to oversee all services necessary to achieve efficient delivery, deployment, and ongoing operation and maintenance. MDOT may also set and evaluate key performance indicators in alignment with the Plan's mission and goals and NEVI Formula Program requirements.

MDOT plans to advertise RFPs, evaluate bids, develop, and execute contracts with winning bidders, conduct meetings with the selected operators to assess possible procurement approaches, and ensure procurement is executed in such a way that makes maximal efficient use of federal funding. Bidders will identify specific installation sites along the proposed AFCs that meet NEVI requirements and then work with property owners, utility providers, EV charger manufacturers, and municipalities to complete the installation. MDOT plans to ensure that the winning bidders are preparing documents and data required by the NEVI Formula Program and implementing the plan in such a way that 40 percent of the benefits are targeted toward DACs in alignment with Justice40 guidance.

MDOT will engage their Civil Rights division and follow FHWA's final regulations of minimum standards and requirements for the NEVI Formula Program to determine an appropriate Disadvantaged Business Enterprise (DBE) involvement goal in an effort to promote participation of small and disadvantaged businesses. MDOT's DBE Support Services Program contributes to the growth and self-sufficiency of minority- and women-owned businesses. The department released a public notice proposing a goal of 9.96 percent of appropriated federal funds for DBE participation in the years 2020 through 2022.ⁱⁱ The Civil Rights division is charged with oversight of the agency's Title VI activities, the On-the-Job Training Program, internal Equal Employment Opportunity compliance, external contract compliance, and Americans with Disabilities Act (ADA) compliance. Through the division, MDOT plans to evaluate contracts in advance to look for opportunities to contract with DBE firms and meet department goals. MDOT is experienced in awarding contracts to a diverse set of employers and employees and intends to audit the infrastructure deployment and ensure such practices throughout the project.

The following list provides some applicable state and federal laws that may impact projects under the NEVI Formula Program:

- Build America, Buy America Act (Public Law 117-58, § 70901-52)
- The National Environmental Policy Act (NEPA; 42 U.S. Code [USC] § 4321)
- The Clean Air Act (42 USC § 7401)
- Transportation Improvement Program rules and regulations
- STIP rules and regulations
- Uniform Relocation Assistance & Real Property Acquisition Policies Act (42 USC § 4601)
- Federal Acquisition Regulations (48 Code of Federal Regulations [CFR] 1)
- Highway Funding Regulations (CFR Title 23 Chapter 1)
- Public Utility and Carriers [Miss. Code Ann. § 77]
- Authority and Powers of the Commission [Miss. Code Ann. § 65-1-8]

NEVI projects will include an appropriate level of review under NEPA coordination should it be required, including but not limited to meeting the National Historic Preservation Act Section 106 requirements. MDOT will consider the appropriate level of review and environmental approval under NEPA during the permitting and environmental clearances. Before a categorical exclusion (CE) determination can be applied, the action must be analyzed to determine whether there are unusual circumstances present that would require further analysis to determine whether the CE classification is appropriate. Environmental permitting agencies would need to be engaged in coordination should any project impact the resources falling under their jurisdiction.

6 Existing and Future Conditions Analysis

6.1 State Geography, Terrain, Climate, and Land-Use Patterns

Winter driving has always had unique requirements in the automotive industry. Vehicles must deal with navigating through snow and ice, but there is also an important requirement to maintain customer comfort by heating the vehicle interior. For more than a century, the heating requirement had never been a problem due to the abundance of waste heat that was available from the internal combustion engine. With the advent of 100 percent electric propulsion, this necessary resource to heat the vehicle interior must now be obtained utilizing systems and components that need to consume electrical energy to maintain the vehicle interior temperature. This results in a substantial decrease in range of the vehicle when compared to summertime operations. Driving uphill is another factor that could reduce the range of EVs, and driving downhill helps the vehicle generate energy with the regenerative braking system that is available in all EVs. Therefore, studying the temperature and terrain parameters is important when deploying EVs and EV infrastructure.

Mississippi displays relatively flat landscapes, with elevations in coastal regions dropping down to sea level and heights up to 700 feet near the Tupelo region. The southern half of the state features salt basins and scattered oil and/or gas fields, while the northern half of the state showcases a mildly hilly landscape with more variable elevations and condensed fault linesⁱⁱⁱ. According to the National Climatic Data Center, Mississippi's annual average temperature is around 64°F^{iv}. In the summer months of June to August, the temperatures linger between 70°F and 90°F or more, with moisture circulating from the Gulf of Mexico and causing high humidity. Winter months of December to February in Mississippi are mild to cold, with average temperatures between 40°F and 60°F. Precipitation is common year-round, but very rarely does the state get any significant snow precipitation.

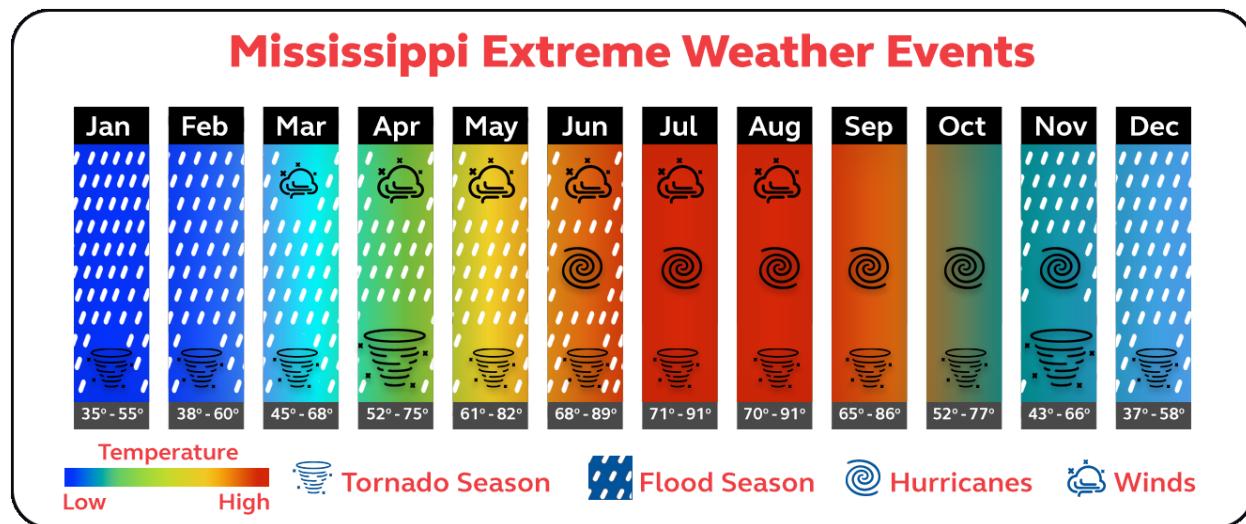


Recent studies on climate change show that Mississippi's average temperature has seen, and will continue to see, warming rates lower than the global and national averages. The state's temperature showed great variability in the first half of the 20th century, followed by a 10-year cool period that ended in the 1970s. Since then, the average temperature has steadily increased and is expected to continue at the same rate of warming over the next several decades^v.

Mississippi's warm environment and flat surface offer good conditions for an EV market, as EVs operate at maximum efficiency in warmer, temperate climates, on flat terrain, and in high-density urban areas.

6.2 Extreme Weather Events

Mississippi is susceptible to many extreme weather events, including tornados, occasional winter storms, extreme heat, hailstorms, thunderstorms, hurricanes, and tropical storms that come with damaging and significant winds, all of which are described on the following page. The figure below shows the high-activity seasons for each of these extreme weather events that appear more frequently in Mississippi.



With hurricanes and tropical storms expected to become more intense with rising sea temperatures, consideration should be given to potential damage to EV charging stations along the Gulf Coast of Mississippi and to providing a greater concentration of EV charging stations on state-established evacuation routes. Additionally, it should be noted that hurricanes can cause widespread and long-lasting power outages in Mississippi. In such events, EV owners with at-home charging equipment and interstate EV travelers will rely on public charging stations to power their vehicles. As backup power, MDOT may consider charging stations designed and installed under the NEVI Formula Program to be equipped with alternative energy sources (e.g., battery storage, diesel generator, and solar arrays) that are ready to be activated in an emergency situation like a power outage. Preference for the alternative energy sources would be given to a clean and sustainable solution whenever possible. Consideration might be made to design the EV charging infrastructure with backup power that can at least provide the appropriate lighting required in the NEVI Formula Program during a power outage for safety reasons.

MDOT has established evacuation routes and released evacuation guides for dangerous hurricane events. Interstate 10 (I-10), I-20, I-55, and Interstate 59 (I-59) were identified as primary hurricane evacuation routes and established as proposed EV AFCs, which ensures EV owners have reliable transportation in such emergency events. Special consideration will be given to the state's contraflow plan and Hattiesburg-specific traffic control procedures so that EV charging stations are not installed at exits that may be closed off to evacuees during a hurricane emergency.



HAIL AND THUNDERSTORMS



Severe hailstorms, thunderstorms, and high-wind events may become more frequent over the next century, risking property damage and power outages and posing risks to public EV charging stations.^{vi}

TORNADOS



Tornados, which pose risks of power outages and damage to EV charging stations, occur year-round, but there is a distinct tornado season with a high peak of events in April and a second, smaller peak in November.^{vii}

RISING SEA LEVEL



Over the last century, the sea level along Mississippi's coastline has risen about 50 percent more than the global average of 7 to 8 inches. Rising sea levels in the Gulf of Mexico may contribute to more severe damage in hurricanes.

EXTREME TEMPERATURE



Since 1900, Mississippi summers have seen an annual average of 3.2 extremely hot days, while winters have seen an annual average of 2 freezing days. Extreme temperatures can affect EV range and battery efficiency, which work best in moderate climates of 75°F.^{viii}

FLOODS



Mississippi can experience flooding when the Mississippi River, which runs along the state's western boundary, is at its peak. Flooding from extreme precipitation or hurricane events is common on smaller rivers in late summer and fall. Widespread flooding can be a catastrophic event, causing significant damage to EV chargers within the flood area.^{ix}

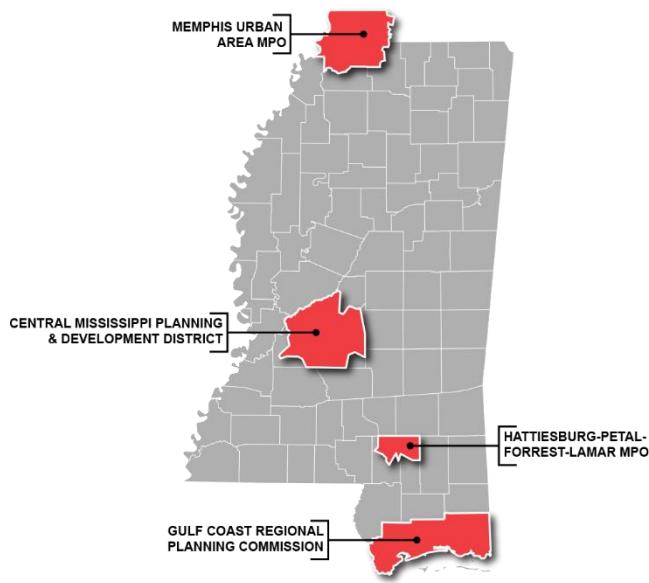
HURRICANE EVENTS



Mississippi is at risk for catastrophic damage from hurricanes. Tropical storms and hurricanes have become more intense over the last few decades and will likely continue to increase in terms of maximum wind speeds, total precipitation, and storm surges.^x However, the frequency of these events may decrease in the future.^{xi}



6.3 Land-Use Patterns



Mississippi's land use is largely made up of rural areas scattered relatively evenly throughout the state. Mississippi contains three main MPOs: CMPDD, HPFL MPO, and GRPC. Additionally, Mississippi is part of the shared Memphis MPO. Commercial and recreational land use is common around these MPO districts. The highly trafficked Gulf Coast Region brings in tourist revenue with its casinos, beaches, and resorts. There are also various sporting events and gatherings that drastically increase the amount of vehicular traffic and will need to be accounted for as the charging network is deployed. Mississippi also hosts major manufacturing centers for Toyota, Nissan, and Continental Tire. Additionally, Mississippi is home to multiple state parks and tribal regions scattered throughout the state.

As part of the Justice40 Initiative, the U.S. Department of Transportation (USDOT) and U.S. Department of Energy (USDOE) collaborated to define and identify DACs based on several indicators, such as transportation access, socioeconomic disadvantages, resilience disadvantages, health and environmental disadvantages, energy burden, and vulnerability. The results, as seen on Figure 10-1 in the Equity Consideration section (Section 10) of this report, showed that the vast majority of Mississippi is made up of DACs, with all seven proposed AFCs overlapping with several Justice40-identified DACs and rural areas. DACs are especially prevalent in the Mississippi Delta area.

While several counties near urban areas outside of DAC regions experienced significant population growth between 5 and 18 percent in the last decade, Mississippi's overall population decreased by 0.2 percent. This indicates a slow, statewide population shift from rural communities to more urban areas, which may affect some communities' status as a DAC and increase socioeconomic disparity across the state. Deploying EV infrastructure equitably throughout Mississippi may combat this disparity, which could slow down the decreasing population trend in DAC areas.

