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June 22, 2023

Lisa Felice Executive Secretary Michigan Public Service Commission 7109 West Saginaw Highway Lansing, MI 48917

RE: MEEA Response to the Commission's questions regarding the BCA Proposal in Case No. U-20898

Dear Ms. Felice,

The Midwest Energy Efficiency Alliance (MEEA) submits the following answers to the questions posed by the Michigan Public Service Commission in its Order of April 24, 2023, in Case U-20898.

MEEA is a collaborative network, promoting energy efficiency to optimize energy generation, reduce consumption, create jobs and decrease carbon emissions in all Midwest communities. At MEEA, we leverage our expertise to be the Midwest's leading resource for our members, allies, policymakers and the broader sector to promote energy efficiency as the essential pathway to achieve a clean, affordable, equitable and sustainable future. We see energy efficiency as the least-cost foundation of the clean energy economy, creating immediate energy savings, providing career pathways, reducing emissions, improving new and existing buildings and boosting Midwest business and industries. MEEA develops connections and engagement opportunities for a diverse group of organizations to collaboratively create practical solutions. MEEA serves as a technical resource, promotes program and policy best practices and highlights emerging technologies, all to maximize energy savings, reduce costs, improve resiliency and lower energy burden.

MEEA's members include both Consumers Energy and DTE ('the Companies'), which developed and filed the *Proposed Requirements and Further Guidance on Benefit-Cost Analysis for Pilot Initiatives* (the 'BCA Proposal') on February 1, 2023, in this docket. MEEA members Upper Peninsula Power Company and Xcel Energy joined the support filing from the electric utility members of the Michigan Electric and Gas Association (MEGA). SEMCO Energy Gas Company is also a MEEA utility member but is not active in this matter. Our non-utility members located in Michigan include RESTART at Lawrence Technological University, TrickleStar, Michigan Saves, Utility Energy Services, SEEL, LLC, and Walker-Miller Energy Services, along with many other organizations that do business in the state. State energy offices throughout the region are MEEA members as well, including the Michigan Department of Environment, Great Lakes and Energy (EGLE).1

We commend the Commission for establishing this proceeding and the collaborative process to explore the issues related to distributed energy resource (DER) technologies and utility business models. As a member of the steering committee for the National Energy Screening Project (NESP), MEEA has been involved with the National Standard Practice Manual (NSPM) since its

¹ We provide this member list for information and disclosure, but these comments are MEEA's own and should not be taken to represent the opinions of our member companies and organizations.

inception, and we are glad that the MPSC has adopted the use of the NSPM Framework for this proceeding. The steps being taken here are vital for Michigan's energy transition, and we truly believe that the NSPM is an essential tool for aiding that transition. We also commend the Companies for the development of the BCA Proposal. We hope that our comments will build upon their work and provide additional context and detail to help the Commission render a decision in this matter that provides a strong foundation for these pilot programs and future DER activities in Michigan.

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?

Yes. The proposed definition of DERs includes "demand response, distributed generation, storage, plug-in electric vehicles (EVs), strategic electrification technologies, and more," (p. 6) but excludes energy efficiency. Energy efficiency was the only DER covered by the *NSPM* in its first iteration, and it should not be left out here when Michigan applies the *NSPM* Framework.

The Companies' footnote mentions that Energy Waste Reduction (EWR) has its own statutory BCA requirements and is outside of the scope of this proceeding. While the EWR statute (PA 295 of 2008, as amended by PA 342 of 2016) does govern conventional utility customer-funded energy efficiency programs, it does not explicitly exclude energy efficiency from being implemented in other contexts. Sec. 5 (g) states that "Energy waste reduction does not include electric provider infrastructure projects that are approved for cost recovery by the commission other than as provided in this act."

It is in that context that energy efficiency should be included within this BCA Proposal's definition of DERs. There are many types of DER pilot projects. Some could include multiple types of DERs and would therefore benefit from the ability to include customer energy efficiency improvements in the program design. These could include distribution system projects that seek "non-wires" alternatives and equity-related projects that use DERs to help alleviate customer energy burdens.

The Commission should clarify that energy efficiency components may be included in pilot projects under this framework that are approved in rate cases or other proceedings that are not within the conventional EWR framework. For pilot projects that include energy efficiency components, the Michigan Jurisdiction Specific Test (JST) developed here should be used to measure the impacts of energy efficiency as well as the rest of the DERs that make up the program.

