

# MN CIP Cost-Effectiveness Advisory Committee (CAC)

## Meeting 1

April 22, 2022

10:00 a.m. – 12:00 p.m.

**Type of Meeting:** Microsoft Teams Meeting

### Attendees:

Name	Organization	Name	Organization	Name	Organization
Adam Zoet	MN Dept. of Commerce	Jared Hendricks	Owatonna Public Utilities	Kyle Schleis	Connexus Energy
Adway De	MN Dept. of Commerce	Jason Grenier	Otter Tail Power	Laura Silver	MN Dept. of Commerce
Amalia Hicks	Cadmus	Jeremy Petersen	Xcel Energy	Lisa Beckner	Minnesota Power
Anna Roberts	Otter Tail Power	Jill Eide	Great River Energy	Martin Kapsch	CenterPoint Energy
Anthony Fryer	MN Dept. of Commerce	John O'Neil	Southern Minnesota Municipal Power Agency	Martin Kushler	American Council for an Energy-Efficient Economy
Audrey Partridge	Center for Energy and Environment	Jon Vesta	Frontier Energy	Matt Wisnefske	Cadmus
Becky Billings	Xcel Energy	Joseph Dammel	Fresh Energy	Michael Hinde	Minnesota Valley Electric Cooperative
Brian Edstrom	Citizens Utility Board of Minnesota	Josh Mason	Rochester Public Utilities	Michelle Rosier	Minnesota Public Utilities Commission
Chris Baker	Willdan	Julie Michals	E4TheFuture	Nicholas VanDuzee, Jr.	CenterPoint Energy
Courtney Lane	Synapse Energy Economics	Kathy Baerlocher	Great Plains Natural Gas	Peter Scholtz	Office of Minnesota Attorney General
David Siddiqui	Oracle	Katie O'Rourke	Minnesota Energy Resources Corporation	Rachel Sours-Page	The Mendota Group
Ethan Warner	CenterPoint Energy	Kevin Lawless	The Forward Curve	Russ Landry	Center for Energy and Environment
Gregory Ehrendreich	Midwest Energy Efficiency Alliance	Kimberley Lillyblad	Minnesota Municipal Power Agency	Tim Woolf	Synapse Energy Economics
Grey Staples	The Mendota Group	Kristin Berkland	Office of Minnesota Attorney General	Tom Sagstetter	Elk River Municipal Utilities
Jamie Fitzke	Center for Energy and Environment	Kristine Anderson	Greater Minnesota Gas	Zach Klabo	Minnesota-Dakota Utilities Company
Jamie Stallman	Great River Energy	Kurt Hauser	Missouri River Energy Services		

## AGENDA

10:00 a.m.	Introductions and Background
10:45 a.m.	Core Cost-Effectiveness Review
11:00 a.m.	Break
11:10 a.m.	Discuss Priority Updates
11:55 a.m.	Next Steps

## NOTES

**Meeting Began:** Friday, April 22, 2022, 10:02 a.m.

- Grey Staples begins meeting.

Slide 5

### Commerce's Role in Evaluating CIP Cost-Effectiveness

- Commerce will lead the effort to examine and update CIP cost-effectiveness methodologies that Minnesota's IOUs use to evaluate their CIPs.
- This role is consistent with Commerce's responsibility to ensure that utilities are procuring cost-effective energy savings systematically and aggressively and that evaluations and reporting are accurate.

**MN Statute 216b.241 Subd. 1d. Technical assistance:**  
(a) "The commissioner shall evaluate energy conservation improvement programs filed under this section and section 216B.2403 on the basis of cost-effectiveness and the reliability of the technologies employed. The commissioner shall, by order, establish, maintain, and update energy savings assumptions that must be used by utilities when filing energy conservation improvement programs."

Slide 6

### CIP Cost-Effectiveness Advisory Committee

#### Advisory Committee Objectives:

1. Help determine final list of CIP cost-effectiveness issues to explore for the 2024-2026 IOU Triennials.
2. Determine cost-effectiveness guidance for COUs.
3. Discuss how to integrate agreed upon cost-effectiveness updates.

