



July 14, 2021

Candice Menza, Chief Clerk  
201 High Street, SE  
Oregon Public Utilities Commission  
Salem, OR 97301  
Copies to: Sarah L. Hall and Eric Shierman

**Re: Docket No. UM 2165 – Transportation Electrification (TE) Investment Framework: Comments after June 30 Commission workshop**

Dear Ms. Menza:

We submit the following comments for the Alliance for Transportation Electrification (ATE) in this docket. We are pleased that the Commission is devoting resources and attention to identifying the appropriate metrics, investment framework, and benefit-cost analysis (BCA) for the issues surrounding utility, and other non-utility third party investments, in TE infrastructure in the state of Oregon. The state already has some of the most forward-leaning practices and laws to spur greater adoption of electric vehicles (EVs) and infrastructure among all jurisdictions. The TE Plans filed by the regulated utilities are certainly among the “best of breed” compared to utilities in other jurisdictions, and the recent state-wide TE assessment (TEINA) is an excellent study led by Oregon DOT, assisted by other state agencies. Accordingly, we support this process of engaging with EV stakeholders in an ongoing workshop process and submit that it should continue to explore some of these new and challenging issues without starting a formal rulemaking process in the near future.

The Alliance, a 501(c)(6) non-profit corporation, is led by electric vehicle (EV) infrastructure firms and service providers, automobile manufacturers, utilities, and EV charging industry stakeholders and affiliated trade associations. We started with 20 organizations at the launch just over three years ago and now we have nearly 55 members nationally. We take a “big tent” approach to advance the industry and focus not just on accelerating EV charging deployments—which necessarily requires a strong utility role—but also promoting public accessibility and open standards. We are presently involved in about 25 proceedings in the States before the PSCs, state energy offices, Legislatures, Governors, state DOTs and DEPs, and other agencies.

We will attempt to answer the three questions posted by the Commission after the workshop on how the Commission should approach and use benefit-cost analyses (BCAs) to assess TE programs proposed by regulated utilities, and specifically the possible use of the NSPM for DERs (recently published), along with other cost-benefit tests. We will break down the key issues at a high level both in terms of substance and Commission process over the next few months and years and cite to other practices by utilities and Commissions in other jurisdictions.

1. How should the Commission use both the NSPM (National Standard Practice Manual) for DERs as well as the other cost tests (such as the Rate Impact Measure (RIM) and Societal Cost Test (SCT), to evaluate TE investments?

**In general:** The Commission should allow flexibility in the use of available cost tests (or BCAs) to be used by the regulated utilities in their filings. The EV industry, and the utilization of the infrastructure for EV charging, is still developing with various business models and use cases, but generally, it is still in a nascent stage. There is insufficient data and analysis to date, including from the EV service providers (EVSPs), the host sites, the utilities, and other entities, to do a definitive analysis and reach conclusions on costs and benefits, with proper validation as has been done for energy efficiency programs for the last two decades. Therefore, the Commission should continue this workshop process in order to learn best practices, listen to experts, assess the experiences to date of utilities and EVSPs, and ultimately to find a way to provide guidance to the utilities for future filings.

**Specifics:**

- NSPM for DERs is a good and solid baseline document that was the result of hard work by key national experts, and a strong Advisory Committee.
- But it should be regarded only as a framework or foundational document on which to build—there are many details and “gaps” that still need to be addressed – both by the utilities in their filings, and by the Commission in their review and in Orders.
- We recommend that the Commission consult further with national experts and research bodies that have done solid work in this field over the past several years.
- Since TE is only one form of electrification of end uses (others such as buildings, commercial and industrial applications, agriculture are emerging quickly), the Commission should examine the overall concept of “efficient electrification” with a focus on transportation.
- EPRI has done an excellent study, together with the Brattle Group and its experts on flexible load management for DERs, in August 2019: “The Total Value Test (TVT): A Framework for Evaluating the Cost-Effectiveness of Efficient Electrification.” We attach the study here.
- It would be a good idea to invite the lead authors of the study from EPRI and Brattle to make a presentation to the Commission and stakeholders in this workshop.
- For RAP, John Shenot did a fine job of summarizing at a high-level some of the practices on TE investments and the CBAs used in other jurisdictions in the country. That is a topic that we at the Alliance follow closely and can offer more details and nuance from other jurisdictions since we are active in over 20 States.
- But since the California SPM (Standard Practice Manual) was published, a number of critiques and analyses have been done that are good and relevant to the discussions of costs and benefits of TE investments. While they focus on challenging issues like how to identify and quantify non-energy benefits (NEBs) in the context of energy efficiency, we believe there is relevance to the Commission’s framing of this discussion.
- For RAP, Jim Lazar and Ken Colburn authored a fine paper in 2013 called: “Recognizing the Full Value of Energy Efficiency” that explores some of these issues. We believe it would be a good idea to invite both Mr. Lazar (who lives in Olympia WA) and Mr. Colburn to do a

“deeper dive” in some of the key insights of this paper, and its application to TE investments.

- There are some other nationally recognized laboratories and research firms who have done good work in this area, who could present to the Commission on targeted subjects.