1.2 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)?

To answer this question, we will follow the outline of the first steps of the multi-step *NSPM* process, pointing out a few areas that we believe could be improved by following the *NSPM* Framework more closely or better documenting why impacts were included or excluded.

Step #1: Articulate Applicable Policy Goals. The Companies articulate policy goals on page 18 of the proposal. This is very high-level and provides a short bullet list of policy priorities. Most of this list (safety, reliability, affordability and resiliency) covers core tenets of any state's utility policy,

and the other two (environmental justice and equity, and decarbonization) reflect policies in Michigan (as well as other states in the Midwest and the federal government). There is nothing controversial about this list, but there is also nothing insightful.

This list does not clearly state for the record (and the transparency required by the NSPM Framework) the applicable Michigan statutes, rules, regulatory orders, utility plan approvals and other policies that justify these objectives. The development of a more detailed policy inventory would benefit stakeholders who need to understand the new JST, its application to these pilot projects, and any future application of the JST. Appendix A contains a short, non-exhaustive inventory as a demonstration. Ideally, this inventory would be completed separately by multiple stakeholders, with the results synthesized into a final inventory that reflects a consensus understanding of Michigan's relevant policies.

Step #2: Include All Utility System Impacts. The *BCA Proposal* should include all the utility system impacts in the proposed JST. These are core components of any benefit-cost test and should be included here. If they are not included, the reason why should be made very clear – for example, being embedded in an already-included cost.

The utility system impacts not included in the proposed JST are:

- **Environmental Compliance** The avoided (or increased) cost of environmental compliance (e.g., compliance with federal ambient air quality standards) may be embedded in the avoided generation costs which are already included in the JST, but if this is the case it should be made clear and documented.
- Renewable Portfolio Standard (RPS) compliance Similarly, if any of these DER pilot projects contribute to compliance with relevant RPS requirements, then some accounting should be made for these costs, e.g., the avoided cost of purchasing renewable energy credits.
- Market price effects There are established methodologies for measuring and monetizing this impact, including in the NESP's <u>Methods, Tools & Resources Handbook for Quantifying DER Impacts</u>² (MTR Handbook, Sec. 3.2.4). Therefore, this impact should be accounted for in the JST.

Step #3: Account for Relevant Non-Utility System Impacts. For the most part, the Companies have included relevant and appropriate non-utility system impacts and detailed whether they will be monetized, quantified or qualified for inclusion. We will address this broadly here and go into specifics on certain excluded impacts in the response to Question #2 below.

As previously noted, the Companies identify "Environmental Justice and Equity" as a relevant policy goal, but in the proposed JST, this goal is not really addressed. This is appropriate, as the NESP's MTR Handbook (Chapter 9) discusses. BCAs do not address equity. They answer questions regarding the costs and benefits of a DER program across all customers on average but cannot demonstrate the equitable distribution between groups of customers. A separate analysis – distributional equity analysis (DEA) – can answer questions about how impacts on priority populations of customers compare with impacts on other customers. Using DEA in conjunction with BCA can help clarify how the net benefits (or costs) of a DER pilot program are distributed among the customer base – and the equity implications of those investments. MEEA serves on

National Energy Screening Project, Methods, Tools and Resources: A Handbook for Quantifying Distributed Energy Resource Impacts for Benefit-Cost Analysis, a companion guide to the National Standard Practice Manual, March 2022.

the advisory committee for the NESP's work with Lawrence Berkeley National Laboratory on a guidance document for conducting DEA, with publication forthcoming in Fall 2023. For more information see LBNL DEA Guide project website.

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?

Table 2 in the *BCA Proposal* summarizes how the impacts will be addressed using monetized, quantitative or qualitative inputs. The treatment of most of the impacts included in that table is appropriate, but there are some cases where there is room for improvement, as itemized below. The <u>NESP's MTR Handbook</u>, as noted previously, can help determine the best methods to account for DER BCA impacts, with links to supporting resources, studies and cases.

