

JOINT COMMENTS IN SUPPORT OF TRANSPORTATION ELECTRIFICATION
June 10, 2019

Arizona Corporation Commission
1200 West Washington Street
Phoenix, AZ 85007

Re: Electric Vehicle Policy Implementation Plan, Docket No. RU-00000A-18-0284

The signatories below write in strong support of the Commission's efforts to promote transportation electrification. The widespread benefits of transportation electrification are understood and accepted not only by decisionmakers, customers, and industry stakeholders nationally, but globally. According to a recent report by Bloomberg New Energy Finance, a leading provider of primary research on clean energy, advanced transport, and other energy market topics, more than half of all passenger vehicle sales by 2040 are expected to be electric. Commercial vehicles and transit buses are also projected to electrify in large numbers. The two biggest factors affecting growth, according to Bloomberg, are electric vehicle price parity and charging infrastructure.

The impetus for this joint letter is to respond at a high level to a certain so-called cost-benefit analysis, and to comments late filed by several legislators and other groups and citizens expressing general opposition to federal subsidies and incentives for electric vehicles, or EVs. One study or "Analysis," labelled "It Ain't Easy Being Green," was late filed after the official filing deadline for public comments on May 31st on June 4 by the Arizona Free Enterprise Club (AFEC), a conservative nonprofit organization. We are concerned about the opaqueness of the financial support and the governance structure of the two groups sponsoring this study – the AFEC and the so-called Economic Research Center at the Buckeye Institute in Columbus, Ohio. The faulty and misleading assumptions and methodologies used in this report bear a striking resemblance to other conservative-leaning think tanks, whose analysis and conclusions have been proven to be false. We also think that certain comments in opposition to action by the Commission refer to policy issues outside of the scope of the Commission and the policy guidance and implementation plan, such as federal tax incentives for EVs, and registration fees (vehicle license taxes, or VLTs) for these vehicles. Furthermore, the EV policy statement which was adopted by the Commission in December 2018 clearly articulate the benefits of EVs to both ratepayers and the distribution grid with managed charging.

We wish to respond briefly to some of these arguments, but also to emphasize several points without repeating the many robust and constructive discussions that have taken place in this docket. First, that the Commission's process to develop a comprehensive record in this Docket since Commissioner Dunn requested such a policy investigation in August 2018 has been commendable and involved key stakeholder groups. Secondly, we believe that the Commission has sufficient and adequate authority under its existing statutes and rules in its comprehensive regulation of the regulated activities of public utilities and its ability to set just and reasonable rates. This is a normal legislative function of a quasi-judicial body such as this Commission, not

to mention the enhanced authority granted directly to the Commission in Article 15 of the Constitution. Also, we wish to state briefly here:

- This is still a nascent marketplace in rapid development; last year, the sales of light-duty passenger vehicles amounted to about 2 percent of overall new vehicle sales. The authors do not acknowledge the concept of market transformation at all in the energy markets. Of course, products and services are more expensive in the early stage of market development, but costs are coming down rapidly especially with declining battery costs and increasing vehicle range;
- A variety of EVs priced in the mid-range, both SUVs, sedans and compacts, are in fact available today. There are about 42 EVs available for purchase today, across several vehicle types and prices, and these will increase to about 130 by the end of 2022. In addition, there is a viable marketplace for used EVs where vehicles can be purchased cost-effectively by lower- and middle-income consumers;
- Cost-benefit studies –this analysis doesn't cite the normal cost-benefit methodologies that regulated utilities and parties use in Commission proceedings, such as a ratepayer impact test, utility cost test, and total resource cost test. Their analysis is both inaccurate and not relevant. The issues of federal and state incentives for purchase of alternative fuel vehicles are properly within the scope of the Legislature, and not this inquiry by the Commission. New approaches are being developed today for more appropriate cost-benefit analysis by groups such as EPRI, the Brattle Group, and several other experts in utility costs and regulation;
- According to the Union of Concerned Scientists, the total global warming emissions from EVs - including manufacturing, driving, and disposal - are about half the emissions of a comparable gasoline car over its lifetime. As more EVs hit the road, the nation will consume less oil, which could help alleviate pollution-related health problems caused by burning gasoline and diesel fuel. UCS analyzed these benefits for 14 states and found that:
 - Electric vehicles are cheaper than gasoline-powered cars to fuel and drive.
 - Leadership on vehicle electrification is critical to tackling climate change and protecting consumers from volatile oil prices.
 - Rural EV drivers can save the most on fuel by switching from gasoline to electricity, and interest in EVs is quickly growing in the U.S. and around the world.