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

With the increasing adoption of EVs, it is essential to provide these road users with adequate charging opportunities that cater to the state's overall travel patterns. As Mississippi's total daily vehicle miles traveled and vehicle hours traveled increase with national trends, updating and maintaining Mississippi's 77,500 centerline miles of public roads and infrastructure is growing increasingly important. The state's congestion is projected to worsen over the next few decades, especially among MPO areas where traffic levels of service are commonly rated E or F during peak hours.^{xii}

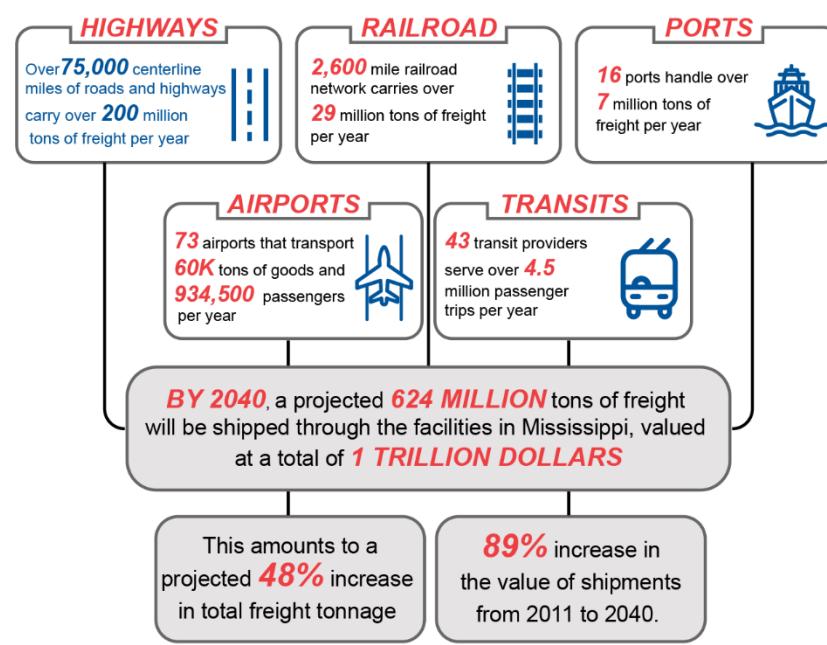
While this Plan focuses on light-duty passenger vehicles, the state's public transportation system deserves equal attention when developing the EV charging network and grid as the adoption of battery electric buses (BEBs) is becoming more common nationwide. In fact, Coast Transit Authority (CTA) recently unveiled the first public transit BEB in Mississippi in April of 2022^{xiii}. Out of Mississippi's 1,330,867 occupied housing units (2020 estimate), an estimated 71,226 housing units, or 5.4 percent, do not have access to a vehicle.^{xiv} Mississippi residents without vehicle access rely on the public transportation system to make long-distance commutes. With guidance from the NEVI Formula Program, the Plan may consider EV infrastructure for rural transit, which is also an important part of the state's public transportation network.

Mississippi's robust freight network will also be considered in future plans when designing the EV charging network with NEVI Formula Program guidance. Of the seven interstate highways nominated as corridor-pending EV AFCs, five are Tier I Mississippi Freight Network corridors in the Mississippi

 **94.3%** of Mississippi's daily commuters drive or ride in a passenger vehicle.

 **5.4%** of Mississippi households do not have access to a vehicle

MISSISSIPPI has a comprehensive Transportation system made up of



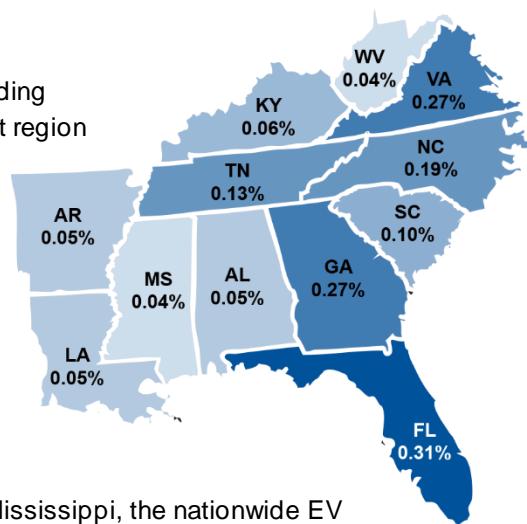
Statewide Freight Plan^{xv}:
I-10, I-20, Interstate 22
(I-22), I-55, and I-59.

The 2017 Mississippi Statewide Freight Plan includes a corridor needs assessment with an emphasis on the modes that facilitate the highest volume of freight. Highway-related needs revolved around infrastructure preservations and improvements to continue the facilitation of freight movement and connections on the multimodal freight system.^{xvi}

6.5 EV Industry Ownership/Availability

Current EV Ownership/Availability

Currently, EV adoption is minimal in most parts of the U.S. including Mississippi. The EV adoption rate for each state in the southeast region of the U.S. is calculated to better understand the pattern and trend of EV adoption in neighboring states, as shown on the figure to the right. The top 3 states in the southeast region are Florida, Georgia, and Virginia. The state of Mississippi is ranked No. 11 of 12 for the states in the southeast region. See Table B1 in Appendix B for more details on the ranking of EV adoption rates in the southeast region.



Projected EV Ownership/Availability

Despite low EV adoption rates in most parts of the U.S. and in Mississippi, the nationwide EV

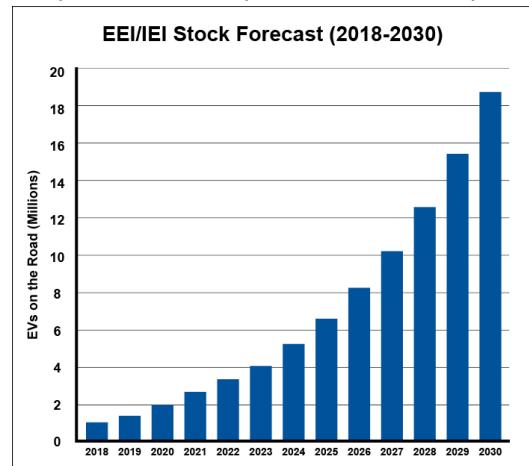


Figure 6-1: EE/I Stock Forecast

road is projected to grow from slightly more than 4 million at the end of 2023 to 18.7 million by 2030, which will account for approximately 7 percent of the 259 million vehicles (cars and light-duty trucks) expected to be on U.S. roads in 2030.

Figure 6-2 illustrates U.S. market sales projections for EVs from 2018 to 2030, summarizing six different market projection models^{xviii}. EEI/IEI forecasts 3.5 million EV sales in 2030. Although different market projection models show different EV sale growth trends, EV sales are predicted to significantly grow in Year 2023 through Year 2030.

adoption rate has been increasing in recent years. This adoption rate is expected to continue to increase as more EV models become available and as public direct-current (DC) fast-charging (DCFC) stations reduce charge time. The following factors are also expected to increase the adoption rate of EVs: (1) increases in EV battery capacity, (2) options to lease the battery package instead of purchasing, (3) technology advancement allowing batteries to last longer, and (4) design standardization to allow battery swaps.

Current trends indicate that EV sales growth will continue to increase in the upcoming decade. As shown on Figure 6-1, the Edison Electric Institute (EEI)/Institute for Electric Innovation (IEI)^{xvii} predicted that the number of EVs on the

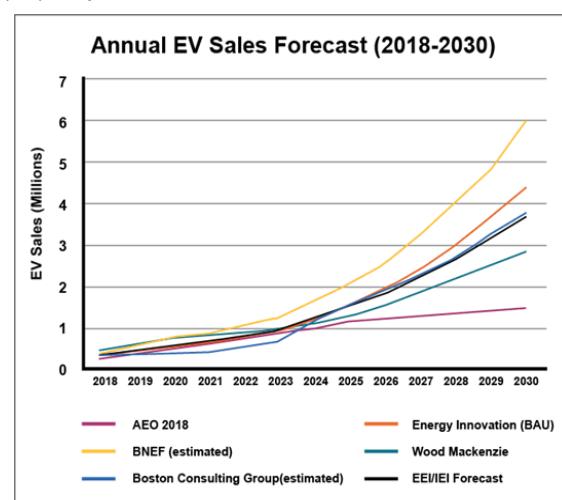


Figure 6-2: Annual EV Sales Forecast from Different Market Projection Models

The AEO 2022 projected that BEVs and PHEVs combined account for **13%** of total LDV sales in **2050**



The U.S. Energy Information Administration published the 2022 annual energy outlook (AEO)^{xix}. Through the projection period (2021-2050), 200- and 300-mile battery-EV (BEV) sales are both projected to grow significantly. In Mississippi, the adoption rate of both BEVs and plug-in hybrid EVs (PHEVs) will increase rapidly in the future.

Grid Capacity Necessary to Support Additional EV charging Infrastructure

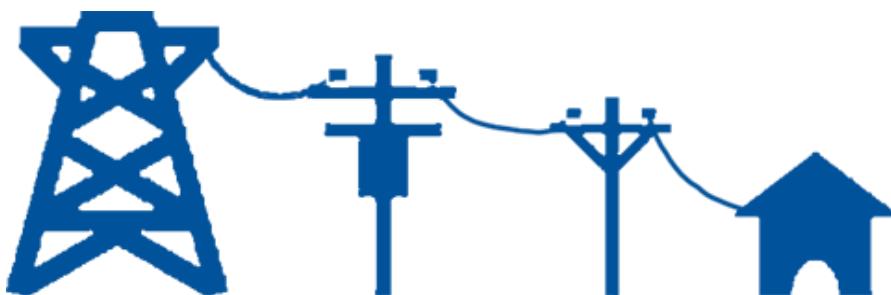
Due to rapid proliferation of the EV industry, grid capacity has become a major concern for the electrical utility providers and the customers deploying EVs. EV charging infrastructure deployment will increase the demand for electricity, and proper planning will be critical to meet the increasing charge demand. According to Mississippi Power and Southern Company^{xx}, partnerships with major vehicle manufacturers and the Electric Power Research Institute will be important to understand the impacts of the vehicle charging on our nation's electricity grid. In other words, finding ways to supply customers with reliable electricity is one of the most important priorities for electric utility providers.

For the purpose of evaluating electricity needs within the next 5 years, if all the DCFC stations supporting 150 kilowatts (kW) per port in this Plan were utilized at the same time at their maximum rate, they would consume an additional 12 to 18 megawatts of electricity from the grid with 80 to 120 EV charging ports utilized at the same time across the state. (The number of ports is roughly estimated based on the 5-year NEVI funding allocated to the state.) MDOT will take into consideration the area providers that can supply sufficient power to meet additional electricity for EV stations.



Electric Utilities That Service the Study Area

The four main electric utility providers for the state of Mississippi are Entergy, Mississippi Power Company, the Tennessee Valley Authority, and Cooperative Energy. In addition to these, many smaller companies and municipalities also provide power within the state, as shown in Appendix B, Figure B1. When planning for the placement of EV stations, consideration will be given to the area providers that can supply reliable energy and the appropriate power to EV stations in a timely and efficient manner.



6.6 AFC – Corridor Networks

MDOT nominated the following interstate highways in Mississippi for designation as corridor-pending EV AFCs under the NEVI Formula Program in response to the FHWA's Request for Nominations^{xxi} on May 13, 2022 – Alternative Fuel Corridors (2022/Round 6): I-10, I-20, I-22, I-55, I-59, Interstate 69 (I-69), and Interstate 269 (I-269), as shown on Figure 6-3.

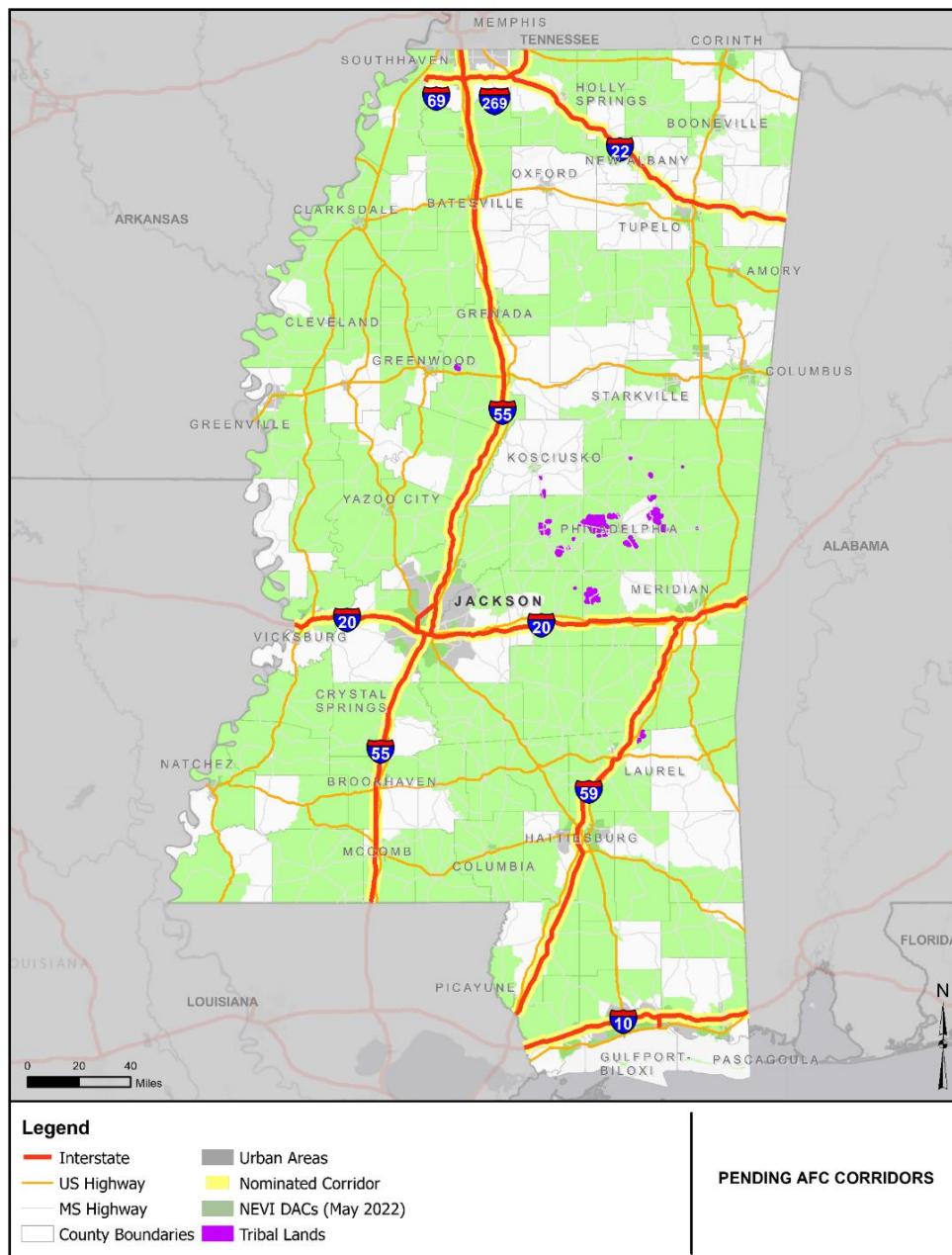


Figure 6-3: AFCs in the State

6.7 Existing Locations of Charging Infrastructure Along AFCs

While the State has not deployed DCFC stations widely, DCFC stations are needed to: (1) support long-distance interregional travel to create a national network of EV charging; and (2) provide an opportunity for further EV penetration because DCFC can reduce charge time. Figure 6-4 shows the location of existing public EV charging, and detailed information of existing charging locations can be found in Table 6-1 below and in Appendix B, Table B2.

