

State of Michigan/Utility Convenings to Discuss Electric Vehicle Infrastructure Deployment

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Overview

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) and Michigan State University (MSU) met with utilities to further discuss electric vehicle (EV) charger deployment, with specific emphasis on the National Electric Vehicle Infrastructure (NEVI) Formula Program.

As some background, EGLE has collaborated with MSU to develop several models to optimize EV fast charger placement across the state. These models have been used to strategize the deployment of charging infrastructure through state programs such as Charge Up Michigan and the soon to come NEVI Formula Program. We have shared the results of these models from a broad perspective with utilities across the state (meetings held on 5/16/22 and 9/16/22) and are now meeting at a more localized level to figure out how to move forward with implementation.

We have organized 2 meetings with the largest investor-owned utilities in the state (DTE and Consumers Energy) as well as 5 meetings with smaller investor-owned utilities, municipal utilities, and co-operative utilities across various regions (East, West, South, North, and UP). These meetings serve several purposes:

1. Discuss the proposed general locations (AKA “nodes”) and number of chargers in each utilities’ service territory
2. Gather feedback on the capacity/limitations utilities have to fulfill the suggested charger needs to determine deployment strategies
3. Share information regarding the NEVI Formula Program requirements
4. Collect insight on the requirements to incorporate into our Request for Proposals
5. Gauge utilities interest in participating in the application evaluation process

During the meetings, we first overviewed the charger placement optimization data that was relevant to the participating utilities. We then offered participants a chance to provide feedback, comments, and questions. Next, we overviewed all the requirements listed in the NEVI Formula Program Proposed Rulemaking. After each series of requirements, we paused to gather comments and answer questions. At the end of the meetings, we asked the participants what role they wanted to play in the evaluation of project applications within their service territory. All documents shared during the discussion were distributed to the utilities post-meeting.

The main takeaways of the meetings are as follows:

- Municipal and co-operative utilities, especially in the northern part of the state, are concerned with being able to meet capacity requirements because the cost will be too restrictive
- Performance bonds are a better mechanism to ensure reliability than penalties
- Utilities want to directly participate in the evaluation process

Below are the notes recorded for each meeting.

Meeting Notes

DTE Meeting 10/6/2022

Attendees

- Tyler Johnson, DTE
- Kelsey Peterson, DTE
- Milena Marku, DTE
- Brett Steudle, DTE
- Josh Duckwall, GDS Associates
- Ali Zockaie, MSU
- Mehrnaz Ghamami, MSU
- Jessica Crawford, EGLE
- Robert Jackson, EGLE

Notes

- DTE stated concerns about the Roseville site being counted toward the Detroit node; it is simply wrong to consider Roseville as part of Detroit. They don't want existing chargers not within the vicinity to count toward Detroit's needs and result in Detroit getting snubbed out of their chargers. EGLE needs to figure out how far we will allow distance from node, 5 miles has been the rule of thumb in the past.
- DTE stated that there needs to be chargers along each interstate in cases where a single node covers multiple interstates, e.g., Detroit node covers I-96, I-94, and I-75, need charging stations on each.
- DTE expressed concerns with EVITP being the only certification program for electricians. They want to know how demanding this program is and if it will create an unnecessary bottleneck. There are already credentials that electricians can get to be qualified for EV charger installations, so they want to know if those options can be considered as alternatives.
- DTE asked whose responsibility it will be to acquire all this data. Although DTE provides the State with some data now, it is simple because essentially, they just have to pull from two platforms and can practically choose all chargers. However, it will get extra complicated when picking and choosing sites for data collection. Ideally, data collection should be provided by the network providers, however, that will come at a cost.
- DTE suggested that EGLE explores purchasing Tesla>CCS adapters and installing them on all existing Tesla Superchargers. Relatively inexpensive way to get more chargers added to the universal network.

