#### STATE OF MICHIGAN

#### BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

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In the matter, on the Commission's own motion,
to open a docket that will be used to collaboratively
consider issues related to both the deployment of
plug-in electric vehicle charging facilities and to
examine issues germane to the use of compressed
natural gas as a motor vehicle transportation fuel in
Michigan in a Commission-sponsored technical

conference.

Case No. U-18368

At the March 29, 2018 meeting of the Michigan Public Service Commission in Lansing, Michigan.

PRESENT: Hon. Sally A. Talberg, Chairman Hon. Norman J. Saari, Commissioner Hon. Rachael A. Eubanks, Commissioner

# ORDER FOLLOWING THE SECOND COLLABORATIVE TECHNICAL CONFERENCE

The purpose of this order is to provide a recap of the second collaborative technical conference held in this docket addressing plug-in electric vehicles (PEVs)<sup>1</sup> and to also provide guidance to regulated electric utilities and other interested persons on next steps moving forward.

<sup>&</sup>lt;sup>1</sup> PEVs are vehicles with rechargeable battery packs that can be charged by being plugged into the electrical grid, whether via electrical outlets or charging stations. Therefore, in this docket and order, the term PEVs includes plug-in hybrid electric vehicles and battery electric vehicles.

# **Background**

Stemming from discussion in the February 28, 2017 order in Case No. U-17990, pp. 48-49, the Commission opened this docket on April 28, 2017 (April 28 order) to announce the beginning of collaboratively addressing PEV-related issues on a statewide basis and examining issues pertaining to compressed natural gas (CNG) and its use as a fuel for motor vehicles. In its April 28 order, pp. 4-7, the Commission thus set forth the parameters for a collaborative technical conference, later scheduled for August 9, 2017, to generate useful information regarding charging stations for PEVs and CNG fueling stations, along with insight into the role for regulated utilities in the deployment of such stations. The Commission additionally invited any person to submit comments or a letter of interest on the development of regulatory approaches or guidance pertaining to these topics. April 28 order, pp. 7-8.

Following comments from several persons and the Technical Conference on Alternative Fuel Vehicles, hosted by the Commission and the Michigan Agency for Energy on August 9, 2017, the Commission issued an order on October 25, 2017 (October 25 order) seeking additional input on topics related to the adoption of PEVs in Michigan and the deployment of associated infrastructure and technology, in an effort to further ascertain the Commission's regulatory role in this arena and to provide further guidance to regulated electric utilities and other interested persons on these topics.<sup>2</sup> In that regard, the Commission, in addition to encouraging any other issues that commenters wanted to bring to the Commission's attention or suggest for future inclusion, specifically stated that it:

... seeks comments on whether utilities should initiate a series of targeted pilot programs designed to further explore issues related to the deployment of PEV charging stations and associated infrastructure. If targeted pilot programs are

<sup>&</sup>lt;sup>2</sup> Although the focus of the October 25 order and since then has been on PEVs, CNG fueling stations and associated issues have not been completely abandoned in this docket.

appropriate as a means to guide future Commission and utility decision making, the Commission also seeks input on the focus of such pilots so that they could strategically identify and reduce barriers and inform future investment and regulatory strategies.

October 25 order, pp. 8-9.

In response to the October 25 order, the Commission received 25 comments, which were summarized in the December 20, 2017 order (December 20 order). Based on the comments submitted and adoption of the high-level principles contained therein, the Commission found that "a second collaborative technical conference, targeted at further exploration of potential pilot programs to be initiated by regulated utilities, as possible deliverables, [to] be most beneficial to all at [the] time." December 20 order, p. 34. The Commission therefore sought submissions from any person interested in presenting and discussing a fully-developed targeted pilot program for regulated utilities to potentially initiate, addressing one or more of the following parameters:

(1) customer education, (2) rate design and smart charging, (3) grid impact, and (4) deployment of PEV infrastructure. As further guidance, the Commission also articulated what it would expect from potential and actual pilot programs, along with evaluation criteria it would be considering, if such pilot programs were submitted to the Commission for approval in the future. *Id.*, p. 35.

#### Summary of the Second Collaborative Technical Conference

The second collaborative technical conference was held on February 20, 2018, at the Commission's Lansing office, and was facilitated by the Center for Automotive Research (CAR). Following opening remarks from the Commission, Brett Smith and Valerie Sathe Brugeman from CAR then set the stage for the upcoming presentations and discussions by providing an overview of automotive trends worldwide and discussing how technological advancements and policy

changes are expected to continue a shift in both automotive manufacturing and consumer preferences for vehicles.

