

# CADMUS

MES 2021

## Non-Energy Impacts: Overview of Recent Activity in Minnesota and Wisconsin

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# Agenda

Brief Introduction to NEIs  
Minnesota Stakeholder Process  
Recent NEI Additions in Wisconsin

# Non-Energy Impacts

<b>Description</b>	<ul style="list-style-type: none"><li>• Associated with efficiency impacts other than direct energy and demand savings</li><li>• Can be positive or negative (typically positive - NEBs)</li></ul>
<b>Uses</b>	<ul style="list-style-type: none"><li>• Cost Effectiveness Inputs</li><li>• Assess progress toward other goals</li><li>• Convey EE benefits to policymakers, public</li></ul>
<b>Considerations</b>	<ul style="list-style-type: none"><li>• Can be difficult to quantify and/or monetize</li><li>• Relevance / interest may depend on stakeholder opinions / political climate / legislation</li></ul>

# Examples

<b>Society</b>	<ul style="list-style-type: none"><li>• Economic: Job creation</li><li>• Health Benefits: Air quality</li><li>• Emissions: NO<sub>x</sub>, SO<sub>2</sub>, CO<sub>2</sub></li><li>• Other Environmental: Water conservation</li></ul>
<b>Participant</b>	<ul style="list-style-type: none"><li>• Owner: Increased property values</li><li>• Low-income: Improved health and comfort</li><li>• Environmental: Water conservation</li></ul>
<b>Utility / Ratepayers</b>	<ul style="list-style-type: none"><li>• System: Reduction in payment arrearages</li><li>• Reliability: Improved resilience</li></ul>





# Minnesota Stakeholder Process

# Minnesota Cost Effectiveness Developments

And the question of NEIs

Current Cost Effectiveness Tests  
(**SCT**, UCT, PCT, RIM)

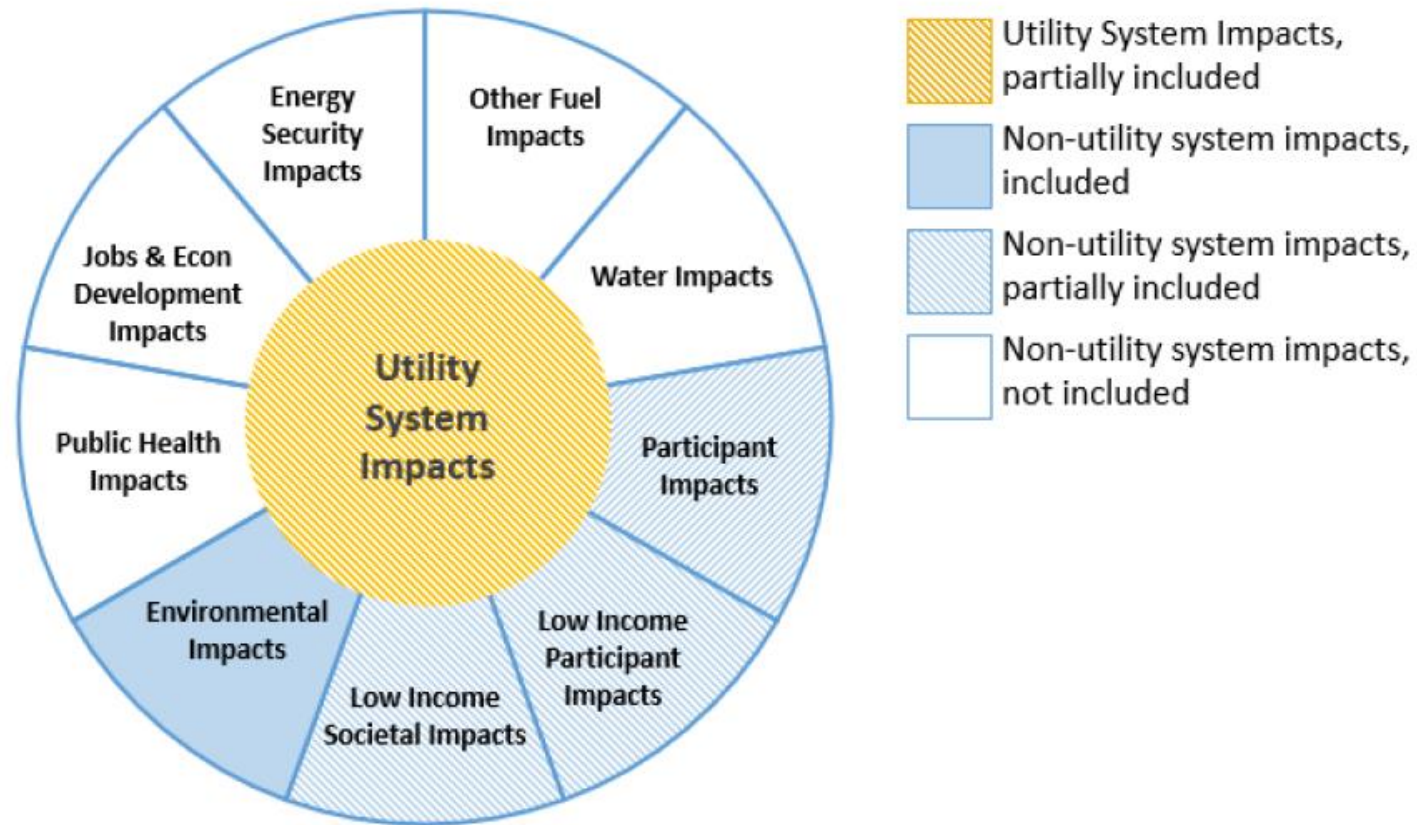
SCT does not currently include water,  
public health, or economic impacts

