



NANCY VANDERMEER

STATE REPRESENTATIVE • 70TH ASSEMBLY DISTRICT

TO: Honorable Members of the Assembly Committee on Energy and Utilities

FROM: State Representative Nancy VanderMeer

DATE: October 20, 2021

SUBJECT: Testimony in Support of Assembly Bill 588

Thank you Chairman Kuglitsch and members of the Assembly Committee on Energy and Utilities for holding a hearing on AB 588 today and thank you to the committee members that have co-sponsored this proposal. The general topic of electric vehicles can generate, no pun intended, a variety of sentiments from across the spectrum from a number of individuals, including policymakers such as ourselves. As an auto-dealer, I certainly have some strong opinions and thoughts based on over 30 years in the automotive industry working with automotive owners, dealers, and others. However, today I'd like to focus on this particular proposal, what it does, and why Senator Cowles and I think it's important.

Assembly Bill 588 would ensure that any entity can make EV charging stations available to the public and allow the entity to charge a fee for the use of an EV charging station without having to be classified and regulated as an electric utility. This fee may be assessed by a flat charge, by time parked near the station or connected to the station, or by the amount of electricity a vehicle consumes. As the bill is drafted, in order to make sure that public entities are responsible to taxpayers when installing or operating EV charging stations, the bill also ensures that EV charging station efforts by local governments are approved by the governing body and that efforts led by the state Department of Transportation are approved by the Joint Committee on Finance. However, if you've had a chance to hear from some organizations on this bill or have had a chance to review the registrations on this bill, you know that some organizations have issues with public entities being able to charge fees for EV stations/service. In my view, that is an understandable position. I can share that the reason that is currently included is because, in short, with the amount of stakeholders involved with a proposal like this, strategically, in the drafting process, Senator Cowles and I wanted to start broadly.

That aside, I'd also like to share why Senator Cowles and I believe this proposal is important. One only needs to review EV registrations from our state's Department of Transportation to understand that EV usage is growing. Additionally, in a cursory review of industry headlines, one can easily learn more about some of the steps that major automotive manufacturers have taken recently and continually to address the EV market. The market is here with consumers, however, current statutes are silent regarding allowing entities to charge for EV charging stations and station services. We believe that organizations and entities should be able to charge for stations and services similar to any other good or service, understanding that what we're talking about today is, in fact, a unique service and as mentioned, a novel concept as far as our statutes are concerned, at least. I believe you'll have the chance to hear more about that today from a number of stakeholders on this bill, and Senator Cowles and I believe that we have struck or are close to striking the proper balance between energy providers, job producers, consumers, and others. Thank you for the opportunity to be here today and the opportunity for a public hearing on this legislation, and I respectfully ask for your support to move this proposal forward.

STANDING COMMITTEES:

Natural Resources & Energy, Chair
Transportation & Local Government, Vice-Chair



JOINT COMMITTEES:

Audit Committee, Co-Chair

Testimony on 2021 Assembly Bill 588

Senator Robert Cowles
Assembly Committee on Energy and Utilities
October 20th, 2021

Thank you, Chairman Kuglitsch and Committee Members, for allowing me the opportunity to submit testimony on 2021 Assembly Bill 588. This legislation exempts electric vehicle charging station owners and operators from public utility regulations and authorizes that owner or operator to charge a fee for the use of the charging station.

Electric vehicles (EVs) have been dramatically rising in popularity over the past several years, including in Wisconsin, with registrations in some recent years growing by over 100%. While EVs were initially created in start-ups and other smaller companies, mainstream automotive manufacturers, such as Ford, GM, and BMW, have now entered into the market, and more than 200 EV models are expected to hit the market by 2030. As the number of EVs on the road are already drastically increasing with each passing year, Wisconsin's EV charging station infrastructure is currently lagging behind many of our neighboring states. There are just over 100 public-facing DC Fast charging stations in Wisconsin, many of which are in greater Milwaukee area, and roughly 400 public-facing slower Level 2 charging stations in Wisconsin.

Assembly Bill 588 aims to provide the necessary statutory structure for private industry to have confidence investing in EV infrastructure and increase the number of public-facing electric vehicle charging stations. Primarily, this legislation exempts owners and operators of EV charging stations from the regulatory requirements of electric providers. 35 states have these necessary exemptions in place with at least seven states – Iowa, Kentucky, Missouri, Montana, New Mexico, North Carolina, and Vermont – having exempted EV charging stations from public utility regulations recently. EV charging stations and EVs in general are new products that our state statutes are generally silent on. As with any new and emerging technology, we as legislators and the statutes under which we serve need to adapt to the times, and in doing so we need to ensure that we don't unnecessarily subject our business community to burdensome regulations which stifles growth and advancement.

Furthermore, this bill authorizes EV charging station owners and operators to charge a fee for the use of their respective station. Under the bill, fees can be charged in several methods, be it by flat charge, by time parked near the station or connected to the station, or by the amount of electricity a vehicle consumes, more commonly called 'by the kilowatt-hour (KWh)'. By the KWh, will undoubtedly be the most common method, but legacy technologies or owner/operator choice may deploy different fee structures. Typically, public-facing charging stations add between \$0.11 to \$0.15 per KWh, usually adding between \$2 to \$8 per charge. The U.S. Department of Energy notes that, in Wisconsin, an eGallon, which is a measurement used to compare EVs energy usage to a gasoline-powered vehicle, currently cost \$1.32, significantly less than the state's average of \$3.11 a gasoline gallon. Granted, much of the charging of EVs will occur at home, but public-facing charging stations are absolutely vital to keeping these vehicles charged and on the road, avoiding range anxiety, and promoting tourism to both in-state and out-of-state travelers.

The approach taken in Assembly Bill 588 gives owner/operators of EV charging stations flexibility to employ a fee structure that they find to be best in an open and free market. There are a few different business models that are used today. These include a loss leader model, offering lower cost charging to attract drivers to a business; cost recovery, sets a usage fee to cover the cost of your charger; profit making, setting a usage fee that covers your costs and generates profit, or network-based; joining a network where the operator funds the installation of your charger; with conditions on their operation. Whatever model a business is looking for, flexibility and adaptability will be critical in ensuring the most effective model for that charging station location and ensuring long-term success.

As businesses across the state discuss making the investment to provide public-facing EV charging station services, we heard from several entities that are concerned about taxpayer-subsidized infrastructure for EV charging stations. There are still ongoing discussions about possible amendments to address these concerns.

