



**Delaware Electric Vehicle Infrastructure Plan  
Working Group Meeting  
June 29, 2022 – Via Microsoft Teams Meeting; 10:00 AM to 12Noon**

**Meeting Attendance**

Count	Name	Organization
1	Susan Love	DNREC, Administrator, Climate & Sustainability Programs, Division of Climate, Coastal, and Energy
2	Breanne Preisen	DNREC, Planner/Clean Cities Coordinator, Delaware Division of Climate, Coastal and Energy
3	Brian Andersen	DNREC, Planner, Delaware Division of Climate, Coastal and Energy
4	Dayna Cobb	DNREC, Director, Division of Climate, Coastal, and Energy
5	Rob Underwood	DNREC, Administrator, Energy Programs Section
6	James Pappas	DeIDOT, Director, Division of Transportation Resiliency & Sustainability
7	Stephanie Johnson	DeIDOT, Assistant Director, Division of Transportation Resiliency & Sustainability
8	Joe Hofstee	AECOM, Project Manager
9	Dana AlQadi	AECOM, Deputy Project Manager
10	Brendan Connelly	AECOM, Sustainability Consultant
11	Margaret Quinn	AECOM, Public & Stakeholder Engagement Task Leader
12	Emily Thomas	AECOM, Planning Intern
13	John Sisson	DeIDOT, DART First State (DTC), Chief Executive Officer
14	Kathleen Grier	Delaware Commute Solutions TMA
15	Charlie Garlow	Delaware Electric Vehicle Association
16	Dean Day	Delaware Electric Vehicle Association
17	Adam Sadkowski	Delaware Electric Vehicle Association
18	Bill Swiatek	Wilmington Area Planning Council MPO
19	Marilyn Smith	Dover/Kent County MPO
20	Keith D. Hall	Salisbury/Wicomico MPO
21	Ben Zito	Salisbury/Wicomico MPO
22	Dave Shapely	Delaware Electric Cooperative
23	Rob Book	Delaware Electric Cooperative
24	Dawn Crompton	Delmarva Power
25	Nekabari Goka	Delmarva Power
26	Marcus Beal	Delmarva Power
27	Diane Goff	Delmarva Power
28	Glenn Moore	Delmarva Power



Count	Name	Organization
29	Kimberly Schlichting	Delaware Municipal Electric Corporation
30	Michael Quaranta	DE State Chamber of Commerce
31	David Edgell	Office of State Planning Coordination
32	Marcia Scott	Delaware League of Local Governments
33	Rosalia Velaquez	La Esperanza
34	Bernice Edwards	First State Community Action Agency
35	Bruce Wright	First State Community Action Agency
36	Laura Adarve	Latin American Community Center
37	Anna Quisel	League of Women Voters, Transportation
38	Kate DuPont Phillips	Healthy Communities DE
39	Jeffery Richardson	Imani Energy
40	Willie Scott	Delaware Concerned Residents for Environmental Justice
41	Alia Smith	NAACP
42	Job Taminiau	University of Delaware, Center for Energy and Environmental Policy
43	Greg Patterson	State of Delaware, Office of the Governor

### MEETING SUMMARY

- ❖ **James Pappas from DeIDOT**, welcomed attendees to the first meeting of the Working Group for the Delaware Electric Vehicle Infrastructure Plan. He then reviewed the agenda slide indicating the topics that would be part of this first meeting.
- ❖ **Susan Love from DNREC**, also welcomed attendees and reviewed items as to how the meeting was going to work on the virtual platform of Microsoft Teams. She asked that all attendants keep their microphone on mute until it was time for comments and questions. She introduced Delaware Electric Vehicle Infrastructure Plan (EV Infrastructure Plan) representatives on the call from DNREC. James Pappas introduced EV Infrastructure Plan representatives from DeIDOT, and Joe Hofstee introduced EV Infrastructure Plan representatives from AECOM. Slide presenters were Susan Love, James Pappas, Joe Hofstee, Margaret Quinn, Dana AlQadi, and Brendan Connelly.
  - ◆ Susan noted that the meeting’s chat function can be used for attendees to write in their questions, comments or feedback.
  - ◆ Susan introduced the organizations on the Working Group who were invited to join the call as representatives of major stakeholders.
  - ◆ Susan provided the background of the EV Infrastructure Plan, explaining that the plan will help to implement Delaware’s Climate Action Plan (CAP) by reducing emissions and informing CAP strategies. While electric vehicles (EV) are important, it is not the only strategy, and public transportation, bicycling and walking must not be ignored as



