MARYLAND DEPARTMENT OF TRANSPORTATION

MARYLAND STATE

National Electric Vehicle Infrastructure (NEVI)

Formula Funding Deployment Plan

UPDATE **2024**

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MESSAGE FROM **MARYLAND TRANSPORTATION SECRETARY**

On behalf of the Maryland Department of Transportation (MDOT), and in close collaboration with the Maryland Energy Administration (MEA), I am pleased to submit Maryland's 2024 State Electric Vehicle (EV) Infrastructure Deployment Plan Update as required under the National Electric Vehicle Infrastructure (NEVI) Formula Program.

Over the past year, Maryland made significant strides in electrifying the state's transportation sector to meet the aggressive greenhouse gas (GHG) emissions reduction goals under the Climate Solutions Now Act (CSNA) and position the state to achieve the State Plan's priority to be a leader in clean energy and the greenest state in the country. In April, Maryland achieved a milestone of more than 100,000 registered EVs, and the number continues to grow as Maryland progresses towards its target of 1.1 million registered EVs by 2030. To support this growth, Maryland will continue investing in its public charging network along designated EV alternative fuel corridors (AFCs) and in communities to increase convenience, reliability, and range confidence.

I would like to express my sincere gratitude to the Maryland Zero Emission Electric Vehicle Infrastructure Council (ZEEVIC), our partners, stakeholders, and communities that have remained dedicated to accelerating the adoption of EVs, and the installation of corridor and community charging infrastructure. I encourage all Maryland residents, stakeholders, public-private partners, and the EV industry to use this 2024 NEVI Plan Update, and its associated website and tools, as an opportunity to remain engaged and provide feedback.

I look forward to working together towards a zero-emission, electric future for transportation in our state.

- Paul J. Wiedefeld
Maryland Department of
Transportation Secretary

INTRODUCTION

Under the National Electric Vehicle Infrastructure (NEVI) Program, states were required to submit an EV Infrastructure Deployment Plan by August 1, 2022. The Plans, which must be updated annually, outline each state's approach for deploying charging infrastructure and achieving the goals of the NEVI Program. The Maryland Department of Transportation (MDOT) submitted the initial Maryland State Plan for NEVI Formula Funding to the Joint Office of Energy and Transportation (Joint Office) on July 15, 2022. The Maryland NEVI Plan was approved by the Joint Office on September 14, 2022, unlocking more than $20 million in federal funds for federal fiscal years (FFYs) 2022 and 2023. Subsequently, the 2023 NEVI Plan Update, submitted in August 2023 and approved in September 2023, unlocked an additional $13.3 million in federal funds for FFY 2024.

UPDATES FROM PRIOR PLAN

This document, known as the 2024 NEVI Plan Update, describes Maryland's progress with the deployment of charging infrastructure. Updated activities from the prior year can be found in the following plan sections:

- State Agency Coordination
- Public Engagement
- Plan Vision and Goals
- Contracting
- Civil Rights
- Existing and Future Conditions Analysis
- EV Charging Infrastructure Deployment
- Implementation
- Equity Considerations
- Labor and Workforce Considerations
- Physical Security & Cybersecurity
- Program Evaluation
- Discretionary Exceptions

STATE AGENCY COORDINATION

MDOT continues to coordinate with the state's energy office, the Maryland Energy Administration (MEA), and other key state agencies through the following efforts:

MARYLAND TRANSPORTATION DECARBONIZATION

MDOT participates in monthly coordination meetings with MEA and Maryland Department of Environment (MDE) to discuss decarbonizing Maryland's transportation sector.

PUBLIC SERVICE COMMISSION EV WORKING GROUPS, PROCEEDINGS, AND BRIEFINGS

MDOT continues to participate in the Public Service Commission (PSC) Public Conference (PC) 44 and its EV Working Group. The EV Working Group, consisting of members from the PSC, MDOT, MDE, MEA, Maryland utilities, and the EV industry, developed proposed EV reliability standards for charging stations installed by Maryland utilities that comply with the reliability and reporting standards defined in Maryland House Bill 0834, while still aligning closely with the NEVI Standards. These proposed EV reliability standards, required under Commission Order No. 90036, were filed with the PSC on July 28, 2023. Additionally, MDOT is participating in the Public Service Commission EVSE Working Group established by Maryland Senate Bill 0951 in 2024 to recommend regulations for reliability and reporting standards for EV charging stations in the state, taking into consideration existing standards through the EV Working Group and NEVI Program. MDOT is also increasing its intervention in PSC proceedings and briefings to Commissioners and PSC staff.

ZERO EMISSION ELECTRIC VEHICLE INFRASTRUCTURE COUNCIL (ZEEVIC)

MDOT continues to share information and updates on NEVI, as well as solicit feedback from the ZEEVIC, which includes representatives from state and local government agencies, industry representatives, as well as public and community representatives. Currently, ZEEVIC has two active working groups, the Legislative Working Group and Interagency Working Group, that serve as a separate forum outside of the main ZEEVIC meetings for discussion among ZEEVIC members. While the Legislative Working Group is open to all members of ZEEVIC, the Interagency Working Group is only for the state agency members of ZEEVIC to discuss synergies and to help develop a Statewide EV strategy, known as the Zero Emission Vehicle Infrastructure Plan (ZEVIP) as required by the recent Climate Executive Order.

EV WORKFORCE WORKING GROUP

MDOT continues to meet with the Maryland Department of Labor (MD DOL), MEA, MDE, the Department of General Services (DGS), as well as internally with State Highway Administration (SHA) and Maryland Transit Administration (MTA) to discuss labor and workforce considerations. This includes existing and future training and apprenticeship programs that will grow and diversify the workforce, while ensuring technicians are highly trained.

PUBLIC ENGAGEMENT

Public engagement is critical in the development of Maryland's NEVI Plan and Program for the build out of AFCs and future investments in communities. MDOT organizes proactive stakeholder engagement and public participation processes to ensure input from the public is incorporated throughout the planning process. Since the start of the NEVI Plan and Program in 2022, MDOT has experienced greater survey response rates and webinar attendance each year and plans to continue expanding outreach efforts moving forward.

WEBSITE

The Maryland Zero Emission Vehicle Infrastructure Plan (ZEVIP) website continues to serve as the primary resource for the public. The website provides an overview of NEVI, milestones, news, updates, resources, and information on completed and upcoming meetings. The public can also provide comments on the deployment of EV infrastructure in Maryland and join the mailing list to receive updates to stay engaged with the planning process.

ELECTRIC VEHICLE CHARGER SITING TOOL

MDOT developed and launched the Electric Vehicle Charger Siting Tool in June 2023. The interactive tool, which is part of MDOT's larger Zero Emission Vehicle (ZEV) Maps and Dashboard, consolidates data from a variety of state and federal agencies and allows for potential applicants to the NEVI Formula Funding Program, Charging and Fueling Infrastructure (CFI) Discretionary Grant Program, or other state/local grant programs to determine whether a site may be a good candidate for submission. It can be utilized for the siting of fueling stations for all five alternative fuels, including hydrogen. A video tutorial on how to use the tool can be found here.

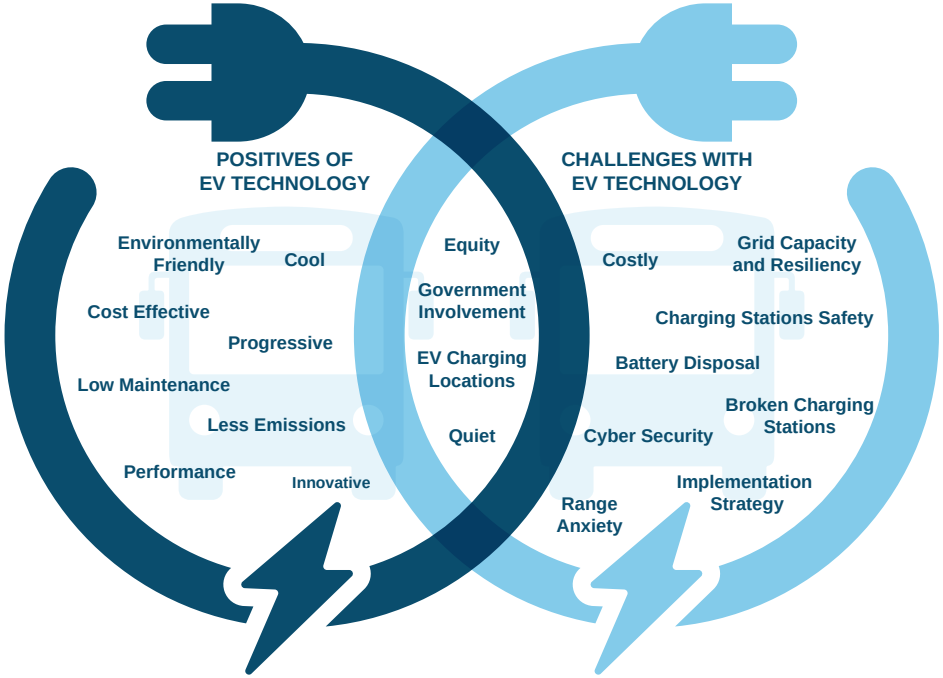
CFI GRANT COORDINATION

MDOT continues to coordinate with the Maryland Clean Energy Center (MCEC) to implement projects under the CFI Corridor Program. MCEC was invited by the Federal Highway Administration (FHWA) to resubmit its previous Round 1 application under the CFI Corridor Round 2, which was subsequently awarded on August 27, 2024. The 29 sites will complement the NEVI Round 1 conditional awards, helping to build out corridors and create redundancy in the charging network.

COMMUNITY ENGAGEMENT OUTCOMES REPORT

Maryland Electric Vehicle and Infrastructure Planning Survey

The Maryland EV and Infrastructure Planning Survey was distributed from April 17, 2024, to May 15, 2024, and received a total of 1,418 responses. The survey was shared with all NEVI mailing list subscribers. The current mailing list boasts 1,092 contacts. Contacts include representatives from auto manufacturing and dealerships; EV charging companies; fleet and retail companies; universities; cybersecurity firms; gas stations; hotel chains; nonprofits; electric utilities; other local and national businesses; local, state, and federal governments; and members of the public.



The purpose of the survey was to understand demographics of existing email subscribers, familiarity and education level related to the NEVI Plan and Program, travel behaviors and patterns, perspectives and attitudes about EVs, and to identify recommendations to improve the NEVI Plan and Program. The open-response questions asked for input related to the outreach approach, goals, additional corridors, equity, and the Justice40 Initiative.

MDOT found that survey respondents were not familiar with the resources offered through the NEVI Plan and Program and expressed challenges about EVs. Meanwhile, survey respondents who own an EV have a better understanding of available resources and shared their experiences with owning an EV in Maryland. Respondents also expressed challenges related to Maryland's energy grid capacity and resiliency, understanding electricity generation and plan for lithium battery disposal, high costs of EVs and charging station installations, and the safety near and at existing charging stations.

To enhance education about the NEVI Plan and Program, survey respondents recommended promoting the NEVI Program on local news and radio channels, engaging with the public on social media platforms, and distributing mailers, flyers, or brochures through mail or at locations such as car dealerships and community events. MDOT plans to continue survey distribution, facilitate public webinars, and prepare outreach and communication materials to enhance awareness and understanding of the NEVI Program. MDOT posted a summary of survey results and takeaways on the ZEVIP website.

Request for Proposals (RFP) Survey

To collect feedback on Maryland's NEVI Program RFP process, MDOT released a short survey to understand the barriers for interested applicants, which elements of the RFP were successful, and aspects to improve. The survey, which opened on June 4, 2024, and closed on July 8, 2024, received 35 responses that will inform the design and implementation of future procurement rounds.

PRESENTATION & BRIEFINGS

MDOT continues to participate in forums including ZEEVIC, PSC proceedings, Maryland Clean Cities and Communities events, and the Cecil County Chamber of Commerce to provide updates on the NEVI Planning process. These forums also provided MDOT with the opportunity to engage with and solicit feedback from key stakeholders including utilities, state agencies, local governments, original equipment manufacturers (OEMs), EV advocacy and environmental organizations, local planning partners, and EV supply equipment (EVSE) manufacturers.

COMMUNITY WEBINARS

MDOT hosted three informational virtual webinars to outline the NEVI Plan and Program, share resources for interested or current EV owners, and gather public feedback. MDOT presented the same information at each webinar and utilized meeting and polling functions to increase participation and engagement. Below are the dates and times of each webinar and the number of participants.