Through facilitating the deployment of more EV charging infrastructure around the state, EVs can become a practical everyday option for Wisconsin drivers and become the reliable choice for weekend getaways and family vacations to our great state, bringing in new visitors to our tourism economy. Regardless of whether EV drivers are commuting to work, taking a weekend away, or merely just passing through, eliminating charging deserts and reducing range anxiety helps to keep these vehicles on the road, bring Wisconsin in line with neighboring states, and eliminates one of the biggest impediments prospective buyers have in making the choice to go electric.

I believe that Assembly Bill 588 can be the vehicle to spur Wisconsin's adoption of EVs and do so through an open and competitive emerging market of vehicles that are continuing to become a larger and larger share of the cars on the road.



October 20, 2021

Representative Mike Kuglitsch, Chairman
Committee on Energy and Utilities
Room 129 West
State Capitol
PO Box 8952
Madison, WI 53708


Dear Chairman Kuglitsch and Committee Members:

Good Afternoon Chairman Kuglitsch and Members of the Assembly Utilities Committee, I am happy to join you today in my new role as Government Relations Manager at Dairyland Power Cooperative. I am joined today with my colleague, Jeff Springer, Manager of Innovation and Efficient Electrification at Dairyland Power Cooperative. We appear today before the committee in support of Assembly Bill 588, relating to allowing persons to charge fees for the use of electric vehicle charging stations.

Dairyland Power Cooperative is a Generation and Transmission cooperative located in La Crosse, Wisconsin, serving member cooperatives in Wisconsin, Minnesota, Iowa and Illinois. Dairyland provides the wholesale electric and other services for 24-member distribution cooperatives and 17 municipal utilities in the Upper Midwest. In turn, these cooperatives and municipals deliver the electricity to consumers—meeting the energy needs of more than half-million people.

We appreciate the testimony of Wisconsin Electric Cooperative Managers and their insight on AB 588, and we work closely with them in developing and promoting the CHARGE network as a regional and national electric vehicle infrastructure model. We find ourselves in a time of tremendous transformation in the energy sector as it intersects with the transportation sector and growth of electric vehicles.

As electric vehicles and vehicle charging become more common there is a need to allow charging vendors to bill consumers by the amount of energy consumed. Currently, non-utility charging providers bill for charging by the minute which can be good or bad for the consumer depending on how fast their car is charging on a given day. Charging speed is dependent on the charger, the vehicle's charging capability, the state of charge of the battery and even the temperature of the battery. Charging by the kilowatt hour (kWh) removes these variables by billing the consumer for the actual amount of energy delivered rather than the connection time. This is why gasoline is sold by the gallon rather than by the minute.

A Touchstone Energy[®] Cooperative 

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DAIRYLAND POWER

COOPERATIVE

Preserving the ability to charge by the minute is also important as electric vehicle charging can be done unattended. Charging providers may choose to charge for the energy by the kWh but apply a per minute fee to encourage consumers to move their car once charging is complete. This allows better availability of charging stations which is important as fast charging stations are extremely expensive to install. Using a charging station as a parking spot is a problem for charging providers and other electric vehicle drivers who may be wanting to charge.


In addition to the fee flexibility charged in this bill, we support the protection of the energy provider that this legislation reinforces. This bill contains a provision to ensure that consumer protections provided by utility regulation in Wisconsin are preserved. This provision is essential to our support of this bill. Additional provisions to encourage coordination of charging providers with utilities when they are siting stations would be a welcome addition.

Thank you Representative Vandermeer and Senator Cowles for introducing the Assembly and Senate version of the bill, and Chairman Kuglitsch for holding a hearing on AB 588 this afternoon. We look forward to working with the committee on this issue and your thoughtful consideration in support of AB 588 in the future.

Sincerely,

Jennifer Shilling
Government Relations Manager
Dairyland Power Cooperative

Jeffrey W. Springer
Manager, Innovation and Efficient Electrification
Dairyland Power Cooperative

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Assembly Committee on Energy and Utilities
October 20, 2021
Assembly Bill 588

Chair Kuglitsch and members of the committee, thank you for providing us the opportunity to provide public comment on Assembly Bill 588, relating to allowing persons to charge fees for the use of electric vehicle charging stations and the installation and operation of electric vehicle charging stations by the Department of Transportation or a political subdivision.

Electric vehicles are an exciting opportunity for both the consumer and utilities. Wisconsin electric cooperatives serve more than 260,000 Wisconsinites, and nearly 50% of the land area, in the state as shown below in Figure 1. This coverage is significant because it represents an opportunity for public electric vehicle charging to meet the needs outside of major highway and interstate corridors.

In 2020, 31 electric cooperatives across Wisconsin, Minnesota, Iowa, and Illinois formed CHARGE with the goal of creating a regional and national EV charging network powered by electric cooperatives. Across the United States, electric cooperatives serve 56% of the landmass encompassing 49 states. Cooperatives are well positioned to help provide necessary infrastructure to solve the growing challenge of range anxiety presented to EV drivers. CHARGE has invested in over 50 public chargers across the four-state region with an additional 20 to 30 chargers being deployed over the next 6 months. CHARGE is working closely with cooperative G&T's (power suppliers like Dairyland Power Cooperative), statewide organizations, and other distribution cooperatives to broaden the network. In just a few weeks, this network will grow further into Iowa, Illinois and even into the southeast part of the United States.

Electric vehicles offer a significant opportunity when mutual interests behind the reduction of fossil fuel burning internal combustion engines and the opportunity to increase electricity consumption after decades of declining sales. Electric cooperatives see this as an opportunity to help refill lost revenue, especially in rural areas, which in return helps to provide level rates for all members.

Vast amounts of planning have helped ensure the North American electric grid can meet industry and residential needs. Infrastructure was built, modified, and upgraded based on dialogue between the user and the utility. On a smaller scale, utilities require homeowners or contractors to fill out service applications. Engineers utilize this information to plan for the type of service that is needed and apply the appropriate sizing of distribution equipment. This chain of planning starts at the grassroots level but continues all the way through to the utilities' service area, the power supplier, the regional operator, and the Federal Energy Regulatory Commission. This planning is built on reliability and availability of service.