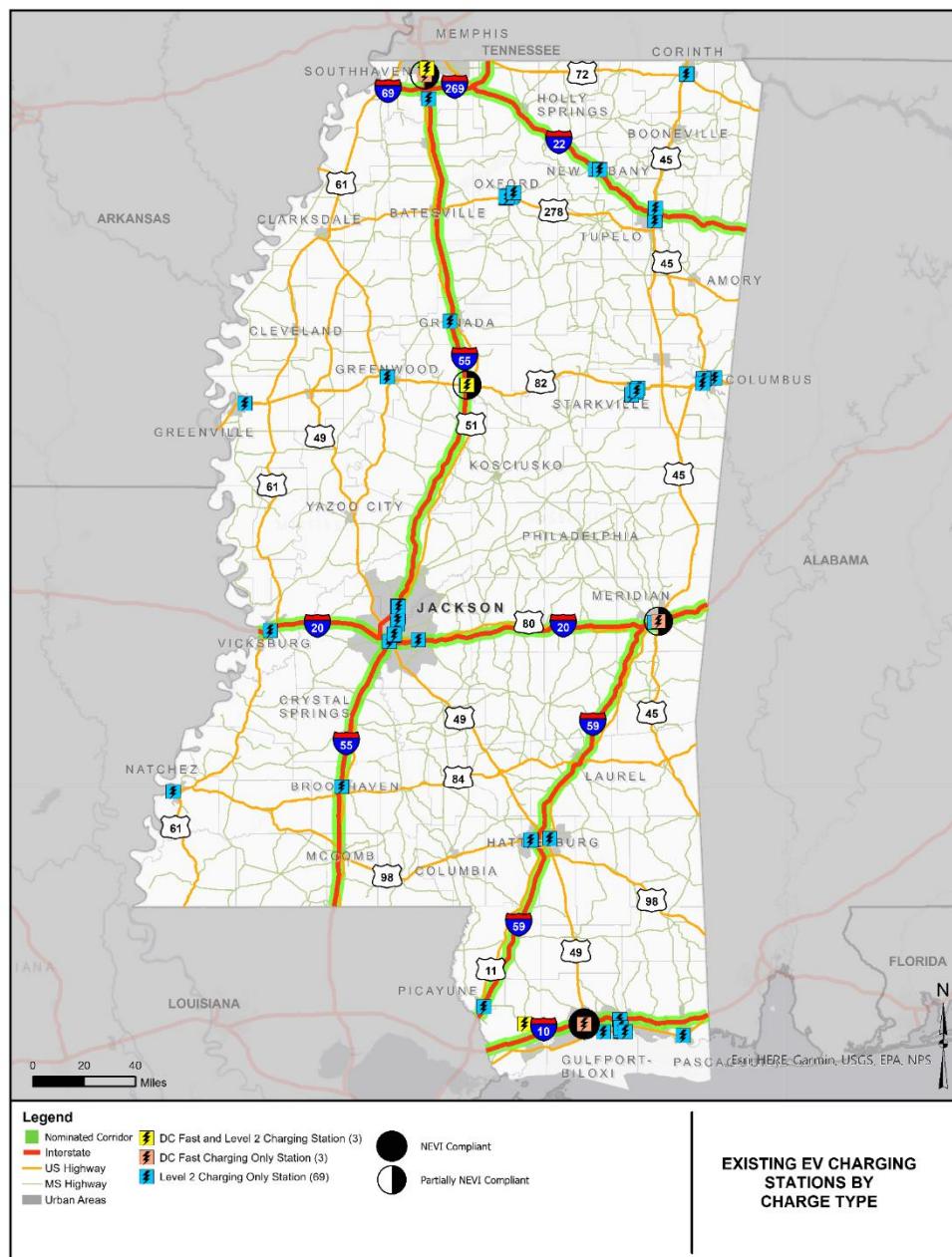


Figure 6-4: Existing Public DCFC/Level 2 Locations

Table 6-1: Existing DCFC Locations that are NEVI Compliant or Partially NEVI Compliant

State EV Charging Location Unique ID*	Route	Location	Number of DCFCs	EV Network	NEVI Compliant
170338	I-10	10000 Factory Shops Blvd Gulfport, MS	6	Electrify America	NEVI compliant
207935	I-20, I-59	1217 MS-39 Meridian, MS	1	ChargePoint Network	Partially NEVI compliant
144213	I-55, I-69	4870 Venture Dr Southaven, MS	1	ChargePoint Network	Partially NEVI compliant
167278	I-55	318 Hwy 82 Winona, MS	2	Greenlots	Partially NEVI compliant

6.8 Information Dissemination about EV Charging Station Availability

There are several existing strategies and mechanisms to disseminate information about EV charging station availability to EV users that should be coordinated with charging network providers and EVSE owners to provide up-to-date information and status of EV chargers, as shown below:

Use existing platform that could inform the public on available EV charging stations (See Figure 6-5)

Update Mississippi's traveler information websites to include publicly available charging locations

Promote EV charging station availability through signage, web sites and social media

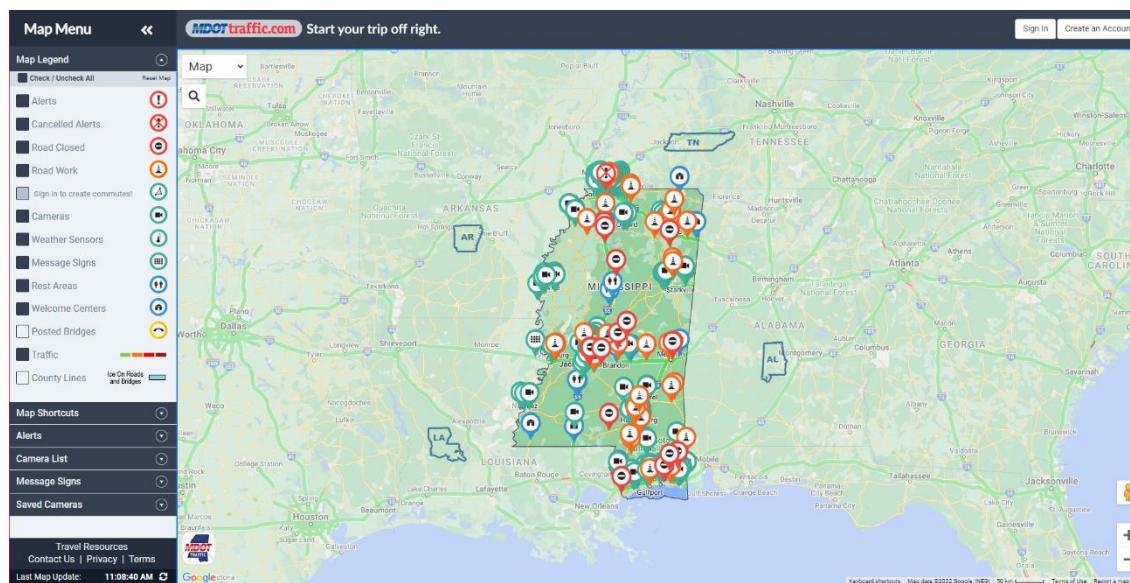


Figure 6-5: Example of MDOTtraffic.com Website

6.9 Known Risks and Challenges

The following known risks and challenges could add barriers to EV charging infrastructure deployment:



In Mississippi, statutory law may prohibit metered charging fees by non-utilities. This law may pose challenges for third-party EV charging infrastructure owners and operators navigating the legality of user payment at public charging stations.



Current and future supply-chain issues may delay charger manufacturing lead time. With all 50 states receiving NEVI Formula Program funding over the next 5 years, the need for DCFC charging stations will skyrocket. Increasing demand and a decrease in supply may cause significant setbacks to charging station construction.



Identifying licenses, certifications, and training will be required for those involved in upgrading the electric utility capabilities of each proposed DCFC site prior to building the EV charging infrastructure. This step may add delays to the overall project timeline and may pose challenges in finding qualified teams to provide these services.



Charging stations are needed in Mississippi's rural areas to meet NEVI spacing and equity requirements; however, electricity may not be readily available at these underpopulated locations. Additionally, preferred conditions for EV charging stations, like close proximity to shopping centers and other infrastructure, may not exist in rural areas.



Three different varieties of DCFCs are used by different auto manufacturers: the combined charging system (CCS) used by most manufacturers; CHAdeMO, used by Nissan and Mitsubishi; and the Tesla Supercharger, only available to Tesla drivers. Unlike universal vehicle access to gas stations, vehicle compatibility with EV chargers could be an obstacle to widespread EV adoption.



MDOT/Mississippi Transportation Commission (MTC) will need to introduce a bill to amend Section 65-1-8 of the Mississippi Code. The amendment would add language to the powers of the MTC to enter into public-private partnerships for the purpose of implementing federal programs intended to promote the development of EV charging stations across the state.



When it comes to longer trips, EV drivers can experience "range anxiety," the fear that the car will run out of power before reaching a suitable charging station. While EV charging stations are being deployed across the state, it is possible there will be gaps in coverage until the network is fully built out.



EVs have a much lower chance of overloading grids if charged at off-peak hours of using electricity. Level 2 charging usually happens at off-peak hours. However, the charging-load profile of DCFC differs from that of Level 2. The DCFC aligns with travel peak hours.



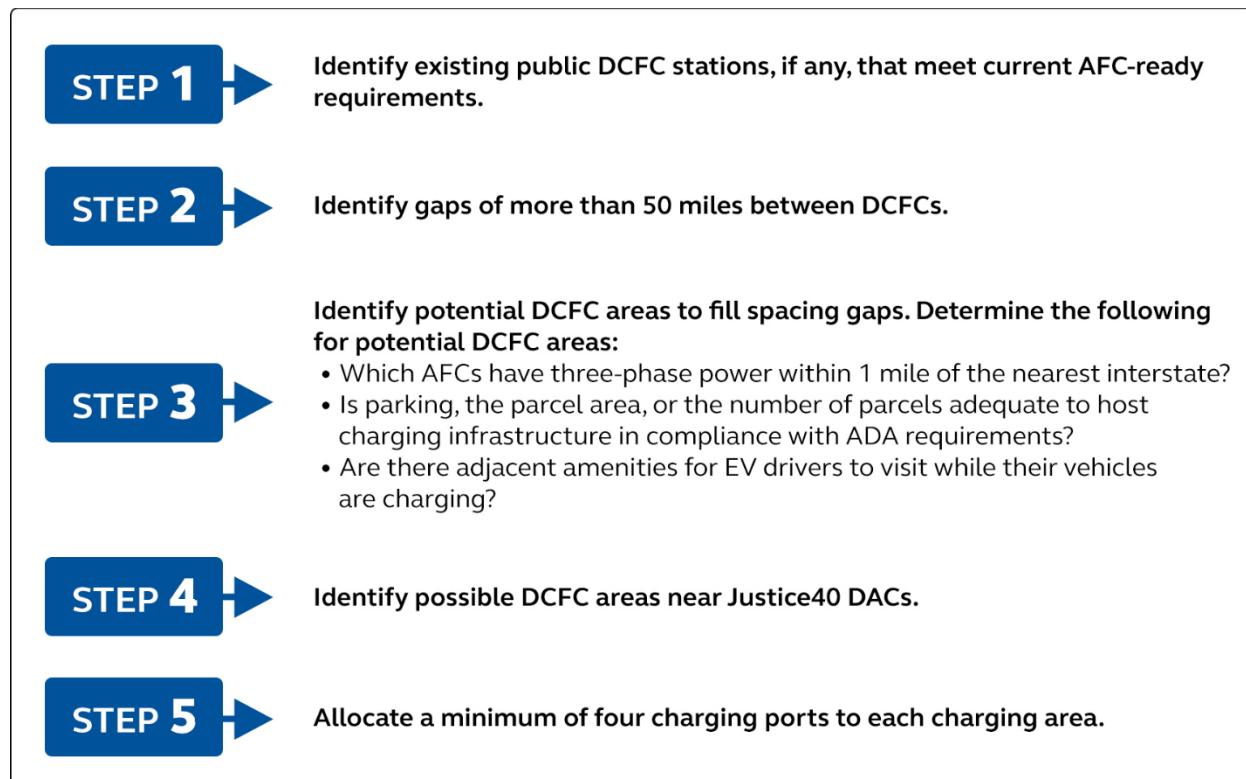
It is MDOT's intention to work with partners to ensure that required training is available to all areas of the state, including rural areas and DACs. Ensuring required training is accessible statewide could necessitate additional time to develop and deliver.

7 EV Charging Infrastructure Deployment

MDOT will utilize NEVI Formula Program funding and will likely partner with the private sector to develop the EV charging stations along the AFCs. To be effective, the EV charging infrastructure deployed under this Plan must provide a seamless customer experience for all users through a convenient, reliable, affordable, and equitable national EV charging network. MDOT intends to make informed decisions when developing selection criteria and deployment areas. MDOT intends to consider input provided by stakeholders, the public, and communities throughout the state when making these decisions in order to meet the Plan vision and goals. For a corridor to move from pending status to ready status, EV charging stations planned to be upgraded/deployed will be required to comply with the following NEVI requirements:

- Charging infrastructure shall have at most 50-mile spacing between stations and shall be within 1 mile of the interstate exits or highway intersections along the corridor.
- Charging infrastructure shall have at least four 150-kW DC fast chargers.
- Charging infrastructure shall be equipped with Combined Charging System ports capable of simultaneously DC charging four EVs.

