

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION (UTC)

Docket UE-210804

COMMENTS OF THE ALLIANCE FOR TRANSPORTATION ELECTRIFICATION (ATE)

Re: Developing a Commission Jurisdictional Specific Cost-Effectiveness Test for Distributed Energy Resources Incorporating CETA

December 14, 2021

Received
Records Management
12/14/21 08:04
State Of WASH.
UTIL. AND TRANSP.
COMMISSION

Introduction

The Alliance for Transportation Electrification (“ATE” or the “Alliance”) is pleased to have the opportunity to provide initial comments in this newly opened Docket that relates to the development of a cost-effectiveness test (otherwise referred to as a cost-benefit analysis or “CBA”) for distributed resources under the Washington State Legislature’s 2019 Clean Energy Transformation Act (CETA). As noted in the Notice of Opportunity to File Written Comment published by the Commission on November 4, 2021, the Commission is reacting to a request by stakeholders for additional guidance regarding changes to cost-effectiveness test calculations implicit in CETA for distributed energy resources (DERs). The Commission opened this Docket to determine whether additional guidance related to cost-effectiveness of DERs is necessary.

ATE is a 501(c)(6) non-profit corporation established in early 2018 and is active in over 20 state proceedings in the country. We engage with policymakers at the State and local government level to remove barriers to EV adoption and to encourage the acceleration of EV infrastructure deployment with a particular emphasis on open standards and interoperability. We currently have over 50 members that include many electric utilities, auto and bus manufacturers, EV charging and service providers (EVSPs), and related trade associations and non-profit organizations. We have been actively involved in the Washington TE (transportation electrification) stakeholder process and in other TE -related issues before the Commission.

As is evident from our name, the Alliance is focused on just the aspect of DER cost-effectiveness tests relating to the evaluation of proposed transportation electrification tests. While many of the elements of cost-effectiveness tests or CBAs will be the same for DERs in general and electric vehicle programs in particular, there will be some differences as well. As a general matter, particularly in this nascent stage of the TE market and with little historical data available to guide CBAs, we would caution the Commission to approach CBA evaluation of TE cautiously. CBA or cost-effective tests can provide some comparisons between program options and an overall sense of benefits and costs, over-reliance on limited or predictive data could result in the rejection of some potentially good programs. As time goes on and more program results and data is developed, we will be able to rely more on CBA to evaluate programs, but we are not at that stage yet. The most prudent course might be to develop programs that have built-in flexibility as more data is developed and experience gained.

Because we are focused only on TE, we will not attempt here to answer the specific questions posed in the Notice that are focused on DER in general. Rather, we will provide some high-level comments on CBA tests currently used around the country and their pros and cons as applied to transportation electrification.

Comments

As an initial matter, ATE does not believe that the current metrics for measuring cost effectiveness applicable to DERs (i.e., the modified Total Resource Cost test and the Total Cost Test as primary and secondary screening tests respectively) are the appropriate tests for measuring the cost and benefits of TE programs. For example, while electric vehicles may someday become a system resource if V2G use cases become more tangible, in the early years in particular, EVs will not be a system resource that can be compared to other sources of energy. We also don't believe that these tests accurately account for many of the potential benefits to society of TE that are different than other DERs – for example increased mobility for LMI citizens in underserved communities whether urban or rural. Importantly, the policy goals for TE may have very different elements than for other DERs. Along these lines, we would take issue with the assertion in the Commission's Notice and the NSPM itself that there should be consistent methods for CBA across DERs. We think that TE has many unique attributes (such as its mobility, flexible load management potential, potential customer resiliency benefits, which imply that different ways of cost causation and benefits. Accordingly, we believe that TE should not necessarily rely on the same CBA or cost effectiveness tests across multiple DERs at this stage of development.

- Our primary premise is that the Commission should allow flexibility in the use of available cost effectiveness tests (or CBAs) 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 and other DERs for the last two decades. The Commission should implement the stakeholder process it proposes in this Notice 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. But in doing so, the Commission should recognize that practices for EV evaluation may need to be different than DERs in general.

Specifics:

- The 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.

- 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. In addition to the NSPM, we think the Total Value Test developed by EPRI presents a good alternative for doing TE cost benefit analysis. It might 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. The EPRI study is available here:
<https://www.epri.com/research/products/000000003002017017>
- 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.

As we stated previously, we don’t support the application by the Commission of a single CBA test at this nascent stage of market development where there is insufficient data to draw firm conclusions. The Commission should rather allow utilities to present justification of proposed programs using the best available data and experience gained in Washington State and other states from TE pilot and long-term programs. 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 the Commission use 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 of course also has the benefit that it is a CBA test currently used by the Washington UTC. Two of the key questions that the Commission will have to address in using this Test 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 stakeholder process and the additional workshop process in the current Notice is a constructive way to continue to vet these issues.

- 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 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 (WACC), 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): This is another complex topic with a rich literature of analysts who have critiqued the California Standard Practice Manual 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 Washington 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, including 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, 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: 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, and charging (perhaps Megawatt level charging, or (MCS) for medium and heavy-duty vehicles.

- Symmetrical treatment: it is important not to conflate the use of a much more narrowly focused RIM test (just on the ratepayers), with a broader CBA such as the NSPM or the TVT framework of EPRI in assessing programs. That would be similar to comparing apples to oranges. 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 in the proposed stakeholder process.

We also urge the Commission to be aware of and examine Dockets in other states where CBA issues have already been examined. In particular, Oregon has had a stakeholder process in Docket UM 2165 that has resulted in some specific guidance for utilities.

Another example or best practice of developing CBA processes 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. The Commission set up a Benefit Cost Analysis Working Group composed of a broad range of stakeholders. As input to the process, the Maryland utilities contracted with Gabel Associates, Inc. to produce a report (just recently issued) entitled Electric Vehicle Benefit/Cost Analysis Methodology by the Maryland Joint-Utilities (Final Draft) ([Report](#)). We commend this excellent report to the Commission's attention.

Another good example of stakeholder processes to examine CBA among other issues 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 Regulatory Assistance Project has done a very good summary of some of the CBA practices in other jurisdictions Available at https://www.raponline.org/wp-content/uploads/2021/11/rap_shenot_mi-psc-bca_2021_nov_3.pdf. This is a topic that we at the Alliance follow closely and as the stakeholder process continues we can offer more details and nuance from other jurisdictions since we are active in over 20 States.

In summary, we believe that either the NSPM for DERs, or the TVT framework of EPRI, could be used as a baseline framework for the CBA. Yet we believe there are many gaps and issues that still need to be addressed to make the overall framework meaningful, and the Commission should not and need not tie TE CBA to analyses applicable to all DERs, particularly in these early years of TE market development. We believe that it will take another two or three years at least to develop sufficient data and analysis,

across all the use cases and load profiles for charging behavior, to get to a stage where formal processes and requirements would be warranted.

In the near-term, the Commission should encourage the utilities to make progress in advancing the state of knowledge on metrics to be used for 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.

Should the Commission require a specific test to be used in the near-term, we think the Societal Cost Test (SCT) makes the most sense.

We appreciate the opportunity to provide comments on this important Docket to assess 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.

Philip B. Jones

Philip B. Jones, Executive Director
Alliance for Transportation Electrification (ATE)
1402 Third Avenue, Suite 1315
Seattle, WA 98101
Email: phil@evtransportationalliance.org