Consumers Energy Meeting 10/6/2022

Attendees

- Doug Reid, Consumers Energy
- Jeff Myrom, Consumers Energy
- Karl Bloss, Consumers Energy
- Chelsea Navin, Consumers Energy
- Jessica Crawford, EGLE

Notes

- CE has 33 nodes and is relatively ahead of other utilities in securing site locations. What happens when CE fulfills all the "NEVI" needs? Are they going to have to wait until all other "NEVI" needs are met before they start working on fulfilling "Additional" needs? EGLE needs to get further clarification. However, due to timing, EGLE is hopefully there can be simultaneous buildout. Also, it

does not make sense for them to wait. By them building capacity in their territory, it helps with travel to other service territories (e.g., from Detroit > Traverse City, CE provides chargers as the cross-roads).

- CE reiterated that idle fees, parking fees, and any and all fees need to be transparent.
- CE suggested that there needs to be a preference for pull-through parking space. There are ADA guidelines for pull-through parking, perhaps this format could receive a higher evaluation ranking.
- CE needs clarification on if 97% uptime is per port or an average across all four ports. Also, they would like to understand if there will be any enforcement and what that will look like and who is held responsible (e.g., if it is a network issue, but the grant agreement is with the site host).
- CE stated that a 5-year duration is long enough for there to be major changes in technology, need to ensure there are options for updates to stay relevant (e.g., think of chargers that were set up to 3G that are no longer operable because they aren't compatible with 5G).
- CE suggested that it is critical that local/regional technicians provide services, otherwise, delays will intensify.

Southern Utilities Meeting 10/18/2022

Attendees

- Will Joseph, Village of Paw Paw
- Bill Tokash, Indiana Michigan Power
- Terry Rubenthaler, Midwest Energy Cooperative
- Charles Stevens, City of Chelsea
- Katie Abraham, MMEA
- Ali Zockaie, MSU
- Mehrnaz Ghamami, MSU
- Jessica Crawford, EGLE
- Robert Jackson, EGLE

Notes

- Indiana Michigan Power expressed a concern with the numbers in the "Additional" column. EGLE responded by proposing a two-step build out approach: first build out the "NEVI" column and then if demand persists, start chipping away at the "Additional" column (need to work on figuring out threshold), which seemed to alleviate concern.
- The group had little to no feedback on the NEVI requirements.
- Indiana Michigan Power believed that a performance bond of 1-3% on the total installation cost might be okay, but just concerned about some of the smaller contractors.

Eastern Utilities Meeting 10/18/2022

Attendees

- Anna Munie, Lansing Board of Water & Light
- Kellee Christensen, Lansing Board of Water & Light
- Dax Patel, Lansing Board of Water & Light
- Anthony Fields was invited to the meeting, Lansing Board of Water & Light
- Ali Zockaie, MSU
- Mehrnaz Ghamami, MSU
- Jessica Crawford, EGLE
- Robert Jackson, EGLE

Notes

- LBWL had some suggestions for locations of the charging stations. Want to ensure easy access to offramps, capacity, and amenities nearby. Suggested the Eastwood Town Centre (preferred location in terms of capacity), Downtown Lansing, Frandor Center (may have some challenges w/ substation capacity as more demand comes on the grid).
- LBWL has recently passed new rates for EV charging starting in November; residential customers will get special off-peak rates and commercial customers will get special rates for DCFs.
- LBWL questioned if there was any way to prevent price gauging for EV charging. EGLE suggested that there is no legislation that prevents this, but there is a clause in the NEVI proposed rulemaking that states that revenue is limited to a reasonable return on investment. We could potentially define what a reasonable return on investment is in our RFPs/grant agreements.
 - o LBWL has the ability to audit anyone who is doing unreasonable billing. They determine reasonable by looking at what they would bill for electricity and see if it is within ~5% of their costs (service fees are not really looked at, mostly just electricity rates)
- EGLE asked LBWL what role they want to play in site selection; whether they want to require the applicant to first get approval from them before proceeding with us or if they want to be a part of the evaluation process (only for applications relevant to their service territory). They indicated they would like to do both; the earlier and the more involved they are in the process, the less risk is associated with poor site selection.
- LBWL asked about uptime requirements and how that would be enforced. EGLE indicated that there is a requirement of 97% uptime, and we can enforce it one of two ways: either through penalties or through performance bonds (~1%-3% of total installation cost). LBWL was a strong advocate for using the performance bonds method.
- LBWL indicated that some big box stores may be shutting off their lighting to reduce energy waste, so suggested there be some explicit requirement for 24/7 lighting at charging stations.
- LBWL informed us that they collect data on the total monthly cost of electricity that the charging station operator must pay to operate on a charging station each month. However, we need to ensure we get the site host's permission to access that data in order for the LBWL to provide it to us. A lot of the more standardized data we can acquire through the Open Charge Point Protocol.