As shown on the figure below, an initial analysis using available desktop tools was conducted to identify potential station locations. An in-depth evaluation of Steps 3 and 5 will be conducted post plan approval to further determine potential DC fast charging stations along AFCs.



7.1 Funding Sources

MDOT will likely develop a program in which the private-sector contribution completes the non-federal share of the NEVI Formula Program. EV network providers will contribute 20 percent of the NEVI funding and work with MDOT, utility companies, and private businesses to deploy EV charging stations along AFCs. EV network providers will collect fees from station operation and be responsible for maintenance, operations, and reporting going forward. FHWA has released the 5-year



The State anticipates receiving **\$50,557,563** over a **5 year** horizon from **NEVI** funding

NEVI funding by state. The total 5-year funding available for Mississippi to deploy its EV charging infrastructure network is anticipated to be \$50,557,563. With this amount of funding available, MDOT can estimate the amount of charging infrastructure that can be deployed using the worst-case scenario cost provided by charging operators.

7.2 EV Charging Infrastructure Deployments/Upgrades

In response to FHWA's Round 6 AFC Nomination Request^{xxii}, MDOT nominated the following interstate highways for designation as corridor-pending EV AFCs: I-10, I-20, I-22, I-55, I-59, I-69, and I-269. See Figure 6-3 in the AFC Corridor Networks section (Section 6.3) for an illustration of the extent of these corridors.

Based on the requirements of the NEVI Formula Program discussed earlier, MDOT determined the approximate areas of proposed installations as well as the existing EV charging locations that may be upgraded. During the implementation of EV charging infrastructure, EV network providers will work with MDOT, utility companies, and private businesses to finalize the charging infrastructure locations along AFCs. Table 7-1 displays the minimum number of required stations needed along each AFC to meet the NEVI requirement of a station every 50 miles and at least two along each AFC route.

Table 7-1: Minimum Number of EV Charging Stations per Interstate

Interstate	Miles	Minimum Number of Locations
I-10	277.676	2
I-20	131.575	3
I-22	106.7	4
I-55	280.572	6
I-59	171.501	4
I-69	22.395	2
I-269	26.03	2
Total		22

In order to achieve corridor-ready status on all pending AFCs, MDOT intends to meet the required minimum number of stations. Based on initial analysis considering location, current EV charging stations, access to infrastructure, available utilities, and distance to adjacent states, additional locations may be needed. Figure 7-1 displays areas within a 50-mile radius where locations are anticipated. Based on initial analysis, 20 to 30 new stations will be needed in order to meet corridor-ready status for all pending AFCs within the state.

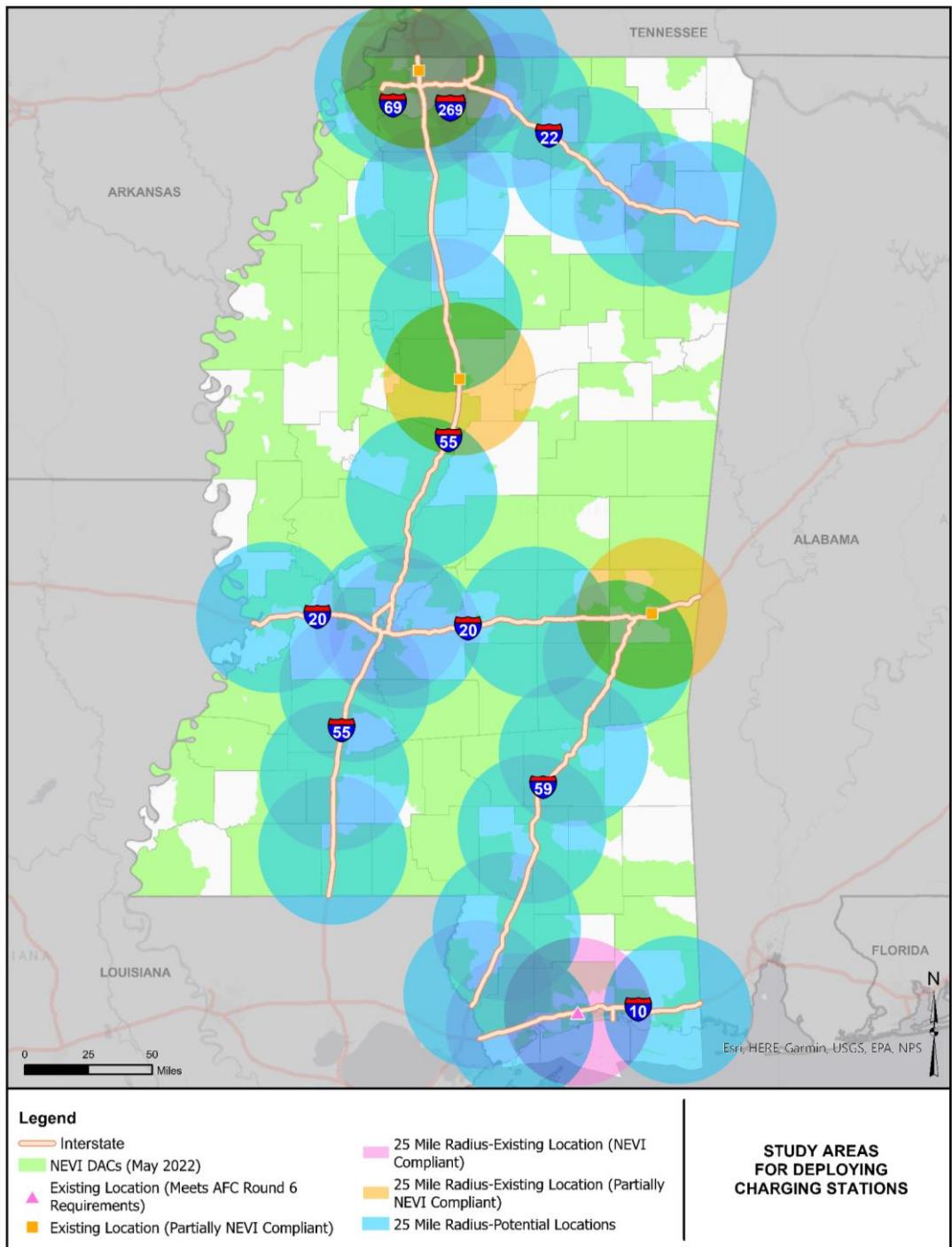


Figure 7-1: Study Areas for Deploying Charging Stations

Based on industry outreach to EVSE providers, it was assumed that the average cost to build a new NEVI-compliant site would range from \$500K to \$1.5M. This cost does not include miscellaneous project costs, alternative energy-source deployment, project and program management, reporting, training, and future-proofing the design to increase the stations' charging capability. During the implementation plan, additional charging infrastructure areas will be added in a manner that makes maximal efficient use of federal funding. These additional locations will be selected by taking into consideration travel patterns and annual average daily traffic, future NEVI requirements and guidelines, high-density areas, evacuation routes/needs, potential future freight and transit EV charging network guidelines, etc.

7.3 Increases of Capacity/Redundancy Along Existing AFC

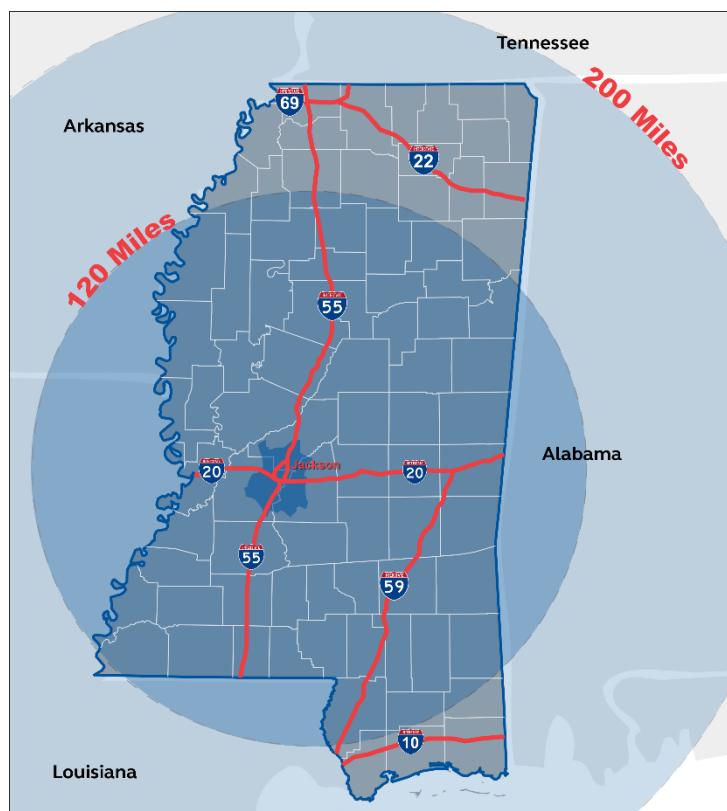


Figure 7-2: Based in Jackson, Estimated Range of 120 and 200 Miles Resulting from an 80% Charge

The plan is to increase the number of charging ports and density of charging locations along AFCs compared to the current locations of the DCFC in Mississippi. The redundancy along AFCs is increased because EV drivers have multiple options and opportunities to charge. Based on current EV options available in the market, an 80 percent battery charge would usually result in a driving range roughly between 120 and 200 miles for the EVs with advertised ranges of 150 miles and 250 miles, respectively. The resulting range from an 80 percent battery charge would provide EV drivers multiple options (based on the 50-mile spacing between two potential locations) to traverse the state when the EV charging stations are fully built out along the AFCs. Starting from the state capital, Jackson, Figure 7-2 depicts an estimated range of 120 miles and 200 miles resulting from an 80 percent battery charge at a proposed DCFC station.

7.4 Electric Vehicle Freight Considerations

MDOT's freight coordinator has been involved throughout the development of this Plan. The NEVI Formula Program was presented to the FAC in May 2022. MDOT plans to address freight following the release of anticipated FHWA guidance.

7.5 Public Transportation Considerations

MDOT met with their Transit Division to help guide public transportation considerations in the EV Infrastructure deployment plan.

CTA currently operates with a fleet of hybrid electric and dual-fueled buses. CTA unveiled Mississippi's first-ever BEB in April 2022. Funding for the BEB was made possible by the USDOT, Mississippi Power, and the CTA. There are other rural transit agencies in Mississippi that will be considered in future updates.



7.6 Infrastructure Deployment Strategy & Fiscal Years 24-26 Infrastructure Deployments

In the next year, MDOT intends to gather additional information to make informed decisions on the most efficient, reliable, and equitable deployment of the EV infrastructure. Information and input will be obtained through an RFI, future stakeholder meetings, and public engagements. Through future engagements, MDOT will begin to develop quantifiable and meaningful metrics for benefits, including those to DACs. Additionally, in an effort to study locations and continue outreach, MDOT intends to deploy an interactive location map next year. MDOT will then begin the RFP process for development of EV charging infrastructure installation using information and input provided by stakeholders and future engagements. During the remaining funding period, MDOT intends to issue the RFP and award the contract up to \$15M annually to install EV charging infrastructure. The Plan will be reevaluated annually to reflect lessons learned, DACs and public outreach feedback, and will follow FHWA's final regulations of minimum standards and requirements for the NEVI Formula Program.

7.7 State, Regional, and Local Policy

MDOT will work to coordinate and connect regionally with other states and adjoining networks. The Plan will rely on third-party entities to coordinate with local property owners and municipalities on zoning and permitting. MDOT will monitor developments at the state and local levels during implementation of this Plan and provide updates to state and local officials when requested.

8 Implementation

8.1 Strategies for EVSE Operations & Maintenance

MDOT plans to set requirements to be followed by vendors and subcontractors for operation and maintenance of the EV charging stations. Monitoring and service-level agreements for station performance will be specified in the contract, and MDOT will monitor station up time through vendor-reported usage data and general user satisfaction on publicly accessible third-party charging websites. MDOT will ensure that the operations and maintenance requirements of the NEVI Formula Program are followed by the contractor responsible for the infrastructure. MDOT plans to regularly monitor implementation of the operations and maintenance procedures to ensure the agreed-upon requirements are being met.

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

MDOT plans to be fully knowledgeable on the different ownership opportunities for the charging stations, the best ways to maximize federal funds, and the most efficient ways to select and collaborate with charging service providers and property owners of potential charging station locations.



MDOT is likely to explore contracting mechanisms, such as design-build and public-private partnerships, to select the potential station owners and EV charging service providers, with consideration given to the level of involvement of MDOT staff for each option.

Considerations for selecting an EV charging service provider may include the following:

- Compliance with NEVI guidance.
- Cost.
- Product reliability.
- Lead time.
- Adherence to MDOT policies and procedures.
- Service provider experience with EV operations, qualifications, trainings, certifications, etc.
- Maintenance and warranty package.
- System redundancy.
- Cybersecurity.
- Buy America Compliance.

Considerations for selecting a station owner may include the following:

- Ability to provide enough space and power for at least four 150kW charging stations without extensive utility upgrade needs.
- Ability to meet ADA requirements.
- Proximity to other proposed stations and distance to interstate.
- Status as DBE or minority-owned business, or active partnerships with such.
- Ability to meet existing and future NEVI Formula Program requirements, including Justice40 goals.
- Ability to prove that the station will be located in a safe and convenient location.
- Financial reliability of the business owner to support the infrastructure, operations, and maintenance.

8.3 Strategies for EVSE Data Collection & Sharing

MDOT will seek to ensure that all local, state, federal, and NEVI Formula Program existing and future requirements and guidelines regarding data collection and sharing are met. Additionally, all third-party entities who own, operate, and maintain EV stations will follow the guidelines described in the Cybersecurity section of this report (Section 12).

Some potential types of data MDOT may require from vendors include:

- Charging station location.
- Charging station type.
- Operational status/availability to the public.
- Usage stats, such as charging station uptime, power dispensed, and \$/kW, required by FHWA's final regulation of minimum standards and requirements for the NEVI Formula Program.