## Slide 7

### MN's Historical (Pre-Eco) Practice: Cost-Effectiveness Tests

- Minn. Stat. 216B.241, Subd. 1c.(f):
  - An association or utility is not required to make energy conservation investments to attain the energy-savings goals of this subdivision that are not cost-effective even if the investment is necessary to attain the energy-savings goals. . . .
  - In determining cost-effectiveness, the commissioner shall consider the costs and benefits to ratepayers, the utility, participants, and society.
- Consequently, utilities calculate results for:
  - Ratepayer impact measure test
  - Utility cost test
  - Participant cost test
  - **Societal cost test: The societal cost test is used as the primary test for screening cost-effectiveness.**

## Slide 8

### CIP Cost-Effectiveness Statutory References

- **Minn. Stat. §216B.241, Subd. 1c(e) - Public Utility Energy Savings Goals:** in determining cost-effectiveness, the commissioner shall consider: (1) the costs and benefits to ratepayers, the utility, participants, and society; (2) the rate at which a public utility is increasing both its energy savings and its expenditures on energy conservation; and (3) the public utility's lifetime energy savings and cumulative energy savings.
- **Minn. Stat. §216B.2403, Subd. 3(f) - COU Plans:** When evaluating the cost-effectiveness of a consumer-owned utility's energy conservation programs, the consumer-owned utility and the commissioner must consider the costs and benefits to ratepayers, the utility, participants, and society. The commissioner must also consider the rate at which the consumer-owned utility is increasing energy savings and expenditures on energy conservation, and lifetime energy savings and cumulative energy savings.
- **Minn. Stat. §216B.2403, Subd. 8(a)(3) - Efficient Fuel-Switching Criteria for COUs:** is cost-effective, considering the costs and benefits from the perspective of the consumer-owned utility, participants, and society;
- **Minn. Stat. §216B.241, Subd. 11(d)(3) – Efficient Fuel-Switching Criteria for Electric IOUs:** is cost-effective, considering the costs and benefits from the perspective of the utility, participants, and society;
- **Minn. Stat. §216B.241, Subd. 12(a)(2) - Efficient Fuel-Switching Criteria for Gas IOUs:** the program is cost-effective, considering the costs and benefits to ratepayers, the utility, participants, and society.
- **Minn. Stat. §216B.241, Subd. 13(b) - Cost-Effective Load Management Programs:** The commissioner may approve a proposed program if the commissioner determines the program is cost-effective, considering the costs and benefits to ratepayers, the utility, participants, and society.

## Slide 9

### Advisory Committee Previous Activities

- Held two initial cost-effectiveness committee meetings January and March 2021.
- ECO passed in May 2021
  - Needed to put cost-effectiveness work on hold until 3/15/2022 ECO guidance was issued.
- Now, reconvening Advisory Committee to explore changes to Minnesota's current methods of estimating cost-effectiveness for energy efficiency, load management, and efficient fuel-switching programs.
  - Throughout 2022: Review and integrate CIP cost-effectiveness updates in coordination with the Advisory Committee.
  - Early 2023: Commerce issues 2024-2026 CIP Cost-Effectiveness Deputy Commissioner's Final Decision.

**Anthony:** Technical Reference Manual Advisory Committee will meet a week from Monday. Development of TRM 4.0 for all assumptions in next triennial will follow similar track. Follow up with myself or Amalia to get on the list. May 2 @11am.

**Anthony:**

Slide 12

### Commerce Staff Proposal: COU Cost-Effectiveness Guidance

- Commerce Staff would like to provide streamlined COU cost-effectiveness guidance that still meets statutory requirements:

**Minn. Stat. §216B.2403, Subd. 3(c)(1) and Minn. Stat. §216B.2403, Subd. 3(f):**

(c) A plan filed under this subdivision must provide: (1) for existing programs, an analysis of the cost-effectiveness of the consumer-owned utility's programs offered under the plan, using a list of baseline energy- and capacity-savings assumptions developed in consultation with the department; . . . .