Western Utilities Meeting 10/18/2022

Attendees

- Thomas Mann, Great Lakes Energy
- Todd Davlin, City of Portland
- Chris Jensen, HomeWorks
- Doug Reid, Consumers Energy
- Katie Abraham, Michigan Municipal Electric Association
- Maria Lauck, Power System Engineering
- Julio Rovi, GDS Associates
- Ali Zockaie, MSU
- Mehrnaz Ghamami, MSU
- Amirali Soltanpourkhazaei, MSU
- Hamid Mozafari, MSU
- Alireza Darzian Rostami, MSU
- Jessica Crawford, EGLE
- Robert Jackson, EGLE

Notes

- Great Lakes Energy flagged that for some of the charger needs in the “additional” columns, the numbers are way beyond their capacity to meet even within the next 10 years (e.g., Reed City proposed 136 chargers). GLE is also concerned with the capacity per site that is required (e.g., 600 kW). This utility is used to deploying 150 kW max per site, so quadrupling that would create a power bill that would simply be unsustainable. Especially since their average users only use about 30 kWh per session. They fear that they would have to pass along the additional sites onto the customers (e.g., \$0.4 - \$0.5/kWh), which would not bode well for them as a utility provider. We asked GLE to follow-up with what capacity they will be able to meet.
- Power System Engineering (Engineering consulting firm that works with the Michigan Municipal Electric Association), also agreed with GLE that capacity is going to be a struggle for some of the not-for-profit utilities.
- Consumers Energy expressed that when sharing this data with contractors, there is confusion around the “additional” columns because the numbers don’t seem to make sense based off of population (e.g., Reed City has 136 and Grand Rapids only has 14). MSU explained that the reason being is that these numbers are based on inter-city travel needs along highway routes. The numbers are meant to serve pass-through travel of all trips rather than resident travel. We stated that another model was done to support intra-city (e.g., resident) travel, and that accounts for this perceived unbalance.
- Consumers Energy asked if chargers with battery storage were considered in the model, with the concern that these chargers need more time in-between charges to restore power. We stated that this was not accounted for in the model, however, the model does assume that the EV drivers will only charge enough to be able to get to their destination (opposed to charging to 100%), and because of this, the battery chargers don’t need to be at full capacity to offer enough power for the users needs.
- Power System Engineering suggested that a 3rd party data collector would be the best route forward, especially since it will be less of a burden on the site hosts to try to meet reporting requirements on their own.
- City of Portland suggested that a performance bond would be a better way to ensure reliability than penalties.
- City of Portland stressed that reasonable return on investment needs to be clearly defined upfront.
- GLE wanted more information on the performance bond; their concern was that there is already so much required, to add a bond on top of that is going to add extra red-tape that is going to be off-putting.
- GLE, Consumers Energy, and HomeWorks all agreed that they would like to be part of the evaluation process to some extent.