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

Installing easily accessible charging stations near interchanges, interstates, and commercial sites with robust physical and cybersecurity is key to creating a useful and resilient EV charging network in Mississippi. Prioritizing resiliency through reliable communication systems and connection to the power grid will help build a long-lasting charging network that maximizes federal funding. MDOT will evaluate alternative energy source plans (e.g., battery storage, diesel generators, solar arrays) ready to activate in emergency power outage events. MDOT may also add requirements to this effect during the procurement process to ensure that the EV infrastructure stations are meeting at least the minimum lighting requirement during a power outage. Consideration will also be given to strategies to provide redundant communication solutions in the event of a natural disaster.

Hurricanes are the biggest natural disaster threat to Mississippi's charging station infrastructure. To mitigate risks posed to EV owners in Mississippi by devastating storms, consideration will be given to propose EV charging locations on hurricane evacuation routes. MDOT may investigate strategies used by companies like Tesla, AAA, and Ample Technologies to ensure charging stations are fully functional during disasters to create a safe and reliable fuel network for EV-owning evacuees.

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



MDOT will ensure all third-party entities who own, operate, and maintain EV stations provide and implement quality labor and workforce consideration plans that discuss methodologies for strong labor, safety, training, and installation standards (see Labor and Workforce Considerations [Section 11] for details). MDOT plans to follow local, state, and federal guidelines regarding awarding contracts to small businesses as vendors and charging station owners. Similarly, MDOT will follow FHWA's final regulations of minimum standards and requirements for the NEVI Formula Program.

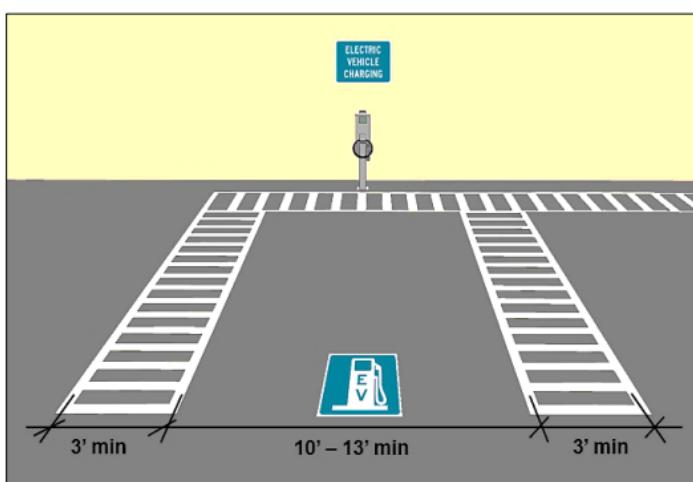
9 Civil Rights

MDOT is dedicated to ensuring that EV charging station implementation complies with local, state, and federal civil rights laws, including Title VI of the Civil Rights Act^{xxiii} and accompanying USDOT regulations, ADA, and Section 504 of the Rehabilitation Act^{xxiv}. Additionally, MDOT will follow FHWA's final regulations of minimum standards and requirements for the NEVI Formula Program.

To ensure the EV charging infrastructure will comply with Title VI of the Civil Rights Act, MDOT plans to:

- Support public and stakeholder outreach to all, especially underrepresented groups. Each meeting location will comply with all mandates established in the ADA. Individuals with questions or special needs may contact the MDOT Planning Division Public Participation Process and Plan coordinator at least 5 days prior to the meeting.
- Support the distribution of NEVI Formula Program funds to benefit rural communities, underserved communities, and DACs in Mississippi
- Verify that the hired contractors are being audited in respect to the NEVI Formula Program's existing and future requirements regarding Title VI compliance.

To support ADA compliance and Section 504 of the Rehabilitation Act, which includes ensuring that recipients of federal aid and state and local entities responsible for roadways and pedestrian facilities do not discriminate based on disability in highway transportation programs or activities, MDOT may consider ways to meet ADA guidelines when developing contracts with potential station owners and EV equipment providers. Although the ADA does not provide specific requirements for EV charging station parking spaces at this time, MDOT plans to follow the guidance provided by the U.S. Access Board for any



proposed EV charging stations in this Plan that may include an accessible charging space. The access board recommends providing access to a reasonable number of spaces serving EV charging stations, so they are usable by people with disabilities. Figure 9-1 is a diagram from the access board that has suggested information for an example EV parking space that may be used^{xxv}.

Figure 9-1: Accessible EV Charging Stations

10 Equity Considerations

MDOT plans to follow the NEVI Formula Program guidance regarding equity considerations. The program will support the Justice40 Initiative, which establishes a goal that at least 40 percent of the benefits of federal investments in climate and clean-energy infrastructure are distributed to DACs. MDOT's strategy to adhere to this goal includes three main components:

1. Supporting and facilitating public outreach with rural communities, underserved communities, DACs, and stakeholders, including suppliers and contactors.
2. Identifying and investigating EV charging station benefits to ensure at least 40 percent of the investment benefits DACs.
3. MDOT is considering partnering with MDOT's Local Assistance Training Program (LTAP) to provide the necessary training for fuel-center contractors and districts/division personnel regarding EV charging stations and charge-management software to ensure all potential contractors/workers have equal opportunity to access adequate training.

Figure 10-1 presents a map of USDOE Justice40 DACs in Mississippi as provided in the Justice40 Interim Guidance.

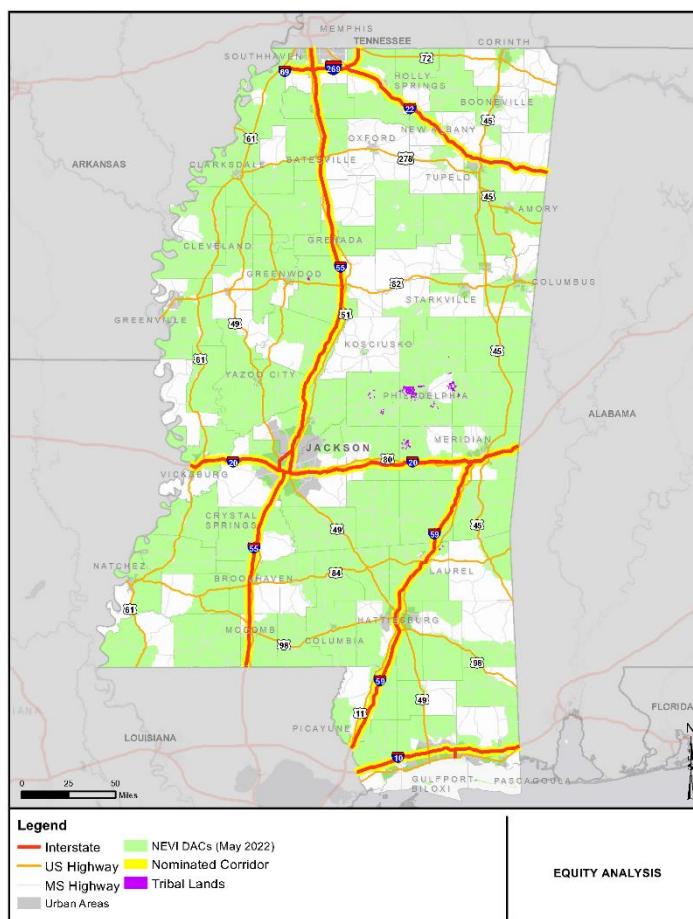


Figure 10-1: Mississippi's Department of Energy Justice40 DACs

10.1 Identification and Outreach to DACs in the State

As the implementation plan progresses, MDOT intends to identify potential DAC stakeholders and develop a list of questions to ensure a meaningful community engagement process with DACs. The Justice40 Interim Guidance suggests using existing data sources and indicators, e.g., poverty, high energy/housing/transportation burden to define DACs in the context of this Plan. To comply with this guidance, USDOT and USDOE's Electric Vehicle Charging Justice40 Map was used to determine areas



in Mississippi that are designated as DACs. MDOT plans to work toward consulting with identified DAC stakeholders to ensure public participation in the Plan. MDOT intends to have community stakeholders meaningfully involved in defining what constitutes the "benefits" of the program. Diverse views should be heard and considered throughout the planning process, and the deployment, installation, operation, and use of EV charging infrastructure should achieve equitable and fair distribution of benefits and services. As MDOT continues to engage with MPOs and locals and collect public surveys, MDOT intends to consider public input to ensure equitable delivery of EV infrastructure.

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

MDOT's initial engagements were focused on learning about the industry, bringing awareness to the program, developing relationships, gaining input through the online survey, and identifying barriers to deploying EV charging infrastructure within Mississippi. Going forward, through community engagement with DACs, MDOT will make informed decisions on the best way to identify, quantify, and measure benefits to DACs. As can be seen on Figure 10-1, many of the AFCs traverse DACs. MDOT plans to include consideration for installation of charging stations within DACs in the RFPs.

MDOT plans to ensure that at least 40 percent of the targeted EV infrastructure benefits are toward DACs in accordance with Justice40 and Executive Order 14008. MDOT will use the standards, rules, and guidelines released by the USDOE/USDOT Joint Office to help quantify, identify, and measure the benefits of DACs and will make sure to incorporate the language in the EV infrastructure program management scope of services to ensure compliance with all current, new, and future NEVI Formula Program requirements.

10.3 Benefits to DACs through this Plan

Using feedback acquired from DACs during future engagements and suggested benefits and metrics provided by the Joint Office, MDOT will compile a list of benefits they anticipate measuring and tracking toward the Justice40 goal. For example, one potential metric being considered is the percentage of stations located in DACs. Once the benefit metrics are identified, they will be regularly monitored to ensure compliance with the Justice40 Initiative.

11 Labor and Workforce Considerations

Through the implementation of its EV charging program new workforce opportunities may be created for Mississippians, especially those in DACs. Installers, maintenance technicians, electrical workers, and various other trades will be needed to serve this new industry.

MDOT will work with the appropriate state agencies to develop training programs to respond to these work opportunities. MDOT will coordinate with the MDA and MDA's Office of Energy to ensure the appropriate colleges, universities, education programs, and industry partners are included when developing and deploying training programs. MDOT also plans to work with its LTAP to identify the best opportunities and resources for workforce training and to help support the workforce needs of the state's EV infrastructure deployment program.



Additionally, MDOT's Office of Civil Rights^{xxvi} will be engaged when developing and deploying the workforce and labor training. MDOT's DBE Support Services Program contributes to the growth and self-sufficiency of minority- and women-owned businesses. The department released a public notice proposing a goal of 9.96 percent of appropriated federal funds for DBE participation in the years 2020-2022.^{xxvii} Therefore, MDOT's Civil Rights division is well equipped to assist in engaging with DACs and DBEs to help identify the best way to deploy training within the state.

MDOT plans to follow all current and future established local, state, and federal regulations regarding training, licenses, certifications, experience level, and diversity of the work force used to install and maintain EV charging infrastructure. Additionally, MDOT will follow FHWA's final regulations of minimum standards and requirements for the NEVI Formula Program.

12 Cybersecurity

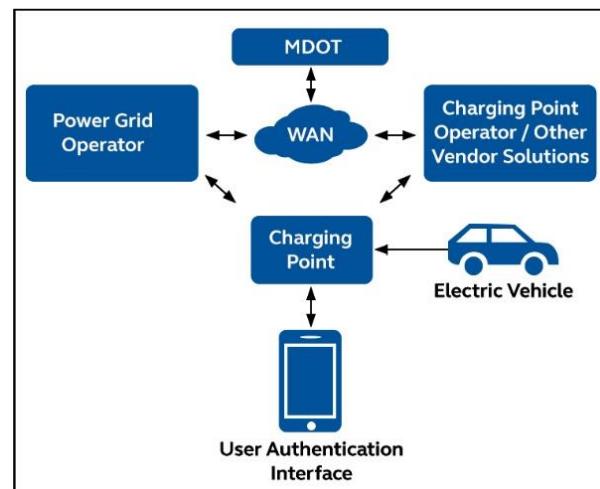


EV charging infrastructure has the potential to gain exposure and introduce cybersecurity vulnerabilities through the networked equipment. To combat this risk, MDOT's proposed EV charging infrastructure implementations should strictly meet the critical infrastructure security requirements dictated by local, federal, state, and other regulatory bodies and should additionally comply with recommendations outlined in the National Institute of Standards and Technology Cybersecurity Framework.

When deploying the EV charging infrastructure network, MDOT intends to prioritize safeguarding consumer privacy and both state and national cyberspace networks through cybersecurity. MDOT intends to develop and implement strategies to address all cybersecurity requirements including but not limited to user identity and access management, selection of appropriate encryption systems, intrusion and malware detection, event logging and reporting, management of software updates, and secure operation during communication outages. The below information is MDOT's initial plan to ensure a secure and protected network; however, MDOT will re-evaluate this as needed to follow FHWA's final regulations of minimum standards and requirements for the NEVI Formula Program.

The third-party entity who owns, operates, and maintains the EV charging station is expected to develop an information security management plan and cybersecurity management plan and perform a detailed security assessment for the infrastructure being proposed to ensure compliance with all requirements identified in this Plan. In general, some of the cybersecurity responsibilities for the third party include but are not limited to:

- Implementing the strict use of non-disclosure agreements for all parties/stakeholders involved.
- Reviewing the supply-chain risks and procurement processes.
- Ensuring physical and network security for the operational infrastructure and its interfaces to other systems such as:
 - Customer/user access control and two-factor authentication at the charging point.
 - Charging station vendor interfaces.
 - Interfacing with the payment process solutions/ vendors.
 - Metering and interfacing with the power utility/ electric grid/smart grid/grid operators.
 - Sharing cyber-related incidents (along with data related to incidents) in a timely manner with MDOT and U.S. government agencies such as FHWA and the USDOE's Alternative Fuel Data Center (AFDC).
 - Ensuring Dynamic Host Configuration Protocol is disabled.
 - Protecting from internet behind firewall and intrusion detection and protection system.



- Addressing security methods for data transmission and storage at the charge point, with the EV, from the EV user, and with other vendors. Review the integrity of the data in transit and at rest and implement cryptography.
- Developing a methodology for integration with cloud services and reliance on wide-area networks (WAN).
- Defining software patch management program, secure over-the-air updates, conduct remote firmware updates, etc.
- Defining logging requirements, vulnerability management, penetration testing, remote access, back-up/restore, incident response, table exercise use case, disaster recovery plan, and use of antivirus/malware detection software, etc.
- Defining standardization practices, procedures, cybersecurity lifecycle (e.g., assessment, design and implementation, operate and maintain) and governance requirements for the station.