(f) When evaluating the cost-effectiveness of a consumer-owned utility's energy conservation programs, the consumer-owned utility and the commissioner must consider the costs and benefits to ratepayers, the utility, participants, and society. The commissioner must also consider the rate at which the consumer-owned utility is increasing energy savings and expenditures on energy conservation, and lifetime energy savings and cumulative energy savings.

Issued on March 15, urgent need to provide COUs technical guidance as they are due to file plans on Aug 1, 2022. Commissioner instructed staff to work with COUs to make sure they have everything they need.

Slide 13

### Commerce Staff Proposal: COU Cost-Effectiveness Guidance

- **Proposal:** Commerce would not require COUs to submit detailed cost-effectiveness analyses for CIP energy conservation and load management programs. Instead, to meet the COU cost-effectiveness statutory requirements, we would propose integrating something like a checkbox into the new online CIP reporting platform which COUs would click to confirm a statement: "[Yes/No] Program cost-effectiveness considers the costs and benefits to ratepayers, utility, participants, and society."
- **Intent:** This approach is based on a presumption that cost-effectiveness is generally imbedded into COU programs as member-owned or city-owned utilities. It also presumes COUs are following applicable Technical Reference Manual savings calculations. A separate conversation will be needed for cost-effectiveness as it pertains to efficient fuel-switching.
- **Questions or reactions to this approach for COUs?**

**Anthony:** 110 COUs is too many – administrative burden to go through a cost-effectiveness review. Believe COUs will like this approach, but want to hear from them.

**Joe Dammel:** Making sure I understand what the pre-ECO landscape this was presumed, and now we're affirming they're CE? Is that right?

**Anthony:** Extra step we didn't have before. Important thing to mention – believe a separate conversation will be needed on efficient fuel switching because more to consider there as new and different approach than what was allowed in past.

**Kurt H.:** We already run cost-effectiveness for old stuff – just affecting the new stuff?

**John O'Neil:** Reasonable approach to me. Wondering for EFS, do you have a timeline for those discussions?

**Anthony:** May touch on timeline in this call, but understand COUs need guidance for August plans.

**Kyle S.:** New to process as a whole. Understand TRM for a number of EE programs and load management (LM) are new through ECO Act. Haven't seen a lot on new LM programs. Currently being developed? Or on schedule? How do I get more information on the savings calcs for LM programs?

**Anthony:** Can point you to the current version of the TRM for what we have in there at the moment. One of the primary tasks of the TRM meeting is to work with committee to identify priority items for v.4.0. Conservation measures due to be updated this go around and then also coming up with list of priority items coming out of ECO that need to be referenced or incorporated into next version of TRM. Will include LM programs and where necessary or applicable, EFS as well. Department has ideas of what we want first meeting to look like, but want Advisory Committee to have a big hand in shaping that as well.

**Kurt H.:** Consumer-owned utility could give a rebate for a new pair of shoes if they want. DOC doesn't regulate. With load building or fuel switching efforts, seems like things wouldn't have to meet CE tests. Just a thought that yes, we'll claim the savings, but... not like it has to be approved as part of a rate plan or anything. For example, we offer additional rebates for heat pumps that we're not turning in for EFS savings.

**Anthony:** Up to you in terms of what you include in your CIP efforts and what efforts are outside of that. Think the anchoring these programs in the TRM is what we're requesting would be what would prevent you from incentivizing shoes.

**Marty K:** Set of basic guidelines for CE by COUs that they'd have to use internally to check box for compliance? Would be useful for establishing a level of consistency?

**Adam:** Good point. Lots of guidance in NSPM that they could look at and use. Could be a resource we point to for providing useful guidelines.



**Anthony:** COUs would have access to everything developed as part of this process as well. This slide is the minimum. If COUs doing more detailed analysis, can lean on Department for greater guidance if that's the approach they want to take.

**Grey:** In response to Marty, there aren't currently basic written guidelines for COUs?

**Adam:** Might have been some sort of automation in our previous energy savings platform, but focus was on IOU side in the last couple of updates and establishing methods for the IOUs.