- Tuesday, June 11, 2024, from 11:00 a.m. to 12:30 p.m. (~180 participants)
- Tuesday, June 18, 2024, from 11:00 a.m. to 12:30 p.m. (~90 participants)
- Thursday, June 20, 2024, from 6:00 p.m. to 7:30 p.m. (~20 participants)

Participants were highly engaged throughout the webinar, with a total of 254 participants (87%) answering 18 polling questions. MDOT received a total of 56 questions during all three webinars. Participants submitted questions verbally and through the Question & Answer (Q&A) Virtual Chat. Full responses to each question are documented in Appendix A. Based on the polling results, MDOT learned that individuals who worked for state agencies were the primary audience of the webinars, and most participants heard about the webinar through the NEVI mailing list. Webinar participants liked that EVs are environmentally friendly, quiet, and have financial incentives. They did not like the high initial costs of purchasing an EV, the unreliability of existing charging stations, and lack of charging stations. Webinar participants demonstrated interested in engaging with MDOT through invitations to podcasts and recommended collaborating with car dealerships and academic researchers. Overall, the three webinars proved to be successful with a high level of participation and learning opportunities for improving engagement and communication efforts.

OUTREACH BY THE **NUMBERS**

3	Community Webinars
35	RFP Survey Responses
+290	Webinar Participants
1,092	Community Contacts
1,418	Survey Responses

Get Plugged into the Future of Electric Vehicles!

The Maryland Department of Transportation (MDOT) invites you to join one of our virtual informational webinars to learn about Maryland's National Electric Vehicle Infrastructure (NEVI) Plan and NEVI Program, the adoption of electric vehicles (EVs) across Maryland, and the installation of EV Charging Stations.

The same information will be shared at all three webinars, so we invite you to register for **one** of the webinars below:

Tuesday, June 11, 2024 — 11:00 a.m. to 12:30 p.m.
Tuesday, June 18, 2024 — 11:00 a.m. to 12:30 p.m.
Thursday, June 20, 2024 — 6:00 p.m. to 7:30 p.m.

MDOT will share information on the NEVI Plan and Program, share resources for interested and current EV owners, and gather your feedback.

We look forward to seeing you there!

UTILITY ENGAGEMENT

MDOT met with FirstEnergy, BGE, and SMECO biweekly to discuss the utilities' anticipated role within the NEVI Program Round 1 RFP process, the level of detail/effort they can provide for potential sites, supply chain and interconnection challenges, and their process for interacting with potential applicants. Based on feedback from utility partners, opportunities for improving utility coordination in a Round 2 solicitation include earlier utility engagement for NEVI applicants and more streamlined online processes for applicants requesting utility estimates.

FUTURE OF OUTREACH

To expand upon previous efforts, MDOT has begun developing a robust outreach plan for the purpose of:

- Educating the public about EV adoption; infrastructure deployment to expand Maryland's public charging network; MDOT's climate goals and requirements; Maryland's NEVI Plan and Program, including implementation progress; and MDOT's forthcoming comprehensive statewide ZEVIP
- Engaging and communicating with the public and stakeholders
- Gathering feedback from the public and stakeholders

Future outreach strategies will enhance Maryland's existing efforts and include webinars, surveys, listening sessions, and focus groups, as well as Ride & Drive events, networking opportunities, and periods for public comments. MDOT will emphasize outreach to disadvantaged and rural communities, multi-family communities and those with no dedicated parking, in addition to small businesses. MDOT will also focus on increasing awareness through interviews and social media to direct community members to its websites, including ZEVIP Website and MarylandEV, where they can learn more about EVs, charging infrastructure, and NEVI. Additionally, MDOT has indicated a preference for the inclusion of site-specific outreach through the RFP process and anticipates that multiple award recipients will conduct this outreach within communities adjacent to their site installations.

PLAN VISION AND GOALS

The NEVI Plan Vision Statement has been updated to reflect Maryland's strengthened commitment to decarbonizing its transportation sector through a robust charging network. In alignment with the state's transportation priorities, a goal to enhance user experience of the charging network has been added.

VISION STATEMENT

To continue leading the nation in vehicle electrification by strategically deploying an interconnected, convenient, accessible, reliable, safe, and equitable EV charging network for all Marylanders.

GOALS

BUILD OUT ALTERNATIVE FUEL CORRIDORS:

- Certify existing (23) EV corridors as "fully built-out" on or before the end of calendar year 2026 (December 2026).

INVEST IN EQUITABLE CHARGING INFRASTRUCTURE:

- Ensure at least one port per station is Americans with Disabilities Act (ADA) accessible.
- Meet demands in various locations (e.g., urban, suburban, rural, employment centers, multi-unit dwellings, etc.)
- Per the Justice40 initiative, ensure 40 percent of the benefits of the NEVI program are realized in disadvantaged and rural communities.
- Identify and invest in vulnerable communities.

BUILD AND STRENGTHEN PUBLIC-PRIVATE PARTNERSHIPS:

- Facilitate contracting and implementation.

INCREASE NETWORK RESILIENCYAND SUSTAINABILITY:

- Proactively address anticipated grid impacts, times of emergency, and weather for continued operations/maintenance.
- Integrate renewable energy and battery storage systems.

ENHANCE USER EXPERIENCE:

- Improve the user experience of Maryland's charging network through infrastructure reliability, site safety, and amenities.

COLLABORATE AND COORDINATE:

- Constructively work with state, local, regional, non-governmental organizations (NGOs), and private organizations.

BENEFIT LOCAL WORKFORCE:

- Provide training and apprenticeships that prioritize diversity, deliver valuable job experience, and bolster the economy for Maryland's communities.

CONTRACTING

Maryland is utilizing a Competitive Sealed Proposal method to award design-build contracts to selected Offerors (applicants). Work under the design-build contracts includes the design and construction of the EV charging site to be fully operational and subsequently, five years of operations and maintenance for each EV charging site.

STATUS OF CONTRACTING PROCESS

MDOT released its first solicitation for NEVI proposals through an RFP on January 16, 2024. The RFP closed on April 10, 2024, and conditional awards were announced on July 10, 2024. MDOT anticipates opening a second round focusing on building out the remaining AFCs by the end of 2024. Additional rounds may be necessary to fully build out Maryland's 23 AFCs.

Round of Contracting	Proposals Received	Contract Type	Date Solicitation Released	Date Solicitation Closed	Date of Award
Round 1	66	Design-Build	January 16, 2024	April 10, 2024	July 10, 2024
Round 2	-	Design-Build	Anticipated Q4 2024	Anticipated Q1 2025	Anticipated Q2 2025

AWARDED CONTRACTS

Under the NEVI Program Round 1, MDOT issued 23 conditional awards and is completing the National Environmental Policy Act (NEPA) review for each site while concurrently working through the contract award process with award recipients.

Round of Contracting	Award Recipient	Contract Type	Location of Charging Station	Award Amount	Estimated Opening
Round 1	Pilot Travel Centers	Design-Build	3000 Chestnut Ridge Rd, Grantsville, MD 21536	$475,000.00	Winter 2025
Round 1	Francis Energy	Design-Build	12800 State Route 144, West Friendship, MD 21794	$569,405.88	Fall 2025
Round 1	Pilot Travel Centers	Design-Build	16921 Halfway Blvd, Hagerstown, MD 21740	$475,000.00	Winter 2025
Round 1	Francis Energy	Design-Build	1920 Seminary Rd, Silver Spring, MD 20910	$768,913.58	Fall 2025
Round 1	Pilot Travel Centers	Design-Build	221 Belle Hill Rd, Elkton, MD 21921	$450,000.00	Winter 2025
Round 1	Tesla	Design-Build	100 W Padonia Rd, Lutherville Timonium, MD 21093	$302,931.00	Winter 2025
Round 1	Tesla	Design-Build	7800 Parke West Dr, Glen Burnie, MD, 21061	$307,850.00	Winter 2025
Round 1	Wawa	Design-Build	Rt. 11 and Maugans Ave, Hagerstown, MD 21742	$723,659.13	Summer 2025
Round 1	Francis Energy	Design-Build	40 Antrim Blvd, Taneytown, MD 21787	$567,393.01	Fall 2025
Round 1	Francis Energy	Design-Build	1023 Baltimore Blvd, Westminster, MD 21157	$680,352.17	Fall 2025
Round 1	Francis Energy	Design-Build	13504 New Hampshire Ave, Silver Spring, MD 20904	$712,868.87	Fall 2025
Round 1	Koulomb	Design-Build	825 Dulaney Valley Rd, Towson, MD 21204	$175,000.00	Spring 2025
Round 1	Gridwealth EV	Design-Build	46400 Lexington Village Way, Lexington Park, MD 20653	$467,460.00	Winter 2025
Round 1	Tesla	Design-Build	2850 Jessup Rd, Jessup, MD 20794	$322,250.00	Spring 2025
Round 1	Tesla	Design-Build	6101 Allentown Rd, Camp Springs, MD, 20746	$300,650.00	Winter 2025
Round 1	ElectraStop	Design-Build	1407 Sulphur Spring Rd, Halethorpe, MD 21227	$501,196.20	Spring 2025
Round 1	Tesla	Design-Build	2300 N Salisbury Blvd, Salisbury, MD 21801	$293,450.00	Summer 2025
Round 1	Gridwealth EV	Design-Build	12741 Ocean Gateway, Ocean City, MD 21842	$467,460.00	Summer 2025
Round 1	Tesla	Design-Build	3470 Fort Meade Rd, Laurel, MD 20724	$307,850.00	Summer 2025
Round 1	Wawa	Design-Build	4210 Crain Hwy, White Plains, MD 20695	$789,004.98	Summer 2025
Round 1	Wawa	Design-Build	601 Hoagie Dr, Bel Air, MD 21014	$776,294.33	Summer 2025
Round 1	Wawa	Design-Build	9809 Belair Rd, Perry Hall, MD 21128	$937,138.16	Summer 2025
Round 1	Wawa	Design-Build	1001 W Patrick St, Frederick, MD 21702	$765,642.98	Summer 2025

SCORING METHODOLOGIES UTILIZED

Proposal submissions consisted of three separate volumes: a Statement of Qualifications for each Offeror, a Technical Proposal for each Project Site proposed, and a Financial Proposal for each Project Site proposed. Statements of Qualifications were rated as Acceptable or Unacceptable. Technical Proposals and Financial Proposals for all Offerors with Statements of Qualifications rated Acceptable were then separately reviewed for merit.

Technical Proposals were rated using adjectival quality ratings: Exceptional, Good, Acceptable, or Unacceptable. Each evaluation factor was also weighted as Critical, Significant, or Important. The technical evaluation factors and weightings were:

- Project Site Location, Details, and Layout – Critical
- Project Approach and Site Readiness – Critical
- Operations & Maintenance – Critical
- Sustainability, Equity, Resilience, Future Proofing, and Economic Development – Significant
- Safety and Training – Important

Once the Technical Proposal ratings were complete, the Financial Proposals were reviewed for compliance with the RFP and price reasonableness. A tradeoff analysis was then utilized to determine the "Best Value" Proposals to Maryland. When determining which Proposal was the "Best Value," the overall technical evaluation factors had a higher relative importance than the Financial Proposal, and the strengths, weaknesses, and deficiencies for each Proposal were considered. After the trade-off analysis was complete for all Target Areas where Proposals were received, 23 Project Sites were recommended for award.

PLAN FOR COMPLIANCE WITH FEDERAL REQUIREMENTS

By submitting a Proposal in response to Maryland's NEVI RFP, the Offeror, if selected for award, agrees that it will comply with all Federal, State, and local laws applicable to its activities and obligations under the Contract. This explicitly includes federal requirements such as Davis-Bacon prevailing wages, Buy America, NEPA, Form FHWA-1273, 23 Code of Federal Regulations (CFR) Part 680 (National Electric Vehicle Infrastructure Standards and Requirements), and 2 CFR Part 200 (Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards).

MDOT will provide oversight to ensure all Contract requirements are met. Payment provisions included in the Contract require successful completion of the work at defined milestones before payment. These milestones include completion of a compliant and permitted design, completion of construction and fully operational EV charging station, and annual operations and maintenance payments for performance and reporting. The payments for operations and maintenance may be adjusted downward if uptime requirements are not met. MDOT may also require the Contractor to develop an action plan to bring the equipment into working condition.