- Electricity and gas: environmental compliance impacts (N/I).
 - The BCA Proposal does not explain why this impact is not included. The NSPM is clear that all environmental compliance costs and benefits should be included in the electricity system impacts of any test used to screen DERs. These impacts should be monetized because they can be easily identified and estimated in monetary terms. Further, if societal environmental impacts are included in the JST, then the environmental compliance impacts should be (a) included in the utility system impacts, but (b) subtracted from the societal environmental impacts (NSPM, page 4-3; MTR Handbook, Section 3.2.6).
- Electricity: RPS/CES compliance (N/I).
 - The BCA Proposal does not explain why this impact is not included. Does MI RES no longer apply, or not apply to DERs? A completed policy inventory would help answer this question. To the extent that RES may apply, these impacts should be monetized, because they can be easily identified and estimated in monetary terms.
- Electricity: market price effects (N/I).
 - The BCA Proposal does not explain why this impact is not included. The NSPM is clear that these impacts should be included in the electricity system impacts of any test used to screen DERs. These impacts are frequently monetized in other states (e.g., ISO New England) and should be monetized in Michigan, as they relate to MISO energy market price impacts. If they are not monetized, they should at least be discussed qualitatively.
- Electricity and gas: credit and collection costs (Qual).
 - o The BCA Proposal does not explain why these impacts are not monetized. Ideally, these impacts should be put into monetary terms.
- Societal: resilience (N/I).
 - o The BCA Proposal does not explain why this impact is not included. This impact should be addressed qualitatively even if the qualitative explanation is simply to note that the impacts are likely to be very small. This type of qualitative explanation is more transparent than simply not including the impact at all. Further, see the MTR Handbook (Table 79), which presents a list of resilience metrics established by the U.S. DOE. Direct metrics are those that can be

quantified as a utility system impact, while indirect metrics are those associated with societal impacts.

Societal: greenhouse gas emissions – (Quant).

This impact should be addressed using monetary terms. This impact can be very large and therefore should be put into monetary terms in order to give it due weight in the BCA. There are multiple options for developing reasonable estimates of monetary values for greenhouse gas emissions, including the social cost of carbon and the carbon abatement cost approaches (MTR Handbook, Section 7.1).

Societal: other environmental impacts – (N/I).

These impacts should at least be discussed qualitatively, depending on articulated Michigan policy goals regarding environmental impacts (air, water, and other impacts) that extend beyond any environmental compliance costs captured as a utility system impact (e.g., Clean Air Act air quality compliance), and how the Commission ultimately decides to align the JST with the societal test.

Societal: public health – (Qual).

This impact, identified as a goal by the Companies, should ideally be addressed in monetary terms. There are multiple options for developing reasonable estimates of public health impacts, especially those caused by criteria air pollutants (MTR Handbook, Section 7.2).

Societal: energy security – (N/I).

The BCA Proposal does not explain why this impact is not included, but from our short policy inventory in Appendix A, several state policies would support its inclusion. If the Commission seeks to align the JST with the societal test, then energy security should be addressed qualitatively at a minimum, and ideally using monetary terms.

Host customer: transaction costs – (N/I).

o The BCA Proposal does not explain why this impact is not included. This impact should ideally be addressed using monetary terms. If not, then it should be addressed qualitatively, even if the qualitative explanation is simply to note that the impacts are likely to be very small. This type of qualitative explanation is more transparent than simply not including the impact at all.

• Host customer: non-energy impacts (low-income) – (Qual).

These impacts should ideally be monetized. Some states use proxies to approximate monetary values of non-energy impacts (MTR Handbook, Section 6.2). If proxies or other monetary values are not available, then these impacts should be addressed quantitatively.

Host customer: non-energy impacts (non-LI) – (Qual).

These impacts should ideally be monetized. Some states use proxies to approximate monetary values of non-energy impacts (MTR Handbook, Section 6.2). If proxies or other monetary values are not available, then these impacts should be addressed quantitatively.

3. The BCA Proposal includes an assumed discount rate of the after-tax WACC. Is this an appropriate discount rate?

The proposed use of the utilities' post-tax weighted average cost of capital (WACC) as a discount rate is not appropriate in the context of the proposed JST.

The Commission's Order of July 27, 2022, (p. 8) discusses the expectation that "all pilot proposals to present a BCA which includes a utility cost test (UCT) and a proposed societal cost test (SCT)." The use of the WACC as a discount rate would be appropriate for the UCT test and its utility perspective, but for the JST proposed in the BCA Proposal, the societal perspective of that test should be reflected in a societal discount rate. As the discount rate reflects a particular "time preference," i.e., the relative importance of short- versus long-term impacts, a higher discount rate (like the WACC) gives more weight to short-term benefits and costs relative to long-term benefits and costs. In contrast, a lower discount rate (such as a societal rate) weighs short-term and long-term impacts more equally.

