

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter, on the Commission’s own motion,)
to commence a collaborative to consider)
issues related to implementation of effective)
new technologies and business models.)
_____)

Case No. U-20898

Introduction

The Michigan Energy Innovation Business Council (“Michigan EIBC”)¹ and Advanced Energy United (“United”; collectively “Michigan EIBC/United”)² appreciate the opportunity to provide these comments in response to the Commission’s Order, dated April 24, 2023, in the above-referenced proceeding addressing the development of a Michigan-specific uniform benefit cost analysis (“BCA”) proposal for use in pilots. Michigan EIBC/United strongly support the development of a robust BCA framework to help drive utility decision-making as it relates to growing the market for distributed energy resources (“DERs”). We appreciate the Commission’s attention to this matter and the decision to develop such a BCA framework using the National Standard Practice Manual for DERs (“NSPM” or “NSPM for DERs”). Below we offer some general comments as well as responses to the Commission’s questions from the April 24 Order.

General Comments

At the outset, we appreciate the efforts of Consumers Energy and DTE in developing the proposed BCA framework and Jurisdiction-specific test (“JST”; “Utility Proposal”).³ Overall, we consider their report a thoughtful response to the Commission’s directives and the comments below should be seen in that context and are aimed at improving the framework and ensuring it adheres as closely as possible to the NSPM.

We support the utilities’ proposal to perform cost effectiveness testing “at scale,” which, as we understand it, would assess the cost-effectiveness of the pilot were it to scale up to a full program. This makes sense since pilot economics may look quite different, and the goal is to develop cost-effective programs. We note that this will require making various assumptions, and we encourage the Commission to allow stakeholders to provide feedback on those assumptions before approving a new pilot.

¹ The Michigan Energy Innovation Business Council is a trade organization tasked with growing Michigan’s advanced energy economy by fostering opportunities for innovation and business growth and offering a unified voice in creating a business-friendly environment for the advanced energy industry in Michigan.

² Advanced Energy United is a national business association representing leading companies in the advanced energy industry. United supports a broad portfolio of technologies, products, and services that enhance U.S. competitiveness and economic growth through an efficient, high-performing energy system that is clean, secure, and affordable.

³ Proposed Requirements and Further Guidance on Benefit-Cost Analyses for Pilot Initiatives, Prepared by DTE Electric Company and Consumers Energy Company, February 1, 2023. (“Utility Proposal” or “Utility Report”)

Responses to Commission Questions

1. Are there necessary elements that are missing from the BCA proposal? Are there additional impact categories, such as environmental and health effects or equity considerations, which should be considered? If other impacts should be included, how should they be included (monetized, quantitative, or qualitative)?

1.1 Are there necessary elements missing from the BCA proposal?

Within the Utility Proposal, on page 6, DERs are defined to include, “demand response, distributed generation, storage, plug-in electric vehicles (EVs), strategic electrification technologies, and more.” Further, footnote 8 notes that energy waste reduction (“EWR”) is out of scope due to EWR having its own statutory requirements. Even though EWR has its own statutory requirements, we believe it would be a missed opportunity to exclude EWR from consideration in the pilot BCA framework. At a minimum, there may be EWR solutions that are not part of existing utility programs that could be part of a pilot. But even EWR supported through existing utility programs could have a role to play, and to not consider it within this BCA framework may be creating silos where they need not exist. There may be a need to adjust the BCA calculations to account for EWR program spending, but this should not be a barrier unless there are specific statutory reasons why EWR solutions must be excluded.

We therefore recommend that the Commission direct the utilities to include EWR in the overall pilot BCA framework. Especially if DER pilots (and ultimately the programs that result from them) are meant to examine how utilities can procure services from DERs, excluding EWR would seem to be quite limiting. The pilots can be used to explore what additional benefits may accrue to both participating customers and the utility system from EWR. Given the potential for overlap between established EWR programs and pilots, the Commission would need to ensure that cost recovery associated with pilots account for the fact that utilities may already be recovering some of the pilot costs through the existing EWR framework.

1.2 and 1.3 Are there additional impact categories, such as environmental and health effects or equity considerations, which should be considered? If other impacts should be included, how should they be included (monetized, quantitative, or qualitative)?