CIVIL RIGHTS

Maryland will continue to comply with all regulations according to the Title VI of the Civil Rights Act and accompanying US Department of Transportation (USDOT) regulations, the ADA, and Section 504 of the Rehabilitation Act by taking the following actions:

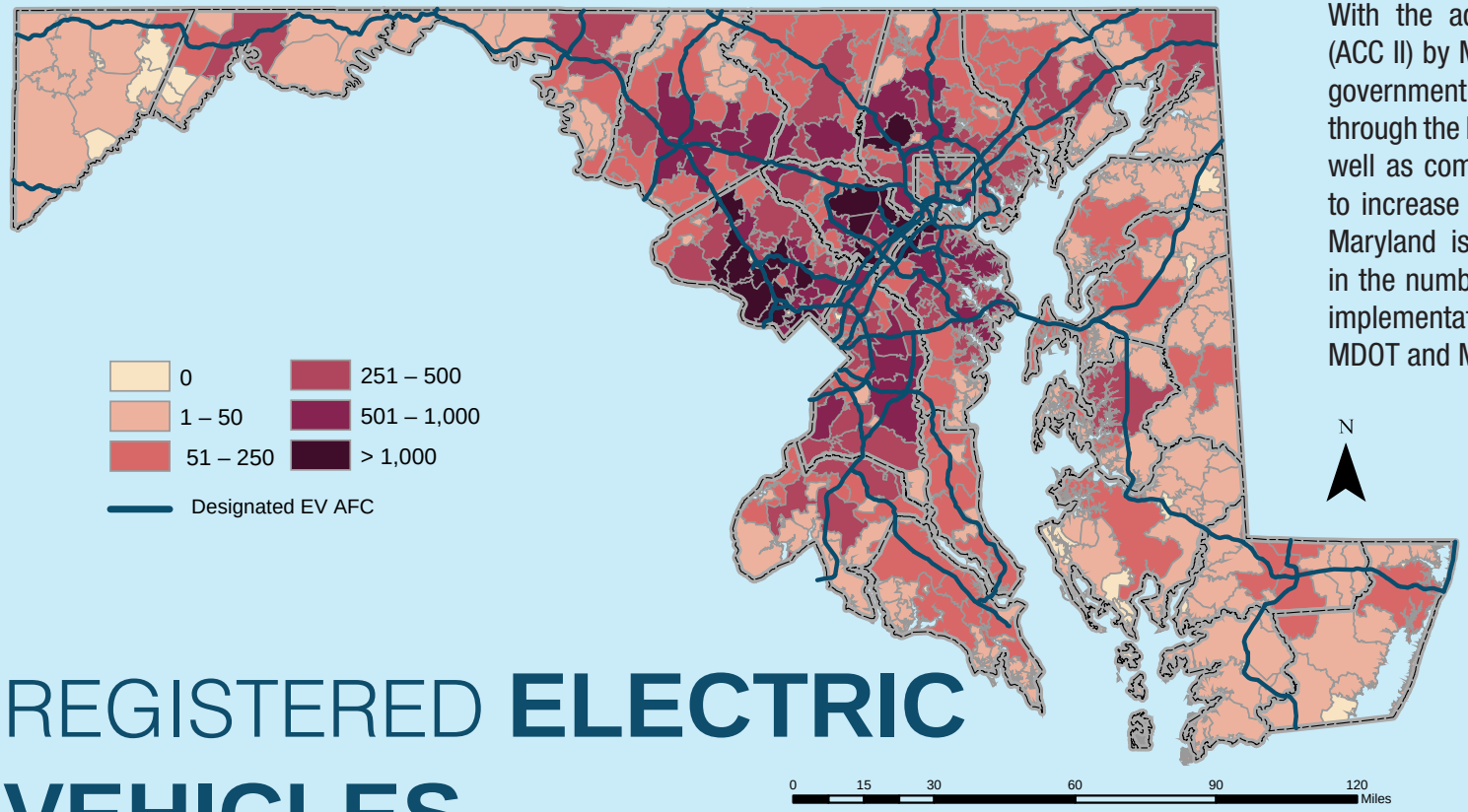
- Engage Maryland Works to be a network provider to promote workforce development among individuals with disabilities.
- Promote job opportunities with MD DOL, Maryland Department of Education Division of Rehabilitation Services, American Association of People with Disabilities (AAPD) Career Center, and the Employer Assistance & Resource Network on Disability Inclusion (EARN) so that job seekers are aware of vacancies for which they can potentially apply.
- Connect with counties that provide employment resources for the disabled, such as Baltimore and Montgomery Counties.
- Carry out the Department of Justice's strategy regarding education and training on environmental justice to staff and participate in department-wide briefings.
- Ensure that no violations are cited due to race, color, or national origin by conducting frequent progress check-ins.
- Provide technical assistance to aid all users in the deployment plan.

EXISTING & FUTURE CONDITIONS ANALYSIS

Understanding Maryland's existing and future conditions is important to the successful deployment of EV charging infrastructure. These conditions serve as the basis for identifying opportunities, challenges, and risks. While Maryland continues to see growth in the number of EVs registered and charging stations built, many risks and challenges as well as existing conditions remain the same.

EV REGISTRATION

Maryland continues to experience significant growth in the number of EVs registered, in part due to lower vehicle costs, incentives, and the increasing availability of models and charging infrastructure. As of July 31, 2024, there were 112,986 EVs registered in the state, an increase of 44% or 34,704 from the previous year. EVs make up nearly 2% of all vehicles registered, and 22 ZIP codes now have more than 1,000 EVs registered.



REGISTERED **ELECTRIC VEHICLES**

With the adoption of Advanced Clean Cars II (ACC II) by Maryland, investments by the federal government in alternative fueling infrastructure through the Bipartisan Infrastructure Law (BIL), as well as commitments by vehicle manufacturers to increase the availability of EVs for purchase, Maryland is projected to see significant gains in the number of EVs registered by 2031. As an implementation activity pursuant to the CSNA, MDOT and MDE have projected that Maryland will achieve between 1.3 million and 1.5 million EVs registered in Maryland by 2031. Scaling up adoption of EVs to reach those numbers, as well as the installation of infrastructure to charge them, is a critical component of Maryland's plan to reduce GHG emissions from the transportation sector and achieve ambitious GHG emission reduction goals.

AFC DESIGNATIONS

There have been no changes to the number of designated EV AFCs. Maryland currently has 23 corridors designated as EV AFCs. A map and complete list of the EV AFCs along with their designation status can be found in Appendix B.

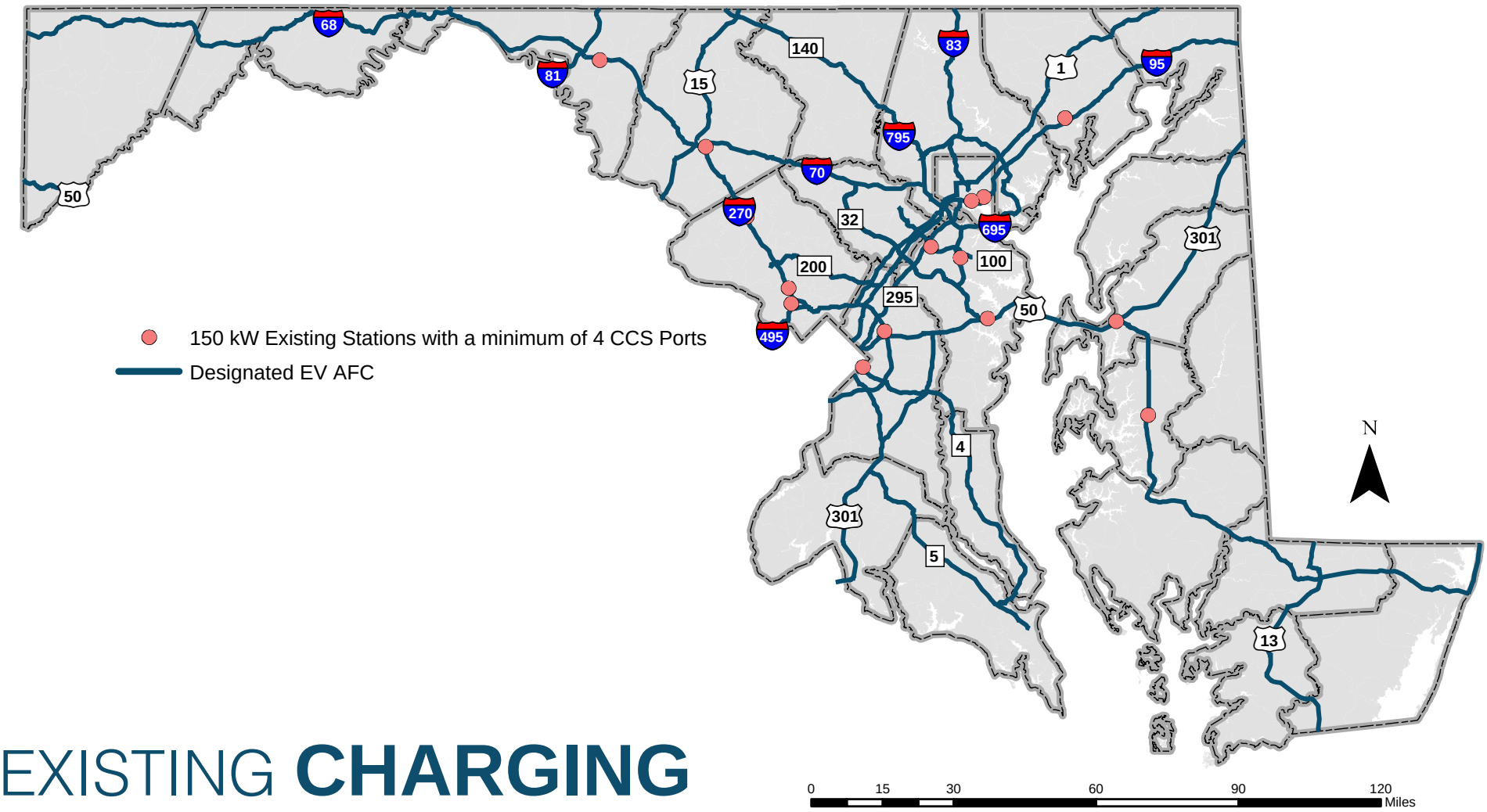
EXISTING CHARGING STATIONS

Nearly 1,700 charging stations with over 4,700 charging ports are distributed across these 23 corridors, with the highest concentration of EV charging stations along the I-95 and I-270 corridors in the Baltimore and Washington Metro regions.

As of July 1, 2024, 24 stations currently meet the power requirements of at least four (4) CCS ports delivering at minimum 150 kilowatts (kW) each. Of these 24 charging stations, the following 15 charging stations fall within one mile of an interstate exit or highway intersection along one of Maryland's designated AFCs and may be considered by MDOT to count towards the fully built-out determination once verified for compliance with NEVI Standards.

State EV Charging Location Unique ID*	Route	Location	Number of Charging Ports	EV Network	Meets all relevant requirements in 23 CFR 680?	Intent to count towards Fully Built-Out determination?
MD 97-12	I-97	7951 Nolpark Ct	4	Electrify America		Yes
MD 270-18	I-270	22705 Clarksburg Rd	4	Electrify America		Yes
MD 100-10	MD-100	7000 Arundel Mills Cir	6	Electrify America		Yes
MD 95-77	I-95	401 Constant Friendship Blvd	8	Electrify America		Yes
MD 50-23	US 50/US 301	2100 Generals Hwy	4	Electrify America		Yes
MD 270-1	I-270	7101 Democracy Blvd	4	Electrify America		Yes
MD 4-4801	MD 4	4801 Marlboro Pike	4	EVgo		Yes
MD 50-441	US 50/US 301	441 Outlet Center Dr	4	Electrify America		Yes
MD 70-29	I-70	10420 Walmart Drive	4	Electrify America		Yes
MD 95-57	I-95	3800 Boston St	4	EVgo		Yes
MD 70-54	I-70/I-270	7400 GUILFORD DR	4	Electrify America		Yes
MD 495-20	I-495/I-95	8801 Annapolis Rd	4	EVgo		Yes
MD 270-4	I-270	12525 Park Potomac Ave	4	Electrify America		Yes
MD 95-55	I-95	1641 Whetstone Way	4	Electrify America		Yes
MD 50-7655	US 50	7655 Ocean Gateway	8	Tesla		Yes

** The State EV Charging Location Unique ID represents the state (MD), the interstate or route number followed by the exit number, if applicable, or the station address if there are no exits along the route.*



EXISTING **CHARGING STATIONS**

EV CHARGING INFRASTRUCTURE DEPLOYMENT

Maryland continues to focus on using the NEVI Formula Funds to build out and certify all 23 of Maryland's existing AFCs. Maryland issued Round 1 of its NEVI Program in January 2024 and announced conditional awards in July 2024. MDOT plans to release a second RFP by the end of 2024.

In addition to NEVI implementation, Maryland is working with partners to identify corridor buildout opportunities for deploying charging stations under the CFI Corridor Program as mentioned in the Public Engagement Section to support MDOT's efforts in building out the AFCs, create redundancy in the charging network, and allow MDOT to move more quickly to the deployment of charging stations within communities.

NEVI CHARGING STATIONS UNDER CONSTRUCTION

There are currently no stations under construction.

