

December 20, 2023

Via Electronic Filing

Ms. A. Shonta Dunston
Chief Clerk
North Carolina Utilities Commission 4325 Mail Service Center
Raleigh, North Carolina 27699-4300

RE: SACE *et. al* Submission of Presentation Materials and Follow-up to Commissioners' Questions for the 2023 Mechanism Review Technical Conference (Docket Nos. E-100, Sub 179, E-7, Sub 1032, & E-2, Sub 931)

Dear Ms. Dunston:

Attached for filing, on behalf of the Southern Environmental Law Center's clients in the DSM/EE Mechanism dockets, the Southern Alliance for Clean Energy, Sierra Club, Natural Resources Defense Council, and South Carolina Coastal Conservation League, please find the Presentation Materials of Jim Grevatt from the December 18 Technical Conference.

Additionally, as requested, Mr. Grevatt has provided the following information in response to Commissioners' questions with regard to amortization of program costs in Illinois and Michigan and the question of whether the cost-recovery mechanisms in Michigan or Illinois include the recovery of net-lost revenues:

- Our understanding is that Illinois amortizes program costs over the weighted average measure lifetime for the portfolio. As an illustrative example, if a 2024 program portfolio has a variety of measures lasting anywhere from one year to twenty years, with a weighted average life of all the installed measures of, say 9.2 years, then 9.2 years would be the amortization period for the 2024 program costs.
- Michigan EE programs are not amortized, but rather program costs are recovered concurrently with their expenditure (the costs are expensed).
- To our understanding neither Michigan nor Illinois has net lost revenue recovery in their current EE cost recovery mechanisms.

Please do not hesitate to contact our office if you have any questions or need additional information.

Sincerely,



David L. Neal, Senior Attorney



energyfuturesgroup.com

Regulating to Maximize Cost-Effective EE & DSM

NATIONAL PERSPECTIVES FOR THE NORTH CAROLINA UTILITIES COMMISSION

Jim Grevatt

December 18, 2023

Energy Futures Group

Vermont-based clean energy consulting firm established in 2010

Areas of Expertise

- Energy efficiency & renewable energy
- Program design
- Integrated resource planning
- Policy development
- Expert witness testimony
- Building codes
- Evaluation
- Cost-effectiveness

Range of Clients

- Government Agencies
- Advocates
- Regulators
- Utilities



Clients in 45 states and provinces plus regional, national and international organizations.

Why DSM-EE?

- Utility “least-cost” obligation:
- § 62-2. Declaration of policy
 - (3) To promote adequate, reliable and economical utility service to all of the citizens and residents of the State
 - (3a) To assure that resources necessary to meet future growth through the provision of adequate, reliable utility service include use of the entire spectrum of demand-side options, including but not limited to conservation, load management and efficiency programs. To that end, to require energy planning and fixing of rates in a manner to result in the least cost mix of generation and demand-reduction measures which is achievable, including consideration of appropriate rewards to utilities for efficiency and conservation which decrease utility bills.

Utilities earn from capital investments

- ROI from investment in infrastructure
- Creates a disincentive to maximizing EE-DSM

Strong direction from regulators is essential, but alone is not enough



***Imbalance in financial reward for
shareholders between capital
investment and EE-DSM creates
inherent bias....***

***Mechanism – and other tools – can aim
to even the score***

What kinds of regulatory tools are used?

