

***In the Matter of a Commission Inquiry into Electric Vehicle Charging Infrastructure,
Docket No. E999/CI-17-879.***

**SUGGESTED FINDINGS AND DECISION OPTIONS
Commissioner Lipschultz**

A. GENERAL FINDINGS:

1. ***Electrification In Public Interest:*** The Commission finds that electrification of Minnesota's transportation sector can further the public interest in:
 - a. ***Affordable, economic electric utility service*** by improving utility system utilization/efficiency and placing downward pressure on utility rates through increased utility revenues and better grid utilization;
 - b. ***Renewable energy use*** by increasing electricity demand during hours when renewable energy is most prevalent on the system and developing tariffs that correlate renewable energy resources to EV charging; and
 - c. ***Clean energy*** by reducing statewide greenhouse gas and other environmentally harmful emissions.
2. ***Barriers to EV Adoption:*** The Commission finds that barriers to increased electric vehicle adoption in Minnesota include but are not limited to: (a) inadequate supply of and access to charging infrastructure; and (b) lack of consumer awareness of electric vehicle benefits and charging options.
3. ***Optimizing EV Benefits:*** The Commission finds that how EVs are integrated with the electric system will be critical to ensuring that transportation electrification advances the public interest. This may include rate design that pairs charging with periods of low demand and high renewable energy generation.
4. ***Utility Role Regarding EVs:*** The Commission finds that Minnesota's electric utilities have an important role in:
 - a. ***Facilitating the electrification of Minnesota's transportation sector*** through policies and investments that educate customers on the benefits of electric vehicles and enhance the availability of charging infrastructure; and
 - b. ***Optimizing the cost-effective integration of electric vehicles*** through appropriate rate designs, policies, and investments that improve system utilization/efficiency and benefit utility ratepayers, including non-EV owners.

B. SPECIFIC FINDINGS

1. ***Expectations Regarding Utility Role:*** The Commission finds that Minnesota's investor owned utilities ***should take steps to encourage the cost-effective adoption and integration*** of electric vehicles. Among these steps, utilities should:
 - a. ***Focus specifically on issues related to transportation electrification***, including the cost-effective integration of electric vehicles.
 - b. ***Develop and file EV-related proposals*** intended to encourage the adoption of EVs by:
 - i. Expanding the availability of charging infrastructure, both home and public;
 - ii. Enhancing consumer awareness of EV benefits and charging options beyond what utilities could otherwise do under Minn. Stat. 216B.1614subd. 2(c)(2) without specific Commission approval; and
 - iii. Facilitating the electrification of vehicle fleets.
 - c. ***Encourage environmentally and economically optimal EV integration*** through, at a minimum, the adoption of appropriate and effective time-of-use and EV-specific rate designs; and reasonable initiatives or investments that encourage and support smart charging.
 - d. ***Consider energy bill financing as an option***, at least on a pilot basis, to facilitate the economic availability of residential charging infrastructure.
2. ***Content of EV-Related Proposals/Investments:*** The Commission finds that the following should be included at a minimum in any EV-related utility proposals:
 - a. ***Any EV-related proposals that involve significant investments*** for which the utility is seeking or will seek cost recovery should include a ***cost-benefit analysis*** that shows the expected costs along with the expected ratepayer, system and societal benefits associated with the proposal; and
 - b. ***In the case of a proposed pilot***, the utility filing should include specific evaluation metrics for the pilot and identify what the utility expects to learn from the pilot. An extensive cost-benefit analysis may not be needed for a pilot, depending on the scope and cost of the pilot.

3. ***Cost-Benefit Analysis:*** The Commission finds that no specific cost-benefit methodology should be adopted at this time. However, as a starting point, utilities should use the Commission's current environmental externality values for carbon and criteria pollutants in analyzing the societal costs and benefits associated with EV-related proposals. Cost-benefit analyses should consider potential long-term ratepayer and societal benefits, including better grid management, and society. These analyses should also consider potential long-term costs, including the risk of stranded investment.
4. ***Evaluating Investments in Public Charging Infrastructure:*** The Commission finds that the OAG's suggested three-step process for evaluating utility investments in public charging infrastructure is reasonable. As such, this framework should be incorporated into a utility's analysis when seeking Commission approval of any such investments.
5. ***Interoperability:*** The Commission finds that utility investments and arrangements related to charging infrastructure should be designed to ensure interoperability, using standards such as Open Charge Point Protocol (OCPP) & Open ADR.
6. ***Utility Cost Recovery:*** The Commission finds that no method of cost-recovery should be generally precluded at this time for any EV-related investments. Rather, cost recovery, including the method of recovery, should be determined in each individual case based on factors such as the nature, magnitude and potential benefits of the investments.
7. ***Promotional Cost Recovery:*** The Commission also finds that Minnesota Statutes, Section 216B.1614, subd. 2(c)(2) allows utilities the opportunity to recover costs related to educating customers on the benefits of EVs beyond those costs related specifically to the utility's EV tariffs.