**Marty:** Even if just a page or two of info would be helpful.

**Anthony:** Great idea, thanks Marty.

Chat: [9:39 AM] Mason, Josh

Other than marking the check box is the department going to request detailed utility B/C calculations?

Grey:

Slide 14

## Cost-Effectiveness Update Process for 2024-2026 IOU CIP Triennials

### Core IOU 2024-2026 Electric and Gas Cost-Effectiveness Review

- Review electric IOU-proposed 2024-2026 avoided electric costs.
- Review and update 2024-2026 gas IOU BENOCOST inputs.
- Develop ECO efficient fuel-switching and load management cost-effectiveness guidance.
- Determine discount rates and ensure transparency of electric avoided costs.

Slide 15

## Gas vs. Electric IOU CIP Cost-Effectiveness Review Process

- **All IOUs:** Commerce reviews and approves all cost-effectiveness assumptions ahead of the CIP Triennial Plan submissions.
- **Gas IOUs:** Required to use mostly standardized cost-effectiveness inputs and methodologies.
- **Electric IOUs:**
  - Required to use a standardized method for estimating avoided T&D costs.
  - Commerce reviews and approves utility-specific avoided marginal energy and capacity costs.

Slide 16

## Other Mandatory IOU Cost-Effectiveness Issues to Explore

- **Discount Rates:** “The Deputy Commissioner directs Staff to examine discount rates again as part of the 2024-2026 cost-effectiveness process in order to determine whether any changes to discount rates are appropriate for that particular Triennial period.” Source: 2/11/2020 CIP 2021-2023 Cost-Effectiveness Decision
- **Transparency of Electric Avoided Costs:** “The Deputy Commissioner directs Staff to include improvements to the transparency of electric avoided costs as one of the priority cost-effectiveness issues to explore leading up to the 2024-2026 CIP Triennials.” Source: 2/11/2020 CIP 2021-2023 Cost-Effectiveness Decision

Slide 17

## Any Questions or Reactions So Far?

- Questions about the review of electric IOU proposed 2024-2026 avoided electric costs?
- Questions about the review of 2024-2026 gas IOU BENCOST inputs?

**Audrey:** We have this list of things we know we need to look at based on the last process that was left pending, and then also have a lot of work to develop CE or structure CE tests for EFS. Have you thought about process-wise, order of operations? Should we be doing at the same time so that they align? What's your thinking on the two tracks of work and how to manage?

**Adam:** Great question. A little later in slide deck we talk about what we have in mind for order of operations. Looking at these more detailed methodology questions.

**Grey:** Will be some requested homework to follow this presentation. That might be an opportunity to submit suggested topics that you don't see mentioned yet.

Slide 18

### 3/15 ECO Decision Starting Point Guidance

- The Commissioner agrees with Staff that "the purpose of this technical guidance is to provide a starting point for utilities to begin implementing programs that include EFS, load management, and preweatherization measures."
- The Commissioner acknowledges the significance and complexity of some of the changes brought about by the ECO Act and believes that components of the methodologies contained in this Proposal will require further development and refinement in the coming months and years through the work of the Technical Reference Manual Advisory Committee (TRMAC) and the Cost-effectiveness Advisory Committee (CAC).
- The Commissioner agrees with Staff that initial utility programs including these types of measures will provide valuable information to inform future iterations of these methodologies.



### 3/15 ECO Decision

## Determining Efficient Fuel-Switching Cost-Effectiveness

- **Subject:** This step requires that electric and gas utilities perform cost-effectiveness evaluations of EFS improvements and determine whether the measure is cost-effective based on a number of traditional energy efficiency cost-effectiveness tests.
- **Statutory references:**
  - (electric utilities) "A fuel-switching improvement is deemed efficient if ... relative to the fuel being displaced ... (the improvement) is cost-effective, considering the costs and benefits from the perspective of the ... utility, participants, and society." Minn. Stat. § 216B.2403, subd. 8(a)(3) and Minn. Stat. § 216B.241, subd. 11(d)(3).
  - (natural gas utilities) "[A] public utility that provides natural gas service to Minnesota retail customers may propose one or more programs to install electric technologies that reduce the consumption of natural gas by the utility's retail customers as an energy conservation improvement. The commissioner may approve a proposed program if the commissioner ... determines that ... the program is cost-effective, considering the costs and benefits to ratepayers, the utility, participants, and society. Minn. Stat. § 216B.241, subd. 12(a)(2).