Have conducted economic impact  
studies for 2008-2013 and 2013-2018

Commissioned a study (Synapse  
2018) to assist in updating CE  
framework

2020 Department of Commerce  
Decision directs staff to work with an  
advisory committee on updating cost  
effectiveness methodology for 2024-  
2026 Triennial

# Societal Cost Test as Currently Applied in MN



2018 Synapse Energy Economics, Inc.

# Recent NEI Findings and Discussions

<b>2018 Synapse Study Stakeholder Interviews</b>	<ul style="list-style-type: none"><li>• Dept. of Commerce</li><li>• Utilities</li><li>• Consultants</li><li>• Environmental, consumer advocates</li></ul>
<b>Support for NEIs</b>	<ul style="list-style-type: none"><li>• Interest in including<ul style="list-style-type: none"><li>• Benefits for low-income customers</li><li>• Economic impact results</li></ul></li><li>• Some environmental, consumer advocates in favor</li></ul>
<b>Concerns with NEIs</b>	<ul style="list-style-type: none"><li>• Too difficult to quantify</li><li>• Investment in EE should be driven by savings</li><li>• EE needs bipartisan support, concerns about integrity of existing framework</li></ul>



A low-angle photograph of a forest with tall trees and a dense green canopy. A large, semi-transparent blue curved shape is overlaid on the right side of the image. The text 'Recent NEI Additions in Wisconsin' is written in white, sans-serif font across the lower part of the image.