We appreciate the utilities’ use of the NSPM’s multi-step process for developing the JST and focus our comments here on Table 1 in the Utility Proposal. Overall, the proposed JST includes most of the potential impacts, but since the goal is to evaluate the pilots “at scale,” it would seem reasonable for the JST to include many, if not all, of the impacts that the utilities chose to exclude. Although the Utility Proposal Appendix (Table 3) states generally that the impacts that were omitted are “not material across examples of pilot at scale” we recommend that the Commission seek additional support for this claim before agreeing to exclude these impacts from the JST, which include, for electric utility system impacts:

- Generation: Environmental Compliance
- Generation: Renewable Portfolio Standard (RPS) compliance
- Generation: Market price effects

These impacts would seem to fit within the policy goals identified by the utilities in Step 1 of the process for developing the JST.⁴ Regarding the renewable portfolio standard, although the current standard has already been satisfied, the JST should leave room for inclusion of a future standard. For the time being, specific application of the JST can simply indicate that this impact is not applicable.

For gas utility system impacts, the excluded impacts include:

- Energy: Environmental Compliance
- Energy: Market price effects

Particularly for pilots that examine strategic electrification, these impacts would seem directly relevant to consider. Including environmental compliance would seem prudent given the potential for future regulations. If quantification is not possible, it could be included qualitatively for now.

For societal impacts, the excluded impacts include:

- Resilience
- Other Environmental Impacts

For resilience, the Utility Proposal Appendix notes that this is covered in utility system impacts, but to the extent there are additional impacts on customers, they should be included here. We agree that there should not be double counting, but we would like to see how resilience is proposed to be addressed to see if some impacts are being omitted.

For host customer/participant impacts, the excluded impact is:

- Transaction Costs (Host)

It is not clear why this impact has been omitted.

2. *The BCA proposal recommends three potential treatments for different impacts: monetized, quantitative, and qualitative. Are the proposed treatments for each impact appropriate? How can qualitative impacts be incorporated into a BCA?*

For the most part, we believe that the proposed JST applied the proper treatment for each impact. Obviously, for the impact categories omitted, as described above in our response to Question 1, we recommend that the appropriate treatment be added for those in the final JST to be adopted.

⁴ February 1, 2023, DTE Electric Company and Consumers Energy Company's Proposed Requirements and Further Guidance on Benefit-Cost Analyses for Pilot Initiatives, p. 31.

For greenhouse gas emissions (under societal impacts), this can be put into monetary terms, for example, using the social cost of carbon. The same can be said of public health impacts.

For host customer non-energy impacts, the NSPM provides guidance on using proxies to provide quantitative or monetary estimates.

In general, the NSPM's Methods, Tools and Resources Handbook for Quantifying DER Impacts for Benefit-cost Analysis Handbook ("MTR Handbook"), provides detailed guidance on the appropriate treatment of impacts.

3. *The BCA proposal includes an assumed discount rate of the after-tax weighted average cost of capital ("WACC"). Is this an appropriate discount rate?*

The proposal to use a post-tax weighted average cost of capital ("WACC") for a discount rate is not in the spirit or intent of the NSPM for DERs, nor is it aligned with the Commission's directive to utilize a societal perspective, as found in its July 27, 2022 and August 23, 2022 Orders in this proceeding. We therefore recommend that a societal discount rate be used for the final JST to be adopted by the Commission, both for pilot DER programs and full-scale DER programs.

The Utility Proposal correctly notes the NSPM's emphasis on the significance and purpose of selecting a discount rate (pages 13-14).⁵ Nevertheless, the Utility Proposal does not appear to adequately consider the NSPM's guidance regarding discount rates. Rather the Utilities Proposal recommends "...the continued use of a post-tax weighted average cost of capital (post-tax WACC) factor for the discounting of costs and monetary benefits. This is consistent with the BCA performed by the Companies for other areas of utility investments and programs" (page 14). This rationale, in our view, does not adhere to the NSPM's guidance.

The NSPM provides the following guidance on discount rates (NSPM 2020, Appendix G, page G-1):

- The discount rate reflects a particular "time preference," which is the relative importance of short- versus long-term impacts. A higher discount rate gives more weight to short-term benefits and costs relative to long-term benefits and costs, while a lower discount rate weighs short-term and long-term impacts more equally.
- Different economic actors may have differing discount rates based on their own time preferences. However, the same discount rate should be used for assessing and comparing different DERs in order to allow for direct comparisons across all resource types.

⁵ The Companies' proposal also notes that the "NSPM recognizes certain unresolved issues involving the utility BCA, including the role of discount rates for the estimation of present value impacts" (page 11). This is a mischaracterization of the NSPM; there are no "unresolved" issues regarding the choice of discount rate. Instead, the NSPM explains that the choice of discount rate is a matter to be decided by each jurisdiction based on its policy goals. The NSPM does not dictate a specific discount rate for any BCA test. Instead, it provides guidance on how a jurisdiction can make this choice.