The BCA Proposal simply notes that the Companies "recommend 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 recommendation, however, does not adhere to the steps in the NSPM for deciding on discount rates.

The NSPM guidance on discount rates includes the following:

- "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.
- 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 costeffectiveness 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." (NSPM 2020, Appendix G, page G-1)

The first step, articulate the policy goals – analogous to step #1 of the NSPM Framework, is important here. The policy goals define the regulatory perspective for the jurisdiction and should be used to determine not only the impacts in the BCA test, but also the choice of discount rate. There is no discussion in the BCA Proposal of the policies that justify the choice of discount rate; rather, the Companies simply note that it is consistent with other investments. As for pertinent policy documents, the relevant orders in this case are the most directly applicable. The orders clearly establish the goal of developing a JST that provides a societal cost test and a regulatory perspective that includes societal goals.

The discussion in the BCA Proposal suggests that the Companies did not go far enough in applying the NSPM to developing the BCA test proposal, overlooking the discount rate guidance. What is provided in the BCA Proposal only considers step #2 above and comes to the wrong conclusion. If the BCA Proposal had worked through these steps and reached #4, a societal discount rate would be the best match for the JST, as it most closely reflects Michigan's policy goals. The Commission has clearly articulated that it prefers the societal perspective for evaluating the cost-effectiveness of DERs with a societal JST, which requires the use of a societal discount rate. The Commission has not articulated a preference for applying a societal perspective to other utility investments where the WACC may indeed be appropriate. If the Commission articulates a societal preference for those investments, then a societal rate should be used for those BCAs as well.

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?

The NSPM principles and guidance apply equally to DER investments by electric or natural gas utilities. Although the included impacts may differ between the utility types, the principles are the same. The MTR Handbook (Chapter 4) provides details on quantifying and monetizing the range of impacts. Some specific gas impacts and definitions are noted below.

Category	Impact	Definition				
Commodity/ Supply	Gas Commodity	The gas capacity required to meet forecasted peak load as well as the fuel and O&M impacts related to purchasing gas at specific locations on the gas system and the variable cost of getting the gas where, and when, it will be used				
	Environmental Compliance	Actions to comply with environmental regulations				
	Market Price Effects	The decrease (or increase) in wholesale prices as a resu of reduced (or increased) customer consumption				
Transportation	Pipeline Capacity	The fixed charges for pipeline transportation services that deliver natural gas to the local distribution company city gate				
Distribution	Gas Distribution	Local distribution company costs to deliver gas from the city gate to retail customers				
	Pipeline Losses	The volumetric difference between the gas entering the local distribution company city gate and the gas measured at customers' meters				
General		Same as Electric Utility System Impacts				

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 be valuable for staff, utilities and other interested stakeholders. It would support consistency in the BCA across DERs and between utilities. It would also provide transparency regarding how the BCA principles have been applied and the values determined for the included impacts. It would be much easier for all interested parties to understand a single, consistent tool than to assess the results from different tools used by different utilities, or different tools used for different DERs.

Ideally, a tool would be pre-populated with the common assumptions that apply to all utilities and allow for utility-specific inputs to be added without changing the underlying formulae and calculations. The tool should be publicly available so stakeholders can review all of the assumptions and formulae and explore how the tool responds to changes in assumptions. The results of utility BCA using the tool should be published in complete and unlocked spreadsheet format so the details of the specific analysis can be reviewed to ensure full transparency. Publication of the tool results alone in PDF format would not be adequate for that purpose.

The development process for the Michigan Energy Measures Database (MEMD) is a logical template for development of a BCA tool. This would include a stakeholder committee that would advise and review the developer, annual or periodic updates of the tool with documentation of changes, and a process for submission of questions, errata or other feedback to be incorporated into the next iteration of the tool.

6. Are there regulatory examples of JST or BCA developments in other states that could be instructive for use in Michigan?

Yes. In the Midwest, Minnesota has recently undertaken a stakeholder-driven process to develop a JST for electric and natural gas energy efficiency programs under its Conservation Improvement Program (CIP) framework. Over 50 representatives from 35 organizations (including MEEA) came together remotely in 2022 for discussion and debate. The input from all of the parties helped Department of Commerce staff develop a consensus recommendation for a JST that was subsequently approved. Detailed notes on that process are included as Appendix B.