PLANNED NEVI CHARGING STATIONS

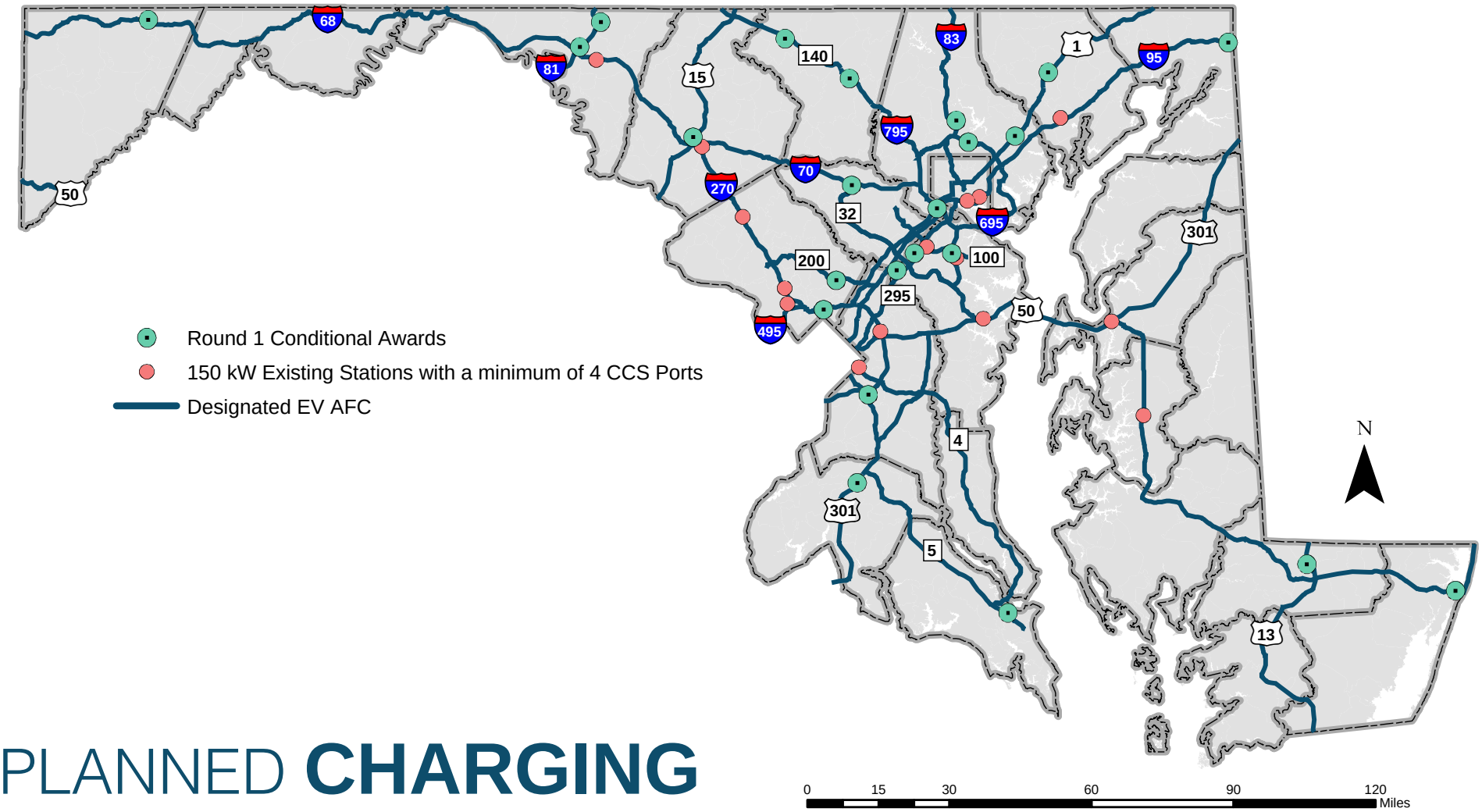
In July 2024, Maryland issued 23 conditional awards for its NEVI Program Round 1. MDOT anticipates construction on these 23 planned stations, identified in the table below, to begin later in 2024 once the review for NEPA compliance and contract negotiations are complete. The table does not include the 29 sites that were resubmitted and awarded under CFI Round 2 by MCEC.

PLANNED NEVI CHARGING STATIONS

State EV Charging Location Unique ID*	Route	Location	# of Ports	Estimated Quarter & Year Operational**	Estimated Cost	Funding Sources	New Location or Upgrade?
MD 68-22	I-68	3000 Chestnut Ridge Rd	4	Q4 2024	$475,000	FY 22/23	New
MD 70-80	I-70/MD 32	12800 State Route 144	4	Q3 2025	$569,406	FY 22/23	New
MD 81-5	I-81	16921 Halfway Blvd	4	Q4 2024	$475,000	FY 22/23	New
MD 495-31	I-495	1920 Seminary Rd	4	Q3 2025	$768,914	FY 22/23	New
MD 95-109	I-95	221 Belle Hill Rd	6	Q4 2024	$450,000	FY 22/23	New
MD 83-17	I-83	100 W Padonia Rd	12	Q4 2024	$302,931	FY 22/23	New
MD 97-13	I-97	7800 Parke West Dr	8	Q1 2025	$307,850	FY 22/23	New
MD 81-9	I-81	Rt. 11 and Maugans Ave	4	Q2 2025	$723,659	FY 22/23	New
MD 140-40	MD 140	40 Antrim Blvd	4	Q3 2025	$567,393	FY 22/23	New
MD 140-97	MD 140	1023 Baltimore Blvd	4	Q3 2025	$680,352	FY 22/23	New
MD 200-13	MD 200	13504 New Hampshire Ave	4	Q3 2025	$712,869	FY 22/23	New
MD 695-27	I-695	825 Dulaney Valley Rd	4	Q1 2025	$175,000	FY 22/23	New
MD 5-235-46400	MD 5-235	46400 Lexington Village Way	4	Q1 2025	$467,460	FY 22/23	New
MD 295-2850	MD 295	2850 Jessup Rd	12	Q2 2025	$322,250	FY 22/23	New
MD 5-235-6101	MD 5-235	6101 Allentown Rd	8	Q4 2025	$300,650	FY 22/23	New
MD 695-12	I-695	1407 Sulphur Spring Rd	4	Q2 2025	$501,196	FY 22/23	New
MD 13-2300	US 13	2300 N Salisbury Blvd	12	Q2 2025	$293,450	FY 22/23	Upgrade
MD 50-12741	US 50	12741 Ocean Gateway	4	Q1 2025	$467,460	FY 22/23	New
MD 295-3470	MD 295	3470 Fort Meade Rd	8	Q1 2025	$307,850	FY 22/23	New
MD 301-4210	US 301	4210 Crain Hwy	4	Q2 2025	$789,005	FY 22/23	Upgrade
MD 1-601	US 1	601 Hoagie Dr	4	Q2 2025	$776,294	FY 22/23	Upgrade
MD 1-9809	US 1	9809 Belair Rd	4	Q2 2025	$937,138	FY 22/23	Upgrade
MD 15-13	US 15	1001 W Patrick St	4	Q2 2025	$765,643	FY 22/23	New

** The State EV Charging Location Unique ID represents the state (MD), the interstate or route number followed by the exit number, if applicable, or the station address number if there are no exits along the route.*

***Estimated Quarter & Year of Operations assumes a Notice to Proceed date of September 3, 2024, to begin work under the awarded Contract.*



PLANNED **CHARGING STATIONS**

PLANNING TOWARDS A FULLY BUILT-OUT DETERMINATION

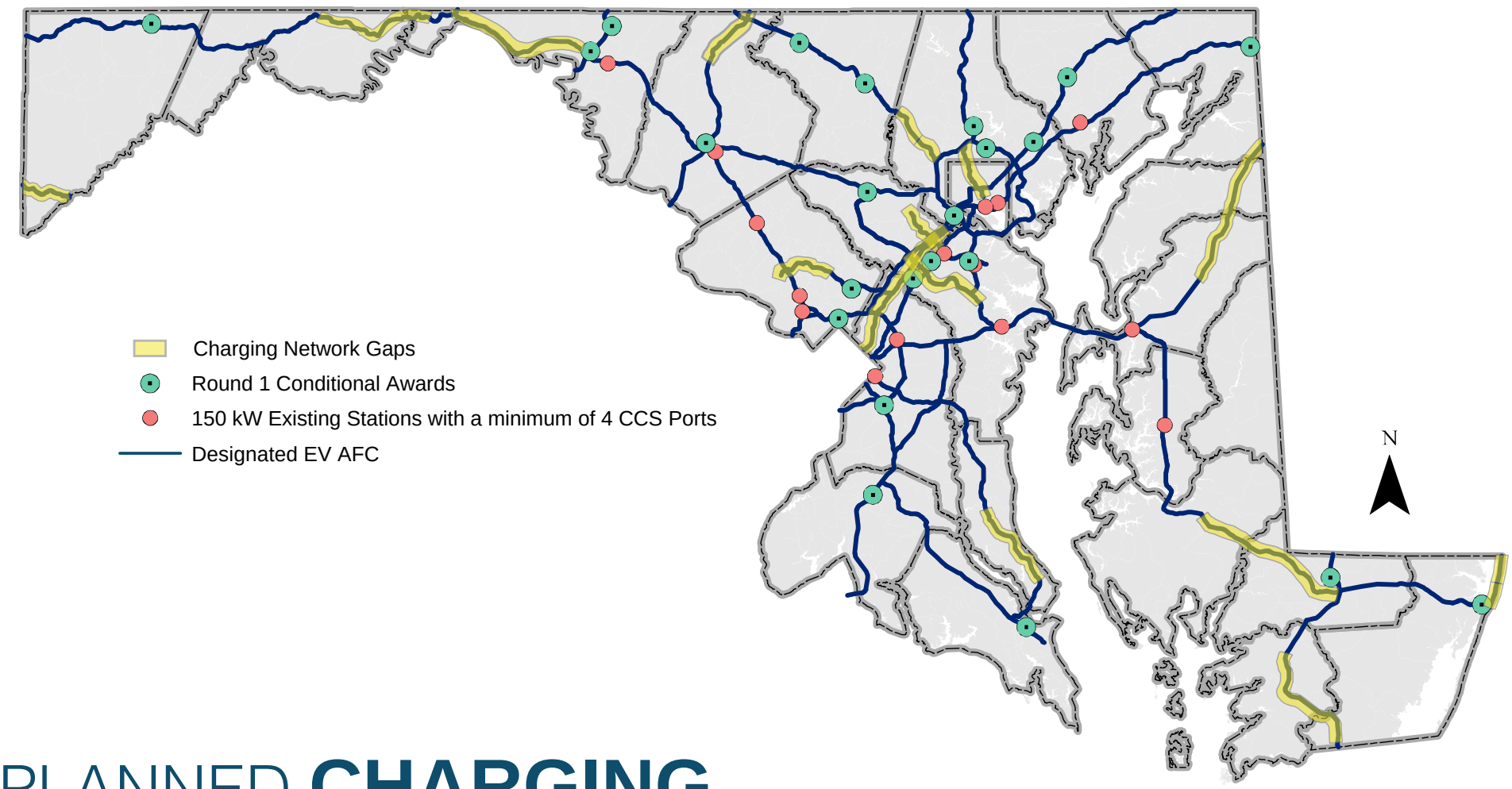
Maryland completed two gap analyses to determine approximately how many additional charging stations would be required to reach a fully built-out determination. These estimates do not include sites resubmitted under the CFI Corridor Program or any private investments.

The first gap analysis examined existing charging stations with a minimum of four (4) 150 kW CCS ports that may be considered for compliance verification with NEVI Standards, the sites of Round 1 conditional awards, a 50-mile maximum distance between stations, a minimum of two charging stations per corridor, and a station within 25 miles of where the AFC terminates. Based on this analysis, MDOT estimates approximately 17 charging stations will need to be installed if the existing charging stations are considered to meet 23 CFR Part 680 requirements.

The second gap analysis only considers the sites of the Round 1 conditional awards, a 50-mile maximum distance between stations, a minimum of two charging stations per corridor, and a station within 25 miles of where the AFC terminates. Based on this analysis, MDOT estimates approximately 29 charging stations will need to be installed if the existing charging stations are not considered to meet 23 CFR Part 680 requirements.