- There are three categories of discount rates typically considered for DER assessments: WACC, average customers' discount rate, and societal discount rate. A fourth option is some combination of these three categories.
- The choice of discount rate is a decision that should be informed by the jurisdiction's applicable policy goals. Therefore, a regulatory perspective should be used to determine the appropriate discount rate.
- The following steps can assist regulators in determining the discount rate for their cost-effectiveness test(s):
 1. Articulate the jurisdiction's applicable policy goals.
 2. Consider the relevance of a utility's WACC.
 3. Consider the relevance of the average utility customer discount rate.
 4. Consider the relevance of a societal discount rate.
 5. Consider an alternative discount rate.
 6. Consider risk implications.
 7. Based on these considerations, determine a discount rate that best reflects the jurisdiction's regulatory perspective.

Step 1 is crucial in the process of determining a discount rate. Michigan's policy goals define the regulatory perspective of the jurisdiction, which should be used not only to determine the primary BCA test (i.e., a Michigan-specific JST), but also to determine the discount rate. Based on the Utility Proposal, this step does not appear to have been properly applied or considered, as there is no mention of policy goals to justify their choice of discount rate. Rather the Utility Proposal merely states that the post-tax WACC is consistent with the BCA approach used for other investments. We believe that if step 1 were properly applied, it should lead to the conclusion that Michigan indeed considers several policy goals regarding societal impacts. Specifically, this Commission has required the utilities to use a societal cost test as the Michigan JST (page 5), which clearly indicates that the regulatory perspective in Michigan includes societal goals.

Further, the Utility Proposal states that the "Companies' proposed BCA framework will position the Commission and the utilities it regulates to more effectively test and deploy innovative new ideas, improving the state's energy system for the benefit of customers and society" (page 5). As noted in the NSPM, the BCA discount rate should be consistent with the goal of the BCA (NSPM, Appendix G, page G-1). Since the goal of the BCA in Michigan is to promote net benefits for customers and society, the discount rate should be the societal discount rate, not the post-tax WACC.

Similarly, it seems that the Utility's Proposal has not properly followed step 2 above. According to the NSPM, the WACC reflects the time preference of utility investors, whose goal is to maximize the returns on their investments (NSPM, Appendix G, page G-3). The WACC is not the appropriate discount rate to use unless BCA's goal is to maximize the return to investors. The Utility Proposal argues for the post-tax WACC as the discount rate because that is the rate used in BCAs for other utility investments. However, this argument is not sufficient to justify choosing this discount rate for the JST. The Commission has clearly articulated that it prefers the societal perspective for evaluating the cost-effectiveness of DERs, which requires the use of a societal discount rate.

Finally, the Companies apparently did not apply step 4 above. Had they considered this step, we believe that they would have concluded that a societal discount rate is the most appropriate rate for the Michigan JST because that BCA test includes societal costs and benefits.

4. *What, if any, changes to the BCA proposal are required in order for natural gas utilities to make use of the BCA proposal for pilots?*

We recommend that this Commission and the natural gas utilities that it regulates look to the MTR Handbook for best practices and guidance for natural gas utilities to use the BCA proposal for pilots. Specifically, Chapter 4 would be helpful for these purposes, as it describes the following topics:

- Gas utilities implementing or supporting DERs that reduce or increase end-use gas consumption, including non-pipe alternatives;
- Utility implementing or supporting DER programs that reduce or increase end-use gas consumption;
- When DERs increase or decrease electricity generation and thereby affect marginal gas-fueled power plants on the electricity system and gas impacts used as inputs; and
- The use of BCAs to inform decisions regarding the decarbonization of the gas industry.⁶

Regarding this last point on the decarbonization of the gas industry, we believe that a properly-designed BCA framework could help in this emerging area. Specifically, a robust BCA can help decision-makers make strategic and sound decisions as the marketplace moves away from the use of gas that ensure that all stakeholders and costs are considered.

5. *Do stakeholders find value in a spreadsheet-based tool with a user guide for both the Staff and utility personnel to utilize? Should the spreadsheet-based tool be developed by the Staff or outside consultants? How can the spreadsheet-based tool be used to provide additional transparency into the assumptions underlying the BCA?*

A spreadsheet-based tool and user guide would greatly benefit all stakeholders. The tool should be as transparent as possible with regards to assumptions and methods to be most useful and fulfill its highest potential. This would afford everyone insights into how BCA principles are developed and applied universally. The Commission should also require that all utilities use this tool for all their projects for consistency and transparency. This will allow for simpler comparisons and analysis by Staff, pilot participants, and interested parties. The tool should be downloadable and fully usable (with intact formulas) in Excel format. That way its formulas and assumptions can be understood in addition to the outputs. At the same time, a static version in a Portable Document Format (“PDF”) could also be available as a master reference for everyone.