- Energy Efficiency Resource Standard (“EERS”)
- “Loading Order”
- Threshold conditions for approving T&D & generation
- Rate design – Monthly fixed costs vs. variable costs
- Evaluation, Measurement and Verification (“EM&V”)
- Timely review and approval of Plans and programs/initiatives
- “The Mechanism”

The Mechanism guides prioritization and earnings from EE-DSM:

- Comprehensive cost-benefit analysis (“CBA”)
- Program cost recovery
- Decoupling & “lost revenue” recovery
- Performance Incentives (“PI”)/Penalties

Cost-Benefit Analysis: *Costs compared to what?*

Utility Cost Test (UCT)



- Utility cost for EE-DSM programs
 - Administration
 - Incentives
 - Marketing
 - EM&V
- Costs *without* EE-DSM
 - Energy and capacity
 - Poles, wires, and generation
 - Fuel
 - Reliability
 - Climate compliance

Multiple Benefits of EE-DSM

- Energy and capacity savings
- Reduced demand means reduced costs
- Health and Safety
- Air quality
- Environmental Justice
- Reduced arrearages
- Outage resiliency
- Improved comfort
- Participant bill savings
- Reducing high energy burdens
- Productivity
- Building durability

How do utilities earn from EE-DSM?

- Amortization of EE-DSM program costs
- Performance Incentives

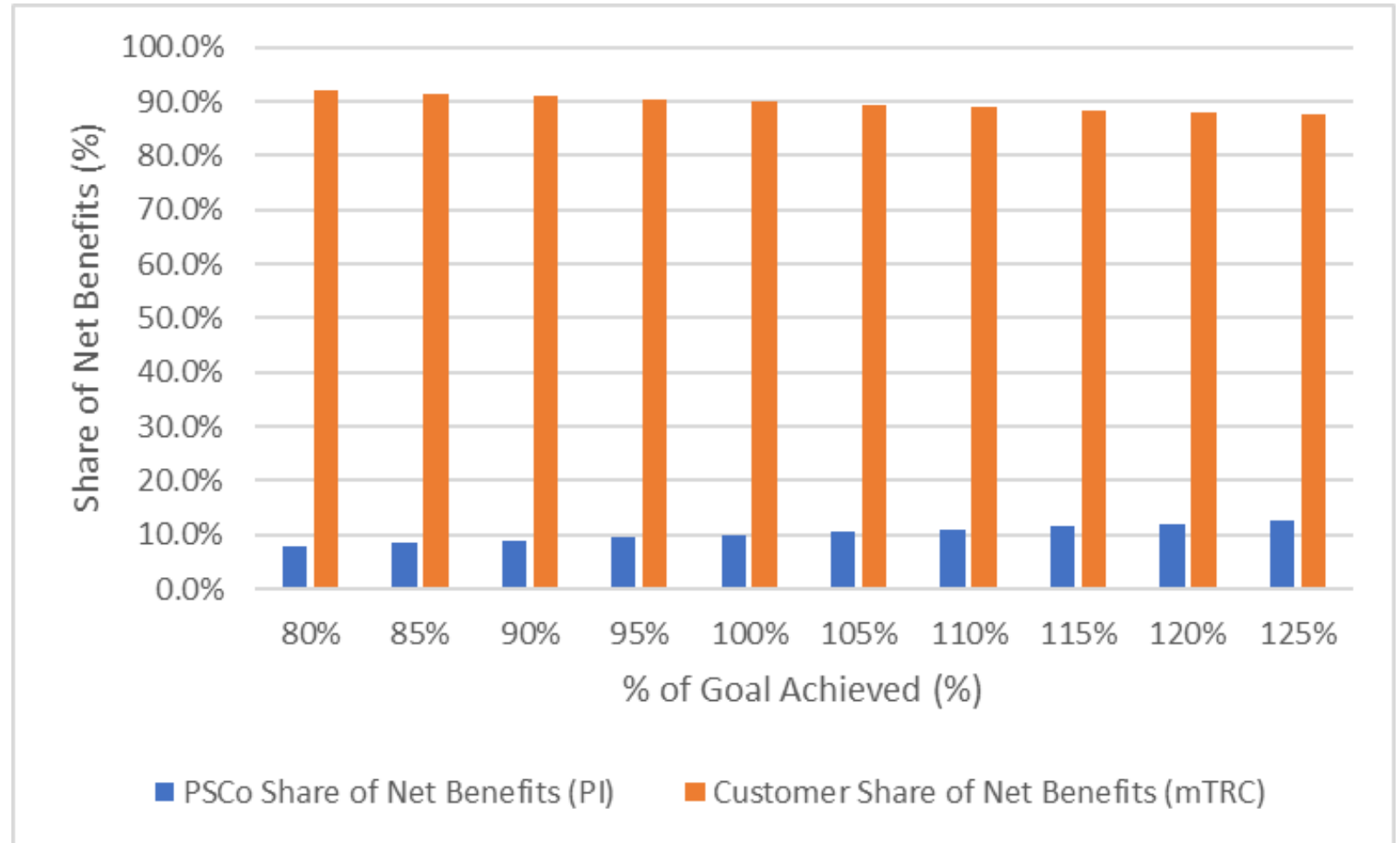


The “Mechanism” is a regulatory tool that can increase focus on...

- Overall level of savings
- Near-term savings achievements with long-lasting benefits
 - Longer-lived, persisting savings
- Savings for under-served customer groups
 - Low-income customers
 - Small business
 - Rural
- Peak load management
- Carbon emissions reductions