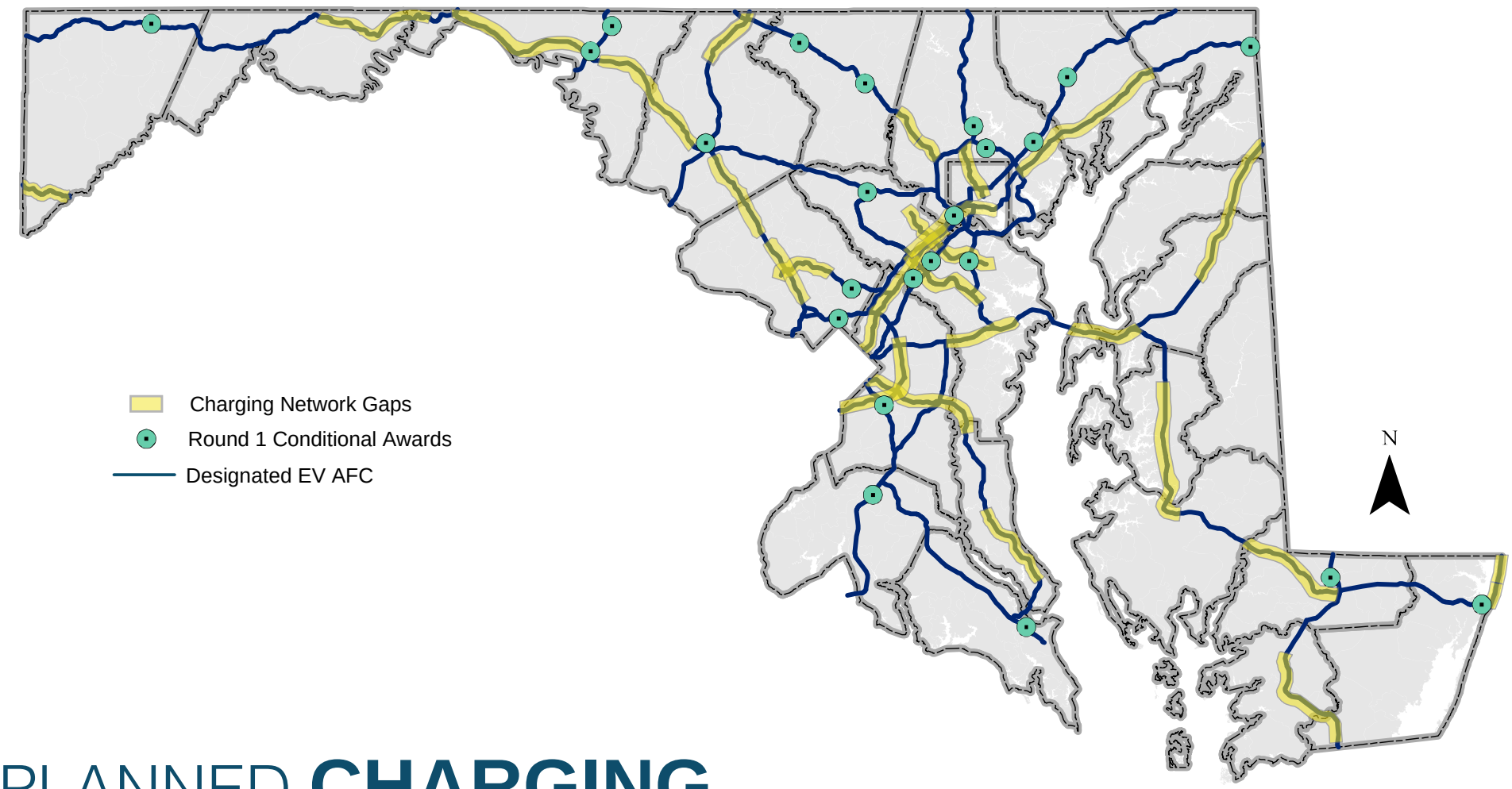
Built-Out Determination with Existing Stations	
How many stations are still needed to achieve Fully Built-Out status:	17
Estimated month/year to achieve Fully Built-Out status:	December 2026
Built-Out Determination without Existing Stations	
How many stations are still needed to achieve Fully Built-Out status:	29
Estimated month/year to achieve Fully Built-Out status:	December 2027

Corridor	Existing Stations	Planned Stations	Needed Stations w/ Existing	Needed Stations w/o Existing
1-495	1	1	-	1
I-68	0	1	1	1
I-695	0	2	-	-
I-70	2	1	1	2
I-795	0	0	2	2
I-81	0	2	-	-
I-83	0	1	1	1
I-95	4	1	-	2
I-97	1	1	-	1
US 1	0	2	1	1
US 13	0	1	1	1
I-270	4	-	-	2
US 15	0	1	1	1
US 301	2	1	1	2
US 50	3	1	2	4
MD 100	1	0	1	2
MD 140	0	2	-	-
MD 32	0	1	1	1
MD 4	1	0	1	2
MD 5 / MD 235	0	2	-	-
MD 528	0	0	2	2
MD 295	0	2	-	-
ICC/MD 200	0	1	1	1



PLANNED **CHARGING STATIONS & GAP ANALYSIS**

EXISTING STATIONS



PLANNED **CHARGING STATIONS & GAP ANALYSIS** WITHOUT EXISTING STATIONS

EV CHARGING INFRASTRUCTURE DEPLOYMENT AFTER BUILD OUT

Once Maryland achieves a fully built-out determination, NEVI funds will be utilized to invest in deploying public charging infrastructure within communities, where it will be the most beneficial in supporting the adoption of EVs. The goal of community charging is to:

- Ensure Equitable Charging Infrastructure
- Benefit Marylanders
- Meet Geographic Demands in Urban and Rural Communities

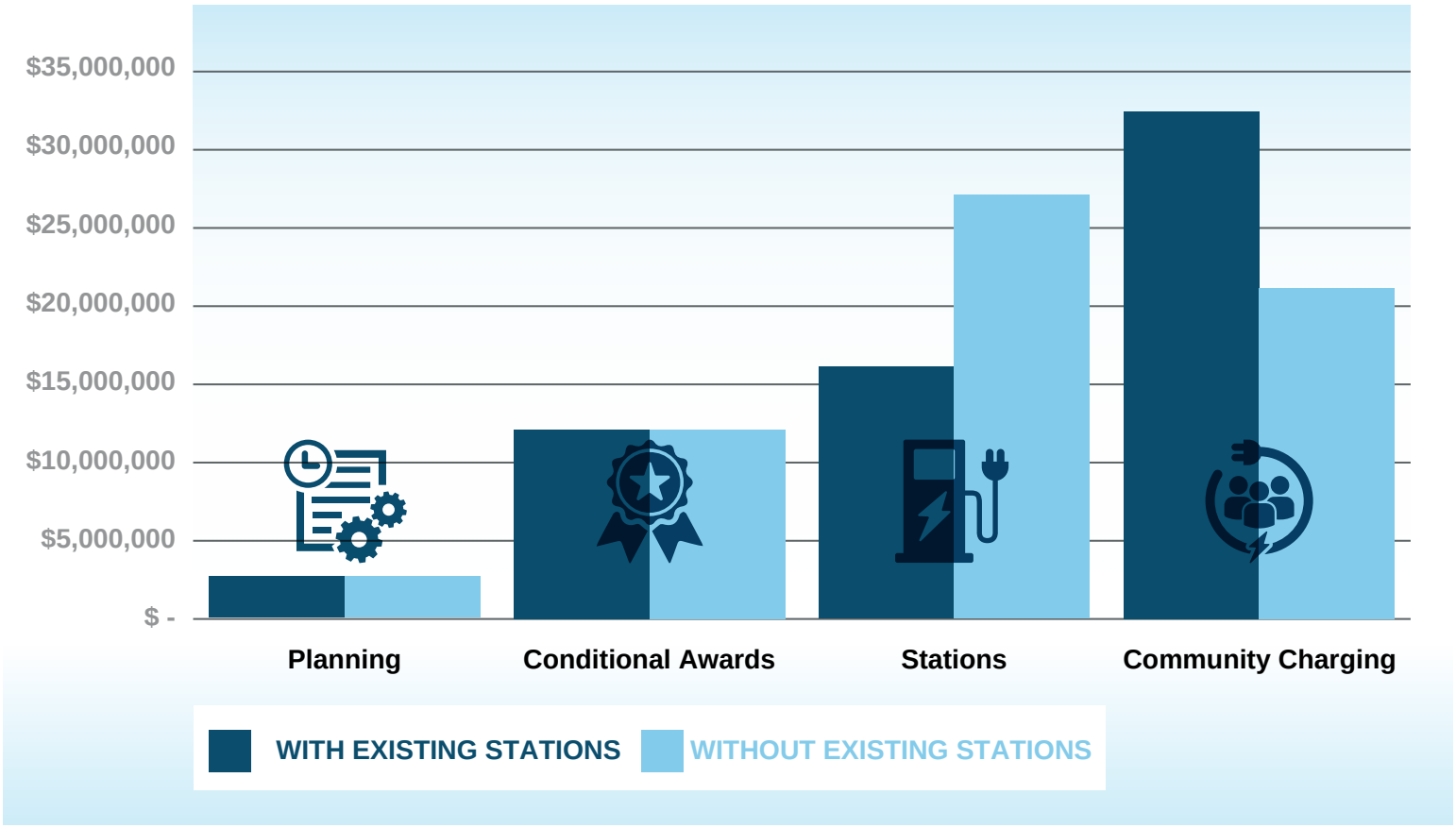
Maryland has already begun laying the groundwork for a successful transition from corridor charging to community charging. Through the surveys, the public has identified locations where community charging should be prioritized, which level of charging would be most beneficial, and other ideal charging locations. MDOT is also developing an outreach plan that will work closely with key partners to identify disadvantaged and underserved communities and ensure that these communities are actively engaged throughout the community charging process. This will include focus groups, community events, meetings, and other outreach opportunities.

Maryland was apportioned approximately $63 million for NEVI over 5 years, with approximately $33 million for FFY 2022-2024. If existing stations are considered, MDOT will allocate FFY 2022, FFY 2023, and some FFY 2024 funds to build out Maryland's EV AFCs. Maryland's focus will shift to investing in community charging starting with remaining FFY 2024 funds and then with FFY 2025 and FFY 2026 funds. MDOT anticipates more than half of the NEVI funds will be invested directly into communities through community charging.

However, if existing stations are not considered due to not meeting 23 CFR Part 680 requirements, MDOT will need to allocate FFY 2022, FFY 2023, FFY 2024, and a portion of FFY 2025 funds to build out Maryland's EV AFCs.

The shift to community charging investment will begin with remaining FFY 2025 funds and then with FFY 2026 funds. MDOT anticipates less than half of the NEVI funds will be invested directly into communities through community charging if existing charging stations cannot be considered. FHWA must work with national EVSE companies to ensure existing charging stations can support the national network build out and allow Maryland to invest more funds into communities, where there will be the most impact.

NEVI funds can be used by themselves or combined with other eligible USDOT funding sources to cover up to 80% of eligible project costs for charging infrastructure both along the AFCs and in the community. The remaining 20% must be matched through private, state, or other local funds. In total, at least $78 million will be invested into EV charging infrastructure in Maryland from both federal ($63 million) and private ($15 million) sources from FFY 2022-2026.



ANTICIPATED NEVI FUNDING ALLOCATION WITH AND WITHOUT **EXISTING STATIONS**

IMPLEMENTATION

As described in the Contracting and EV Charging Infrastructure Deployment Sections, Maryland began implementing its NEVI Program, with construction for Round 1 projects anticipated to begin later in 2024.

MDOT is currently planning for Maryland's NEVI Program Round 2, which will be released by the end of 2024. Maryland has also begun planning for community charging by developing a robust outreach strategy to ensure investments are equitable and beneficial to all Marylanders, including those in disadvantaged and underserved communities. MDOT will continue to monitor federal program requirements and make changes to its NEVI Program as required, while coordinating with key partners, stakeholders, and the public.

NEVI TARGET AREA MAPPING TOOL

To assist in site identification, Maryland developed the NEVI Target Area Mapping Tool. The Tool, which was released as part of the NEVI Round 1 RFP, built upon the EV Charger Siting Tool detailed in the Public Engagement Section. It identified Round 1 Target Areas along each of the EV AFCs where charging must be located to support build out and included data layers specific to Round 1 RFP requirements. The Round 1 Target Area Mapping Tool allowed potential applicants to determine whether a site may be a good candidate for Round 1 and will be updated to reflect each round's requirements.

PROGRAM MANAGEMENT

Maryland's SHA is managing NEVI project implementation and oversight and will ensure compliance with all NEVI Program requirements, federal requirements and statutes, and Code of Maryland Regulations (COMAR).

EVSE DATA COLLECTION & SHARING

All required one-time, annual, and quarterly data will be submitted to the Joint Office through its Electric Vehicle Charging Analytics and Reporting Tool (EV-ChART). To capture and summarize data submitted to EV-ChART, MDOT is developing an online dashboard tool, part of the larger ZEV Maps & Dashboard, that will serve as a publicly available tracking dashboard. It will track EV charging infrastructure locations receiving NEVI funding, the status of stations (design, construction, completion, etc.), costs for acquisition and installation of EVSEs, the number of charging stations/ports per location, usage, uptime, and maintenance needs or challenges. The data collected from the EV charging station sites will be reflected in the dashboard and updated regularly by MDOT.

EQUITY CONSIDERATIONS

Maryland is committed to deploying an equitable and accessible charging network that ensures at least 40% of all benefits from the NEVI Formula Program are accrued in disadvantaged communities (DACs) and rural communities and is guided by the principles of accessibility, affordability, and communication. These principles were identified through public and stakeholder outreach, as well as discussions with state agencies, to guide the equitable deployment of charging infrastructure. Details about considerations and tools supporting these guiding principles are in Appendix C.