In any case, the Commission should keep its focus on issues in the policy guidance and draft implementation plan related to overall consumer benefits, impact on the distribution grid, ensuring a robust stakeholder process, and finding the best ways to move these increasing loads from EVs and EVSE from potentially peak periods to off-peak periods through both rate

design and technology issues. The utilities should have adequate guidance to develop such plans and will bear the burden of proof to justify such investments to the Commission during the normal process.

We encourage the Commission to plant the seeds for a successful long-term marketplace by approving at the open meeting this week the Implementation Plan that calls for the PSCs to submit pilot programs to you by July 1, 2019, which will include provisions on rate design and cost recovery, education & outreach, best practices & consumer protection. Moreover, we wish to include in the record for your reference a partial list of useful, balanced, and authoritative studies on transportation electrification both here and in other regions of the country, in the Attachment.

Many of the undersigned have previously filed comments in this docket; while we may not all necessarily agree on a specific implementation plan, we fully support the Commission's broad and constructive efforts to provide broad policy guidance for the PSCs as they consider filing utility plans to accelerate the pace of EV infrastructure deployment in Arizona.

Sincerely,



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Executive Director

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Philip B. Jones, Executive Director

Josh Cohen

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Tom Ashley
Vice President, Policy



EV Connect
Brad Groters
Policy and Regulatory Affairs Manager

| Study Publisher | Title (Link) | Date | Summary |
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| Citizens Utility Board | Charge for Less: An Analysis of Hourly Electricity Pricing for Electric Vehicles https://citizensutilityboard.org/wp-content/uploads/2018/08/20180822_EVPaperJVC.pdf | August 2018 | This report uses data from 2016 and 2017 from PJM to look at electricity pricing for EVs in Illinois. |
| Electric Power Research Institute | The Value of Transportation Electrification Three Preliminary Case Studies of Impacts on Utility Stakeholders http://www.epri.com/abstracts/Pages/ProductAbstract.aspx?ProductId=3002007751 | May 2016 | EPRI used a Transportation Electrification model at three different utilities to examine the effects of investments in public plug-in electric vehicle charging infrastructure on electric vehicle drivers and utility customers, using the Total Resource Cost (TRC) and Ratepayer Impact Measure (RIM) tests. This analysis simulated EV adoption and charging station use, determining in a simple way the cost for upgrades to the distribution, transmission, and generation infrastructure. This report will benefit any utility interested in the value of transportation electrification and the development of associated programs and infrastructure. |
| Lawrence Berkeley National Laboratory | The Future of Transportation Electrification: Utility, Industry and Consumer Perspectives http://eta-publications.lbl.gov/sites/default/files/feur_10_transportation_electrification_final_20180813.pdf | August 2018 | This report explores the role of the utility in transportation electrification from the perspective of electric utilities, third-party service providers, and consumers. |