C. DECISION OPTIONS

Guiding Principles:

Decision Option #1. Decline to adopt principles at this time

Promotional Cost Recovery:

Decision Option #5. Require all three investor-owned electric utilities in MN to file EV promotional cost recovery mechanisms consistent with Minn. Stat. 216B.1614, subd. 2(c)(2), and the Commission's above Findings in this docket, as part of their annual EV reports filed June 1, 2019.

Cost Benefits Tests:

Decision Option #8. Request that the MPCA file a supplemental report with the Commission in this Docket after it has completed its work quantifying the benefits of vehicle emission reductions related to EVs.

Required EV Filings:

Modified Decision Option #10. Direct Minnesota Power, Otter Tail Power, and Xcel Energy to file:

- a. By March 31, 2019, a report that identifies and discusses the EV-related proposals the utility plans to file in 2019, including the approximate date the utility anticipates filing those proposals; and
- b. By June 30, 2019, a Transportation Electrification Plan (TEP) identifying what EV-related initiatives the utility is contemplating over the next two years, including next steps as follow-ups to current or currently proposed EV pilots. The plan should identify the extent to which the utility's planned or contemplated initiatives would:
 - i. Facilitate availability and awareness of public charging infrastructure and residential charging options for both single family and multiple unit dwellings, including programs or tariffs in development to address flexible load or reduce metering and data costs;
 - ii. Educate customers on the benefits of EVs;
 - iii. Assist in the electrification of vehicle fleets;

- iv. Offer DCFC specific tariffs and which tariffs are currently in use;
- v. Optimize EV benefits by, for example, aligning charging with periods of lower customer demand and higher renewable energy production and by improving grid management and overall system utilization/efficiency; and
- vi. A discussion of current and planned charging practices/tariffs for public charging stations along with a discussion of any concerns related to those charging practices.

Alternative Decision Option #11. Require Minnesota Power and Otter Tail Power to file proposals, which can be pilots, intended to enhance the availability of or access to charging infrastructure and increase consumer awareness of EV benefits. The utilities should consult with stakeholders, including but not limited to the Department, OAG and Fresh Energy, to help with the development of their proposals. The Executive Secretary is authorized to work with the utilities in identifying specific due dates for each filing, which should be sequenced to accommodate workload issues of Commission staff, Department of Commerce and other stakeholders. These proposals must be filed no later than October 31 of 2019.

Modified Decision Option #12 (slightly modified): In any future pilot proposal, utilities should include a discussion of the following topics to the extent relevant:

- a. Environmental justice, with a focus on communities disproportionately disadvantaged by traditional fossil fuel use;
- b. Low income access and equitable access to vehicles and charging infrastructure, which can include all-electric public transit and EV ride-sharing options
- c. Environmental benefits, including but not limited to carbon and other emission reductions;
- d. Potential economic development and employment benefits in Minnesota;
- e. Interoperability and open charging standards;
- f. Load management capabilities, including the use of demand response in charging equipment or vehicles;
- g. Energy and capacity requirements;

- h. Pilot expansion and/or transition to permanent status;
- i. Education and outreach;
- j. Market competitiveness/ownership structures;
- k. Distribution system impacts;
- l. Cost and benefits of the proposal;
- m. Customer data privacy and security;
- n. Evaluation metrics and reporting schedule

New Decision Option #15: Authorize the Executive Secretary to sustain an ongoing stakeholder process in this Docket, led by Commission staff, that involves a broad and diverse range of participants. Specifically authorize the Executive Secretary, when necessary and at the appropriate time, to solicit written comments and/or establish stakeholder workshops to examine any of the issues raised in this Docket. The Executive Secretary is also authorized to establish a notice and comment process for stakeholder input in response to each utility Transportation Electrification Plan.