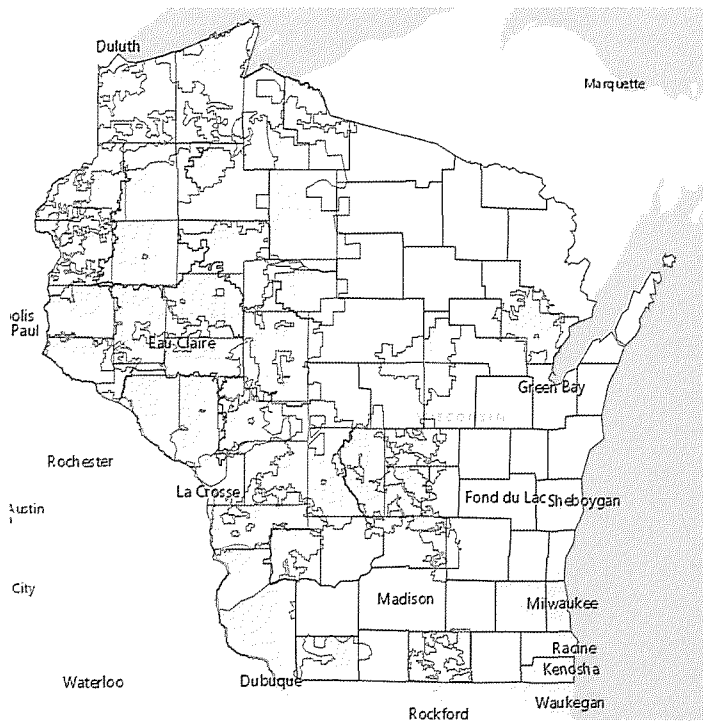


Figure 1 – Blue areas represent electric cooperative service area.

Electric vehicle growth is not limited just by availability of public charging. In fact, the ability to charge at home makes it more convenient for drivers to simply leave each morning with a full tank of energy. 80% of charging will occur at home. The challenge of EV adoption is more than simply a lack of public charging. Consumers need more education, better awareness of the cost savings, wider array of vehicle options, and turnkey at-home charging solutions.

Consumers are vastly unaware of energy measurements even though most receive a monthly bill from the power provider. Measurements such as kWh, KW, amps, and volts are familiar from high school science classes but are quickly forgotten about when it comes to home energy consumption, let alone public charging. Most consumers understand if their bill is \$100 or \$500, but not how much actual energy was purchased. This presents a fundamental challenge for retail selling of energy for EV consumption. Consumer protection in this area will be needed until technology and awareness increase to help aid the consumer.

CHARGE supports the proposed legislation, but has concerns in three fundamental areas:

1. Lack of transparency provided to the consumer.
2. Little to no requirements notifying the utility of the intended service use.
3. Lack of clarity around future considerations for EV taxable energy use.

We would like to address these items and respectfully ask that you please give consideration to each.

Lack of transparency to the consumer -

Charging stations are not abundantly clear as to the variability of energy rates, the charging rate put into the EV, or the cost for charging. Public charging has only become a reality in the last few years in Wisconsin. We need to ensure that consumers can clearly understand the amount of energy that is being consumed during a charge, the cost of this energy and the final calculation of this charge. The introduction of this bill creates a free-market approach to charging in which every homeowner, business, parking lot, or other entity can fundamentally become an EV station operator. We believe the state of Wisconsin needs to be mindful that consumer protection may be needed in this case.

In addition, we believe there may be a requirement in the future for station owners who operate electric vehicle infrastructure to be subject to an energy sales tax. While this is not a requirement today, it may be of benefit for Wisconsin to already have on file EV station owners.

We believe the bill would be strengthened by adding the following:

- Require any station operator to file a registration with the state of Wisconsin
- Require any electric charging facility to clearly provide the type of charger, the size/output of charging, and the cost associated for charging

Little to no requirement notifying the utility of the intended service use -

While EV charging stations aide utilities with additional sales that can contribute to higher load factors and increased revenue, there can be an impact to the distribution system and the assets that provide service. Distribution systems generally prefer to know the types of loads and the amount of load on individual transformers that are placed near service addresses. These transformers are often rated and sized to handle the necessary load. A 15 KVA transformer may be perfectly appropriate for a residential home but add the potential of three 30 kW EV chargers charging at the same time and the load this may impact the performance of the distribution equipment.

This problem could be magnified in a commercial space. Requiring a station operator to notify the serving utility that commercial charging will be offered would ensure that utilities have an opportunity to right size their equipment along with ensuring proper metering equipment is added.

Lack of clarity around future considerations for EV taxable energy use -

The lack of fuel sales will impact the amount of taxes that are collected at the pump which are a critical component in providing funding for road infrastructure. Some have suggested that tax

should be collected on energy sales used to power electric vehicles. While this legislation does not address this issue, the impact of allowing commercial charging to happen by entities other than utilities puts additional strain on the reconciliation of the energy used for charging.

Chair Kuglitsch and committee members, public EV charging is in its infancy of development. CHARGE supports the expansion of EV charging stations across the state and promoting legislation that encourages EV adoption. Assembly Bill 588 is a positive step forward. The additional recommendations suggested in our testimony provides protection for both the consumer and the utility. The synergistic relationship that exists between utility, EV station operator and driver can be fruitful if executed properly.

Thank you for the opportunity to provide this information, please feel free to reach out to CHARGE or any of the cooperative affiliates that may be impacted by this bill.

Sincerely,




Nate Boettcher, President/CEO
Pierce Pepin Cooperative Services



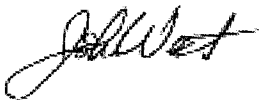
Shannon Clark, CEO/General Manager
Richland Electric Cooperative



Chris Tackmann, General Manager/CEO
Oakdale Electric Cooperative



Chris Kopel, CEO
Bayfield Electric Cooperative



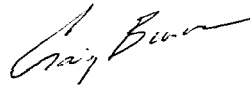
John West, General Manager
Adams-Columbia Electric Cooperative



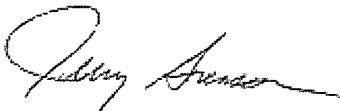
Mike Wade, President/CEO
Central Wisconsin Electric Cooperative



Steve Lucas, CEO
Scenic Rivers Energy Cooperative



Craig Buros, General Manager/CEO
Vernon Electric Cooperative



Jerry Sorenson, General Manager
Riverland Energy Cooperative



Jesse Singerhouse, General Manager/CEO
Dunn Energy Cooperative

Assembly Committee on Energy and Utilities
Chairman Mike Kuglitsch
Room 129 West
State Capitol
P.O. Box 8952
Madison, WI 53708

Thank you to Chairman Kuglitsch and members of the Assembly Committee on Energy and Utilities for the opportunity to testify today in support Assembly Bill 588. Wisconsin Conservative Energy Forum has a unique mission in our state; to bring a free market, conservative voice to the debate over energy and emerging technologies like electric vehicles. Our support for AB 588 is grounded in the understanding that the electric vehicle (EV) market is quickly emerging.