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| M.J. Bradley & Associates | Accelerating the Electric Vehicle Market https://www.mjbradley.com/sites/default/files/MJBA_Accelerating_the_Electric_Vehicle_Market_FINAL.pdf | March 2017 | This report discusses the potential roles for electric utilities in the northeast and mid-Atlantic states. |
| M.J. Bradley & Associates | Electric Vehicle Cost-Benefit Analysis: Arizona http://www.swenergy.org/pubs/azevstudy | December 2018 | The report contains the findings from a report that estimates the impacts of increasing plug-in electric vehicle use in Arizona. Authors found that increased adoption of clean PEVs would reduce residential utility costs, reduce driver transportation costs, support the local economy, and improve air quality, among other benefits. |
| M.J. Bradley & Associates, Georgetown Climate Center | Regulatory Considerations for Utility Investment in EV Charging Infrastructure http://www.georgetownclimate.org/reports/regulatory-considerations-for-utility-investment-in-ev-charging-infrastructure.html | November 2017 | This report provides an overview of the accelerating electrification of the transportation sector and explores the role of state utility regulators in evaluating potential investments by electric utilities in EV charging infrastructure. The report identifies key considerations for regulators, including the amount of charging infrastructure needed to support EVs, ways that regulators can help ensure equitable access to charging infrastructure, and opportunities to maximize the benefits of utility investment in charging infrastructure. |
| MJ Bradley & Associates | Mid-Atlantic and Northeast Plug-in Electric Vehicle Cost-Benefit Analysis http://mjbradley.com/sites/default/files/NE_PEV_CB_Analysis_Methodology.pdf | December 2016 | Estimated the costs and benefits of increased use of light duty plug-in electric vehicles in five mid-Atlantic and northeast states including Connecticut, Maryland, Massachusetts, New York, and Pennsylvania. This document summarizes the methodology, assumptions, and data sources to conduct these analyses. The results of the analysis for each state are reported in separate documents. |

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| Natural Resources Defense Council | Driving Out Pollution: How Utilities Can Accelerate the Market for Electric Vehicles https://www.nrdc.org/sites/default/files/driving-out-pollution-report.pdf | June 2016 | This report examines the ways in which electric utilities can advance transportation electrification, including a three phase approach: 1) Removing barriers to adoption, ensuring grid reliability, and maximizing fuel cost savings, 2) Closing the charging infrastructure gap and promoting equity, 3) capturing the value of grid services and integrating renewable energy. |
| Natural Resources Defense Council | Guiding Principles for Utility Programs to Accelerate Transportation Electrification https://www.nrdc.org/sites/default/files/utility-transportation-electrification-ib.pdf | August 2017 | This guide presents a non-exhaustive set of guiding principles for framing electric utility proposals to accelerate transportation electrification. |
| Regulatory Assistance Project | Getting From Here to There: Regulatory Considerations for Transportation Electrification https://www.raonline.org/wp-content/uploads/2017/06/RAP-regulatory-considerations-transportation-electrification-2017-may.pdf | May 2017 | This report discusses electric utility considerations for preparing for transportation electrification. |
| Rocky Mountain Institute | Electric Vehicles as Distributed Energy Resources https://www.rmi.org/wp-content/uploads/2017/04/RMI_Electric_Vehicles_as_DERs_Final_V2.pdf | April 2017 | Report proposes that if utilities anticipate the load of charging EVs and plan for it proactively, they can capture numerous benefits for the grid and for their customers. But respond too late and reactively, and utilities will encounter significant challenges and investments. |
| Rocky Mountain Institute | From Gas to Grid: Building Charging Infrastructure to Power Electric Vehicle Demand | October 2017 | In order to keep the vehicle electrification revolution moving, each U.S. state needs to begin to grapple now with how to offer a favorable regulatory landscape, develop appropriate |

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| | https://www.rmi.org/insights/reports/from_gas_to_grid | | <p>guidance and incentives for ownership of charging infrastructure, plan for chargers that will be well-used and cost-effective, and ensure that all segments of society will have access to clean, electric transportation options. RMI's report offers useful guidance, best practices, and lessons learned that all U.S. states can start using to get ready for a future of electric mobility.</p> |
| Southwest Energy Efficiency Project | <p>How Leading Utilities are Embracing Electric Vehicles</p> <p>https://www.swenergy.org/data/sites/1/media/documents/publications/documents/How_Leading_Utilities_Are_Embracing_EVs_Feb-2016.pdf</p> | February 2016 | <p>This report looks at opportunities for southwestern states to embrace electric vehicles by minimizing challenges and maximizing system benefits of the electric vehicles.</p> |
| The International Council on Clean Transportation | <p>Literature review on power utility best practices regarding electric vehicles</p> <p>http://theicct.org/literature-review-power-utility-best-practices-regarding-EVs</p> | February 2017 | <p>Summarizes projects, initiatives, and exemplary practices among electric utilities to promote the integration of electric vehicles and maximize their potential benefits.</p> |