### 3/15 ECO Decision

## Determining Efficient Fuel-Switching Cost-Effectiveness

- EFS cost-effectiveness will be reviewed and approved at the program level.
- Electric and natural utilities, in proposing EFS improvements for Department approval, should include cost-effectiveness evaluations based on the Societal Test, the Utility Test, and the Participant Test (natural gas utilities shall also include the Ratepayer Impact Test in their evaluations).
- The primary cost-effectiveness determinant regarding whether an EFS measure is deemed "efficient," according to the ECO Act, will be whether it passes the Societal Test, unless or until the Department updates the primary test Minnesota utilities will use to evaluate demand-side programs.
- For natural gas utilities that do not have access to relevant electric information or an electric cost-effectiveness model, the Department will provide the requisite information and tools to enable the utility to conduct EFS cost-effectiveness testing for switches to electricity measures.

## 3/15 ECO Decision Determining Efficient Fuel-Switching Cost-Effectiveness

- Utilities implementing an EFS improvement for customers whom they do not provide either the beginning or the ending fuel shall, nonetheless, include the avoided (and increased supply as may be the case) costs for the non-served fuel in their cost-effectiveness calculations.
- Utilities should strive to use up-to-date measure load shapes for EFS improvements to help improve the accuracy of cost-effectiveness and other program-related estimates.
- It is anticipated that specific measure-based inputs to cost-effectiveness tests will be considered as part of revisions to the TRM, particularly for EFS Improvements that will be implemented numerous times.
- Utilities may include other features, such as load management, in their cost-effectiveness calculations, although such combinations should incorporate costs and benefits associated with the additional features.
- Until such time as the Department has adopted a revised approach for utility cost-effectiveness testing as part of the CAC, utilities may propose, on a custom basis, ways of assessing EFS Improvements based on the cost-effectiveness tests described herein.

## Any Questions or Reactions So Far?

- Reactions to the initial EFS cost-effective guidance provided in the 3/15/2022 ECO Decision?
- Ideas for how this Committee could improve upon the initial EFS cost-effectiveness guidance?

**Audrey:** I have ideas - the list of tests that should be considered for EFS, envisioning a chart that Adam had with all of the tests – especially the Utility Test, if you do EFS between electricity and gas, taking costs off of one system and putting them on the other. Could build out those tests to capture both fuels.

**Adam:** – Work that synapse has done in that report will be very helpful. Good point.

**Grey:** – And you'll see a table when we get to that portion of this presentation that Synapse is providing. A point of integrating and what would apply to EFS as opposed to other measures for each test.

**Audrey:** Could get complicated, but almost need a different set of tests for EFS that might not be relevant for EE. Xcel did a little of this work for their load flexibility pilot that they put in with the commission. That could help us get started thinking about what additional inputs we might need for EFS.