# Recent NEI Additions in Wisconsin



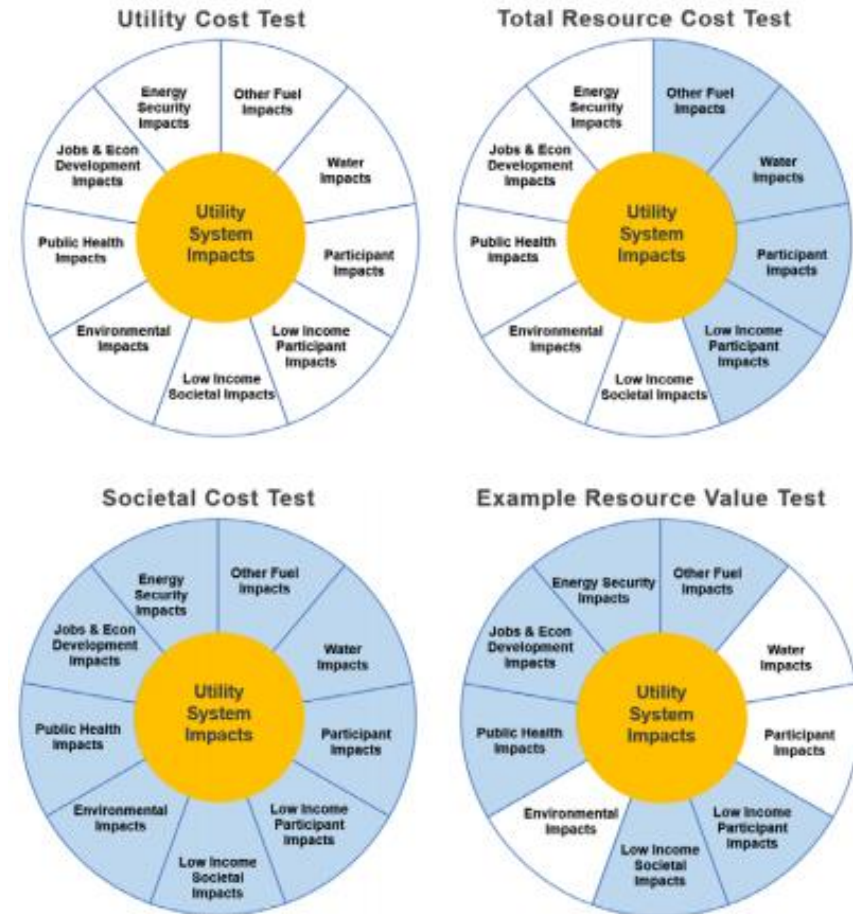
# Focus on Energy Cost Effectiveness and NEIs

## Historical Cost Effectiveness Tests

- Modified TRC (primary)
  - TRC + emissions
- Enhanced TRC
  - TRC + emissions + economic impact
- Also calculate UCT, RIM

## 2019-2023 Quad

- Added SCT
  - Determine NEIs to include



# Considered Non-Energy Impacts

PRIMARY BENEFICIARY	NON-ENERGY IMPACT
<b>Society</b>	<b>Economic:</b> Job creation, indirect multipliers, tax implications <b>Poverty Alleviation:</b> Equitable access, ability to stay in home <b>Emissions:</b> NO <sub>x</sub> , SO <sub>2</sub> , and CO <sub>2</sub> <b>Other Environmental:</b> Water conservation
<b>Participant</b>	<b>Low-Income:</b> Bill reductions, improved health and comfort <b>Owner:</b> Increased property values, reduced maintenance cost, deferral of future asset acquisition, improved health and safety (for occupants) <b>Environmental:</b> Water conservation, fuel reduction, peak reliability
<b>Utility/Ratepayers</b>	<b>System:</b> Improved bill collection/reduced debt write-off, improved customer satisfaction, reduced shutoffs/reconnects <b>Reliability:</b> Improved resilience and security

\* Denotes non-energy impacts that Cadmus already calculates as part of evaluation activities for Focus on Energy.

# Adopted Wisconsin NEIs

PRIMARY BENEFICIARY	NON-ENERGY IMPACT	ESTIMATION SOURCE/METHOD
<b>Society</b>	<b>Economic impacts*</b> <b>Monetized emission benefits*</b> Water conservation Purchase deferral Property values	REMI US EPA AVERT Wisconsin-specific Wisconsin-specific Ohio weatherization research
<b>Participant</b>	Water Conservation Property values	Wisconsin-specific Ohio weatherization research
<b>Utility/Ratepayers</b>	Reduction in payment arrearages Reduced risk	Secondary sources

\* Denotes non-energy impacts that Cadmus already calculates as part of evaluation activities for Focus on Energy.



# CADMUS

# Thank You!

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