Electric vehicles are arriving quickly to Wisconsin's streets; they are no longer a pipe dream or a niche market for luxury consumers. Automakers across the world including Ford, Toyota and General Motors are investing hundreds of billions in electric battery supply chains and EV manufacturing capacity. Startups in the space like Tesla and Rivian are marking the first new entrants into auto markets in a generation, pushing innovation forward. Latest estimates, which have been consistently raised annually, put EV sales at 3.5 million in 2030. This represents about 20% of vehicle sales annually and huge growth from the 2% of sales EVs represented in 2020.

It's easy to see why electric vehicles are becoming popular with consumers. Without fuel and maintenance costs such as oil changes, electric vehicles are far cheaper to drive and maintain over the lifetime of the car. As batteries drop rapidly in price and energy density increases the cost of EVs drops and the range and capabilities increase. Cost competitive EVs offer our state a unique economic opportunity as well.

Last year alone, drivers in Wisconsin spent \$7.6 billion putting gas in our vehicles. This money leaves our state and is paid to oil and gas operations around the world. Switching the source of our fuel from a market dominated by Saudi Arabian and Russian oil to locally generated electricity could bring jobs, investment, and economic development to Wisconsin.

As an organization we are interested in policy that leads us toward sustainable private development of EV charging infrastructure across the state. The change authored in Assembly Bill 588 is long overdue and important for the development of that infrastructure. In order to take full advantage of the EV transition in our state it's becoming clear we need changes to state policy that allow for workable consumer-oriented business models.

The EV market is still young and upstart, so there is significant variation in vehicle model designs, charging ability, and battery capacities. Simply put, different vehicles charge at different speeds and rates. This alone makes it important for EV charger owners to have the legal ability to charge for the electricity they are selling. Not only is it important for the EV charging business model but it's critical for consumers as well.

The current model in Wisconsin, charging consumers for time or the parking space in front of a charger, is confusing, opaque, and unfair. This needs to change, especially if we are to expect private enterprise to come into the market. AB 588 moves us closer to where we need to be and embraces that change.

We have a significant opportunity to utilize this superior technology and give new meaning to homegrown energy to create jobs and economic development. The future is here, but Wisconsin is not ready for it. That's not to say we can't be ready with forward looking leadership. We applaud Senator Cowles, Representative VanderMeer, and Chairman Kuglitsch for showing leadership and stepping up to find solutions and pursue opportunities.

I would be happy to take any questions the committee has. Thank you again for the opportunity to testify in support of Assembly Bill 588.

Scott Coenen
Executive Director
Wisconsin Conservative Energy Forum



Assembly Committee on Energy and Utilities
Wednesday, October 20, 2021

Assembly Bill 588 - Electric Vehicle Charging Station Regulation

Testimony by Jim Boullion, Director of Government Affairs

Mr. Chairman and Committee members, thank you for the opportunity to speak today. My name is Jim Boullion, Director of Government Affairs for RENEW Wisconsin. We are a not-for-profit organization that works to advance renewable energy and clean energy technologies like electric vehicles.

AB 588 would clarify that non-utility entities may sell electricity for electric vehicles (EV's) without violating the State utility laws. **RENEW Wisconsin supports that goal, and that part of this legislation.** Currently, non-utility owned EV charging stations are charging by the minute, not the amount of energy delivered. That results in the owners of slower charging vehicles paying more for energy than the owners of fast charging vehicles, which we feel should be corrected.

While the bill would solve one problem, it is creating another. As drafted, this proposal would prohibit anyone from charging a fee if any non-utility-generated energy is provided through a non-utility-owned/operated EV station. **RENEW Wisconsin opposes this provision** as it will significantly limit the use of solar+storage EV charging equipment in Wisconsin.

This is an important emerging technology that can make EV charging stations practical and affordable in areas of the state where the local utility infrastructure is inadequate, it is too costly to upgrade or just to keep energy costs down. What are the benefits of solar+storage EV charging stations?

- **Facilitates EV chargers in rural areas.** Allows the placement of EV chargers in locations that have inadequate power infrastructure. Rural areas like State parks, tourist areas and small towns with lower capacity grid infrastructure could host EV chargers that otherwise would not exist.
- **Reduces infrastructure cost.** If there is insufficient energy capacity at any location, a solar+storage system can sometimes be less costly than upgrading the power lines and infrastructure.
- **Limits demand charge spikes.** Some businesses that would like to host EV chargers are at risk of large spikes in energy demand over short periods of time which could create much higher peak demand charges on their utility bill. Solar+storage can reduce this problem, while also reducing the need for costly peak demand generators on the grid, saving all ratepayers money. EnTech installed just such a system at Bergstrom Ford in Neenah after John Bergstrom discovered after plugging in some of his new EV's that "Their electric bill was almost 3 times what a normal bill would be."
- **Increases resilience and safety.** When the power grid goes down for any reason, solar+storage EV chargers can be a critical emergency resource, not only for the emergency vehicles and first responders who switch to electric vehicles, but for the general public as well.

RENEW Wisconsin urges you to support updating Wisconsin's electric vehicle charging station laws. We also urge you to remove the limitations on host generated energy that has so many potential benefits for electric vehicle drivers, charging stations owners and the resilience of Wisconsin's energy grid.

Companies Providing Solar+Storage EV Chargers:

- [EnTech](#) – Based in Menasha, Wisconsin. John Bergstrom, Bergstrom Automotive [tells their story](#).



- [BEAM](#) – Produces a portable, rapidly deployable, go anywhere solar powered EV charger. The City of Madison owns three of these portable units.



Wisconsin Auto Dealership Installs Microgrid-Based EV Charging Units

MARCH 29, 2021 BY JENNIFER NASTU

Bergstrom Automotive in Neenah, Wisconsin, has installed clean-energy, microgrid-based EV charging units that can each generate at least 23 megawatt hours of solar energy annually, enough for the dealership to provide nearly 500 electric vehicle charges. The company says the clean energy solution will emit 50% fewer carbon emissions compared to charging vehicles from the traditional utility grid.