***In the alternative:***

- As we state below, we don’t believe that a formal rulemaking is warranted at this nascent stage of market development where there is insufficient data to draw firm conclusions.
- Yet the Commission may feel that it needs to identify a primary CBA to apply across the utilities (not utility-specific) to use for TE filings as the utility programs expand within a certain allowed budget and portfolio of programs.
- If so, the Alliance recommends that you use, on a temporary basis, the Societal Cost Test (SCT) as the primary test, supplemented by other tests, since it comes the closest to measure the full range of costs and benefits for TE investments that the NSPM for DERs and the TVT of EPRI try to frame and quantify. It is also the CBA used by the Washington UTC, and you can benefit from “lessons learned” in its early application. Two of the key questions that the Commission will have to address is the level of the discount rate, and what metric to use to set a price for CO2.
- At the same time, as we cite below, we urge you to address and resolve some of the challenges that are not resolved yet and will take some time to study and resolve. The ongoing workshop process in UM 2165 is a constructive way to continue to vet these issues.

2. What are the specific issues that are being “missed” in the framing of the workshops by the Commission, and how should these be addressed?

As stated above, the Alliance believes that this informal workshop process involving key stakeholders, national experts, and others is the best way to make progress. This will be an ongoing process involving a number of challenging issues and should include experts outside of the traditional utility regulatory field since EVs and TE infrastructure spans many fields and industries, such as automotive and OEMs, public health authorities (epidemiology), medical authorities (medical costs related to air pollution from transportation sources), economic development experts and economists, and technology and IT experts (managed charging). Each of these fields and experts can offer information and insights on how they would identify and classify costs and benefits of transportation electrification.

Specific issues to explore and discuss:

- **Discount rate and intergenerational equity:** the SCT (Societal Cost Test) has been criticized by some for using a low discount rate to calculate benefits and costs on an NPV basis over a long-time horizon. It does this by putting an emphasis on the longer-term benefits to society for benefits from including all environmental externalities such as reduced air pollution, lower GHGs, and so on. Other CBAs have been criticized for using a higher discount rate based on the weighted-average cost of capital, or similar measure. In any case, these are difficult issues for the Commission to address as it often has to do with a key

resource or program issue in a GRC, such as accelerating the depreciation schedules of coal-fired generation assets. These issues need further discussion.

- **Non-energy benefits (NEBs):** please refer to Table 5 on page 20 of the EPRI study on the TVT, which draws both from the Lazar-Colburn paper and the NSPM for EE paper. This is another complex topic with a rich literature of analysts who have critiqued the California SPM and other ways of trying to quantify benefits adequately, for example, the reduced medical costs (Participant) or the epidemiological/public health (Societal) from fewer local air pollutants and cleaner air in a locality are difficult to quantify. There are several others as well. Several techniques have been used in energy efficiency to try to quantify both the costs and benefits, such as engineering studies, surveys, and others, but each of these methods has its pros and cons. These issues need more vetting and discussion, and there are several other NEBs that need to be addressed, specifically on their attributes.
- **Public health issues:** in particular, during and after the Covid-19 pandemic, certain national studies (American Lung Association, TC Chan School of Public Health of Harvard) have demonstrated both the impacts of local air pollutants created by the transportation sector, and how TE can help ameliorate these issues. This issue (and potential benefit) of public health, and perhaps lower medical costs, has become a key issue in key states, such as New Jersey and Illinois, as they consider greater TE investments by utilities in infrastructure.
- **Equity and DEI (Diversity Equity and Inclusion) issues:** related to the above, as you are well aware, the recent pandemic has demonstrated the disproportional impact of this crisis on the mortality and health for BIPOC communities. Local air pollution from concentrated sources, like major highways and arterials and industrial development and ports, have contributed to these outcomes. Again, in our view, TE can provide major benefits (as well as costs) by ensuring that the benefits of electrification are spread to all communities, neighborhoods, and income classes. But these costs and benefits are fairly new to the discussion of the CBAs, and quantification may be difficult.
- **Treatment of federal subsidies (for EVs and EV infrastructure):** in a literal interpretation of the SCT, the costs and benefits would offset each other, since the federal tax incentive for vehicles (\$7500 for certain OEMs under the cap) to an EV owner would be offset by the increased taxes borne by all taxpayers. But either with the NSPM or the TVT methodology, the Commission must consider the issues of the “boundaries” of the test, and some states have not adopted either a national (or global) boundary for either carbon pollution, subsidies, or other costs and benefits. Some states have adopted this approach, and this is something the Commission may wish to consider since EV adoption in Oregon benefits from both state subsidies and federal subsidies for vehicle purchase and charging stations.
- **Double-counting issues:** obviously, this needs to be identified and addressed in the accounting issues for DERs such as TE and EV charging stations. The Commission has grappled with these issues for other energy issues both on the resource supply side, such as RECs or renewable energy credits and the use of WREGIS, as well as energy efficiency programs on the demand side. TE will bring in a new set of resources and issues across the supply chain including infrastructure (especially with broader life cycle accounting) where the potential for double counting may arise.
- **Cumulative impacts:** as Mr. Wolff presented on the NSPM for DERs, it is important to do the analysis of costs and benefits on a cumulative basis, preferably including the whole

portfolio of TE end use cases – residential, workplace, corridor charging, public charging for both Level 2 and DC fast charging, charging (perhaps Megawatt level charging, or MCS) for medium and heavy-duty vehicles.