Northern Utilities Meeting 11/1/2022

Attendees

- Thomas Mann, Great Lakes Energy
- Frank Siepker, Cherryland Electric
- Jacoby Hardy, Traverse City Light & Power
- Lucas VanderZee, City of Harbor Springs
- Mike Robbins, City of Petoskey
- John Griffith, City of Charlevoix
- Doug Reid, Consumers Energy
- Ken Dragiewicz, Alpena Power
- Julio Rovi, GDS Associates

- Ali Zockaie, MSU
- Mehrnaz Ghamami, MSU
- Hamid Mozafari, MSU
- Jessica Crawford, EGLE
- Robert Jackson, EGLE

Notes

- EGLE asked if dealerships should be eligible for NEVI. Traverse City Light & Power suggested not to allow it because they have their own requirements to fulfill and will be getting chargers anyways. Cherryland didn't believe that dealerships are the most accessible and accommodating of locations and suggested that they should not be prioritized, though maybe should be eligible if all other options have been exhausted. GDS Associates proposed to not completely write-off dealerships and be open to exploring potential partnerships since they are a powerful group.
- The group asked what radius was allowable for the nodes. EGLE stated that the general rule of thumb is 5 miles, but we can consider exceptions if the circumstances are right. However, the distance from the designated alternative fuel corridor is steadfast on 1 mile. There are opportunities to request exceptions from the Joint Office of Energy and Transportation, but it requires filling out a form and providing backup documentation. It was emphasized that the reason for these meetings is to understand the stress points and take action to file an exception with the Joint Office if necessary. It is unclear at this time on the frequency that exceptions can be filed and accepted.
- GLE asked if a site along an alternative fuel corridor could qualify for Charge Up Michigan funds. EGLE explained that first we would explore the option to pursue a NEVI project. If NEVI standards couldn't be met, then we would file an exception. If the exception is not granted, then we can consider using Charge Up Michigan funds (or Lake Michigan Circuit if it is on the West Coast).
- Traverse City Light & Power asked for clarification on the charger requirements. EGLE stated that there has to be four ports capable of charging four vehicles simultaneously at 150 kW each.
- GLE expressed concerns that the exception process might be too lengthy. Also stated that due to capacity restrictions, the cost will be too significant. EGLE suggested that we be as proactive as possible with filing exceptions in hopes of a quicker turnaround. Suggested that grid capacity exceptions are viable. If an exception is not granted, can always look to Charge Up Michigan to fund, though there is less cost-share available through that program.
- GLE stated that with their existing systems (max 150 kW), the electricity cost may be around \$10K annually. However, with the NEVI system (at least 600 kW), the electricity cost could be upwards of \$80K. Does not feel right about putting this kind of burden on the site host. GDS Associates requested to see how the numbers are determined to find out if there are any areas of intervention that the State can take to alleviate cost burdens.
- Cherryland stated that right now, they only have a handful of sessions a week. Due to this, there are too few users to spread the costs. There needs to be significant increase in sessions to make the finances work. Asked if there would be any way to install the 150 kW chargers and limit allowable capacity to 50 kW until there are enough sessions to mitigate costs.
- EGLE asked if a potential solution might be to build out 2x 150 kW chargers with Charge Up Michigan funds in the immediate future and then once demand catches up, build the remaining 2x 150 kW chargers with NEVI funds. Cherryland believed it that might be more likely, but still expressed hesitation because it will be more of a financial lift because Charge Up Michigan has lower cost-share. It is also a complicated sell to the site host.
- Cherryland asked what the approximate cost would be for a NEVI charging station. EGLE said there have been total project quotes ranging from \$800K - \$1 million. GLE has seen numbers around \$1.4 million.