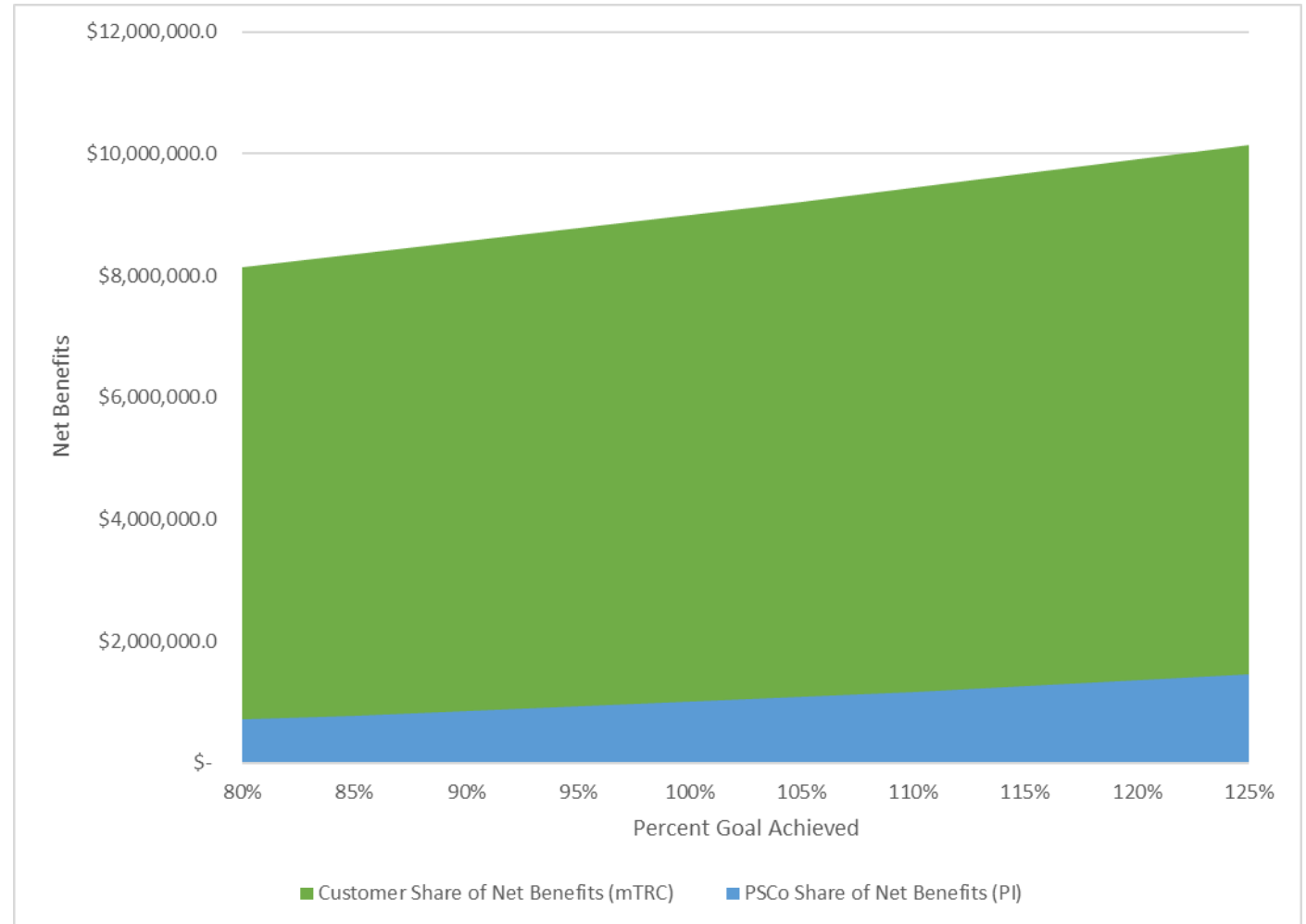
Public Service Company of Colorado

- PI for energy efficiency
 - Establish GWh savings goal and budget cap
 - PI at 80% of goal = 8% of net benefits
 - Award increases 0.5% for each 5% increase in savings
 - 10% of net benefits at 100% of goal, up to 12.5% of net benefits at 125% of goal
 - Cap on overall PI



Public Service Company of Colorado

- Hypothetical \$10M in net benefits at 100% of goal
- Assume Net benefits change by 3% with every 5% change in goal achievement
- Customers and utility both increase “earnings” as savings increase