- **Symmetrical treatment:** as Mr. Wolff presented in the workshop, it is important not to conflate the use of a much more narrowly focused RIM test (just on the ratepayers), with a broader BCA such as the NSPM or the TVT framework of EPRI in assessing programs. That would be similar to comparing apples to oranges. But his other point is an excellent one – that symmetrical treatment of costs and benefits should be applied broadly to all DERs, and not just TE investments and charging stations. Obviously, this is a larger and broader topic that will require more discussion and vetting of the key issues. An ongoing workshop process such as UM 2165 would be constructive for such issues.

3. What are some best practices on the Commission process in other jurisdictions, and what is your advice going forward?

We have already cited or hinted at some of these process-related issues above. Moreover, we are not experts in the details of the application of the Administrative Procedures Act (APA) in Oregon, and what guidance or rules the Commission should follow in this nascent and emerging area of EV adoption and deploying EV infrastructure. But we will summarize our views here in bullet point:

- First, we urge the Commission to keep the dialogue ongoing with the stakeholders, including national and regional experts in a number of fields to brief the Commission. This is a new, dynamic, and emerging field, which will include the need to broaden the framework for CBAs and metrics for utility TE investments.
- Second, we suggest that the commencement of a formal rulemaking at the end of these workshops would be premature and should wait until further discussion and vetting of some of the challenging and complex issues listed above in Question 2 are discussed more fully.
- If the Commission wishes to offer guidance throughout an ongoing stakeholder process such as this in UM 2165, it can do so by Order that could include some more specific guidance, direction, or questions to be addressed by utilities and stakeholders.
- One example or best practice of such a process is the PC 44 process initiated by the Maryland PSC over four years ago. This originally started as a broader grid-modernization process focusing on smart grid deployments, AMI, and such, but has evolved to an excellent forum on a broad range of TE issues. As Mr. Shenot mentioned in his remarks, this workshop/stakeholder process has recently focused on the CBA issues, and is focused on the NSPM for DERs as a possible jurisdictional analysis to use for TE filings. This is a Commission staff led process, but often, as in the Washington UTC stakeholder process, the staff will ask key TE leaders from the regulated utilities to organize the agenda and speakers for a particular meeting.
- Other good examples of stakeholder process are the “MIPowerGrid” stakeholder process organized by the Michigan PSC which was established in October 2019 to focus on a broad range of clean energy and decarbonization issues. Recently, this process also has focused a good deal of its attention on the TE related issues and EV infrastructure, and has expanded the focus to broader e-mobility issues including AVs (autonomous vehicles that have electric

propulsion) as well as micro-mobility centers (e-scooters, e-bikes, and such). In developing its guidance several years ago for the regulated utilities, since the Commission did not have any specific statute on point from the Legislature to implement for utility-driven TE, they organized a series of technical workshops, and refined their questions through Commission Orders (not a rulemaking) during the process. After that guidance became clearer, the regulated utilities were able to file comprehensive TE programs with greater focus and clarity, which has resulted in a robust EV ecosystem and multiple successful EV programs across use cases in the state.

- The Washington UTC published a Policy and Interpretive Statement (under its APA) in 2016 which guided the development of utility TE programs and policies to encourage a strong utility role and accelerated EV infrastructure. Part of that Policy Statement called for a Commission staff-led stakeholder process, which usually meets on a quarterly basis and has often been delegated to a specific utility to organize the agenda and topics. While the results of this stakeholder process have been mixed and are currently being re-assessed, we believe the basic construct of such a stakeholder process is sound and could be refined and expanded.
- Furthermore, we believe that it will take another two or three years to develop sufficient data and analysis, across all the use cases and load profiles for charging behavior, to get to a stage where a more formal rulemaking would be warranted.
- In the meantime, as stated above, we believe that either the NSPM for DERs, or the TVT framework of EPRI, could be used as a baseline framework for the CBA, but recognizing that many gaps and issues still need to be addressed to fill out this framework.
- Hence in the near-term, the Commission should encourage the utilities to make progress in advancing the state of knowledge on metrics and these CBAs, but should allow the utilities to use multiple tests at their discretion on a utility-specific basis. Since they develop the programs and bear the burden of proof to demonstrate such TE programs to be cost-effective and in the public interest, this should be adequate. We do not recommend breaking the various cost tests into a hierarchy of primary or secondary at this time.
- We also offered an alternative for the Commission to use as guidance in the near-term, which would be the Societal Cost Test (SCT).

In summary, we appreciate the opportunity to provide comments on this important Docket to assess the investment framework and the use of CBAs for transportation electrification investments. The Alliance looks forward to continuing to engage in this process and future workshops in the months ahead.

Sincerely,

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