vehicular future is electric, and Delaware needs the infrastructure to support it. Additionally, policy direction is needed to support this major transition.

- ◆ Susan then explained why the state is developing an EV Infrastructure Plan now, sharing statistics regarding the increase of EVs in the U.S and Delaware. The EV Infrastructure Plan is critical to ensuring that Delaware can take full advantage of the \$7.5 billion nationally allocated in the Bipartisan Infrastructure Law (BIL) to build out the national EV charging infrastructural network. DNREC has identified which communities in the state have received the most applications for the state's rebate program, indicating areas with high EV ownership. She then explained the use of the Electric Vehicle Charging Justice40 mapping tool, through the Argonne National Laboratory, which is a mapping tool that can be used to aid in identifying historically disadvantaged communities. The tool is part of the Justice40 Initiative which aims to deliver 40 percent of the overall benefits of federal investments in climate and clean energy, including sustainable transportation, to disadvantaged communities. These communities typically have low EV ownership rates and thus low EV rebate numbers in Delaware. This all points to the importance of eliminating barriers to EVs.

*Chat:*

I believe that Energize Delaware is an important entity to be part of the Working Group.

- ❖ **Joe Hofstee, AECOM**, welcomed attendees and explained the importance of an EV Infrastructure Plan in Delaware. He stated that the goal of the plan is to evaluate and identify the future charging infrastructure needs in Delaware with a special focus in rural areas, in areas that have multi-unit dwellings, and disadvantaged communities. He indicated that the plan will incorporate existing conditions and data collection activities, model future conditions, and include public outreach and stakeholder engagement. Joe then shared AECOM's EV demonstration virtual meeting room. A virtual room, similar to the one presented in the demonstration, is currently under development and will ultimately provide an online space for the public to access important information regarding the EV Infrastructure Plan and to join online public meetings.
  - ◆ Joe also shared the DelDOT website for Delaware's vehicle electrification future <https://deldot.gov/Programs/NEVI/> where the public can access information regarding vehicle electrification, including federal guidelines, the statewide EV Infrastructure Plan for Delaware, resources and links for more information on EVs, and frequently asked questions (FAQ). Importantly, the website has an email address to offer comments on the Delaware EV Infrastructure Plan ([EVPlan@delaware.gov](mailto:EVPlan@delaware.gov)).
  - ◆ Joe then explained the framework and sections of the EV Infrastructure Plan, sharing the areas of focus such as civil rights, equity considerations, and workforce development.



*Chat:*

To see that we will be looking to ensure that rural and underserved communities will be considered in the planning stage is encouraging.

- ❖ **Margaret Quinn, AECOM**, introduced the role of the Working Group in the development of the plan and emphasized the importance of their role. The role of the working group is three-part: 1) to consult with DeIDOT and DNREC to guide the development of the EV infrastructure Plan, 2) to advise DeIDOT and DNREC on perspectives from their organization and/or industry, and, 3) to share public engagement opportunities with their communities and networks.
  - ◆ Margaret noted the importance of the working group in helping the plan meet the needs of various communities in Delaware with a specific focus on disadvantaged communities.
  - ◆ Margaret shared that the working group would meet 4 times at key milestones for the EV Infrastructure Plan, including today’s meeting. The next meeting would cover Future Conditions, followed by two separate sessions exploring Plan Strategies & Recommendations.
  - ◆ Margaret then introduced a possible Plan Vision statement, which is to “Enable current and future drivers of electric vehicles to confidently travel in and across Delaware for work, recreation, and exploration”. She then asked the working group to share their feedback and ideas on this possible statement.