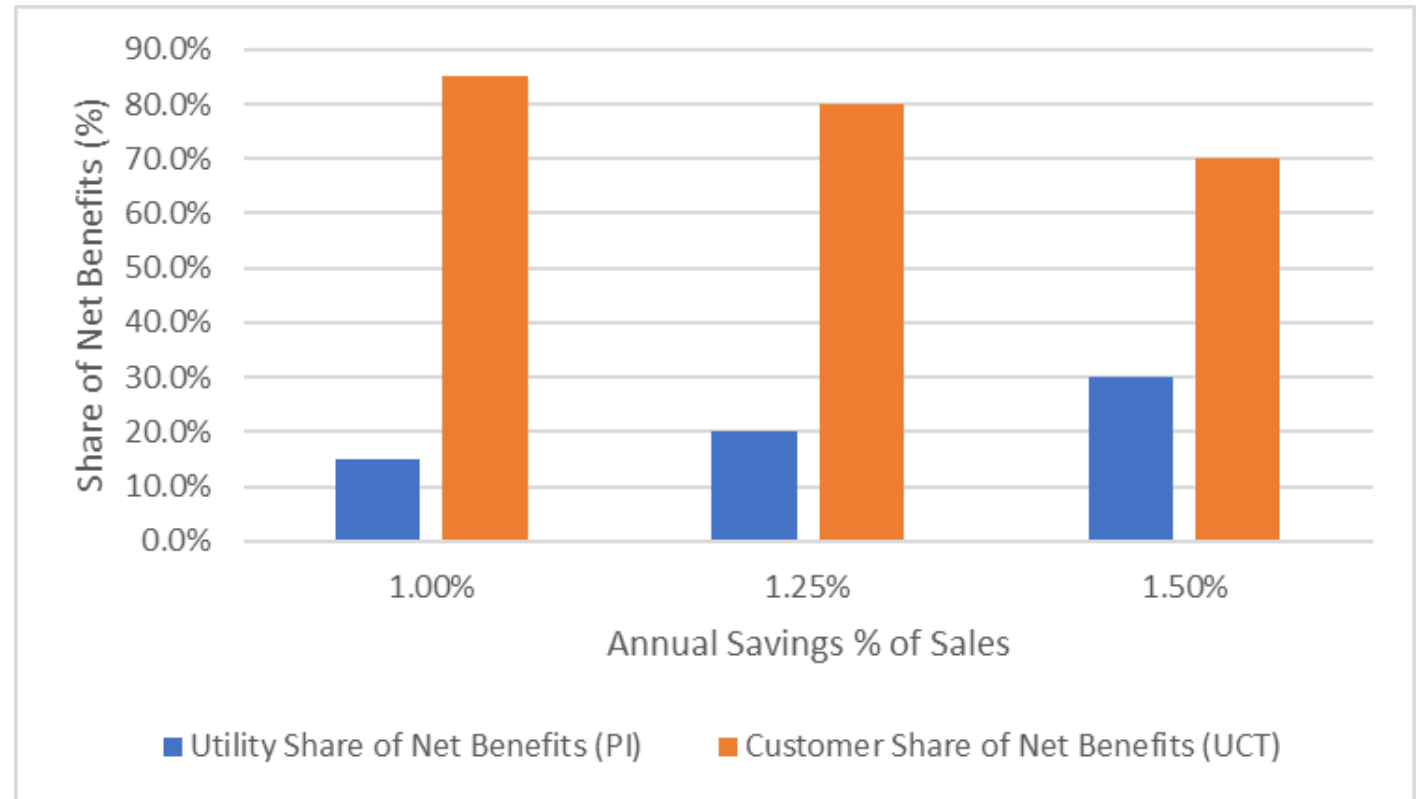


Public Service Company of Colorado

- PI for demand response
 - “...require the Company to...propose to the Commission...a revised DR PIM tied to: (a) net economic benefits with specific justification for how benefits were determined, and (b) unique program capacity and callability attributes of each DR platform within the Company’s DR portfolio”

Michigan EE Performance Incentive

- Michigan PA 341 (2016):
PI equal to
 - 1.00% savings = 15% of EE Spending or 25% of net benefits (UCT)
 - 1.25% savings = 17.5% of EE spending or 27.5% of net benefits
 - 1.5% savings = 20% of EE spending or 30% of net benefits