There are numerous other examples of how the NSPM has been applied outside of the Midwest on the NSPM References page of the NESP website.

Thank you for this opportunity to comment on the BCA Proposal. My staff is happy to discuss issues in these comments further as needed. Please contact Gregory Ehrendreich, Sr. Analyst, at gehrendreich@mwalliance.org.

Sincerely,

William Angelos, Acting Executive Director

APPENDIX A: A Partial Michigan NSPM Policy Inventory*

Relevant Policies	Non-Utility System Impacts Reflected in Michigan Policies															
					Societal											
	Partic-	Other Fuels		Low- Income	GHG	Air	Waste	Water	Land	Other Enviro	Health	Economic	Security	Equity	Resilience	Other
PA 341 of 2016												Х		Х		
PA 342 of 2016	Χ		Χ	Х	Χ	X	Х				Х		Х	Χ		
Executive Directive 2020-10											Х	X		Х		
MI Healthy Climate Plan					Х	Х		X	Х		Х	X	Х	Х	X	
MI Power Grid											Х		Х	Χ	Х	
IRP filing requirements (Order in U-18461)				Х	Х	Х	Х	X	X		Х	Х		Х		
Order in U-20898 (July 27, 2022)					X	X				X	X			X	X	
Order in U-20898 (Aug 23, 2022)					"societal" broadly											
Additional Policies?																

^{*}Based on a policy inventory from Minnesota - <u>Analysis, Recommendations and Proposed Decision of the Staff of the Minnesota Department of Commerce Division of Energy Resources</u>, Appendix C in Docket No. E,G999/CIP-23-4

APPENDIX B: Notes on Minnesota NSPM process to develop a BCA for energy efficiency

The MN Department of Commerce (DOC) launched a process in April 2022 to develop the cost-effectiveness methodologies for utilities to use for their 2024-2026 Conservation Improvement Program Triennial Plans. An initial meeting outlined the NSPM BCA framework, followed by workshops that used the *NSPM* to guide stakeholders in developing a new primary test.

The table below summarizes the MN NSPM workshops. These were facilitated by the Department of Commerce (DOC) staff with support from the DOC's lead consultant, Mendota Group, with technical assistance from Synapse Energy Economics ("Synapse") on NSPM application (funded by US DOE/LBNL). Stakeholders in the Cost-Effectiveness Advisory Committee (CAC) include utilities, state agencies and nearly 20 other interested organizations.

Minnesota's NSPM Process & Corresponding Workshops

The first two workshops, led by Synapse, walked through the key steps of identifying what impacts to include in Minnesota's primary cost-effectiveness test. This process informed Synapse's development of a straw proposal with a new "Minnesota Test" for stakeholder review.

NSPM Step 1 – Workshop 1

NSPM	5-STEP PROCESS	MINNESOTA CAC WORKSHOP TOPICS			
STEP 1	Articulate Applicable Policy Goals	Workshop #1 (5/4/22)			
	Articulate the jurisdiction's applicable policy goals related to DERs.	 Review of NSPM principles and steps Inventory of MN applicable policies and relevant impacts 			
		 Homework: what utility system impacts are currently in BCA test? What non-utility impacts align with policies? 			

NSPM Steps 2-3 – Workshop 2

STEP 2 Include All Utility System Impacts Identify and include the full range of utility system impacts in the primary test, and all BCA tests. Workshop #2 (5/18/22) Review of homework results from utilities on current practice - utility system impacts

STEP 3 Decide Which Non-Utility System Impacts to Include

Determine whether to include host customer, low-income, other fuel, and water, and/or any societal impacts based on alignment with policy goals.

- Review of working group feedback on non-utility system impacts to include (or not) in a primary MN test
- Discussion on where feedback varied across stakeholders

Straw Proposal developed by Synapse Energy Economics based on Steps 1-3 (circulated to CAC on 6/8)

The third workshop focused on stakeholder feedback on the straw proposal. With this input, Mendota prepared a <u>draft Working Group Report</u> that incorporated the straw proposal and stakeholder comments, along with DOC staff's recommendation for a new Minnesota Cost Test (MCT), which adopted most, but not all, of the straw proposal recommendations. It also included recommendations on the use of secondary tests.