**Grey:** Michelle put in chat reference to Load Flex pilot docket 21-101.

Slide 23

### 3/15 ECO Decision Load Management Cost-Effectiveness

- Ultimately, load management program cost-effectiveness determines eligibility for inclusion in CIP. Minn. Stat § 216B.241, subd. 13(a) states that “[t]he commissioner may approve a proposed program if the commissioner determines the program is cost-effective, considering the costs and benefits to ratepayers, the utility, participants, and society.” – Page 24
- For IOUs, Minn. Stat. § 216B.241, subd. 13(a) provides that “[a] public utility may include in the utility’s plan required under subdivision 2 programs to implement load management activities, or combinations of energy conservation improvements, fuel-switching improvements, and load management activities. For each program the public utility must provide a proposed budget, cost-effectiveness analysis, and estimated net energy and demand savings.” Given the heavy emphasis placed on load management programs in § 216B.2401(a), language relating to public utility load management programs (other than sections discussing shareholder incentive plans) will also be applied to consumer-owned utility load management programs. –Page 33
- Utilities are allowed to use an interim custom process for evaluating load management program cost effectiveness. In this context, custom process means that COUs and IOUs can propose to the Department for review and approval their proposed load management programs and associated methods of estimating cost-effectiveness. –Page 25
- A detailed methodology for load management program cost-effectiveness will be developed as part of the CAC’s work. –Page 33

**Grey:** ECO didn’t have a requirement that LM have changes to law. Limited guidance provided as part of March 15 decision. Expectation was that this process would inform the CE modeling.

Slide 24

### 3/15 ECO Decision Interim Custom Load Management Steps

1. Utilities should assess and file for approval stand-alone load management programs using custom versions of the Societal (primary), Utility, Participant, and Ratepayer Impact cost-effectiveness tests.
2. For programs that combine load management features with other features (“multi-feature” – energy conservation, EFS, etc.), to the greatest degree possible, the cost-effectiveness analysis should combine the components into a program-based cost-effectiveness evaluation for approval.
3. For reporting purposes, utilities should aim to separate the energy and demand savings for load management, EFS, and energy conservation embedded within multi-feature programs, but not double-count results.
4. Like energy conservation measures, load management program cost-effectiveness will be reviewed at the program level and approved as part of a cost-effective segment (residential, commercial, industrial, etc.)

## Any Questions or Reactions So Far?

- Ideas for how this Committee could develop load management cost-effectiveness methodology guidance?

**Audrey:** The 21-101 docket may have some good info to get us started. Maybe Jeremy would be willing to pull some of that out. Also the new NSPM has a section on LM / DR.

**Jeremy:** On the LM programs, often hard to determine incremental capital costs, so societal test becomes incomplete and RIM test the better choice for those programs. Maybe consider that. Or the price signal test.

**Audrey:** The RIM test treats efficiency in a way that's not ideal but can set upper and lower bounds of demand response. So we all agreed to rebrand it. Provides a different response when looking at DR, rather than EE.

**Grey:** Determination on how LM programs will be evaluated. Setting up to perhaps to have different primary tests and how that might work. Might be something for Synapse to discuss in their portion. Much has been dictated by March 15 Decision. ...up until or unless Department revises CE methodology.

Chat: [10:09 AM] Audrey Partridge (CEE) (Guest)

To clarify - the Price Signal test for DR is helpful in determining price signals. I would like to learn more about whether we could structure a societal test for DR. Maybe Synapse and/or Marty Kushler have thoughts.

## 3/15 ECO Decision COU Guidance

- Working with COUs to discuss a practical level for which cost-effectiveness should be evaluated (e.g. measure, program, segment, or portfolio). –Page 32



Slide 27

## Other Questions or Reactions?

- Questions on the electric avoided cost review process?
- Questions on the Gas BENCOST review process?
- Questions about exploring discount rates and the transparency of electric utility avoided costs?
- Questions about COU cost-effectiveness guidance?
- Questions about ECO efficient fuel-switching and load management cost-effectiveness guidance?

Slide 30

## Discussion: Priorities for the Update Process

- What should Commerce and the Committee prioritize to accomplish in the next 9 months?
  1. Commerce proposes that we (i.e. this Committee and Commerce) go through the NSPM's 5-step process for developing a primary test and make core updates to the cost-effectiveness tests and inputs.
  2. Is there another approach that the Committee thinks would be worthwhile?

Chat: [4/22/22 11:14 AM] David Siddiqui (Oracle) (Guest)

Will the gas BENCOST review process allow for recent increases in gas commodity costs to be reflected in upcoming cost-effectiveness testing for gas programs?