First, Sarah Barbo from Consumers Energy Company (Consumers) presented Consumers' "Electric Vehicle [(EV)] Strategy." Within this strategy, Consumers indicated that it plans to pursue opportunities that improve and facilitate a customer's EV journey. Consumers stated that it will pursue opportunities where potential customer impact and utility fit are high, including activities such as increasing customer awareness, solutions to clarify home electric vehicle supply equipment installation, working with General Motors on at-home smart charging, and information technology (IT) integration to transmit residential charging data and avoid the need for a second meter. Consumers also discussed its updated EV foundational infrastructure pilot program proposal that it plans to include in its next rate case application. According to Consumers, the utility will request a foundational infrastructure pilot program that would run for three years. Following program approval, Consumers will run a rebate program rather than engaging in utility ownership of EV foundational infrastructure, put an emphasis on learning, and focus on four components: (1) residential charging, (2) public/workplace charging, (3) direct current (DC) fast charging, and (4) IT infrastructure. Consumers also discussed activities, either available now or in the near future, that support one or more components of its EV foundational infrastructure pilot program that Consumers hopes to put into motion next year.

Next, Michelle Bates from DTE Energy Company (DTE) presented DTE's approach for "Charging the Future of Michigan." Within this approach, DTE specified three EV-related activities that it plans to undertake, the first two starting in 2018 and the third starting in 2019:

(1) ramping up and refining current efforts to improve the EV experience for both residential and commercial customers, (2) deploying near-term pilots to develop and test concepts and gain key

insights into both EV-grid integration and consumer preferences, and (3) implementing a sustainable program to grow EV adoption in Michigan that benefits all customers. Specifically, with regard to near-term pilot programs, DTE identified six pilot programs that it plans to deploy in 2018 in the areas of load management (demand response demonstration and battery storage integration), downtown municipal charging showcases (in Detroit and in Ann Arbor), and corridor fast charging (highway charging station and extreme fast charging). To fund these pilots in 2018, DTE also stated that it plans on using its current budget and working with other partners for additional funding.

The next round of presentations, allowing the public and various other stakeholders the opportunity to speak, were approximately five minutes or less and included presentations from Craig Toepfer, Robert Kelter on behalf of the Environmental Law & Policy Center, Aloysius Makalinao on behalf of the Natural Resources Defense Council, Howard "Mac" Dashney on behalf of the Michigan Association for Pupil Transportation, Murray Davis on behalf of residential consumers, Liesl Clark on behalf of the Michigan Energy Innovation Business Council, and Phil Jones, Executive Director of the Alliance for Transportation Electrification. Topics from these presentations included solar electric vehicles and associated benefits; an electric school bus pilot program proposal; a cooperative utility development to create a network of DC fast chargers, following a siting study to assess current charging needs and optimal locations; thinking of electric school buses as rolling science, technology, engineering, and math laboratories; placing charging stations at schools; ways to further PEV adoption, from a residential consumer perspective; the connection between autonomous, connected, electric, and shared (ACES)<sup>3</sup> vehicles with regard to

<sup>&</sup>lt;sup>3</sup> For more information on the concept of ACES, see <a href="http://meetingoftheminds.org/urban-mobility-autonomous-connected-electric-shared-20161">https://meetingoftheminds.org/urban-mobility-autonomous-connected-electric-shared-20161</a> and <a href="https://www.climateone.org/node/24288/#transcript">https://www.climateone.org/node/24288/#transcript</a>.

future mobility predominately being on an electrified platform; a reference to a recent article published by the Institute for Energy Innovation; the need to prioritize the laundry list in the EV space to have the most impact; the importance the state of Michigan has in facilitating the PEV conversation; the need for open standards and interoperability; keeping this docket open for interested persons to be able to continue coming together on PEV issues; and to not forget about heavy duty vehicles and commercial fleets in these discussions.

After the presentations concluded, Karen Gould, from the Commission's Energy Waste Reduction Section, provided some remarks on next steps, noting that the Commission wants to keep discussions open and advance action plans concerning PEVs and associated issues; that the Commission is listening to all stakeholders including individual consumers; that all interested persons can reach out to the Commission in multiple ways (i.e., phone, mail, email, and through this docket); and that the Commission is anticipating upcoming PEV pilots from regulated utilities.

Thereafter, there was a question and answer period among the more than 80 people from the broad stakeholder groups who attended the second collaborative technical conference.<sup>5</sup>

# Discussion

In closing at this time, the Commission would like to sincerely thank all stakeholders for their input and collaboration in this docket, including the topical forward-looking pilot proposals that were presented at the second collaborative technical conference and the discussion thereafter.

<sup>&</sup>lt;sup>4</sup> Institute for Energy Innovation, *Powering the Mobility Revolution: The Case for Integrating Vehicle Electrification & Batteries into Strategies to Promote Autonomous Vehicles* < <a href="https://www.instituteforenergyinnovation.org/powering-the-mobility-revolution-re">https://www.instituteforenergyinnovation.org/powering-the-mobility-revolution-re</a>> (accessed March 9, 2018).