*Comment:* I run the Delaware Chamber of Commerce and am a mayor as well. I drive an EV. More in level 3 chargers would be helpful in some situations, and there is a need for reliability and quick repair. Rather than range worries between stations, it is frustrating to get to a location and find that the equipment is broken. I encourage everyone to think about how to adopt fleets for the business community such as delivery vans or other companies such as HVAC, which drive around a lot. Where I live, residential uses present a challenge without a lot of on-street potential for charging. The historic district where I live will not allow it. We also need to be aware of where we do this, not far from full autonomy. Ownership is going down as more people take advantage of ride shares. Especially in densely populated areas we need to be mindful where it might not make sense to invest in EV Infrastructure.

*Chat:*

Do we need to include education? i.e. work, education, recreation, and exploration



*Chat:*

A main element of "confidently" traveling is to ensure infrastructure is reliable and works as expected - too often, current charging infrastructure can't be relied upon (doesn't work, needs maintenance, etc.)

Contractors that deploy charging infrastructure should also provide a maintenance/repair plan.

*Chat:*

Per the rise of AV/shared use services. . . I might say "EV users" instead of just the "drivers of EVs" in the vision statement.

- ◆ Margaret then introduced the possible Plan Goals, which focus on equity, reliability, connections, education, and evaluation. She invited the working group to share their feedback and ideas on these possible goals.

*Chat:*

I appreciate the inclusion of equity as a specific goal

*Comment:* Informational ads are needed, as I spent the last year answering questions about charging as an EV owner. Part of it is lack of awareness and knowledge. Putting out an informational campaign and the idea of having chargers near highways to reduce anxiety. The Netherlands have charging stations coupled up with gas stations which makes it convenient. Like the charging stations at the Biden Welcome Center off of I-95, having more of them and make it ubiquitous. One hurdle is that they will often partner with gas companies to use their sites, and how to maneuver that to get the gas stations on board since they may not be in support of the EV revolution.

*Chat:*

I'd offer accessibility/convenience - current charging infrastructure requires the user to know about different memberships, payment plans, car plug types, etc.

*Chat:*

In the Equity goal, I'd add: ". . . are engaged, that barriers to access are understood, and that recommendations to overcome these barriers are made. . ."

*Chat:*

Watch the Tony Seba presentation to the Council of State Governments Conference in 2021. Video is online. Some DE state legislators viewed this presentation. It's important to keep in mind we may pivot to full autonomy in/about ten years.



*Chat:*

The biggest barriers for Delaware local governments (towns, cities, and counties) are funding and policies/locations governing EV infrastructure locations. Resources that are needed include:

- o Guide to placement of charging infrastructure
- o Standardized language for codes and ordinances
- o Education for inspectors

*Chat:*

It might also be a good idea to create something similar as the Electric Vehicle Experience Center in the UK: <https://evexperiencecentre.co.uk/>

*Chat:*

Match the chargers with the idle time vehicle owners have. At home, a Level 2 charger is fine. In office or work parking lots, a level 2 is fine also because most cars are idle for 7 or 8 hours. That's enough time to fully charge most vehicles. Level 3 chargers will be most helpful along heavily trafficked routes. In the City of New Castle, we have placed several Level 2 chargers in parking lots given that we have many residents who do not have off-street parking options.

- ❖ **Dana AlQadi and Brendan Connelly, AECOM**, continued the presentation by sharing the existing condition mapping of EV infrastructure in Delaware. The first set of maps presented was existing charging infrastructure that showed DC (direct current) fast charging sites (25 locations) and Level 2 charging sites (108 locations) in the state followed by three county maps. Following that, designated Alternative Fuel Corridor (AFC) routes were shown on a map that depicted I-95, I-295, DE-1, US-13 and US-113 as the designated corridors. After the Existing Conditions information was presented, Brendan presented the charging location analysis work for the AFC routes that has been completed by AECOM, identifying possible areas (25-mile radius circles) that have the potential to meet federal guidelines. He then presented slides containing statewide maps showing areas in Delaware where there may be potential to expand the network of charging infrastructure which included a listing with a range of possible criteria that could be used.
- ❖ **Susan Love, DNREC**, added clarifications regarding the role of the State of Delaware in EV infrastructure. Susan indicated that at this time, the State of Delaware is not planning to own and operate DC-Fast Charging stations on state-owned lands or state facilities.