IDENTIFICATION AND OUTREACH TO DACS IN THE STATE

No changes have been made to MDOT's plan for identifying DACs. MDOT will continue to use the Climate and Economic Justice Screen Tool (CEJST) as the primary source for identifying rural and DACs in Maryland and will also supplement the CEJST with state and national data sets to ensure all DACs within Maryland are captured and identified. A map of DACs and data sets used to identify them are in Appendix D. MDOT will also continue to work with key partners to identify new or updated data layers that will best capture all rural and DACs within Maryland.

PROCESS TO IDENTIFY, QUANTIFY, AND MEASURE BENEFITS TO DACS

MDOT's online dashboard will also track the benefits of NEVI investments to those communities identified as rural or disadvantaged. The chart below summarizes such benefits, the strategy for measuring these benefits, and the process for community validation. These benefits will be reviewed yearly to ensure alignment with MDOT's other reporting measures, such as those found in MDOT's Attainment Report (AR) and the Governor's Key Performance Indicators (KPIs).

Benefits Category	Metrics	Data Sources	Community Validation
Increase clean transportation access through the location of chargers	1. Number of NEVI charging stations installed in DACs census tracts w/ emphasis on DACs identified by CEJST **Baseline: Number of existing NEVI compliant stations in DACs**	MDOT NEVI Dashboard, EV-ChART, Alternative Fuels Data Center, CEJST & supplemental DAC data sets	Outreach to identified DACs: Community events, local government partnerships, surveys, meetings, webinars, focus groups
Decrease environmental exposures to transportation-related GHG emissions	1. Reduction in GHG emissions (CO_2 equivalent) **Baseline: GHG modeling, completed as part of the Climate Pollution Reduction Plan (CPRP)**	EV-ChART, Argonne National Laboratory's Alternative Fuel Life-Cycle Environmental and Economic Transportation (AFLEET) CFI Emissions Tool	Outreach to identified DACs: Community events, local government partnerships, surveys, meetings, webinars, focus groups
Improve local air quality and respiratory health	1. Reduction in air quality emissions (ozone, NOx, VOCs, PM2.5) **Baseline: National Ambient Air Quality Standards (NAAQS) monitoring data and State Implementation Plan (SIP) inventories for ozone and particulate matter (PM2.5)**	EV-ChART, Argonne National Laboratory's AFLEET CFI Emissions Tool	Outreach to identified DACs: Community events, local government partnerships, surveys, meetings, webinars, focus groups
Diversity of workforce	1. Percentage/number of minorities who are qualified technicians 2. Percentage/number of minorities who are enrolled in qualified programs or apprenticeships **Baseline: Current percentage/number of minorities who are qualified technicians & Current percentage/number of minorities who are enrolled in qualified programs or apprenticeships**	MD DOL, Maryland Higher Education Commission	Outreach to school advisors/ counselors and identified DACs: Community events, local government partnerships, surveys, meetings, webinars, focus groups

LABOR AND WORKFORCE CONSIDERATIONS

Upskilling and training new job seekers to meet the demand for an EV workforce requires a coordinated effort. MDOT continues to coordinate internally with MDOT's Workforce Development Program Manager and externally with MD DOL, other state agencies, and local organizations to understand safety considerations, trainings, required certifications, potential workforce impacts, and programmatic opportunities to meet existing and future needs. Additionally, MDOT is coordinating with the Department of Service and Civic Innovation on EV-related curriculum and training opportunities for the new Maryland Climate Corps. This group, which is part of the Service Year Option, will allow young adults to participate in activities that reduce GHG emissions, build green infrastructure, and improve resiliency within communities to climate disasters, while also receiving workforce training.

MDOT has been holding advisory calls with Civic Works and the Corps Network following the award of their Ride & Drive Electric Grant, which seeks to address barriers to electrification and will directly advance the goals of building a national network of charging stations by supporting EV charging reliability, resiliency, equity, and workforce development. MDOT has also been meeting with local workforce development organizations, including VetsFleet.

As part of the NEVI Program Round 1 RFP, MDOT required all applicants to include a narrative response about their plan for compliance with 23 CFR Part 680.106(j), which ensures the installation and maintenance of chargers are performed safely by a qualified and increasingly diverse workforce of licensed technicians and other laborers. All electricians installing, operating, or maintaining charging stations must receive certification from the Electric Vehicle Infrastructure Training Program (EVITP) or a registered apprenticeship program for electricians that includes charger-specific training developed as part of a national guideline standard approved by the US Department of Labor in consultation with the US Department of Transportation, if and when such programs are approved.

PHYSICAL SECURITY AND CYBERSECURITY

Physical security and the safety of Maryland drivers and citizens are a priority and specifically referenced in MDOT's mission statement. Safety has also been identified as a key component of the NEVI Program, as evident by this Plan's Vision Statement. To enhance the physical security of the infrastructure deployed under the NEVI Program, applicants were asked to provide a narrative response about safety measurements at the site, including lighting, driver and vehicle safety, fire prevention, tampering protections, charging locks, surveillance, etc. Proximity to amenities, particularly those that have built-in security/surveillance or are open 24 hours, was important in the evaluation process and used as a differentiator between proposed sites.

Contracting documents will specify cybersecurity reporting and auditing requirements. As part of the proposal, applicants were required to confirm the proposed stations would meet the minimum network connectivity requirements for charger-to-charger network, charging network-to-charging network, and charging network-to-grid communications requirements. These minimum requirements will address cybersecurity concerns.

Furthermore, Maryland is committed to ensuring that critical infrastructure transportation technologies do not pose cybersecurity or personal privacy risk to Maryland or the United States. The increase in connected devices could lead to risks of cyberattacks, exposure of personal information, and exposure of payment/financial data. Third parties entering into Contract with the state will own, operate, and maintain the EV charging stations, in addition to the stations' data. They are required to provide anonymized data on a recurring basis. Moreover, MDOT will follow its Information Security Plan to handle information received from third-party operators and transfer data to FHWA and the Joint Office.

Third parties will also be required to publish station location, power ratings, and costs to the various websites tracking EV charging stations, including the US Department of Energy's Alternative Fuels Data Center. As part of the Contract, third parties will be required to demonstrate compliance with applicable Maryland, regulatory, and federal cybersecurity requirements prior to issuance of NEVI award or other funding. They will also be required to maintain cybersecurity of stations throughout the life of the Contract, including upgrades for future cybersecurity requirements, and alert MDOT and the Cybersecurity and Infrastructure Security Agency (CISA) of any known or suspected network or system compromises.

PROGRAM EVALUATION

Maryland has made significant progress with the release of the NEVI Program Round 1 RFP and subsequent 23 conditional awards. Maryland's commitment to the transparency and success of the NEVI Program is reflected in its approach to evaluating program goals and objectives for ensuring lessons learned and best practices are continually incorporated into the process. As mentioned in the Public Engagement Section, MDOT has completed the following activities since the release of the NEVI Program Round 1 RFP:

- Conducted three public informational webinars.
- Released the RFP Survey.
- Conducted an internal meeting with the NEVI evaluation team leads to review the NEVI RFP and evaluation process.
- Released the Maryland EV and Infrastructure Planning Survey.

MDOT's developing dashboard will track Maryland's NEVI Program infrastructure investments, in addition to Maryland's statewide infrastructure goals identified in the CPRP, in the AR, or as part of the Governor's KPIs. The dashboard will report:

- Total number of NEVI charging stations, ports, and locations
- Status of stations (design, construction, completion, etc.)
- NEVI Funds allocated & total match value
- Usage, time to charge, downtime (per port and statewide average) once chargers are operational
- Gaps within charging infrastructure

Lastly, MDOT will periodically use both administrative and operational data to assess outcomes. This transparent approach will confirm requirements are being met while building consumer confidence over the five-year performance period of each EV charging site.

DISCRETIONARY EXCEPTIONS

MDOT is not requesting any discretionary exceptions at the time of this plan update.

GLOSSARY OF TERMS

ACC II – Advanced Clean Cars II
ADA – Americans with Disabilities Act
AFC – Alternative Fuel Corridor
AFLEET – Alternative Fuel Life-Cyle Environmental and Economic Transportation
AR – Maryland Attainment Report on Transportation System Performance
BIL – Bipartisan Infrastructure Law
CCS – Combined Charging System
CEJST – Climate and Economic Justice Screen Tool
CFI – Charging and Fueling Infrastructure
CFR – Code of Federal Regulations
CISA – Cybersecurity and Infrastructure Security Agency
COMAR – Code of Maryland Regulations
CPRP – Climate Pollution Reduction Plan
CSNA – Climate Solutions Now Act
DAC – Disadvantaged Community
DGS – Department of General Services
EARN – Employer Assistance & Resource Network on Disability Inclusion
EV – Electric Vehicle
EVITP – Electric Vehicle Infrastructure Training Program
EVSE – Electric Vehicle Supply Equipment
EV-ChART – Electric Vehicle Charging Analytics and Reporting Tool
FFY – Federal Fiscal Year (October 1 – September 30)
FHWA – Federal Highway Administration
GHG – Greenhouse Gas Emissions
Joint Office – Joint Office of Energy and Transportation
KPI – Key Performance Indicator
kW – Kilowatts
MCEC – Maryland Clean Energy Center
MDE – Maryland Department of Environment
MDOT – Maryland Department of Transportation
MD DOL – Maryland Department of Labor
MEA – Maryland Energy Administration
MTA – Maryland Transit Administration
NAAQS – National Ambient Air Quality Standards
NEPA – National Environmental Policy Act
NEVI – National Electric Vehicle Infrastructure
NGO – Non-Governmental Organization
OEM – Original Equipment Manufacturer
PC44 – Public Conference 44
PSC – Public Service Commission
Q&A – Question and Answer
RFP – Request for Proposals
SIP – State Implementation Plan
SFY – State Fiscal Year (July 1- June 30)
SHA – State Highway Administration
TSO – The Secretary's Office
USDOT – United States Department of Transportation
ZEEVIC – Zero Emission Electric Vehicle Infrastructure Council
ZEV – Zero Emission Vehicle
ZEVIP – Zero Emission Vehicle Infrastructure Plan

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APPENDIX A: JUNE 2024 WEBINAR Q&A

MARYLAND ZERO EMISSION Vehicle Infrastructure Plan

Maryland National Electric Vehicle Infrastructure (NEVI) Webinar Questions & Answers

June 2024

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION

Q: What does LDV stand for?

A: Light-duty vehicles (LDVs) have a gross vehicle weight rating (GVWR) of less than 8,500 pounds. This includes sedans, sport utility vehicles (SUVs), mini-vans, and lighter-weight pickup trucks.

Q: How much does a plug-in hybrid and electric vehicle cost?

A: The price of a plug-in hybrid electric vehicle (PHEV) and battery electric vehicle (BEV) can vary greatly based upon the make and model. According to Kelley Blue Book, the average transaction price for an EV, which includes PHEVs and BEVs models, in April 2024 was $55,242. However, several models are available for under $40,000.

Q: Why are batteries so expensive and dangerous?

A: EV batteries are expensive due to the cost to source the raw materials (i.e., lithium, nickel, cobalt, copper) used to build them. However, the cost of batteries is decreasing as technology advances and production volume increases.

EV batteries are made of materials that can be toxic and flammable. The power cells within the battery can also cause short-circuiting if damaged. However, in general, EV batteries have a much lower risk of fire explosions than gasoline due to safety features and rigorous safety testing that all EVs sold in the U.S. must undergo.

Q: Are there laws enforcing EV parking at charging stations?

A: Yes. During the 2022 Legislative Session, the General Assembly passed SB 0146. The law, which took effect October 1, 2022, prohibits a person from stopping, standing, or parking a vehicle in a designated EV charging space unless a vehicle is plugged in at a designated EV charging space. Spaces must be signed indicating the space is only for EV charging, day/time restrictions, and maximum fine for violations. Violators may be fined up to $100.

Q: How will you address the disadvantages of electric vehicles?

A: Maryland strives to clearly communicate the advantages and disadvantages of EVs and EV charging. We provide resources on the MarylandEV.org website. We have also conducted surveys and discussions to better understand and address Marylanders' concerns, including the high upfront cost of EVs and range anxiety.

Q: Is there a plan to enact legislation for apartment and condo owners to have the right to charge?

A: Yes, during the 2023 Legislative Session, HB 0159 was passed and signed into law, which prohibits condominiums and home-owner associations (HOAs) from prohibiting or unreasonably restricting the installation or use of EVSEs in a parking space that is specifically designated for use by a particular member.

Q: What factors are considered when installing charging stations?

A: For building-out alternative fuel corridors (AFCs) under the NEVI Program, the primary factors considered are the distance from an AFC and the distance from an existing NEVI compliant station. Other factors that will be considered include cost, amenities on-site and within walking distance, site safety features, future proofing, benefits for disadvantaged communities, resiliency, experience and approach, and timeframe.

Q: What is the timeline of MD electrifying fleet vehicles? Are you all able to support companies that are supporting fleet electrification conversion from the supplier side?