<sup>&</sup>lt;sup>5</sup> Podcasts of the second collaborative technical conference, along with copies of presentations, can be found on the Commission's website at <a href="http://www.michigan.gov/mpsc/0,4639,7-159--271898--">http://www.michigan.gov/mpsc/0,4639,7-159--271898--</a>,00.html.

Although not officially stated in the December 20 order, one main focus of the second collaborative technical conference was to hear from Consumers and DTE about specific pilot programs these utilities are planning to implement in the very near future, and the Commission is encouraged by the thoughtfulness and partnerships reflected in the pilot programs being pursued by both utilities as presented. The experimental nature of these pilots will test technology innovations, rate design, customer response, and other factors, and should position the utilities and the Commission to make more informed decisions over the long term.

The Commission would also like to note that it is honored to play a role in and contribute to this endeavor and is, in fact, here to take action, not just be a facilitator for the topics and issues that have been raised in this docket. Therefore, the Commission will use the information shared in this docket to appropriately frame regulatory policy and to enable effective planning to assist with the expected growth of PEVs and their future impact on the electric distribution systems in Michigan. Given the potential adverse impact that PEVs could have on electric distribution systems, however, depending on the nature, timing, and location of charging, as well as adoption rates of consumers, the Commission also expects utilities to examine PEV trends in their load forecasting and distribution planning activities. Because of the inherent uncertainties in PEV adoption rates, it is essential that utilities be proactive in understanding and mitigating potential impacts to the grid (and related infrastructure costs) under different PEV adoption scenarios. If well-planned, executed with the right price signals, and coordinated with third parties on the placement of chargers, there is the potential for all customers to benefit from increased electrification of the transportation sector. The Commission further expects grid integration issues

such as circuit-level loading analyses and scenario-based load forecasting to be considered as part of the next iteration of electric distribution plans.<sup>6</sup>

The Commission additionally seeks continued collaborative discussions and implementation of pilot program proposals that do not require Commission approval. The Commission also anticipates PEV-related program matters being addressed in future rate cases or other proceedings, as appropriate. With these PEV-related programs, however, the Commission re-emphasizes that it expects that proposals to implement pilot programs within the parameters set forth in the December 20 order include justification through a cost-benefit analysis concentrated on ratepayers as utility customers, not as a part of society in general. See December 20 order, p. 35. Further, investments made to facilitate development and utilization of PEV programs need to be economically sound and sustainable, not just be research projects with no justification in real-world application.

Lastly, as stated by Henry Ford: "Coming together is the beginning. Keeping together is progress. Working together is success." Therefore, to keep the lines of communication open, this docket will remain open at this time as a depository for uncontested, alternative fuel vehicle issues that any interested person may wish to bring to the Commission's attention in the future.

THEREFORE, IT IS ORDERED that this docket shall remain open at this time as a depository for uncontested, alternative fuel vehicle issues that any interested person may wish to bring to the Commission's attention in the future.

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<sup>&</sup>lt;sup>6</sup> In Case Nos. U-17990 and U-18014, Consumers and DTE, respectively, each recently filed final reports on their five-year distribution plans for 2018-2022. See <a href="https://mi-psc.force.com">https://mi-psc.force.com</a>. In the coming months, the Commission expects stakeholder discussion on these plans and how they are used by the Commission going forward, followed by input on what to include in subsequent versions of the plans.

The Commission reserves jurisdiction and may issue further orders as necessary.

|                                  | MICHIGAN PUBLIC SERVICE COMMISSION |
|----------------------------------|------------------------------------|
|                                  |                                    |
|                                  | Sally A. Talberg, Chairman         |
|                                  |                                    |
|                                  | Norman J. Saari, Commissioner      |
|                                  |                                    |
|                                  | Rachael A. Eubanks, Commissioner   |
| By its action of March 29, 2018. |                                    |
|                                  |                                    |
| Kavita Kale, Executive Secretary |                                    |

# PROOF OF SERVICE

| STATE OF MICHIGAN | l ) |                  |
|-------------------|-----|------------------|
|                   |     | Case No. U-18368 |
| County of Ingham  | )   |                  |

Lisa Felice being duly sworn, deposes and says that on March 29, 2018 A.D. she electronically notified the attached list of this **Commission Order via e-mail transmission**, to the persons as shown on the attached service list (Listserv Distribution List).



Subscribed and sworn to before me this March 29 day of March 2018

Steven J. Cook

Notary Public, Ingham County, Michigan

As acting in Eaton County

Steven J. Cook

My Commission Expires: April 30, 2018

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