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"The right to criticize government is also an obligation to know what you're talking about."

Lent Upson, First Director of the Citizens Research Council

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Michigan's Electric Vehicle Charging Subsidy Programs Should Include the New North American Charging Standard

In a Nutshell

- Michigan has enacted policies and committed resources to support the expansion of electric vehicle charging stations, including through the federal National Electric Vehicle Infrastructure (NEVI) program.
- General Motors, Ford, and several other automakers have recently announced plans to adopt the North American Charging Standard (NACS) into future electric vehicles.
- Michigan should update its NEVI funding requirements and associated policies to reflect the industry embrace of NACS.

In February 2023, we reported on Michigan's efforts to deploy public electric vehicle (EV) charging stations across the state. The Charge Up Michigan program has already subsidized the installation of dozens of chargers over the past few years. To further facilitate this effort, Michigan is set to receive up to $110 million in federal funding under the National Electric Vehicle Infrastructure (NEVI) Program established by the 2021 Bipartisan Infrastructure Law.

The intent of the NEVI Program is not only to increase the number of public EV charging stations across the country, but to simplify the experience of owning and operating an EV. For example, every NEVI-funded charger must accept credit card payments without requiring a membership with the service provider and meet minimum capacity (charging speed) requirements.

When the NEVI regulations were drafted, most EV models offered in the U.S. used the Combined Charging System (CCS) standard for charging plug configuration. The primary exception was Tesla, which used a proprietary charging port. However, in November 2022, Tesla published the specifications for its proprietary technology, and renamed the system the North American Charging Standard (NACS).

Following Tesla's announcement that it would be opening NACS as a public standard, several automakers have announced plans to use NACS in future models, rather than CCS.

In May 2023, Ford announced a deal with Tesla that would give Ford EV owners access to Tesla's high speed "Superchargers" across the U.S. and Canada. Current Ford vehicles, equipped with the CCS ports, will be able to use Tesla's NACS-equipped charging stations with an adapter. Further, Ford announced that it would begin equipping future EV models with the NACS port beginning in 2025.

In June 2023, GM announced a deal with Tesla similar to Ford's. GM EV owners will be able to access the Tesla Supercharger network via an adapter beginning in 2024. GM plans to begin including the NACS port in their own EVs starting in 2025.

Following Ford and GM, Mercedes-Benz, Volvo, Nissan, Rivian, and Polestar announced their own deals with Tesla for access to the Supercharger network, as well as plans to incorporate the NACS charging port in future models offered in the North American market.

A coalition of automakers, including GM and Stellantis, has recently announced an effort to deploy public high-speed EV charging stations under a cooperative joint venture. This network will include both the CCS and NACS type charging plugs.

These deals portend a shake-up of the North American EV market. While it previously looked like all automakers besides Tesla would be using the CCS standard for the foreseeable future, it now appears that the majority of the U.S. EV models will include the NACS standard beginning in 2025. These deals will give EV drivers access to Tesla's extensive Supercharger network, and allow Tesla to take advantage of federal subsidies.

Because Tesla has made its previously proprietary technology available as an open standard, EV charging stations with NACS plugs are eligible for NEVI funding so long as all other NEVI requirements are met. Some states have recognized this evolution in the EV industry by amending, or considering amendments to NEVI funding requirements. Kentucky is the first state to officially require NACS chargers for NEVI-funded charging stations. Texas announced an intention to require NACS for NEVI funding, however a final decision will require a vote by the state's Transportation Commission. Washington state has similarly announced, but not finalized, a plan to include NACS charging ports at NEVI-funded stations.

Michigan's current requirements for public subsidization of EV charging stations do not include provisions for the NACS standard. This is due to the fact that the standard was proprietary to Tesla until late in 2022.

With recent announcements from automakers, it now appears that most Michigan EV owners will be using the NACS charging standard for the foreseeable future. Michigan policy should recognize this industry shift.

Michigan should update requirements for NEVI funding to include NACS charging plugs. This would involve submitting a revised NEVI deployment plan to the federal Joint Office of Energy and Transportation, and updating the request-for-proposal requirements for program grants. This will likely add some hardware cost to NEVI-funded projects, but the NACS equipment will qualify for the same federal subsidies. Michigan should also review other policies that support installation of EV chargers, such as partnerships with electric utility providers.

Including North American Charging Standard (NACS) plugs at public EV charging stations will help to future-proof investments and facilitate a convenient ownership experience for EV drivers in Michigan.

ABOUT THE AUTHOR

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Eric joined the Citizens Research Council in 2022 as an expert in civil infrastructure policy. Previous to his position with the Research Council, Eric spent nearly ten years as a transportation systems analyst, focusing on the policy implications of emerging technologies such as autonomous vehicles, connected vehicles, and intelligent transportation systems. Eric has been a Michigan-licensed professional engineer (PE) since 2012. As a practicing engineer, Eric has design and project experience across multiple domains, including highways, airfields, telecommunications, and watershed management. Eric received his Bachelor's degree in civil engineering from Michigan State University in 2006. Eric also holds Masters degrees in environmental engineering and urban/regional planning, both from the University of Michigan.

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