A: Under the Climate Solutions Now Act of 2022, 100% of the state fleet passenger vehicles must be zero emission (ZEV) by 2031 and 100% of the state's LDVs must be ZEV by 2036. The Maryland Energy Administration provides grants to Maryland fleet companies, organizations, and communities to help defray the costs of purchasing qualified, newly manufactured zero emission medium-duty or heavy-duty zero-emission fleet vehicles and qualified heavy equipment property.

Q: Could an individual own a public charging station?

A: While we anticipate most NEVI-funded public charging stations will be owned by companies, there is nothing that would prohibit an individual from owning a public charging station if the person can ensure the station meets the minimum federal requirements.

Q: Are power-sharing ports eligible for MDOT NEVI?

A: Federal Guidelines, known as the National Electric Vehicle Infrastructure Standards and Requirements, allow for power sharing if each port continues to meet the EV's request for power up to 150kW.

Q: Does MD have any grants through NEVI?

A: Currently, Maryland does not have any grants through the NEVI program. In January 2024, Maryland issued a Request for Proposals (RFP) for NEVI Round 1 and anticipates releasing another RFP for NEVI Round 2 in the future. The U.S. Department of Energy, Alternative Fuel Data Center maintains a list of state laws and EV-related grants available in Maryland.

Q: Can a charging site be only one solitary charger?

A: Federal guidelines require each site to have a minimum of four 150kW Combined Charging System (CCS) Ports that charge four vehicles simultaneously. These guidelines do not limit the number of chargers at a site.

Q: Must a charging site be accessible 24/7?

A: Yes, the charging site must be accessible to the public 24/7.

Q: Big disappointment for me that BGE requires home chargers to be internet-connected, thus ruling out me with a Chevy Bolt. Do you know why?

A: BGE offers customers a special Time of Use (TOU) Rate Plan that provides reduced electric bills to customers who charge their EV during off-peak hours. To enroll in this plan, you must have an eligible charger. We encourage you to reach out to BGE or your specific utility with any questions.

Q: What are the costs and lifespan of EV batteries?

A: The cost of EV batteries varies, generally ranging from $5,000 to $20,000 depending on capacity and vehicle type. The lifespan of EV batteries typically ranges from 8 to 12 years, or 100,000 to 200,000 miles, depending on usage and maintenance. Currently, all automakers offer at least an eight-year or 100,000-mile warranty on EV battery packs.

Q: What level of commitment between applicants and site hosts is MDOT requiring at the time of application?

A: MDOT requires site host agreements to ensure applicants have permission to access the site and install EV charging equipment.

Q: How do you approach utility companies for rebates?

A: Information on rebates and incentives can be found on the utility's website.

Q: Will any incentives be made available for local government to upgrade their large fleets to electric vehicles? If so, can an MDOT representative walk agencies through this process?

A: MDOT's Carbon Reduction Program provides funding to eligible organizations, including local governments, for eligible decarbonization projects that will reduce emissions from the transportation sector. Eligible projects include the deployment of alternative fuel vehicles. The Maryland Department of the Environment (MDE) and Maryland Energy Administration (MEA) also offer a variety of transportation incentive programs that could be utilized to support local governments with fleet transition.

Q: Are state workers able to use charging stations at work?

A: Public charging stations located at state sites are available for charging. State workers who would like to charge using fleet dedicated charging stations should contact their local fleet manager to see if charging would be possible.

Q: How does the NEVI program assist or benefits someone looking to get involved through small business?

A: The U.S. Department of Transportation's Disadvantaged Business Enterprise (DBE) program does not apply to NEVI Funding. While MDOT cannot give preference or set goals related to DBEs for the NEVI Program, MDOT encourages DBEs to apply to the solicitations either as the primary applicant or as a partner to another company applying for NEVI Funding.

Participation in the NEVI Program could substantially reduce the overall cost to install DCFC and/or drive new customers to their business.

Q: Rt 210 is a major, 8-lane corridor serving historically underserved and overburdened communities in south county Prince George's County, why are there no stations proposed for this area, in light of the Justice 40 Initiative?

A: Maryland Route 210 is not currently designated as one of Maryland's 23 Alternative Fuel Corridors (AFCs) for EVs. Under Federal Guidance, Maryland must first use NEVI Funds to build-out and certify its designated AFCs. To be considered built-out, AFCs must have a minimum of 2 stations no more than 50-miles apart. Once all AFCs have been certified, Maryland will be allowed to use NEVI Funds to install EV chargers in communities outside of the AFCs, including those identified as disadvantaged.

Q: Has a date for a second round of applications for Electric Vehicle Charger Reliability and Accessibility Accelerator (EVCRAA) been announced?

A: No date for a second round of applications for EVCRAA has been announced.

Q: I am concerned about the lack of participation from respondents in PGC south county. To whom are you sending the surveys?

A: The survey was primarily shared through a series of e-blasts using the NEVI mailing list. The survey was also shared via other state and local government partners as well as social media. MDOT is committed to ensuring that all Marylanders are engaged in the NEVI process and will work to identify and target communities that have been underrepresented as part of future outreach efforts.

Q: What programs are in place to encourage L2 charging in Justice 40 locations?

A: The Charging and Fueling Infrastructure (CFI) Program encourages the deployment of Level 2 charging stations within Justice40 under the Community Charging and Alternative Fueling Grants (Community Program).

Through the NEVI Program, Maryland will be allowed to use NEVI Funds to install EV chargers in communities outside of the AFCs, including those identified as disadvantaged, once all AFCs have been certified.

Q: Have you all reached out to parks and rec organizations within Maryland who have EV infrastructure at parks and facilities?

A: While this is not the focus of the NEVI formula funding program, MDOT does participate in state agency working groups with the Department of Natural Recourses, the Department of General Services, and others to identify potential charging station locations on government-owned and operated locations including parks.

Q: Will MDOT be using MDE's environmental justice tool to locate EV charging infrastructure in overburdened communities?

A: MDE's Environmental Justice Tool is just one of the several state and federal data layers that MDOT is using to identify overburdened, disadvantaged, and rural communities. These layers supplement the Justice40 layers found in the Climate and Economic Justice Screening Tool (CEJST).

Q: How can MDOT prioritize public charging in established residential communities, which don't have feasible options for home-based charging? For example, townhome or row-home communities.

A: MDOT intends to use a variety of data sets to identify communities where home-based charging may not be feasible for future deployment of public charging. MDOT is also coordinating closely with MEA to fulfill the requirements of Maryland HB0830 which requires a study of multi-family residential charging.

Q: Why are corridors, which serve long distance travel prioritized over community charging, when we know most trips are short and close to home?

A: The primary purpose of the NEVI formula funding program is to provide states with funding to strategically deploy EV charging infrastructure to create an interconnected network within states and across the country that will facilitate data collection, access, and reliability. Under Federal Guidance, Maryland must first use NEVI Funds to build-out and certify its designated AFCs. Once all AFCs have been certified, Maryland will be allowed to use NEVI Funds to install EV chargers in communities outside of the AFCs.

Q: Will there be a second round of NEVI?

A: Yes, there will be a second round of NEVI. It is anticipated to be released later in 2024/early 2025. Information about the NEVI Program can be found on our website.

Q: Will any improvements be made to the NEVI RFP rounds related to requirements and financial limitations?

A: MDOT is currently reviewing the RFP process, as well as feedback received from the Round 1 RFP Notice to Vendors form and our survey for potential applicants. Based on the responses, MDOT may make improvements to the RFP for future rounds in order to ensure alignment with evolving needs and priorities.

Q: Do you have outreach materials that show the total cost of EV ownership compared to gasoline vehicles to share with the public?

A: MarylandEV is great resource for EVs in Maryland and includes information and resources on the cost of EV ownership.

Q: What meetings have you conducted in South County Prince George's?

A: To date, outreach for the NEVI program has been conducted virtually via surveys and webinars, which have been publicly advertised and open to all Marylanders and interested parties outside of our state. In the past, MDOT has attended in-person events such as local festivals and larger events such as the State Fair. While MDOT has not visited the southern area of Prince George's County, MDOT has attended community events in Prince George's County in the past and welcomes the suggestion to identify future outreach opportunities in this area.

Q: When will awardees for NEVI Round 1 be announced?

A: Conditional Awards for NEVI Round 1 were announced on July 10, 2024.

Q: Can you show the exact routes where infrastructure will be installed? Hard to see on maps. Can you tell us how many chargers are going on the routes selected?

A: An interactive map of Round 1's conditional awards can be found here. In total, there will be 23 charging sites with 130 ports, with future sites to be identified in later rounds of NEVI.

Q: How are charging locations for NEVI-funded chargers being determined?

A: The goal of NEVI is to first build-out and certify existing EV AFCs. To be considered built-out, AFCs must have a minimum of 2 stations no more than 50-miles apart. MDOT selects best value proposals helping meet AFC build-out based on criteria detailed in the NEVI RFP.

Q: When will MD's NEVI chargers start to become available?

A: It is anticipated that NEVI-funded stations will be open to the public within 1 year after the Notice to Proceed (NTP) is given. The RFP timeline gave an anticipated NTP date of September 3, 2024.

Q: Can you share more details about the EV survey? Are the survey results shared online?

A: Polling Results from our recent webinars can be found here. Results from our EV survey will be incorporated into the NEVI Plan Update and will be used to inform future NEVI Program Rounds.

Q: What did you change about your outreach method for this survey to increase reach and response rate?

A: There were no major changes to our outreach approach. We have continued to build our reach over time using social media, press releases, partnerships with other agencies and local stakeholders, word of mouth, and the promotion of our website, where people can sign-up to join our mailing list. There has been a lot of interest in electrification efforts, which is evident by our growing mailing list and response to the survey.

Q: Would you all be available to participate in webinars and panels for local organizations and events? How would we reach out to invite you all?

A: Yes, we are happy to participate in webinars and panels for local organizations. Please email evplan@mdot.maryland.gov with any requests.

Q: What amenities are being considered to add near EV charging stations due to the charge time duration?

A: Amenities are not required at a charging site; however, preferences were given to sites with ADA compliant bathrooms, on-site dining/food, lighting, security cameras, canopies, 24-hour access to amenities, etc. to enhance EV drivers' experience.

Q: Will charging stations be added to MDOT buildings for employees?

A: There are existing public charging stations at a few MDOT sites that are available for employees to charge. MDOT is developing a strategy for electrification of its fleet, which will include the installation of additional charging stations.

Q: Have you considered outlying bike share or scooter docking sites at L2 chargers?

A: NEVI's primary focus is to build-out existing EV AFCs. Once complete, MDOT will shift its focus to community charging efforts which will include installing L2 charging stations as well as seeking opportunities to combine charging to include e-bike sharing systems, scooter docking sites, and other micromobility options beneficial to Marylanders.

Q: Have you worked with WMATA and other transit agencies to place L2 chargers at Park & Ride sites?

A: MDOT does have existing L2 charging stations located at Park & Ride lots and Metro/LightRail/MARC Train stops. MDOT also partnered with utilities under the PSC Pilot Program to install public L2 and DC Fast chargers at similar MDOT sites.

Q: Have you developed a survey for interested EV site hosts so contractors/manufacturers can find them more easily to coordinate for NEVI proposals?

A: MDOT does not currently have a survey/form for interested EV site hosts; however, this may be something MDOT will consider. For Round 1, MDOT hosted a pre-proposal conference to allow contractors to establish connection.

Q: Are there apps to provide up-to-date info on charging availability?

A: Yes, there are several applications that provide up-to-date info on charging availability, including PlugShare, ChargeHub, PlugShare, Electrify America, ChargePoint, and Evgo.

Q: How do Energy Storage Systems possibly play into the NEVI projects and programs, if at all?

A: Energy Storage Systems are not required; however, MDOT encourages applicants to include them in their proposal. Energy Storage Systems increase resiliency by allowing drivers to charge even when power is out. They can also help reduce the demand on the grid.

Q: Can anyone speak to home charging incentives for EVs during certain times of day? I understand that some energy providers offer this.

A: Some utilities offer Time-of-Use (TOU) Rates to encourage drivers to charge during off-peak periods. Information can be found on the utility's website.

Q: National Harbor charges $5 to access the Tesla Supercharger (the ONLY supercharging station in South County PGC). Is this legal?

A: While this may not be a best practice, this is legal.

Q: Has anyone looked into the electric scooters and battery-swapping kiosks that the company Gogoro provides?

A: No, MDOT has not looked into this at this time.

Q: What information/involvement did you require from utilities during the Round 1 application process, and do you plan to adjust this at all in Round 2?

A: As part of Round 1, the utilities met regularly with MDOT and provided specific contact information for potential applicants. MDOT will continue to meet with utilities and discuss any potential changes for Round 2.

Q: What is MDOT's approach to ensuring that EV infrastructure is resilient?