The communications network infrastructure should be specific to each site and its geographic location, and at the end of the project, it should be demonstrated that all federal, state, and local cybersecurity requirements were met.

13 Program Evaluation

Using data and feedback received from stakeholders, including stakeholders who represent DACs, Mississippi will update the Plan annually to best reflect the current goals of the program. MDOT will continue to engage with stakeholders, including DACs, to ensure that the program is creating an equitable and reliable EV infrastructure for the state of Mississippi. MDOT recognizes the importance of implementing an effective and successful EV network. To monitor and report progress of the overall statewide EV network, MDOT may develop a data-driven program evaluation report that complies with FHWA final regulations of minimum standards and requirements for the NEVI Formula Program, as well as MDOT tools and practices to ensure accountability and program success. MDOT plans to update this report annually to address opportunities for improvement by regularly producing and utilizing project-level and program-level performance metrics. Engagement with stakeholders, including input from stakeholders representing DACs, will assist in the development of evaluation metrics. MDOT also plans to ensure that the report documenting key program performance metrics will be submitted annually to the Joint Office. Some examples of metrics that may be addressed in the report are included in Table 13-1.

Table 13-1: Program Evaluation Plan

Program Evaluation Plan Element	Performance Metrics Addressed
 Program Progress Breakdown	Number of charging stations constructed and in construction. Average time required to construct new charging stations.
 Design Evaluation	Assessing the effects of proposed designs, taking into consideration issues such as product safety, durability, strength, acceptance, and usefulness. Lessons learned, unforeseen and unintended consequences from the designs. Design Failure Mode and Effect Analysis from EV charging infrastructure manufacturers and operators.
 Cost-Effectiveness Evaluation	Quantity of funds distributed. Number of funding recipients. MDOT EV infrastructure costs versus other states' EV infrastructure costs. Outputs or outcomes compared to internal and external costs of the program.
 Process Evaluation	Performance compared to NEVI initial and future requirements. Customer, public, or stakeholder engagement, expectations, and actions taken. Contract compliance of EV infrastructure providers.
 Outcome Evaluation	An assessment of the program's progress toward its 5-year vision and goals. Root cause analysis of the differences between the outcomes and the established MDOT missions and goals.

Program Evaluation Plan Element	Performance Metrics Addressed
 Impact Evaluation	<p>Number of clean-energy jobs created, including the jobs created within DACs.</p> <p>Change in EV adoption rates within DACs compared to EV adoption rates outside of DACs.</p> <p>Improvements to EV charging infrastructure access and equitable distribution.</p> <p>Change in greenhouse gas emissions (if measurable).</p> <p>Implementation of ADA-compliant facilities.</p> <p>Assessment of EV trainings, licenses, and certifications.</p> <p>Proximity of EV stations to DACs.</p> <p>EV charging station usage within DACs compared to EV charging station usage outside of DACs.</p> <p>Evaluation of the utility cost.</p> <p>Impact of EV charging on the grid.</p> <p>Smart-charging data analysis to improve operations based on customer feedback.</p> <p>Charging station availability, idle time, uptime, average charge time, station location demand, port utilization.</p>
 Operations and Maintenance Evaluations	<p>Number of maintenance orders created for EV charging infrastructure.</p> <p>Time to address maintenance orders.</p> <p>Cybersecurity issues reported.</p> <p>Operational status report.</p> <p>EV charging infrastructure usage rates.</p> <p>Customer satisfaction ratings.</p> <p>Required data collection from the FHWA.</p>

14 Discretionary Exceptions (if any)

There is currently no anticipated need for discretionary exceptions to FHWA's requirement that charging infrastructure must be installed every 50 miles along that state's portion of the interstate highway system within 1 travel mile of the interstate. However, if an exception is necessary to create an effective and equitable EV charging network in Mississippi, MDOT plans to comply with FHWA final regulations of minimum standards and requirements for the NEVI Formula Program in documenting these exceptions in future plan updates.

Appendix A: Public Survey Results

Table A-1: What Do You Consider the Largest Benefit(s) of Driving an EV?

Benefit	Count
Reduce emissions from transport sources	713
Increase energy resilience	126
Cost savings on fuel	788
Promote technological advances in transportation	158
Other	995

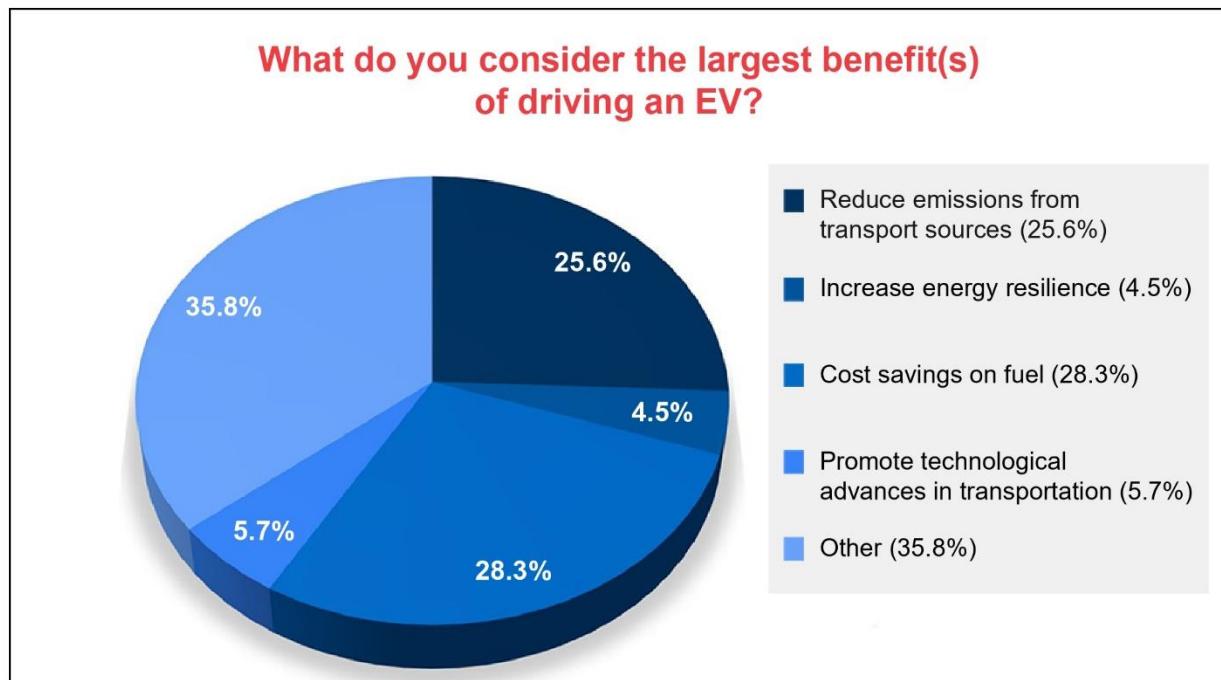


Figure A-1: What Do You Consider the Largest Benefit(s) of Driving an EV?

Table A-2: On a Typical Day, What Form(s) of Transportation Do You Mostly Use?

Transportation form	Count
I drive a hybrid electric vehicle (does not have charging station port)	93
I drive a plug-in electric vehicle (must have charging station port)	306
I drive a non-electric vehicle	2306
I ride bikes/scooters	4
I take the bus	1
I walk	10
Other	60

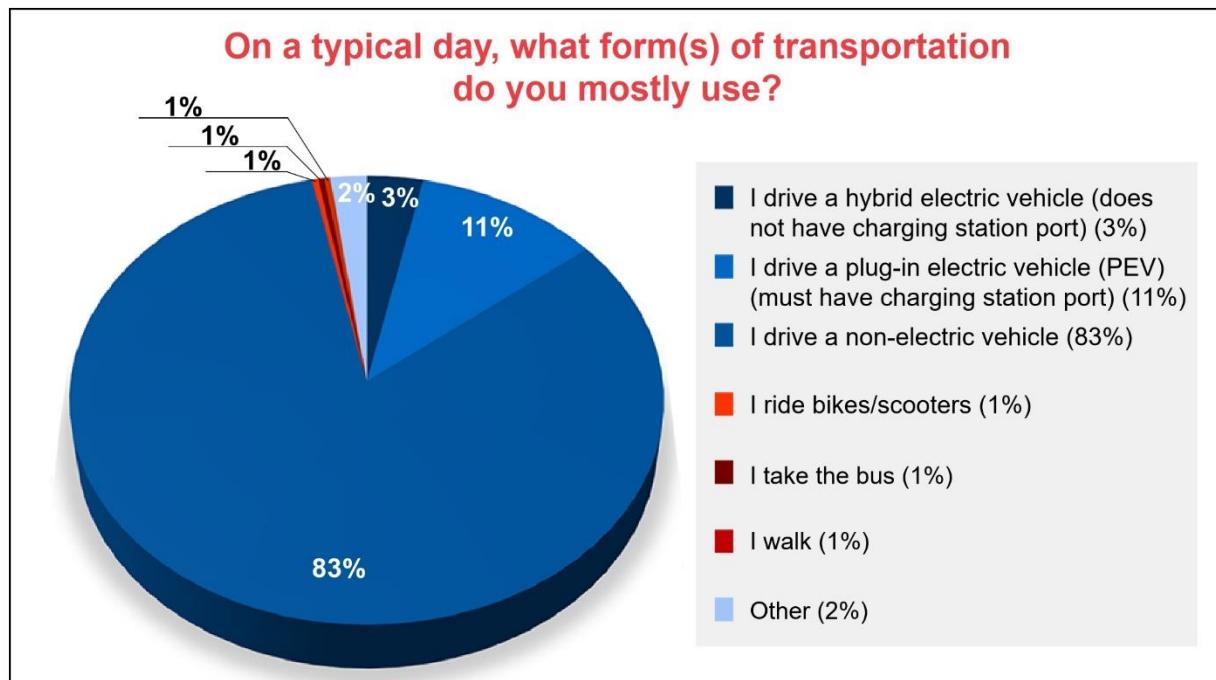


Figure A-2: On a Typical Day, What Form(s) of Transportation Do You Mostly Use?

Table A-3: What region of the state do you live in?

Area	Count
Central	1217
Gulf Coast	757
Northeast	222
Northwest	156
Southeast	280
Southwest	148

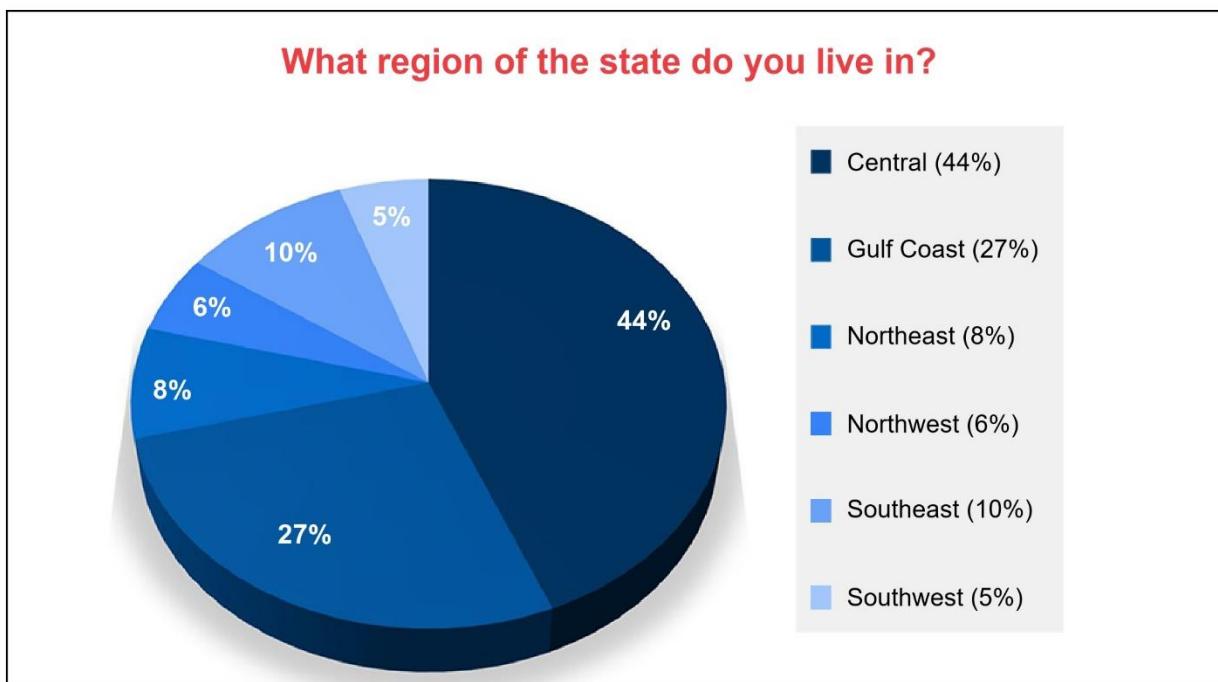


Figure A-3: What region of the state do you live in?

Table A-4: How Many Miles Per Day Do You Travel For Your Daily Round Trip Commute To And From Work, With Occasional Errands?

