

# Cost-Effectiveness Testing in Wisconsin

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# Focus on Energy Overview

- Wisconsin's statewide energy efficiency and renewable resource program since 2001
  - 108 participating utilities- IOUs, municipal utilities, cooperatives
  - Utilities collectively contract with third-party administrator
- ~\$95 Million Annual Budget for electric and gas programs
  - Utilities pay 1.2 percent of retail operating revenues, collected from ratepayers
  - Statutory requirements to provide equitable participation opportunities for all ratepayers who pay into the program
- Ongoing success in achieving increased savings, high levels of cost-effectiveness, economic benefits for Wisconsin

# Setting Cost-Effectiveness Requirements

- Administrative code: Focus must pass “a portfolio level test of net cost-effectiveness, as determined by the Commission.”
- General Quadrennial Planning Process sets goals and targets for Focus every four years
  - Treated as general policy review, incorporates reassessment of cost-effectiveness tests and inputs
  - In 2018, Quad Plan III made decisions for 2019-2022 period
- Key frameworks for decisions
  - Requirements ONLY at portfolio level, not program/measure
  - Net savings
  - Lifecycle savings (annual savings x EUL), requires projected inputs

# Historical Cost-Effectiveness Test: The Modified TRC

Benefits	Source
Avoided Energy Costs	Projected MISO LMPs (electric), EIA price projections (gas)
Avoided Demand Costs	Avoided cost of peaker plant
<i>Avoided Emissions</i>	<i>Market prices of NOx and SOx; \$15/ton estimated market-based price of CO2</i>

Costs	Source
Program Costs (Admin and Delivery)	Focus financial records
Participant Incremental Costs	Deemed values/actual project costs

# Quad Plan Cost- Effectiveness Decisions: Developing a Holistic View

- 2010 Quad Plan I: Use Modified TRC
  - Use Utility test as a supplement for program planning- inclusion of incentive costs can help assess measure-level cost-effectiveness
- 2014 Quad Plan II: Commission decision alternatives include Modified TRC and other standard tests: utility, RIM, societal
  - Plus Expanded TRC- adds economic benefits along with environmental
  - Commission decision: Maintain Modified TRC as “primary” test, but also conduct utility, RIM, Expanded TRC as “informational tests”
- 2018 Quad Plan III: Revisit primary and informational tests:
  - Keep Modified TRC as primary, but run ALL other tests as informational- adding traditional TRC, societal

# RIM Test Approach: Provide AND Contextualize Results

- Staff and commenter opposition to making RIM the primary test
  - “Only...reasonable if the Commission wishes to base program cost-effectiveness solely on its effects on non-participants”
  - Captures effects on rates, not bills
  - Assumes true-up every year, not consistent with WI rate case cycle
  - Doesn’t capture established environmental emphasis, equity
  - Only captures short-run rate effects, not lifecycle effects
- More comfortable providing as an advisory test- but still best explained within the context of other tests
  - Explain Utility Test as “Revenue Requirement test”- effectively captures effects on bills
  - Also remind that it does not include other program benefits- environmental/economic- captured in TRC variants.

# 2017 Cost-Effectiveness Results

Test	Benefit-Cost Ratio
Modified TRC	\$4.07:1
Expanded TRC	\$5.93:1
Utility Test	<b>\$7.21:1</b>
RIM Test	\$0.87:1

“These findings indicate that although annual Focus on Energy activities will probably induce theoretical upward pressure on future energy rates, total ratepayer energy costs will go down.”

# Assessing Nonparticipant Benefits: Past, Present and Future

- Primary Modified TRC test reflects that environmental benefits are an explicit statutory goal of Focus
  - Policy decision to use market-based values rather than social cost values
- Economic benefits in Expanded TRC aren't quite as explicit in Focus statutes, but they're of clear interest to program, Commission, general public
  - REMI economic model used to assess- selected due to existing use by other state agencies
- Starting to do societal test in 2019- should ONLY include additional nonparticipant benefits
  - Qualitatively acknowledge they exist- evaluation surveys show responses indicating increased comfort, health, etc.
  - Available evaluation budget limited for detailed quantification
  - Potential study precedent: use an adder?



# Thank You!

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**focus on energy**<sup>sm</sup>

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