NSPM Step 4 – Workshop 3

STEP 4 Ensure that Impacts are Properly Addressed

Ensure that the impacts identified in Steps 2 and 3 are properly addressed e.g., ensure symmetrical treatment of costs and benefits, relevant impacts are accounted for (even if hard to quantify); and avoid any double-counting of impacts.

Workshop #3 (6/15/22)

- Straw proposal overview and review of CAC member comments
- Key issues: whether or not to include participant impacts (to ensure symmetry) and magnitude of these impacts; confirm inclusion of certain societal impacts (consistent with policy) but not others

Draft Working Group Report developed by Mendota Group

(documentation of Steps 1-4 plus staff recommendations on MN Cost Test)

The fourth workshop focused on reviewing the drafts of the documentation that had been developed, along with discussion of how some impacts would be treated. It also included discussion of the activities where the test would apply and how secondary tests would be used in conjunction with the Minnesota Cost Test.

NSPM Step 5 – Workshop 4

STEP 5 Establish Comprehensive, Transparent Documentation

Ensure clear and understandable documentation and reporting of test development, input assumptions and BCA results.

Workshop #4 (8/12/22)

- Review of the draft Working Group report developed by Mendota, which incorporates the Synapse straw proposal, stakeholder comments and DOC staff recommendations
- Discussion of treatment of certain impacts (utility incentives, low-income

This step is on-going throughout NSPM process.

programs)

- Scope of primary MN Test (EE, DR, fuel switching), not other DERs (no statute)
- Use of primary and secondary tests

With the draft cost test in place, the CAC moved to the next phase of the NSPM process, **identification of methodologies to quantify impacts** for use in cost effectiveness. As presented by Synapse in Workshop #5, this effort employed NESP's Methods, Tools and Resources Handbook (a companion resource to the NSPM) to guide selection of appropriate methodologies for quantifying various impacts. Identification of methods to account for relevant impacts in this phase was also informed by utility practices and stakeholder input. Following workshop #5, the DOC convened two additional workshops focusing on identification of methodologies for quantifying utility and non-utility system impacts.

Determine Methods – Workshop 5

(Oct-Dec)

Next Phase Determine Methods/Approaches for **Quantifying Impacts in Primary Cost**effective Test

Workshop #5 (9/7/22)

- Identify priority impacts to quantify and what resource could be used to quantify those impacts
- Discuss use of discount rate and discount rate value
- Identify methods to account for environmental compliance, RPS, market price effects (using Methods, Tools & Resources (MTR Handbook) Handbook - NESP)

The CAC process and NSPM workshop series concluded in January 2023. Shortly thereafter, on February 16, 2023, the DOC Staff filed its Proposed Decision with a summary of the CAC's activities and Staff's recommended cost-effectiveness methodology updates for the 2024-26 CIP Triennial Plan period. The issuance of Staff's Proposed Decision – which included adoption of a Minnesota Cost Test (MCT) - marked the beginning of a formal regulatory process (Docket 23-46), with a public comment period extending to March 6, 2023. The DOC's Deputy Commissioner issued an order on March 31, 2023, adopting the staff's recommendations.

The table below compares Minnesota's previous cost-effectiveness test to the new MCT, along with various secondary tests that will be used to inform different considerations (consistent with MN statute).

Туре	Impact	Previous Practice	Minnesota Cost Test	Societal Cost	Utility Cost	Participant Cost	RIM
Utility System	Utility System Costs	partially	✓	✓	✓	-	✓
	Lost revenues	-	-	-	-	-	\checkmark
Participant	Participant costs	✓	-	✓	-	✓	-
	Participant benefits	partially	-	✓	-	✓	-
Other fuels	Other fuels	✓	✓	✓	-	-	-
Low-income	Low-income	✓	✓	✓	-	-	-
Societal	GHG emissions	✓	✓	✓	-	-	-
	Criteria air emissions	✓	✓	✓	-	-	-
	Other environmental	partially	✓	✓	-	-	-
	Public health	✓	✓	✓	-	-	-
	Macroeconomic	✓	✓	✓	-	-	-
	Energy Security	-	✓	✓	-	-	-
	Energy Equity	-	✓	✓	-	-	-

To learn more about Minnesota's experience applying the NSPM BCA framework, see MN NSPM workshop materials.