Additionally, the system is immune to interruptions that could arise because of utility outages.

Bergstrom Automotive [worked with EnTech Solutions](#) to install EV chargers. The units are powered by solar arrays with support from an onsite natural gas generator. When cars are not plugged into the chargers, the excess energy is collected into batteries.

There were more than 1.7 million electric vehicles on US roads in 2020, and that number is projected to skyrocket to nearly 7 million vehicles by 2025. Relying on the already stressed fossil-fuel utility grid removes much of the environmental impact EVs can make. Powering them with solar energy eliminates carbon emissions, while also being cost effective, EnTech says.

At 821, Wisconsin has [fewer charging stations](#) than neighboring states Illinois and Minnesota (at 2,117 and 1,164 respectively) per the US Department of Energy (via Fox 11 News). However, Wisconsin's Governor Tony Evers wants to improve EV charging infrastructure, and his recent budget proposal includes a \$5 million investment.

[EnTech](#) – A division of Faith Technologies is based in Menasha, Wisconsin. John Bergstrom, President of Bergstrom Automotive [tells their story](#).

[Automotive News Podcast](#) - How Bergstrom Automotive plugged into an EV Solution. John Bergstrom solved a “demand charge” problem and meeting clean energy goals with a Solar+Storage microgrid.

Bergstrom Automotive

NEENAH, WI

Overview

Bergstrom Automotive, headquartered in Neenah, Wisconsin, is one of the top 50 automotive retailers in the United States. Their dealership in Neenah has prepared for the launch of Ford EV models, particularly the Ford Mustang Mach-E and all electric F-150.

The microgrid units are off grid, which made the installation quick and easy. This system is always on and always available, without any interruptions that could arise because of utility outages. The clean energy EV charging system also aligns well with Bergstrom's corporate sustainability goals.

Challenges

EnTech Solutions was asked to demonstrate a clean energy solution to support Bergstrom's EV charging infrastructure challenges, while reducing the impact of demand charges.

Highlights

- 49% carbon reduction vs. charging off the utility grid.
- Project completed, start to finish, in less than three weeks.
- Solar is the primary power source.
- By generating 47 MWh of annual solar energy, the dealership can provide nearly 1,000 EV charges.

Solution

To eliminate the need for new utility infrastructure service, EnTech Solutions [clean energy EV charging](#) system was presented as a solution. Utilizing two Xcape cabinets, EV chargers were installed in the front lot and in their service bay. Both units are powered by one solar field, with support from an onsite natural gas generator.

Microgrid Specs

Xcape unit and ground-mount solar

Technical Summary

Customer Load	Mach-E, 68 or 88 kWh battery
Design Output kW	36 kW
Design Storage kWh	160 kWh
Design Solar PV Input	39.4 kW

Supplemental Power Generation

Grid Connection	Off Grid
Generator Application	Natural Gas Generator, supplemental



cleanwisconsin

YOUR ENVIRONMENTAL VOICE SINCE 1970

DATE: October 20, 2021
TO: The Assembly Committee on Energy and Utilities
FROM: Clean Wisconsin
RE: Assembly Bill 588 – Allowance of Fee Charges at EV Charging Stations

Chairman Kuglitsch, Vice-Chair Steffen, Ranking Member Meyers, and Committee Members,

Thank you for the opportunity to testify on Assembly Bill 588. My name is Erik Kanter. I am the Government Relations Director at Clean Wisconsin.

Clean Wisconsin works to preserve and protect our state's clean air, clean water, and natural heritage. For over 50 years, legislators on both sides of the aisle, policy makers and the public have turned to Clean Wisconsin for reliable, evidenced-based analysis of legislative and administrative proposals.

We support policies to normalize and incentivize increased use of electric vehicles as a strategy to reduce carbon emissions in the state. As such, we generally support policies to increase installation of electric vehicle charging stations and expand access to stations for electric vehicle users.

Respectfully, we believe Assembly Bill 588 would benefit from adopting three recommendations in an amendment.

First, we recommend clarifying that a time-based fee only be allowed when a charging station is installed at a parking spot. On principle, Clean Wisconsin believes the fairest way to seek fees is to charge a user based on the amount of energy that user consumes. It facilitates uniformity between charging an electric vehicle and refueling a gas or diesel-powered car. It also creates parity for various EV models that charge at differing speeds.

However, we understand the intent is for a metered, time-based model is to be utilized when an electric vehicle is parked and charging in a parking spot. Essentially, this is a way for EV users to pay for parking. We believe the legislation should clarify this intent to ensure a metered, time-based model is not utilized while charging in a setting without parking fees. Electric vehicle users should not be treated differently from owners of gas or diesel-powered cars.

Second, we recommend allowing non-utility-generated energy to be included in the bill. Assembly Bill 588 only allows for a fee to be charged for utility-generated energy. This excludes important emerging technology, such as solar+storage charging equipment, which can help make charging stations practical and affordable in locations where utility infrastructure is inadequate.

The technology provides broad access to charging stations in urban and rural areas alike and can be an important charging source in emergency situations when the power grid may be down. While that technology is still emerging, it is prudent to include non-utility-generated energy in this legislation so such technology can be deployed as soon as possible.

Third, we recommend defining the criteria the Joint Committee on Finance must utilize to approve or deny a proposal for state-installed charging stations. While we understand the bill's intent to ensure the state is not competing with the private sector in deploying charging stations, we believe state-installed stations can supplement gaps in availability.

Without defining the criteria for the Joint Committee on Finance to approve or deny a request, the committee's decision-making could be considered arbitrary. Defined criteria guarantee consistency in the Committee's actions as well as provide guidance to agencies when preparing installation proposals.

Thank you again for the opportunity to testify on Assembly Bill 588 and for your consideration of Clean Wisconsin's recommendations.

WMC

Wisconsin's Chamber

TO: Members, Assembly Committee on Energy and Utilities

FROM: Scott Manley, Executive Vice President of Government Relations
Craig Summerfield, Director of Environmental & Energy Policy

DATE: October 20, 2021

RE: Opposition to Assembly Bill 588 due to provisions on taxpayer-funded electric vehicle (EV) charging stations

Wisconsin Manufacturers & Commerce (WMC) appreciates the opportunity to testify about our concerns with Assembly Bill 588. WMC is testifying against the legislation today due to provisions in the bill authorizing taxpayer-funded electric vehicle (EV) charging stations, and is seeking an amendment to address these concerns.