Miles	Count
Fewer than 5 miles	209
5-10 miles	304
11-30 miles	834
31-50 miles	696
51-75 miles	338
Over 75 miles	399

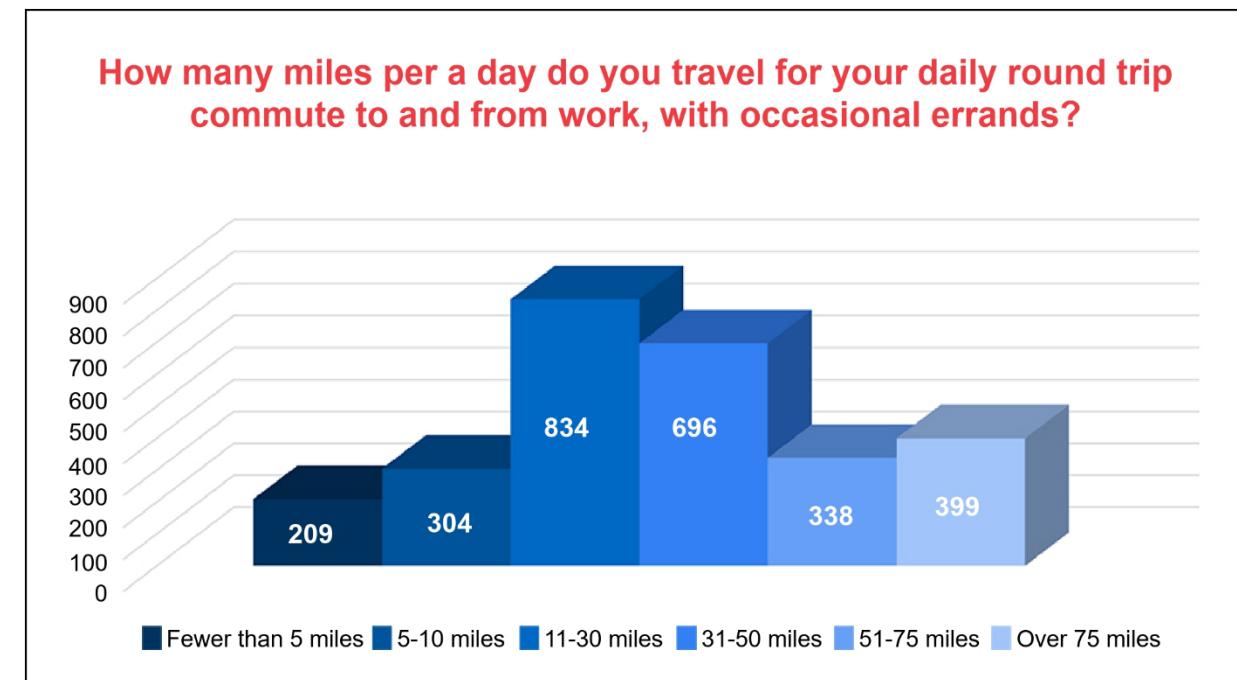


Figure A-4: How Many Miles Per A Day Do You Travel For Your Daily Round Trip Commute To And From Work, With Occasional Errands?

Table A-5: Are You Comfortable Driving an EV Long Distances?

Comfortable	Count
Neutral or Undecided	641
No	1563
Yes	576

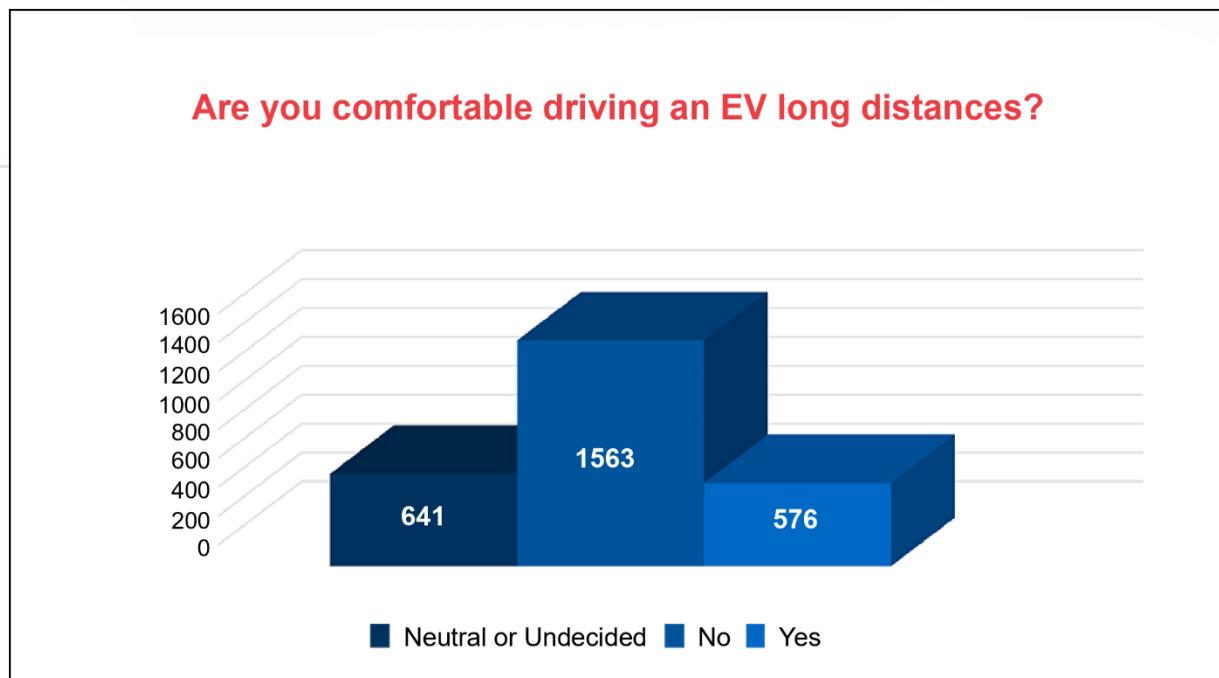


Figure A-5: Are You Comfortable Driving An EV Long Distances?

Table A-6: What Are Some Concerns You Have About Owning An EV?

Concern	Count
Accessibility to EV charging stations/Charging Infrastructure	1987
Time needed to charge EV	1801
Cost of an EV	1713
Driving range/range anxiety	1694
Travel planning	1243

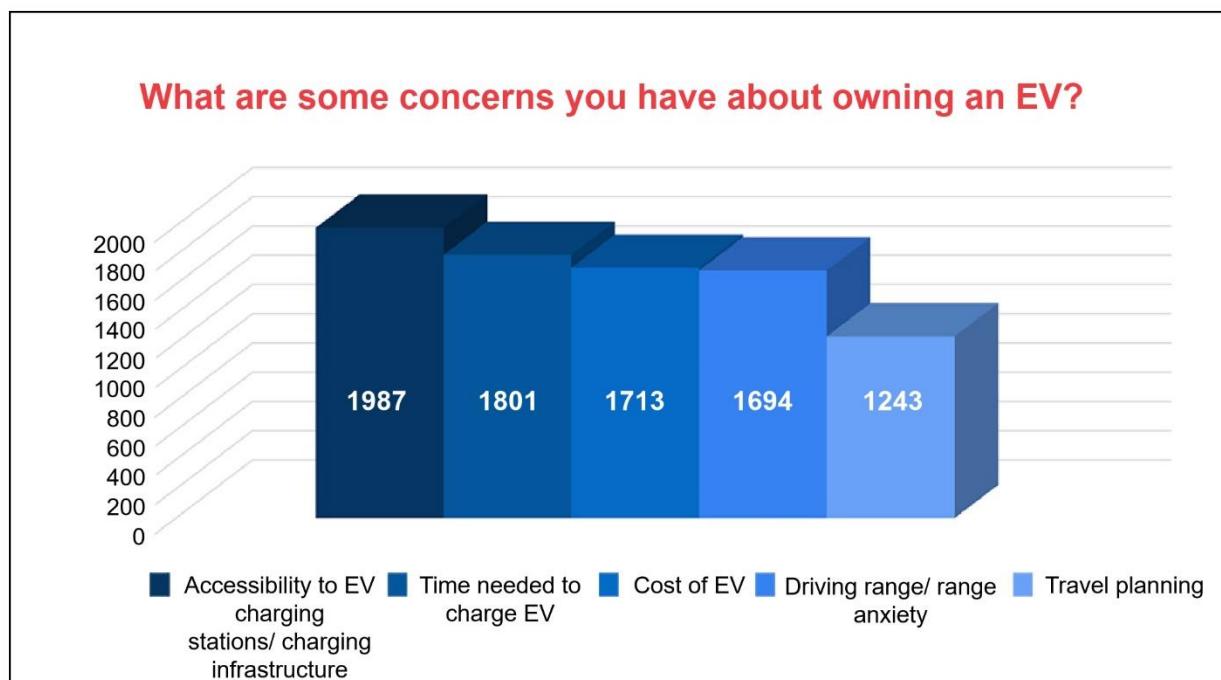
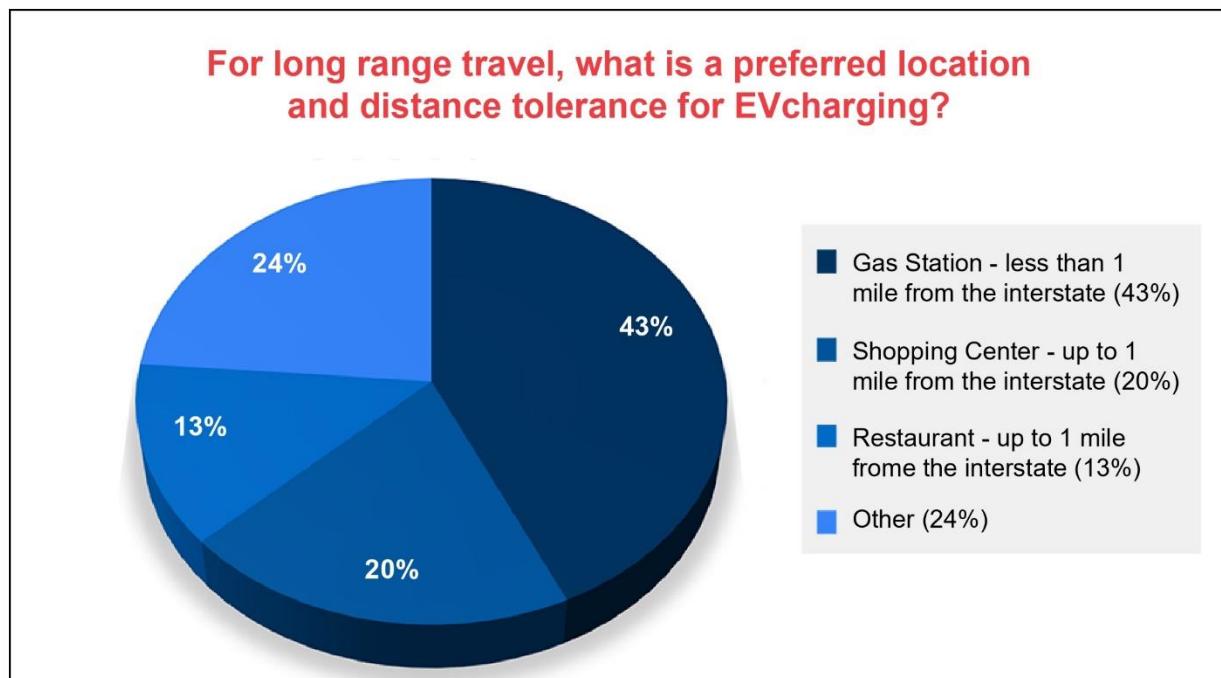
*Figure A-6: What Are Some Concerns You Have About Owning An EV?*

Table A-7: For Long Range Travel, What Is A Preferred Location And Distance Tolerance For EV Charging?

Preferred Location	Count
Gas Station – less than 1 mile from the interstate	1197
Shopping Center - up to 1 mile from the interstate	557
Restaurant – up to 1 mile from the interstate	366
Other	660

*Figure A-7: For Long Range Travel, What Is A Preferred Location And Distance Tolerance For EV Charging?*

Appendix B: Supporting Materials

Table B-1: Ranking of EV adoption rate in the Southeast region^{xxviii}

State	Registration Count (2020)*	Total Motor Vehicles (2020)	EV Adoption Rate**	Ranking
Florida	58,160	18,464,506	0.31%	1
Georgia	23,530	8,829,596	0.27%	2
Virginia	20,510	7,606,452	0.27%	3
North Carolina	16,190	8,739,280	0.19%	4
Tennessee	7,810	5,855,373	0.13%	5
South Carolina	4,390	4,561,299	0.10%	6
Kentucky	2,650	4,459,685	0.06%	7
Alabama	2,890	5,320,340	0.05%	8
Arkansas	1,330	2,913,369	0.05%	9
Louisiana	1,950	3,861,204	0.05%	10
Mississippi	780	2,058,975	0.04%	11
West Virginia	600	1,657,362	0.04%	12

*Based on the EV registration counts data provided by Alternative Fuels Data Center, the EV registration counts data only include BEVs. PHEVs are not included in the EV registration counts data.