- Consumers Energy expressed that NEVI has put extreme stress on the supply of 150 kW chargers, so the availability might be extremely limited early on. For this reason, Consumers might investigate other powered chargers in non-NEVI sites.
- EGLE asked what the utilities thought about the Electric Vehicle Infrastructure Training Program. Cherryland said that they don't know of anyone who has gone through it. It was troublesome enough to try to get contractors verified for certain charging vendors, they imagine this will create additional hurdles. Having EGLE pay for the certification fee might help some contractors, but not fully solve the dilemma. Traverse City Light & Power questioned if there was a list of EVITP certified contractors and EGLE was unsure.
- EGLE presented the idea of a performance bond to ensure the 97% uptime. Cherryland expressed some hesitation because it might be too complex. EGLE stated that there needs to be some mechanisms in place to ensure reliability is secured and relayed that we are open to other suggestions.

UP Utilities Meeting 11/3/2022

Attendees

- Paul Gogan, WEC Energy Group
- Patrick Sullivan, WEC Energy Group
- Joel Burow, WEC Energy Group
- Rich Stasik, WEC Energy Group
- Michelle Mattson, WEC Energy Group
- Pat Frazier, Cloverland
- Michael Heise, Cloverland
- Brett Niemi, WPPI Energy
- Mark Link, Marquette Board of Light & Power
- Thomas Carpenter, Marquette Board of Light & Power
- Gerald Pirkola, City of Escanaba
- Allison Watkins, City of Newberry
- Lindsay McWebb, UPPCO
- Jay Ringler, UPPCO
- Katie Abraham, Michigan Municipal Electric Association
- John Kinch, Michigan Energy Options
- Michael Larson, Michigan Energy Options
- Julio Rovi, GDS Associates
- Ali Zockaie, MSU
- Mehrnaz Ghamami, MSU
- Amirali Soltanpourkhazaei, MSU
- Jessica Crawford, EGLE

Notes

- After reviewing the nodes data, City of Escanaba indicated that they think they can achieve the goals set in their service territory.
- WPPI Energy asked for clarification on the allowable distance from the node. EGLE stated that the general rule of thumb is 5 miles, but we can consider exceptions if the circumstances are right. However, the distance from the designated alternative fuel corridor is steadfast on 1 mile. There are opportunities to request exceptions from the Joint Office of Energy and Transportation, but it requires filling out a form and providing backup documentation. It was emphasized that the reason for these meetings is to understand the stress points and take action to file an exception with the

Joint Office if necessary. It is unclear at this time on the frequency that exceptions can be filed and accepted.

- UPPCO suggested that they may be able to cover the sites for Rapid River and perhaps somewhere in the Blaney Park area but have some limitations because of the extensive build up that would be required. GDS Associates asked for clarification on what extensive build up was. UPPCO stated that the distribution lines were the limiting factor, they use single phase power 12.4kV /7200V lines. GDS Associates informed them to connect with EGLE on the 40103(b) Innovative Grid Resilience Program, as this grant program may be able to help.
- The group did not have much feedback to share on performance bonds.
- WEC Energy Group mentioned that new customers will not have previous data, so the first year of uptime will be difficult to calculate.
- The group did not have much feedback on who eligible entities should be.
- WPPI Energy asked if there is a limit on what can be charged for the use of the charging station. EGLE suggested that the federal guidelines keep it broad, with language that says the net income can be a reasonable return on investment. EGLE asked if there should be a more specific definition on what reasonable means. WPPI Energy said that it'd be important to consider demand charge in the definition of reasonable.
- City of Escanaba asked if there are any resources to see what EV chargers in the region are charging. EGLE suggested to use PlugShare.
- Michigan Energy Options asked if there are ways to leverage multiple funding sources. EGLE said that utility rebate programs can be used toward the 20% required NEVI match. It may also be possible to leverage Charge Up funds with NEVI funds under extreme circumstances where costs might be prohibitive enough to prevent the build out of an alternative fuel corridor, like US-2. However, organizations will likely not be able to use NEVI funds with other federal funding sources because most federal funding has limitations where federal money can't be used to fund 100% of the project.
- UPPCO asked for clarification on if make-ready costs would be considered in the 80% cost-share that NEVI would cover. EGLE said that make-ready is part of the total costs and would be an eligible reimbursable expense.