The state will operate a small number of Level 2 charging stations, primarily as a service to employees and visitors to state facilities (including Parks, Park & Rides and offices). It will also operate private stations for its own fleet vehicles. When we speak about placing charging stations, we are talking about identifying areas that might be potential priority areas for charging and encouraging private developers to do that work. We need the policy and infrastructure to support and encourage this. She emphasized the importance of funding opportunities to help stimulate this market in places where we want to see more charging stations. If anyone is interested in exploring the data, you can head here: [https://afdc.energy.gov/stations/#/analyze?region=US-DE&country=US&show\\_map=true](https://afdc.energy.gov/stations/#/analyze?region=US-DE&country=US&show_map=true)

- ❖ **Breanne Preisen, DNREC**, explained that the US Congress passed, and the President signed into law, the Bipartisan Infrastructure Law which creates the National Electric Vehicle Infrastructure (NEVI) funding opportunity. The NEVI funding is focused on deploying electric vehicle (EV) charging infrastructure on established AFC corridors and interconnected corridors for travelers. There are criteria established for the types of chargers that can be funded with NEVI funds, as well as operations and maintenance requirements. She explained that NEVI funds must first be used to build out the AFC highway corridors before expanding to communities.
  - ◆ Breanne explained that NEVI is one funding opportunity while DNRECs rebate program is another. DNREC expects that other funding opportunities will arise in the future.
  - ◆ Breanne noted that the statewide EV Infrastructure Plan will inform where Delaware needs charging stations along highways and in communities, and where the cars and the people are.

*Chat:*

The State does need to clarify parking laws so that enforcement has the authority and recognized by the courts when vehicles are parked, not charging, in charging locations.

*Comment:*

Why do you exclude Tesla locations from the coverage analysis?

*Susan Love Response:* Tesla charging stations do not currently meet the criteria for NEVI funding, so it depends on whether Tesla will update their charging stations in the future. Specifically, Tesla stations are funded only by Tesla and can only be used by Tesla EV vehicles. The Tesla charger is proprietary; it is not universal. When we use public dollars to help invest in EV charging for the general public, we need to make sure that what is built is accessible by all EV owners/operators. We have previously required anyone building DC fast charging stations with public funds in Delaware to provide universal charging. These represent policy decisions that have to do with the use of public funds. Tesla in Europe is piloting upgrading their charging stations to support all EVs, but nothing is confirmed from that yet here in the United States.



*Comment:* I represent the Environmental Climate Justice Section of NAACP. My question is regarding the rebate and affordability for people to use and purchase EVs. Rebate ends December 2022, is there anything to go beyond that to help people transition to an EV? I don't feel as though there is enough education for people to transition to EVs. There is a lot of hesitancy and I want to know if there is going to be a way to address that beyond me advocating to the people in my network. Is there going to be a broader education effort?

*Susan Love Response:* We do intend to extend the rebate program beyond December, which will require re-evaluation. We are looking into a third-party administrator to work on outreach campaigns. Part of the plan is to work on education and workforce development, especially with kids and college students to penetrate those populations.

*Comment:* I would recommend two partnerships. First, the local Chamber of Commerce. There are 14 in Delaware, a lot in Sussex County and in the beach communities. They will have insight as to what the commercial and business groups are doing. Second, there is potential with local governments and their municipal parking lots, as well as their development codes for on street parking and multifamily units. I think it's important for local leaders to explain this to their community to explain residential and commercial interest in EV infrastructure.

*Susan Love Response:* If you could share those contact with us, please, local governments are a key component because they set the parking requirements and the building codes.