WMC is the largest general business association in Wisconsin, representing approximately 3,800 member companies of all sizes, and from every sector of the economy. Since 1911, our mission has been to make Wisconsin the most competitive state in the nation to do business. That mission includes advocating for legislation that provides regulatory certainty for Wisconsin businesses while ensuring a level playing field for businesses to compete.

To begin, WMC supports the authors' goal of authorizing private EV charging stations, and is appreciative of Representative VanderMeer and Senator Cowles for bringing this issue forward. Importantly, AB 588 clarifies that a business that provides the use of EV charging stations to customers for a fee are not utilities, provided the charging station gets electricity from its incumbent electric utility and other key requirements are met. The proposal thus allows private businesses to enter a developing market and meet a growing consumer demand, which WMC supports.

However, the bill authorizes taxpayer-funded EV charging stations that would compete against private sector retailers. In particular, WMC is opposed to this legislation due to the following provisions:

1. Authorization of taxpayer-funded EV charging stations by the Department of Transportation (DOT) following approval by the Joint Committee on Finance.
2. Authorization of taxpayer-funded EV charging stations by local units of government following approval by a local city council or applicable board.

WMC has a number of concerns with these provisions. First, the proposed Joint Finance Committee approval process applies only to the Department of Transportation. Thus, the bill

implicitly authorizes any other state agency to authorize EV charging stations without such approval.

More importantly, regardless of how they are approved, neither DOT nor any other state agency should be operating taxpayer-funded charging stations that would compete with private businesses. In addition, the bill also authorizes a city, village, town, or county to set-up taxpayer-funded EV charging stations that would likewise compete with Wisconsin businesses. Selling fuel for vehicles at retail is not a legitimate role or function of either state or local governments, and this legislation should not authorize it.

Deploying charging stations is expensive. Capital costs include the acquisition of land, extending electric infrastructure to the site, and the purchase of charging equipment and credit card payment devices necessary to accept payment. It is not unreasonable to expect that a small charging station with only one or two chargers would involve upfront costs up to \$200,000. After installation, charging facilities will generate significant operation and maintenance costs as well.

It is patently unfair that state and local governments would be allowed to charge taxpayers for the considerable capital, maintenance and operating costs associated with charging stations, while private businesses must pay those costs out of their own pockets. This unfair financial advantage would undercut competitiveness, and would likely result in less private investment in charging infrastructure.

To address this concern, WMC respectfully asks this committee to adopt an amendment that would prohibit government-owned, taxpayer-funded EV charging stations that are available to the public. If the committee adopted this amendment, WMC would support the revised bill and urge legislators to pass the legislation as amended. Unfortunately, as written, we are currently forced to oppose AB 588.

Thank you for your consideration. We are happy to answer any questions.



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To: Assembly Committee on Energy and Utilities
From: Toni Herkert, Government Affairs Director, League of Wisconsin Municipalities
Date: October 20, 2021
RE: AB 588 – Fees, Installation, and Operation of Electric Vehicle Charging Stations

Chairman Kuglitsch, Vice Chair Steffen, and members of the Energy and Utilities Committee,

My name is Toni Herkert, and I am the new Government Affairs Director for the League of Wisconsin Municipalities, representing nearly 600 municipalities, both large and small. I apologize for not being present at the hearing, but the League is hosting our Annual Conference in Green Bay this week. I appreciate the opportunity to submit testimony in support of AB 588. The League's interest in this bill is to keep the doors open for flexibility as electric vehicle charging stations increase in demand. Municipal locations are some of the most ideal, flexible, and centrally located for consumers whether they are residents, visitors, or tourists.

Most people can acquire level one charging at their homes, in fact several new subdivision developments are installing chargers in garages. However, many people who rent their homes cannot charge at home and if their place of employment does not have a charging facility, the lack of charging equipment makes electric vehicle ownership problematic. A partial solution for renters is to install EV charging outlets on streetlight poles in areas near apartment complexes or multifamily dwellings. For instance, Kansas City, Missouri plans to install 60 charging outlets on streetlight poles by the end of 2021. Another option is to place charging stations in parks close to multifamily residential units.

EV drivers who do not have access to a charging outlet at their home or work rely on public charging outlets at convenient locations. These locations could include a grocery store or other shopping area where they park regularly; a downtown or other area with restaurants; a school; library; or at a park where they recreate. The League of Wisconsin Municipalities believes that several of these charging areas where people congregate would be municipally owned and the installation of charging stations on municipal property could provide an economic asset for our downtown businesses. Tourism is a big business in Wisconsin with an overall economic impact of \$22.2 billion. In our community's tourist areas, signage at charging stations can provide suggestions about what to do while fueling, including a map showing nearby parks and businesses within a 10-minute walk. Individuals will need to occupy their time while a vehicle is charging and locating charging facilities in downtown districts will revitalize the economic opportunity of our main streets.

Why some interest groups would oppose providing these opportunities to downtown, main street, family run business is concerning. The League adamantly opposes any attempt to remove the ability of a municipality from placing, owning, operating, or leasing an electric vehicle charging station.

The League supports this legislation as it is drafted and asks committee members to vote in favor. Thank you for your consideration. If you have any questions, please feel free to reach out to me at your convenience at therkert@lwm-info.org.

YOUR VOICE. YOUR WISCONSIN.



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October 20, 2021

Testimony of ChargePoint, Inc. to the Assembly Committee on Energy and Utilities

Chairman Kuglitsch,

My name is M. Justin Ackley and I am a Manager of Public Policy at ChargePoint, a company that manufactures, engineers, and sells electric vehicle ("EV") charging stations. ChargePoint is the largest charging network in North America and Europe with more than 150,000 EV charging ports on its network and hundreds of ports in Wisconsin. Since 2007, ChargePoint has been a leader in the development of electric vehicle charging equipment and network services, allowing our customers to charge their vehicles at home, work, around town, and on the go.

I am writing on ChargePoint's behalf to request amendments to Assembly Bill ("AB") 588.

Section 1

ChargePoint opposes Section 1 in its entirety as it will create obstacles for cities, towns, and counties who are subject to their own laws and constituents from providing charging services.