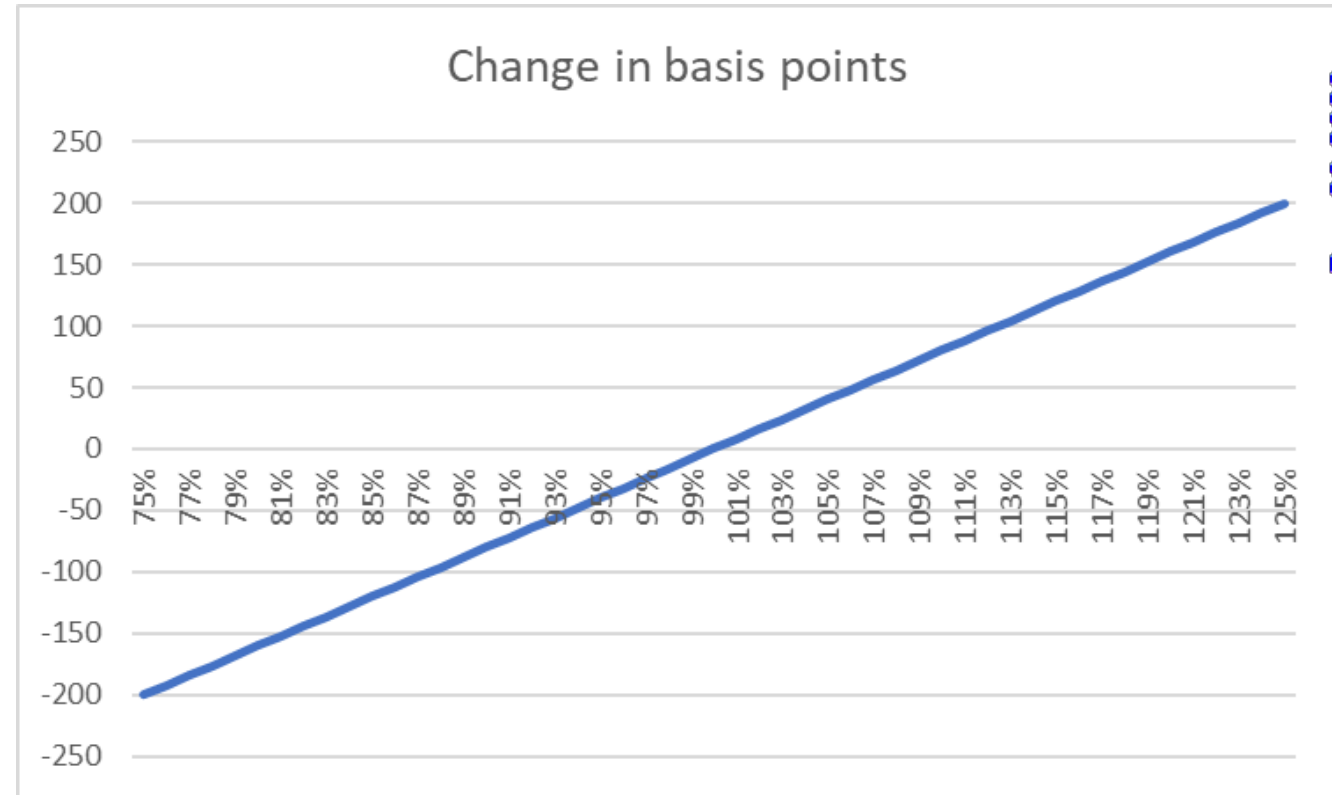


Michigan EE Performance Incentive

- Commission views these as minimum performance thresholds and can impose other requirements:
 - Portfolio lifetime savings
 - Low-income program performance
- Ex. DTE Settlement
 - ~76% of PI for lifetime energy savings
 - ~10% for minimum Income Qualified spend
 - ~14% for # of IQ HVAC and weatherization measures
- Pending bill could increase the stringency of the requirements

Illinois Climate and Equitable Jobs Act (2021)

- Savings goals established in law
- EE investments treated as amortized regulatory assets
- Rate of return varies depending on % of savings achieved



Programs for low-income households

- Many LI households face high (6%) to severe (10%) energy burdens
- Where EE-DSM is paid through volumetric charges LI customers pay into programs at the same rate as others – but with less ability to participate in programs
 - First cost barriers
 - Renters
- Benefits – especially from comprehensive programs – are significant
 - Weatherization
 - HVAC

Pennsylvania Act 129 Phase IV Requirements

- Include specific energy efficiency measures for households at or below 150% of the FPIG
- 5.8 % of utility total savings target must come from programs solely directed at low-income customers or low-income-verified participants in multifamily housing programs.
- Savings from non-low-income programs not counted toward these targets
- *“...the carve-out helps to ensure that low income customers are able to access and participate in EDCs’ efficiency programs. A spending requirement would permit very high spending to acquire a relatively small number of program participants, potentially resulting in low overall savings and limiting the number of customers participating. Second, the carve-out helps to ensure that low-income customers realize significant benefits from those programs.”*

Nevada Senate Bill 448

- Establishes statutory low-income requirement
- Requires utility to spend *“not less than 10 percent of the total expenditures related to energy efficiency and conservation programs on energy efficiency measures for customers of the electric utility in low-income households and residential customers and public schools in historically underserved communities....”*
- Commission determines the rules and guidelines for the utility to meet this requirement

Maryland HB 169 Statute (2023)

- Multi-year Commission consideration of LI goals
- Lack of consensus among parties led to statutory action
- Three-year ramp up to reach annual savings target of 1% of the total electricity used by LI households (<250% FPL)
- Complementary to overall 2% annual savings target

Conclusions

- Least-cost obligation cannot be met without robust use of EE-DSM
- Combination of regulation and incentives (aka sticks and carrots) needed for the best results
- Fine tuning of regulatory tools to be consistent with jurisdictional priorities is critical



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