

State Regulatory Commissions Continue to Address Electric Utility Movement Into the Transportation Sector

Electric vehicles (or EVs) cumulatively consume large amounts of electricity, which means regulated utilities have a natural interest in the expansion of EVs and in managing the impacts to the electric grid from that increased electric demand. As a result, state regulatory commissions have seen an influx of utility proposals to induce their customers to buy EVs, including incentives for charging infrastructure and voluntary programs that allow the utility to control how and when participating customers charge their EVs to manage impacts to the grid (known as "managed charging").

This update provides an overview of a recent order by the Maryland Public Service Commission that is indicative of a continuing trend toward more utility involvement in the electric transportation sector, with cautionary lessons for utilities as they craft their proposals.

The Maryland Commission Order

In January, the Maryland Commission issued an order scaling back a \$104 million proposal jointly submitted by several electric utilities, EV charging equipment vendors and environmental organizations that would use ratepayer money to help fund over 24,000 EV charging stations at residential, nonresidential and commercial locations in Maryland.

Maryland's four investor-owned utilities—Baltimore Gas and Electric Company (BGE); Delmarva Power & Light Company (Delmarva), Potomac Electric Power Company (Pepco) and Potomac Edison Company (PE)—sought permission to recover and earn a rate of return on their respective share of the costs of the proposal in future rate cases. The proposal was, in part, responsive to a recently enacted state law targeting a 40 percent reduction in statewide greenhouse gas emissions by, in part, aspiring to add 300,000 zero-emission electric vehicles on Maryland roadways by 2025.

The order held that the utilities can recover and earn on the cost of EV incentive programs.

At the outset, the commission's order rejected arguments that the [state law exemption](#) of EVs from the definition of "public utility" precluded the utilities from recovering the cost of EV charging infrastructure in rate base. Rather than limiting utility cost-recovery, the commission held, the regulatory exemption for EV charging was intended to encourage competition and prevent unnecessary regulation of third-party EV charging providers.

Moreover, the commission recognized the value of competitive markets for EV charging but found that "public charging deployment has yet to attract sufficient levels of private investment to align with [Maryland's] EV adoption and GHG reduction goals." (Order at 63.) Utility involvement in EV infrastructure can help address this need more quickly, especially "where private companies have been unable or unwilling to make initial capital investments in difficult and underserved areas." (Order at 63.) Specifically, the commission concluded that "allowing the Utilities to deploy and operate public charging equipment on a limited scale would balance the advantages of utility investment with important State policy considerations, such as competitive access to charging infrastructure, cost impact, and ratepayer exposure to risks associated with sunk costs and stranded assets." (Order at 63.)

The Maryland Commission's order is in direct contrast to prior rulings from the [Kansas and Missouri commissions](#), which have each noted that utility ownership of charging stations could have harmful anti-competitive effects and that financing EV charging stations is a speculative venture best left to the private sector (and the Missouri Commission order was rejected the Missouri Court of Appeals, which in 2018 [ruled](#) that Kansas City Power & Light Company should be permitted to recover the cost of EV infrastructure). Highlighting a philosophical difference about the role of utilities in EV infrastructure, the Maryland Commission effectively held it is because of—*rather than in spite of*—the nascent nature of the EV charging market that utilities should be permitted to use ratepayer dollars to advance EV deployment throughout the state.

...But utilities should show how all customers can benefit from the expansion of EVs.

Importantly, the Maryland Commission's order held that utility investment in the EV charging market is not without bounds. While petition supporters argued that the increased electricity revenues from EV charging would offset the petition's costs, the commission found that the petition lacked detailed cost-effectiveness data sufficient to justify using ratepayer funds for the full \$104 million program. (Order at 43.) Specifically, the commission declined to rely on a 2016 third-party cost-benefit study that projected \$6.2 billion to \$34 billion in benefits from EV charging for utility customers by 2030. The study, according to the commission, didn't address the cost-effectiveness of the petition's individual programs or fully describe how those programs would fully achieve the state's EV goals. (Order at 64.) And, the commission noted that the utilities offered cost-effectiveness analyses that were "superficial at best," according to the commission. (Order at 43.)

Accordingly, while the commission found "that it is in the public interest to allow the Utilities to own and operate a limited number of public charging stations to jumpstart the deployment of a public EV charging network, reduce EV owner range anxiety in the near term, and lay the foundation for a competitive market", it nevertheless reduced the size of the programs and opted for a more incremental approach to utility support for EV infrastructure. (Order at 65.)

And utilities should consider proven technology like "managed charging" to control the grid impacts of EVs, rather than experimental pilots.

In addition, the Maryland Commission accepted certain pilot programs and rejected others as "too experimental." (Order at 70-71.) For example, the commission accepted a BGE program—which had no added ratepayer cost—that would allow BGE to control EV charging by voluntary participants in order to manage distribution grid impacts (managed charging). The commission found that utility-managed EV charging "is consistent with a key policy goal...to incentivize deployment of EV charging equipment in a manner that will increase the efficiency and reliability of the electric distribution system." (Order at 72.)

By contrast, the commission rejected a Delmarva and Pepco vehicle-to-grid pilot—the "Virtual V2G Demonstration Project"—that would "cycle participating chargers at zero percent, 50 percent, and 100 percent in accordance with PJM Frequency Response regulations and aggregate the benefits." (Order at 20.) The commission considered the pilot too "experimental;" indeed, at this early stage of the technology, most vehicle-to-grid pilot projects are designed for use with fleets (e.g., school buses), as in [South Carolina](#) and [Minnesota](#). Moreover, the commission was troubled by the pilot's ratepayer cost: "[i]f the Utilities wish to pursue and evaluate experimental techniques that would expand their knowledge of EV charging, they should not be allowed to do so using ratepayer funds." (Order at 71.) With that said, in March 2019 the California Energy Commission issued a study that found significant distribution grid benefits from passenger vehicle-to-grid EV technology, which may open the door for state regulatory commission approval of these types of projects on a pilot basis in the future.

Conclusion

As demonstrated by the Maryland Commission's order, commissions are far from granting utilities *carte blanche* to use ratepayer funds to invest in EV infrastructure, incentives and charging programs. Instead, commissions are closely scrutinizing the role of utilities in supporting EV infrastructure in an otherwise competitive market, the potential impacts of the expansion of EVs on the electric grid and the claims of utility ratepayer benefits from programs designed mainly for EV owners, which are typically a small segment of a utility's customer base.

If the Maryland Commission's order is any indication, utilities seeking to fund large scale EV incentive programs (e.g., more than \$100 million) should consider accompanying those programs with specific and detailed cost-benefit analyses that show that all ratepayers would benefit from the expansion of EVs, or that attribute the costs of EV programs directly to EV owners. And, in addition to tailored incentives, the EV programs should include proven technology, like software and equipment for utility managed charging, rather than what some commissions might consider experimental techniques that haven't yet been proven in the field.

With these strategies, utilities are more likely to see success before regulatory commissions in getting their EV infrastructure investments approved and on the road to implementation.

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