Section 3

Section 3 of AB 588 adds a new subsection to Wis. Stats., 196.01 (5) (b) 8, which is intended to clarify that electric vehicle charging facilities are not public utilities and will allow for a competitive market for electric vehicle charging services to emerge. As more and more Wisconsin residents and Americans choose to drive electric vehicles, it is important that Wisconsin take steps to enable businesses such as traditional fueling stations, workplaces, retail stores, and others, to offer electric vehicle charging services in a manner that fosters competition and innovation, and the ability to charge for those services in a manner that aligns with their business model. To date, 39 States and the District of Columbia have put in place similar laws or regulatory orders, by exempting charging stations from the definition of public utility.

~~-chargepoint-~~

As we have seen the growth of electric vehicles across the country, a question that has arisen in other states is “are electric vehicle charging stations providing electricity in a manner that deems them a public utility or are they providing a service where the primary input is electricity?” Wisconsin is not unique in needing to update state statutes to provide specific guidance on how electric vehicle charging stations should be treated by utility regulators. 39 states and the District of Columbia have looked at this issue and come to the same conclusion, that electric vehicle charging stations are providing a service, not electricity like a public utility and therefore should not be considered a public utility. This as a critical step in setting up a robust, competitive marketplace for electric vehicle charging services.

Unfortunately, AB 588 seeks to place unnecessary limitations on this clarification. Limitations on how charging service is priced, and the source of the electricity are unnecessary. ChargePoint suggest that the legislature simplify this language as provided below to ensure the most robust and competitive market for EV charging services.

Section 3. 196.01 (5) (b) 8. of the statutes is drafted to read:

196.01 (5) (b) 8. A person who owns, operates, manages, leases, or controls a charging facility, as defined in s. 196.025 (8) (a) 1., that supplies electricity to a user of the charging facility exclusively for charging electric vehicles if all of the following apply:

~~a. If the person charges a fee for parking near the charging facility, the fee is a flat fee, is based on the amount of time a user parks near or is connected to the charging facility, or is based on the amount of electricity the user consumes.~~

~~ab. All of the electricity that a user is a customer of the receives by connecting to the person's charging facility is obtained from the electric provider, as defined in s. 16.957 (1) (f), serving the area in which the charging facility is located.~~

b. The person does not otherwise directly or indirectly provide electricity to the public for a fee.

Section 4

Section 4 of AB 588 modifies Wis. Stats. 196.025 and directs the Public Service Commission of Wisconsin to “prohibit an electric provider from restricting a customer from charging a fee to users who park near or connect to the customer’s charging facility”. ChargePoint is supportive of this provision and has been a leading advocate of legislation and regulatory orders that provide similar assurances to providers of EV charging services. AB 588 would confirm that it is legal for businesses that own and operate public charging stations to be able to charge EV drivers a flat fee, a fee based on time, or a fee based on the amount of electricity the EV driver consumes.

~~-chargepoint-~~

Unfortunately, other provisions in Section 4 seek to unnecessarily limit the applicability of this bill by placing restrictions on the types of fees that could be charged, where the electricity for the charging service come from, and if the charging station owner is a recipient of a grant from the electric utility.

The legislature should reject these unnecessary restrictions and simply prohibit an electric provider from restricting a customer from charging a fee, regardless of how that fee is charged, to users who park near or connect to the customer's charging facility. Below, are the changes necessary to ensure a truly open and competitive marketplace for EV charging.

Section 4. 196.025 (8) of the statutes is created to read:
196.025 (8) Electric vehicle charging facilities. (a) In this subsection:

1. "Charging facility" means electric vehicle charging equipment, including Level 1, Level 2, and fast charging equipment and analogous successor technologies.

2. "Electric provider" has the meaning given in s. 16.957 (1) (f).

(b) 1. The commission shall prohibit an electric provider from restricting a customer from charging a fee to users who park near or connect to the customer's charging facility if all of the following apply:

a. ~~The fee charged is a flat fee, is based on the amount of time a user parks near or is connected to the charging facility, or is based on the amount of electricity the user consumes.~~

b. ~~All of the electricity that a user receives by connecting to the customer's charging facility is obtained from the electric provider serving the area in which the charging facility is located.~~

Thank you for your consideration of our comments, and please contact me with any questions or clarifications.

Sincerely,

M. Justin Ackley
Manager, Public Policy
ChargePoint, Inc.
justin.ackley@chargepoint.com



PUBLIC HEARING
Wisconsin Assembly Committee on Energy and Utilities
October 16, 2021

Testimony of Greenlots on Assembly Bill 588
Josh Cohen, Director, Policy

Dear Chairperson Kuglitsch and Members of the Committee:

Greenlots respectfully submits this written testimony regarding Assembly Bill 588 (“AB588”).

About Greenlots

Greenlots is a leading provider of electric vehicle (“EV”) charging software and services working to equitably grow the transportation electrification market in Wisconsin, and a member of the Shell Renewables & Energy Solutions group. The Greenlots network supports a significant percentage of the DC fast charging infrastructure in North America, and an increasing amount of the Level 2 infrastructure. Greenlots’ smart charging solutions are built around an open standards-based focus on future flexibility while helping site hosts, fleets, utilities, and grid operators manage dynamic EV charging loads and improve system efficiency.

The Greenlots network is also supporting the deployment of Shell Recharge, which in the U.S. is beginning to be deployed to provide Shell’s retail customers—including convenience stores, service stations, and drivers—on the go charging.

Greenlots supports allowing EV charging to be priced based on the electricity sold

Greenlots supports the bill’s provision to enable the owner of an EV charging station to charge a fee based on the amount of electricity sold. Greenlots takes no position on the other provisions of the bill.

The provision Greenlots supports will create a new subchapter 196.025 (8) in Wisconsin Statutes to read as follows:

196.025 (8) (b) 1. The [Public Service Commission] shall prohibit an electric provider from restricting a customer from charging a fee to users who park near or connect to the customer’s charging facility if all of the following apply:

a. The fee charged is a flat fee, is based on the amount of time a user parks near or is connected to the charging facility, **or is based on the amount of electricity the user consumes.** [emphasis added]¹

Pricing based on the amount of electricity sold benefits the EV charging market and adds value to the grid

Electric vehicles represent a small but rapidly growing share of new vehicles sold. Automakers and drivers are increasingly choosing to invest in EVs due to their performance, fueling and maintenance cost savings, and environmental and air quality benefits.