⁶ National Energy Screening Project. (2022, March). Methods, Tools, and Resources: A Handbook for Quantifying Distributed Energy Resource Impacts for Benefit-Cost Analysis. https://www.nationalenergyscreeningproject.org/wp-content/uploads/2022/03/NSPM_Methods-Tools-Resources.pdf.

Although, in theory, either Staff or an outside consultant could develop the tool, we recommend using an outside consultant retained by this Commission. Such a consultant will have the necessary experience to apply the NSPM, and the contract with the consultant can include training on the tool for Staff and other stakeholders. It may also be valuable to engage with stakeholders while the tool is being developed, to allow for feedback that will result in a tool that meets everyone's needs.

6. *Are there regulatory examples of Jurisdiction-Specific Test (“JST”) or BCA developments in other states that could be instructive for use in Michigan?*

Nearly a dozen states have applied the NSPM to update/refine their cost-effectiveness testing practices, whether for a single DER (e.g., energy efficiency), or for all DERs.⁷

We offer the following two examples:

- Maryland applied the NSPM first to EVs, then energy efficiency, and has now opened a Unified BCA Docket to develop a consistent test across all DERs. This unified framework is designed to “accurately and consistently value the costs and benefits for different DERs and will better align energy efficiency, demand response programs, and long-term planning with state climate and equity efforts.”⁸ It is also expected to help stakeholders achieve policy goals in a cost-effective manner, such as the Greenhouse Gas Reduction Act, Transforming Maryland’s Electric Grid contained in PC44, and the Renewable Portfolio Standard. It is important to note that Maryland’s Public Service Commission did not intend for tests to be identical across all DERs and utilities. Rather the idea was to create some uniformity to better inform decisionmakers and help them make better choices for the state to reach its goals.⁹ This docket will likely result in a new or modified JST to address inconsistencies in test practices, discount rates, and new policies.¹⁰
- In Colorado, the Public Service of Colorado (“PSCO”) applied the NSPM in its distribution system plan proceeding, specifically in its Cost-Benefit Analysis of Non-Wires Alternatives (“NWA”). [Here, PSCO evaluated its program with an Expanded, Modified Total Resource Cost \(“EMTRC”\) test](#), which is broader than a Total Resources Cost test and is based on ideas found in the NPSM. The EMTRC includes greenhouse gas impacts in its “values steam,” as well as incorporates additional values and impacts

⁷ See Also: National Energy Screening Project. (n.d.). *Application of NSPM - Case Studies*. National Energy Screening Project. <https://www.nationalenergyscreeningproject.org/national-standard-practice-manual/nspm-application-by-state/>.

⁸ *National Standard Practice Manual Case Study: Maryland*. National Energy Screening Project. (2022). <https://www.nationalenergyscreeningproject.org/wp-content/uploads/2022/06/Maryland-NSPM-Case-Study-2022-06-28.pdf>, p. 9.

⁹ Maryland Public Service Commission, Order Establishing Workgroup to Develop a Unified BCA Framework. Case No. 9674, <https://webpsc.psc.state.md.us/DMS/case/9674>, p. 10.

¹⁰ *National Standard Practice Manual Case Study: Maryland*. National Energy Screening Project. (2022). <https://www.nationalenergyscreeningproject.org/wp-content/uploads/2022/06/Maryland-NSPM-Case-Study-2022-06-28.pdf>, p. 10.

to reflect localized and customer benefits based on the NPSM.¹¹ Also, the analysis adds Non-Energy Impacts through a “Non-Energy Benefits Adder” for costs and benefits of host customer impacts.¹² Finally, it is important to note that the Ratepayer Impact Measure is part of the evaluation in this NWA proposal, but it is evaluated separately to show impacts on customer rates. Thus, it does not interfere with the NWA proposal’s cost-effective impacts and the measurement of its broader benefits.¹³

¹¹ Colorado Public Service Commission, Hearing Exhibit 101, Attachment ZDP-5, Proceeding 22A-0189E, https://www.dora.state.co.us/pls/efi/EFI.Show_Filing?p_fil=G_789529&p_session_id=, p. 3.

¹² *Id.*, p. 22.

¹³ *Id.*, p. 6.