CIP Cost-Effectiveness Advisory Committee Meeting

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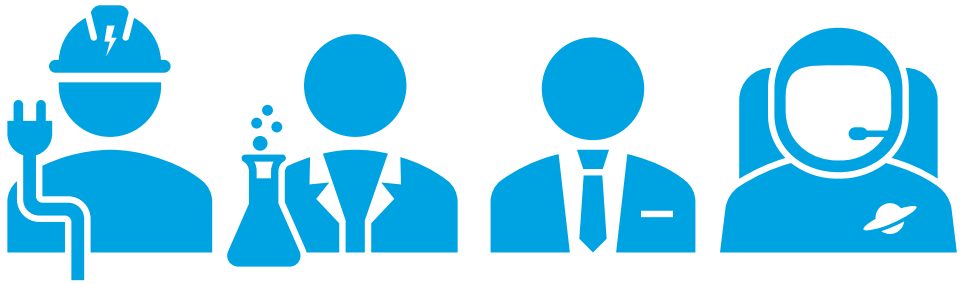
Agenda

Time	Topic
15 minutes	Introductions and Background
45 minutes	Core Cost-Effectiveness Review
10 minutes	Break
45 minutes	Discuss Priority Updates
5 minutes	Next Steps



Introductions and Background

Hello! Round of Introductions

Name	Organization
Adam Zoet	Commerce
Adway De	Commerce
Amalia Hicks	Cadmus
Anna Roberts	Otter Tail Power
Anthony Fryer	Commerce
Audrey Partridge	Center for Energy and Environment
Brian Edstrom	Citizens Utility Board of Minnesota
Chris Baker	Wildan
Chris Davis	Commerce
Cory Hetchler	Connexus Energy
Courtney Lane	Synapse Energy Economics
David Siddiqui	Oracle
Ethan Warner	CenterPoint Energy
Gregory Ehrendreich	Midwest Energy Efficiency Alliance
Grey Staples	The Mendota Group
Jamie Fitzke	Center for Energy and Environment
Jamie Stallman	Great River Energy
Jared Hendricks	Owatonna Public Utilities
Jason Grenier	Otter Tail Power
Jeremy Petersen	Xcel Energy
Jessica Burdette	Commerce
Jill Eide	Great River Energy
Joe Dammel	Fresh Energy
Joe Reilly	Minnesota Energy Resources Corp
John O'Neil	Southern Minnesota Municipal Power Agency

Name	Organization
Josh Mason	Rochester Public Utilities
Kathy Baerlocher	Great Plains Natural Gas
Katie O'Rourke	Minnesota Energy Resources Corp
Kavita Maini	Minnesota Chamber of Commerce
Kevin Lawless	The Forward Curve
Kristin Berkland	Office of Minnesota Attorney General
Kristine Anderson	Greater Minnesota Gas
Kyle Schleis	Connexus Energy
Kurt Hauser	Missouri River Energy Services
Laura Silver	Commerce
Lisa Beckner	Minnesota Power
Lloyd Kass	Franklin Energy
Marty Kapsch	CenterPoint Energy
Marty Kushler	American Council for an Energy-Efficient Economy
Matt Haley	Frontier Energy
Matt Wisnefske	Cadmus
Michael Hinde	Minnesota Valley Electric Cooperative
Michelle Rosier	Minnesota Public Utilities Commission
Mike Bull	Minnesota Rural Electric Association
Nick VanDuzee	CenterPoint Energy
Peter Scholtz	Office of Minnesota Attorney General
Russ Landry	Center for Energy and Environment
Sami Khawaja	Cadmus
Tim Woolf	Synapse Energy Economics
Tom Sagstetter	Elk River Municipal Utilities

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."

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.

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.**

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.

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.

Questions?

Core Cost-Effectiveness Review

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.

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?**

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 BENCOST inputs.
- Develop ECO efficient fuel-switching and load management cost-effectiveness guidance.
- Determine discount rates and ensure transparency of electric avoided costs.

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.

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

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?

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.

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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).

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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?

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

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?

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

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?

10 Minute Break

Discuss Priority Updates

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?

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.

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.

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	✓

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	?

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.

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

Questions or Reactions

Regarding the development of BCA tests for Minnesota CIP?

Next Steps

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.

Thank You!

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