[4/22/22 11:16 AM] Zoet, Adam (COMM)

Yes, updating the commodity cost input will be part of the BENCOST review, which will include more recent price data

Tim Woolf:



## Slide 31

### NSPM's Process for Developing a Jurisdiction's Primary Test

- STEP 1** Articulate Applicable Policy Goals  
Articulate the jurisdiction's applicable policy goals related to DERs.
- 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.
- STEP 3** Decide Which Non-Utility System Impacts to Include  
Identify those non-utility system impacts to include in the primary test based on applicable policy goals identified in Step 1:
  - Determine whether to include host customer impacts, low-income impacts, other fuel and water impacts, and/or societal impacts.
- STEP 4** Ensure that Benefits and Costs are Properly Addressed  
Ensure that the impacts identified in Steps 2 and 3 are properly addressed, where:
  - Benefits and costs are treated symmetrically.
  - Relevant and material impacts are included, even if hard to quantify.
  - Benefits and costs are not double-counted.
  - Benefits and costs are treated consistently across DER types.
- STEP 5** Establish Comprehensive, Transparent Documentation  
Establish comprehensive, transparent documentation and reporting, whereby:
  - The process used to determine the primary test is fully documented.
  - Reporting requirements and/or use of templates for presenting assumptions and results are developed.

4/22/22

31

NSPM has been updated from EE to DER. All-encompassing and no need to go back to EE.

## Slide 32

### 1. Articulate Minnesota Energy Policy Goals

- Key statutory references are cited above in slide #8.
- Several statutory references require that cost-effectiveness tests consider the “costs and benefits to ratepayers, the utility, participants, and society.”
- The ECO Act requires that EFS cost-effectiveness tests consider the “costs and benefits from the perspective of the utility, participants, and society.”
- There may be additional policy goals to consider, for example:
  - It is the goal of the state to reduce statewide greenhouse gas emissions across all sectors producing those emissions to a level at least 15 percent below 2005 levels by 2015, to a level at least 30 percent below 2005 levels by 2025, and to a level at least 80 percent below 2005 levels by 2050. - Minn. Stat. § 216H.02, Subd. 1.

Slide 33

2. Include All Utility System Impacts			
		Current Practice	Ideal Practice
Generation	Energy	✓	✓
	Capacity	✓	✓
	Environmental Compliance	x	✓
	RPS Compliance Costs	x	✓
	Market Price Effects	x	✓
Transmission	Transmission	✓	✓
Distribution	Distribution	✓	✓
General	Financial Incentives	✓	✓
	Program Administration	✓	✓
	Utility Performance Incentives	sometimes	✓
	Credit and Collection	x	✓
	Risk	x	✓
	Reliability & Resilience	x	✓

Slide 34

### 3. Decide Which Non-Utility System Impacts to Include

		Current Practice	Policy Goals
Participant	Participant costs	✓	?
	Participant benefits	partially	?
Other fuels	Other fuels	partially	✓
Water	Water	x	?
Low-income	Low-income	✓	✓
Societal	GHG emissions	✓	✓
	Other environmental	✓	✓
	Public health	x	?
	Macroeconomic	x	?
	Energy Security	x	?
	Energy Equity	x	?

**Ethan:** Some of the items you listed make sense from a portfolio level, but here in MN we apply to different levels. Can you discuss why those relevant at portfolio level would be good for lower level?

**Tim:** Measure level, program level, customer sector level, portfolio level. We recommend that this same test be used at all levels, especially primary test. Doing benefit cost to determine which measures to exclude is not helpful. Should be used across all.

Slide 35

## Steps 4 & 5

### 4. Ensure Benefits and Costs are Properly Addressed:

- Ensure benefits and costs are treated symmetrically.
- Ensure relevant and material impacts are included, even if hard to quantify.
- Ensure benefits and costs are not double-counted.
- Ensure benefits and costs are treated consistently across DER types.

### 5. Establish Transparent Comprehensive Documentation

- Documentation of this process is part of this.

**Tim:** Rare to see states that use a single primary test across all. Hard when you get to distributed PD and electrification.