A key challenge hindering EV adoption is the infrastructure gap—the lack of sufficient charging infrastructure to support both current and future EV drivers. One of the reasons why EV charging deployment has lagged is because—despite the value proposition that EVs offer—the business case to deploy, own and operate charging stations for public use remains extremely challenging. One way to enable an improved business case is to enable the charging station operator to sell the electricity as a commodity, similar to the approach taken with liquid fuels. Traditional fuel retailers are entering the EV charging market, but the current law that prohibits pricing based on the amount of electricity sold remains an obstacle—one which the legislature has the ability to remove.

Pricing per kilowatt hour can also unlock value to the grid and to ratepayers. EVs represent the largest source of new electricity demand in years. This new load creates the potential for downward pressure on rates to benefit all ratepayers, by enabling grid operators to spread out fixed system costs across a greater volume of electricity sold. The key for this new EV load to be a benefit rather than an added cost is for vehicles to charge when and where the grid has sufficient capacity.

Pricing based on the amount of electricity sold enables charging station operators to align price with cost. This enables price signals which can incentivize charging to occur when and where electricity is less expensive, instead of during peak periods or at peak locations. The former enables EV charging to deliver significant value to the grid, while the latter may require investing in additional system capacity that would otherwise be unnecessary.

A majority of other states also allow pricing based on the amount of electricity sold

A majority of other states have enabled EV charging to be priced on a per-kWh basis, as AB588 would do, and have used a range of legislative and regulatory mechanisms to accomplish it. For example, a number of states have taken the position that a non-utility EV charging station operator should not be regulated as a public utility because it is providing a value-added

¹ Wisconsin State Legislature. Assembly Bill 588.
<https://docs.legis.wisconsin.gov/2021/proposals/reg/asm/bill/ab588>

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Testimony of Greenlots on Assembly Bill 588

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charging service specific to electric vehicles, and not simply reselling electricity for general purposes as an electric utility does.

Indeed, EV charging providers are unlikely to exert monopoly control over EV charging in a manner that would warrant traditional utility regulation. EV drivers voluntarily elect to use a public charging station to power their vehicle when traveling, in the same way as drivers of traditional vehicles choose between different gas stations selling fuel at different locations and at different prices.

Some Midwestern examples of states which enable per-kWh pricing include Illinois and Minnesota, whose legislatures made the change via statute, and Ohio, whose utility commission made the change via a docketed proceeding.²

This statutory change will provide useful clarity to the Commission and stakeholders

Since February 2019, the Public Service Commission (“Commission”) has been leading a broad, stakeholder-based proceeding “to consider present and future policies and regulations of electric vehicles and their associated infrastructure as they pertain to electricity service in the State of Wisconsin.”³ In this docket, the Commission has received a number of comments from stakeholders, including Greenlots, that support pricing based on the amount of electricity sold.⁴ Commenters have acknowledged a lack of regulatory clarity on this matter, and “suggested a legislative or regulatory change could be needed to clarify interpretation of the statute.”⁵

Closing

Greenlots supports the provision in AB588 to enable EV charging station operators to set pricing based on the amount of electricity sold. Greenlots appreciates the opportunity to offer this testimony and thanks the Committee for its consideration.

² Illinois General Assembly. 220 Illinois Compiled Statutes 5/3-105(c).

<https://www.ilga.gov/legislation/ilcs/ilcs4.asp?DocName=022000050HArt%2E+III&ActID=1277&ChapterID=23>; Minnesota Legislature. Minnesota Statutes Chapter 216B, Section 216B.02, Subd. 4(3).

<https://www.revisor.mn.gov/statutes/cite/216B.02>.

Public Utilities Commission of Ohio (July 1, 2020). *Finding and Order*. Case No. 20-434-EL-COI.

<http://dis.puc.state.oh.us/ViewImage.aspx?CMID=A1001001A20G01B43144B00409> ;

³ Public Service Commission of Wisconsin. (Feb. 21, 2019). *Notice of Investigation*. In Docket No. 5-EI-156.

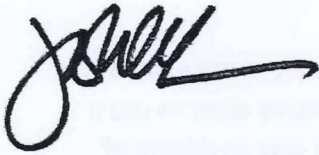
<https://apps.psc.wi.gov/APPS/dockets/content/detail.aspx?id=5&case=EI&num=156>

⁴ See, e.g., “Proposed rate structures included charging per kilowatt-hour...[These] normalize for differences in EV battery technology better than per increment of time and per kW rates, and would avoid variation in charges for owners of different types of EVs.” at pp. 18-19 in Public Service Commission of Wisconsin. (Sept. 9, 2019). *Cover Letter and Electric Vehicle Comment Summary Memorandum*.

<https://apps.psc.wi.gov/pages/viewdoc.htm?docid=375500>.

⁵ Id., p. 18.

Respectfully submitted,



Josh Cohen
Director, Policy

Good Morning Representative Kuglitsch and Senator Cowles,

Last week, I attend the Assembly Committee on Energy and Utilities hearing to speak in favor of AB504. During the same meeting testimony was heard on AB588. After taking some time to review AB588/S573 in detail I wanted to provide some additional feedback for consideration.

Marshfield Utilities along with all utilities in the State of Wisconsin are supportive of electric vehicle charging, electric vehicles, and related infrastructure to a varying degree.

Some of the testimony and feedback from Committee members requested the bill's language be modified to only allow private entities the ability to install electric charging stations. Allowing only private companies creates opportunity imbalance among the cities/villages/townships across Wisconsin. The State of Wisconsin has approximately 117 electric utilities with 81 municipal, 24 cooperatives, and 12 investor owned (private) utilities. Allowing only private companies creates an imbalance where the IOU's will be able have the opportunity to install charging infrastructure while the municipal utilities will have to wait for private development. Many municipal utilities provide service to rural parts of Wisconsin. These areas will need the ability to have public and public/private partnerships to build out electric vehicle charging infrastructure and ensure their communities are not left behind. The investment to support electric vehicle charging infrastructure will need public dollars in the same ways the rural electrification program in the 1930's and even more recently with extension of broadband services to underserved areas have occurred. Any bill should ensure all options: public, private and public/private have the ability to participate.

Thanks for your time and attention on this matter. If you have any questions, please feel free to contact me.

Nick

Nicolas E. Kumm

General Manager

Marshfield Utilities

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