** The EV adoption rate is calculated by dividing EV registration count by total motor vehicle count.

Table B-2: Existing DC fast charge and Level 2 stations along AFCs (source: AFDC as of May 13, 2022)

State EV Charging Location Unique ID*	Charger Level (DCFC, L2)	Route	Location	Number of EV Connectors	EV Network (if known)
170338	DC Fast	I-10	10000 Factory Shops Blvd Gulfport, MS	6	Electrify America
165460	Level 2	I-10	15610 Daniel Blvd Gulfport, MS	1	Non-Networked
45834	Level 2	I-10	9480 US Highway 49 Gulfport, MS	1	Non-Networked
87680	Level 2	I-10	I-10 D'Iberville, MS	2	ChargePoint Network
187281	DC Fast	I-10	3586 Sangani Blvd D'Iberville, MS	12	Tesla
45850	Level 2	I-20	2195 N Frontage Rd Vicksburg, MS	1	Non-Networked
45838	Level 2	I-20, I-55	905 I-20 Frontage Rd Jackson, MS	1	Non-Networked

State EV Charging Location Unique ID*	Charger Level (DCFC, L2)	Route	Location	Number of EV Connectors	EV Network (if known)
102258	DC Fast	I-20	200 Bass Pro Dr Pearl, MS	8	Tesla
45822	Level 2	I-20	108 Gray Daniels Blvd Brandon, MS	1	Non-Networked
165458	Level 2	I-20	108 Gray Daniels Blvd Brandon, MS	2	Non-Networked
102257	DC Fast	I-20, I-59	1210 Bonita Lakes Dr Meridian, MS	8	Tesla
207935	DC Fast	I-20, I-59	1217 MS-39 Meridian, MS	1	ChargePoint Network
114612	Level 2	I-20, I-59	519 Azalea Dr Meridian, MS	3	Tesla Destination
165444	Level 2	I-55	371 Goodman Rd E Southaven, MS	2	Non-Networked
	DC Fast			1	
114618	Level 2	I-55	135 Homewood Dr Southaven, MS	3	Tesla Destination
172506	Level 2	I-55	59 Church Rd W Southaven, MS	2	ChargePoint Network
73275	Level 2	I-55	59 Church Rd W Southaven, MS	2	ChargePoint Network
144213	DC Fast	I-55	4870 Venture Dr Southaven, MS	1	ChargePoint Network
165445	Level 2	I-55	2675 McIngvale Rd Hernando, MS	3	Non-Networked
114606	Level 2	I-55	2675 McIngvale Rd Hernando, MS	6	Tesla Destination
102256	DC Fast	I-55	2030 Sunset Dr Grenada, MS	8	Tesla
45832	Level 2	I-55	2105 Sunset Dr Grenada, MS	1	Non-Networked
167278	Level 2	I-55	318 Hwy 82 Winona, MS	2	Greenlots
	DC Fast			2	
122452	Level 2	I-55	413 SE Frontage Rd Winona, MS	7	Tesla Destination
114616	Level 2	I-55	121 Southtowne Ave Ridgeland, MS	6	Tesla Destination
114617	Level 2	I-55	200 Township Pl Ridgeland, MS	6	Tesla Destination

State EV Charging Location Unique ID*	Charger Level (DCFC, L2)	Route	Location	Number of EV Connectors	EV Network (if known)
195896	Level 2	I-55	455 Steed Rd Ridgeland, MS	2	ChargePoint Network
195897	Level 2	I-55	455 Steed Rd Ridgeland, MS	2	ChargePoint Network
45840	Level 2	I-55	6080 I-55 N Frontage Rd Jackson, MS	1	Non-Networked
114609	Level 2	I-55	5723 Interstate 55 Jackson, MS	6	Tesla Destination
79817	Level 2	I-55	4500 I-55 N Jackson, MS	1	Non-Networked
114610	Level 2	I-55	734 Fairview St Jackson, MS	2	Tesla Destination
119010	Level 2	I-55	802 Harding St Jackson, MS	1	ChargePoint Network
173856	Level 2	I-55	802 Harding St Jackson, MS	1	ChargePoint Network
114608	Level 2	I-55	310 Greymont St Jackson, MS	6	Tesla Destination
45824	Level 2	I-55	845 Brookway Blvd Brookhaven, MS	1	Non-Networked
153420	DC Fast	I-55	1432 Delaware Ave McComb, MS	8	Tesla
165456	Level 2	I-59	712 24th Ave Meridian, MS	1	Non-Networked
165457	Level 2	I-59	601 23rd Ave Meridian, MS	1	Non-Networked
45846	Level 2	I-59	239 Frontage Rd Picayune, MS	1	Non-Networked
165449	Level 2	I-22	400 MS-30 W New Albany, MS	1	Non-Networked
165450	Level 2	I-22	219 King St New Albany, MS	2	Non-Networked

*Defined by the State – this matches the uniqueID in the State's applicable GIS databases.

Table B-3: Existing DCFC locations that are NEVI compliant or partially NEVI compliant

State EV Charging Location Unique ID*	Route	Location	Number of DC fast chargers	EV Network	NEVI Compliant
170338	I-10	10000 Factory Shops Blvd Gulfport, MS	6	Electrify America	NEVI compliant
207935	I-20, I-59	1217 MS-39 Meridian, MS	1	ChargePoint Network	Partially NEVI compliant and would be upgraded
144213	I-55, I-69	4870 Venture Dr Southaven, MS	1	ChargePoint Network	Partially NEVI compliant and would be upgraded
167278	I-55	318 Hwy 82 Winona, MS	2	Greenlots	Partially NEVI compliant and would be upgraded

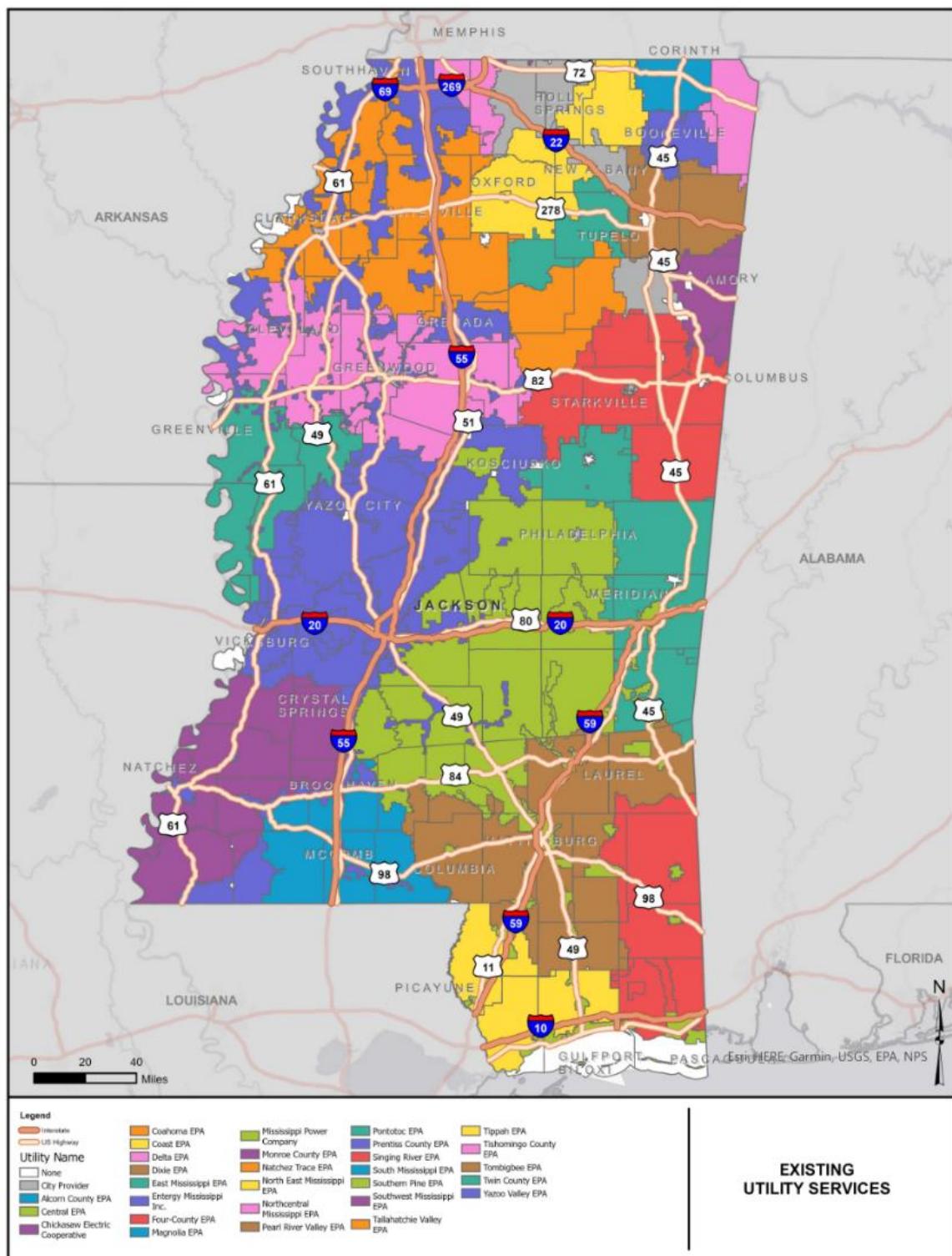


Figure B1 Existing utility services

- ⁱFHWA, Bipartisan Infrastructure LAW. URL: https://www.fhwa.dot.gov/bipartisan-infrastructure-law/nevi_formula_program.cfm (Access Date: 7/11/2022)
- ⁱⁱMDOT, Disadvantaged Business Enterprise Participation in Federally Funded Projects. URL: [DBE Goal Setting Public Notice FY2020-FY2022.pdf \(ms.gov\)](https://www.ms.gov/sites/production/files/2016-09/documents/climate-change-ms.pdf?mscid=01a14db3d16211ec9d0fab579579d2fd) (Access Date: 7/11/2022)
- ⁱⁱⁱMDEQ, Mississippi Relief Map, 2014. URL: https://www.mdec.ms.gov/wp-content/uploads/2017/05/MS_Relief_Map_2014.pdf (Access date: 4/11/2022)
- ^{iv}National Weather Service, 1981-2010 Climate Normals. URL: <https://www.weather.gov/jan/climatnormals1981-2010> (Access date: 4/11/2022)
- ^vNCICS, State Climate Summaries 2022- Mississippi. URL: <https://statesummaries.ncics.org/chapter/ms/> (Access date: 6/6/2022)
- ^{vi}NCICS, State Climate Summaries 2022- Mississippi. URL: <https://statesummaries.ncics.org/chapter/ms/> (Access date: 6/6/2022)
- ^{vii}NCICS, State Climate Summaries 2022- Mississippi. URL: <https://statesummaries.ncics.org/chapter/ms/> (Access date: 6/6/2022)
- ^{viii}NCICS, State Climate Summaries 2022- Mississippi. URL: <https://statesummaries.ncics.org/chapter/ms/> (Access date: 6/6/2022)
- ^{ix}NCICS, State Climate Summaries 2022- Mississippi. URL: <https://statesummaries.ncics.org/chapter/ms/> (Access date: 6/6/2022)
- ^xEPA, What Climate Change Means for Mississippi, 2016. URL: <https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-ms.pdf?mscid=01a14db3d16211ec9d0fab579579d2fd> (Access Date: 4/20/2022)
- ^{xi}NCICS, State Climate Summaries 2022- Mississippi. URL: <https://statesummaries.ncics.org/chapter/ms/> (Access date: 6/6/2022)
- ^{xii}MDOT, Mississippi Statewide Freight Plan Final Report, 2017. URL: <https://mdot.ms.gov/documents/Planning/Plan/MS%20Freight%20Plan/MS%20Statewide%20Freight%20Plan.pdf> (Access date: 4/11/2022)
- ^{xiii}Coast Transit Authority, CTA Unveils the First Public Transit Battery Electric Bus (BEB) in Mississippi, 2022. URL: <https://www.cta.org/cta-unveils-first-public-transit-battery-electric-bus-beb-mississippi-coast-transit-authority> (Access Date: 5/30/2022)
- ^{xiv}U.S. Census, American Community Survey- Housing Characteristics, 2020. URL: <https://data.census.gov/cedsci/table?q=g=0400000US28&v=2020&d=ACS%205-Year%20Estimates%20Data%20Profiles&tid=ACSDP5Y2020.DP04> (Access date: 5/13/2022)
- ^{xv}MDOT, Mississippi Statewide Freight Plan Final Report, 2017. URL: <https://mdot.ms.gov/documents/Planning/Plan/MS%20Freight%20Plan/MS%20Statewide%20Freight%20Plan.pdf> (Access date: 4/11/2022)
- ^{xvi}MDOT, Mississippi's Unified Long-Range Transportation Infrastructure Plan, 2020. URL: [2045 MULTIPLAN.pdf \(ms.gov\)](https://www.ms.gov/sites/production/files/2016-09/documents/2045_MULTIPLAN.pdf) (Access Date: 5/30/2022)
- ^{xvii}Electric Vehicle Sales Forecast and the Charging Infrastructure Required Through 2030, Edison Electric Institute/Institute for Electric Innovation, November 2018. URL: <http://www.ehcar.net/library/rapport/rapport233.pdf> (Access date: 6/7/2022)
- ^{xviii}Electric Vehicle Sales Forecast and the Charging Infrastructure Required Through 2030, Edison Electric Institute/Institute for Electric Innovation, November 2018. URL: <http://www.ehcar.net/library/rapport/rapport233.pdf> (Access date: 6/7/2022)
- ^{xix}U.S. Energy Information Administration, Annual Energy Outlook 2022 (AEO 2022), March 2022. URL: https://www.eia.gov/outlooks/aoe/pdf/AEO2022_Narrative.pdf (Access date: 6/3/2022)
- ^{xx}Mississippi Power, Electric Vehicle FAQ. URL: <https://www.mississippipower.com/residential/products-and-services/electric-vehicles/electric-vehicle-faq.html> (Access Date: 6/6/2022)
- ^{xxi}USDOT with FHWA, INFORMATION: Request for Nominations – Alternative Fuel Corridors (2022/Round6) Memorandum, February 2022. URL: https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/nominations/2022_request_for_nominations_r6.pdf (Access date: 7/20/2022)
- ^{xxii}USDOT with FHWA, INFORMATION: Request for Nominations – Alternative Fuel Corridors (2022/Round6) Memorandum, February 2022. URL: https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/nominations/2022_request_for_nominations_r6.pdf (Access date: 7/20/2022)
- ^{xxiii}U.S.C. Title 42 - The Public Health and Welfare. URL: <https://www.govinfo.gov/content/pkg/USCODE-2008-title42/html/USCODE-2008-title42-chap21-subchapV.htm> (Access Date: 6/1/2022)
- ^{xxiv}U.S. Department of Labor, Section 504, Rehabilitation Act of 1973. URL: <https://www.dol.gov/agencies/oasam/centers-offices/civil-rights-center/statutes/section-504-rehabilitation-act-of-1973> (Access Date: 6/1/2022)
- ^{xxv}U.S. Access Board, Guide to the ADA Accessibility Standards, Chapter 5: Parking Spaces. URL: <https://www.access-board.gov/ada/guides/> (Access Date: 6/15/2022)
- ^{xxvi}MDOT, Office of Civil Rights. [Civil Rights \(ms.gov\)](#) (Access Date: 7/11/2022)
- ^{xxvii}MDOT, Disadvantaged Business Enterprise Participation in Federally Funded Projects. URL: [DBE Goal Setting Public Notice FY2020-FY2022.pdf \(ms.gov\)](https://www.ms.gov/sites/production/files/2016-09/documents/climate-change-ms.pdf?mscid=01a14db3d16211ec9d0fab579579d2fd) (Access Date: 7/11/2022)
- ^{xxviii}U.S. Department of Energy, Electric Vehicle Registrations by State, 2022. URL: <https://afdc.energy.gov/data/widgets/10962> (Access date: 5/15/2022)