Slide 36

## Follow-Up Workshops

### Workshop

- Step 1: Identify and discuss Minnesota applicable policy goals

### Workshop

- Step 2: Identify all utility system impacts to include in BCA tests
- Step 3: Determine which non-utility system impacts to include in the primary test
- Step 4: Ensure costs and benefits are properly addressed

### Workshop

- Discuss straw proposal for a Minnesota Test
- Discuss additional topics, e.g., secondary tests, discount rates
- Step 5: Ensure transparency

Chat: [10:39 AM] Rosier, Michelle (PUC)

Is there a compilation of resources that model these principles in DER (or load flex) cost effectiveness methodologies? I have the NSPM manual, so I'm looking for any progress made by others since it was published. Thanks!

[10:42 AM] Rosier, Michelle (PUC)

<https://www.nationalenergyscreeningproject.org/resources/quantifying-impacts/>

**Tim:** NSPM has several resources and includes a map investigating NSP principles. Also case studies to see what other states have done.

**Grey:** If you have case studies, we can socialize with the group.

**Tim:** – Often intermingled in these discussions is what inputs should be included for test. I like to keep separate from a list of impacts to include. If blended together, can be less efficient. National Eff screening project has put out a new report for developing inputs. We can draw upon that.

**Tim:** Follow up on earlier point about DR test. I don't see any reason there needs to be a separate test for DR relative to EE. The two resources will have different inputs and results.

Heard reference to Price Signal Test. Sounds like goal is that DR program sends appropriate price signals. If I have that right – there's a distinction between your test for identifying which programs you want to spend ratepayer money on vs those for program design. Often helps to keep them separate. Price signal test sounds like a participant cost test. Good for designing programs but not for deciding which deserve ratepayer dollars.

**Jeremy:** In the load flex petition, DR. Used price signal test to set maximum so not overpaying more than you get back in benefits.

**Tim:** Didn't start with concept of regulatory perspective. Can include some societal impacts but not others. Don't have to include all, just depends on what you're trying to achieve.

Chat: [10:48 AM] David Siddiqui (Oracle) (Guest)

I'm curious how the price signal test would treat programs that deliver peak savings without a price signal beyond bill reductions

**Jeremy:** I think that depends on what program costs there are, whether a rebate, the rebate would be a utility cost...

**David:** Would you just not use the price signal test in that case? [Jeremy – Yeah, societal and MN test would apply]

**Anthony:** Previous slide outlined proposal for next few workshops. Department is very enthusiastic to go through this process.

**Julie:** Thank staff for this opportunity and give credit to LBNL because supporting.

**Russ:** Curious where discussions of granularity of some of the costs would be discussed. Hourly costs or hourly emissions going to be included? Discussed?

**Tim:** Gets to issue of how and the inputs to test. Will be discussed after the impacts and what test will be.

Slide 39

## Next Steps

- Meeting notes summary and presentation slides.
- Teams meeting invite for the first two of the upcoming NSPM workshops:
  - Does May 4 and May 18 from 10:00-12:30 work for most people?
- Homework for NSPM Workshop #1 “Identify and Discuss Minnesota’s Applicable Policy Goals”:
  - Review pages 51 – 55 of [Synapse’s 2018 MN Cost-Effectiveness Report](#). This policy inventory was completed prior to the Energy Conservation & Optimization Act’s (ECO) passage.
  - Review [ECO’s](#) statutory language changes.
  - Come prepared to discuss needed changes/updates to the inventory of MN’s applicable policy goals.
- NSPM workshop 3 early June. Workshop 4 will be mid-June.
- Then, after we get through the NSPM workshops, we’ll switch to meeting on a monthly basis throughout 2022 to discuss how to make needed methodology updates to the impacts/tests.

Chat: Link to Synapse report: [Updating the Energy Efficiency Cost-Effectiveness Framework in Minnesota \(mn.gov\)](#)

[10:56 AM] Zoet, Adam (COMM)

Link to ECO Act: [HF 164 2nd Engrossment - 92nd Legislature \(2021 - 2022\) \(mn.gov\)](#)

End at 12:00 p.m.