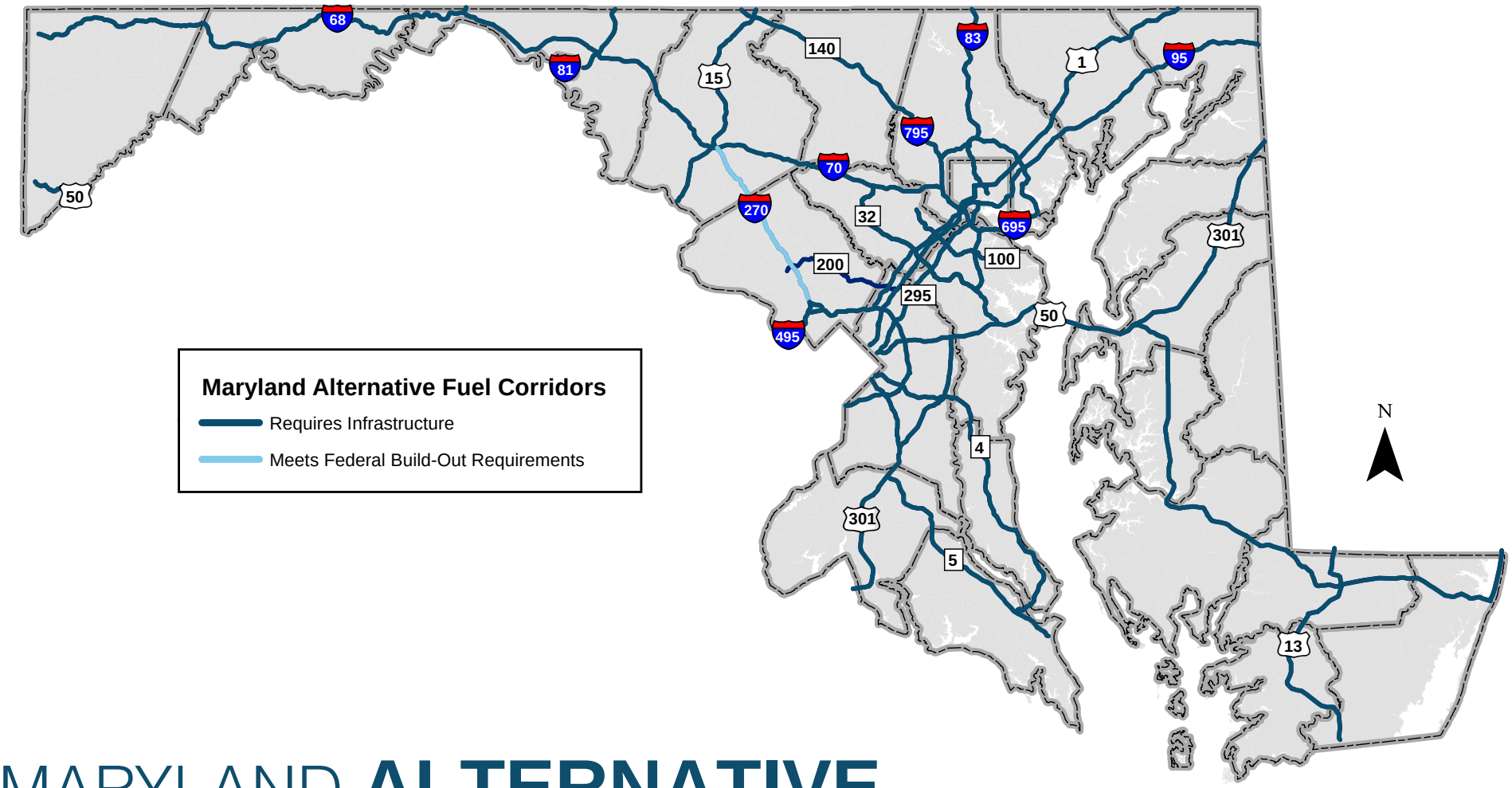
A: MDOT encourages applicants to incorporate renewable energy and Energy Storage Systems into their site proposals, as well as EV infrastructure hardening features to safeguard against damage or loss of service. MDOT also encourages applicants to "future proof" their site to ensure the site can meet future demands. Examples of future proofing include installing additional charging stations (more than the minimum required 4 ports), adding utility (electrical) capacity, or installing additional conduit for future use.

APPENDIX B: MARYLAND AFCs & DESIGNATIONS

Maryland has a robust network of AFCs that traverse the entire state. Since the initial AFC Nomination in 2016, MDOT has successfully nominated 23 corridors for designation as EV AFCs. In total, Maryland has designated 10 interstates, 5 US Routes, and 8 Maryland Routes. Prior to the release of the minimum standards, 15 of the 23 corridors met the criteria for Corridor-Ready, four corridors were considered Corridor-Pending, and three corridors had segments that were both Corridor-Pending and Corridor-Ready. With the release of the updated standards, only one corridor, I-270, currently meets the federal build out requirements.

Corridor	Length (Miles)	Starting Point	Ending Point	Original Corridor Status	Build Out Status
I-270	34.5	I-70	I-495	Corridor-Ready	Meets Build Out Requirements
1-495	16.1	VA State Line	VA State Line	Corridor-Ready	Requires Infrastructure
I-68	79.9	I-70	WV State Line	Corridor-Pending	Requires Infrastructure
I-695	51.3	-	-	Corridor-Ready	Requires Infrastructure
I-70	90.9	I-695	PA State Line	Corridor-Ready	Requires Infrastructure
I-795	8.9	I-695	MD 140	Corridor-Ready	Requires Infrastructure
I-81	12.0	PA State Line	VA State Line	Corridor-Ready	Requires Infrastructure
I-83	32.9	PA State Line	Fayette Street	Corridor-Ready	Requires Infrastructure
I-95	108.1	DE State Line	VA State Line	Corridor-Ready	Requires Infrastructure
I-97	18.2	I-695	US 50	Corridor Ready	Requires Infrastructure
US 1	24.4	PA State	Joppa	Corridor-Pending	Requires Infrastructure
	60.4	Joppa	DC Line	Corridor Ready	
US 13	42.2	DE State Line	VA State Line	Corridor-Pending	Requires Infrastructure
US 15	37.85	PA State Line	VA State Line	Corridor-Ready	Requires Infrastructure
US 301	67.1	DE State Line	MD 5	Corridor-Ready	Requires Infrastructure
	22.6	MD 5	VA State Line	Corridor-Pending	
US 50	139.7	DC Line	MD 528	Corridor-Ready	Requires Infrastructure
MD 100	16.8	US 29	MD 177	Corridor-Ready	Requires Infrastructure
MD 140	11.5	I-795	Westminster	Corridor-Ready	Requires Infrastructure
	22.41	Westminster	PA State Line	Corridor-Pending	Requires Infrastructure
MD 32	30.3	I-70	I-97	Corridor-Ready	Requires Infrastructure
MD 4	58.8	DC Line	MD 235	Corridor-Pending	Requires Infrastructure
MD 5	52.8	DC Line	MD 712	Corridor-Ready	Requires Infrastructure
MD 528	8.6	DE State Line	US 50	Corridor-Pending	Requires Infrastructure
MD 295	30.5	Russell Street	DC Line	Corridor-Ready	Requires Infrastructure
ICC/MD 200	18.8	US 1	I-270	Corridor-Pending	Requires Infrastructure

APPENDIX B: MARYLAND AFCs & DESIGNATIONS



MARYLAND **ALTERNATIVE FUEL CORRIDORS**

APPENDIX C: EQUITY PRINCIPLES

ACCESSIBILITY

Ensuring all Marylanders and Visitors Have Access to Reliable EV Charging

Geographic Diversity

Rural/Urban

Corridors/Communities

Multi-Lingual Graphic User Interfaces

ADA Compliance

Multi-Unit Dwellings

Employment Centers

Safety While Charging

Grid Reliability

AFFORDABILITY

Creating Incentives, Innovations, and Systems that Increase Affordability of EV Ownership and Charging

Leveraging state, local, federal, and private funding

Cost of Vehicles

Cost of Charging

Mobility Hubs[1]

Carshare

Rideshare

ZEV Transit

COMMUNICATION

Meeting People where they are, Listening, and Educating

Multi-Lingual Materials

Events

Webinars

Surveys and Polls

Geofencing[2]

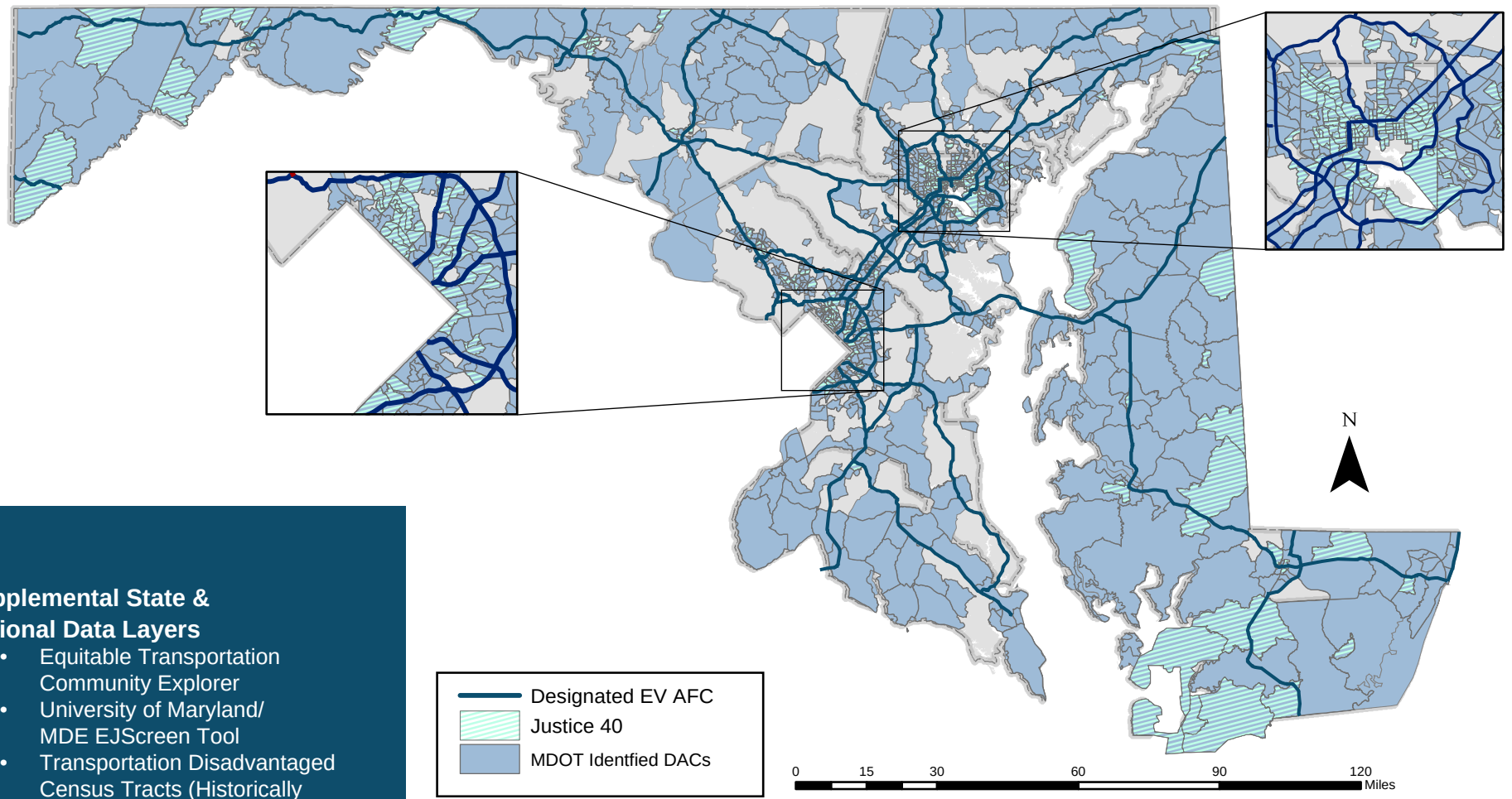
Website

Social Media

Calculators[3]

[1] Mobility Hubs are public facilities where people can access multiple types of transportation modes in a central location (ex. bike share, public transit, micro mobilitydevices) and can charge their EVs.
[2] Geofencing is a location-based tool using technology such as Global Positioning Service (GPS) to create a virtual boundary to trigger targeted messaging on mobile devices.
[3] Calculators are online tools for users to figure out costs, benefits, and other attributes of transportation facilities or vehicles.

APPENDIX D: MARYLAND DISADVANTAGED COMMUNITIES



Supplemental State & National Data Layers

- Equitable Transportation Community Explorer
- University of Maryland/ MDE EJScreen Tool
- Transportation Disadvantaged Census Tracts (Historically Disadvantaged Communities)
- Designated Rural Areas
- CDC Social Vulnerability Index