- ❖ **Breanne Preisen, DNREC,** offered to meet with community groups to share information about the Plan.

*Chat:*

I will be interested in having you come to some of our community groups

*Chat:*

Great. Possible opportunity with J.P. Morgan in September to coincide with their employee appreciation week





*Breanne Preisen Response:* If you have info on that, can you send that to me?  
[Breanne.Preisen@delaware.gov](mailto:Breanne.Preisen@delaware.gov)

- ❖ **Stephanie Johnson, DeIDOT**, expressed appreciation to the working group for their attendance and feedback, especially emphasizing their importance to creating points of contact throughout the state and serving as satellites to reach further into the communities. She emphasized the importance of engaging with rural and underrepresented communities to make sure they are part of the dialogue and can contribute to the plan.

*Comment:* We do not plan on owning stations, but we are working on a plan about Make Ready. There is a tremendous amount of investment that goes on and we want to make sure our electric power infrastructure is ready so that we can provide the appropriate energy that is necessary. We believe that the private businesses should do this.

*Comment:*  
Does/could the rebate consider a sliding scale rebate based on income? Do/could purchase of used EVs qualify for a rebate? How can EV purchase become more of an option for people of lower income? The idea of increasing charging infrastructure in Justice 40 communities is great, but the cost of EVs is a huge barrier to people of low-income. How this plan aligns with other supports to enable purchase would be important to represent and communicate as we engage community groups.

*Breanne Preisen Response:* We are investigating the feasibility of Low-moderate income/Used Car rebates as part of our Clean Vehicle Rebate Program in future funding rounds.

*Susan Love Response:* We have thought about how we can incentivize EV use, and we are witnessing a strange phenomenon where you can buy an EV then sell it for more than you purchased it for the next week, so used EVs are not always affordable. We are weary of incentivizing purchasing an EV that we don't know how long the battery lasts. We want to make sure we are not creating unanticipated financial burden for people who might buy a used vehicle.



*Comment:*

Just curious, can EV wiring (charging stations) be tied into community solar power?

*Susan Love Response:* We have talked about using renewable energy for chargers. There is a specific definition of community solar. I'm not sure you would connect to a charging station, but you can probably connect a business or grid to local solar production. You can have solar panels on your home and plug your car in. You can charge it on the grid and as the grid is getting cleaner, EVs will receive more charge from solar. So, the answer is kind of, but we do want the charging to be as clean as possible. Probably cannot connect directly to solar power.

*Comment:*

How many charging ports/cables are needed to serve the expected number of vehicles? Coverage of chargers along a corridor is one thing, but if there are more electric cars there will need to be more plugs at each station. Hopefully the plan can address this as the number of electric vehicles scales up as hoped and expected.

*Breanne Preisen Response:* That's what this plan is intended to do.

*Comment:* Are we allowed to invite others to join this group?

*Jim Pappas Response:* We were selective at this point in terms of the initial engagement. There will be opportunities for public participation to engage the people in your network. We would like to keep it with this group for working group representatives. If there is someone you want to make sure we are working with, we want to have those names, if there are some stakeholders that you think that need to be engaged. We want to make sure we get input from all corners of the state.

*Brian Andersen Response:* For additional stakeholders or participants, I can add them to our larger list of interested parties: [brian.andersen@delaware.gov](mailto:brian.andersen@delaware.gov)

*Comment:* These developers will be seeking subscribers and they need them to be successful. Residents and commercial businesses are permitted to be subscribers. Those dollars can support cleaner energy.

*Comment:* Just wanted to add one comment about the public info campaign. As I'm thinking about how to share this info, I think it would be helpful to provide more



context as to why this is important for the state and for families. This is not on the forefront of anyone's minds in low-income communities. Providing how these communities could even potentially access an EV at all might make for more meaningful engagement and relevance.

- ❖ **James Pappas, DeIDOT**, explained the next steps of the planning process via the last slide, including that there will be public workshops and more working group meetings. He closed the meeting, thanking everyone for their time and input.