ENERGY EFFICIENCY COUNCIL

eec.ri.gov

2027-2029 Energy Efficiency Target Setting

Consultant Team Presentation

Date: March 19, 2026

Outline

Background

Results and Comparisons

Methodology Updates

Next Steps and Discussion

Background

Legislative Requirement

In accordance with R.I. Gen. Laws § 39-1-27.7 associated with the 2006 Comprehensive Energy Conservation, Efficiency and Affordability Act ("Least-Cost Procurement Law"):

- *"The commissioner of the office of energy resources and the energy efficiency and resources management council, either jointly or separately, shall provide the commission findings and recommendations with regard to system reliability and energy efficiency and conservation procurement on or before March 1, 2008, and triennially on or before March 1, thereafter through March 1, 2028."*

The Least-Cost Procurement Law (LCP) also requires the development and periodic review of LCP Standards ("the Standards")

The Standards (among other things) defines the Council's responsibilities with respect to providing the Commission with findings and recommendations

- This is what we are referring to when we discuss the recommended "Targets Report"

The next period for these Targets is 2027-2029

Purpose of Targets

Establishes what is “potentially available cost-effective efficiency”

Guides establishment of savings goals for the Three-Year Plans and associated Annual Plans

Important Reminders:

- Energy Efficiency Targets ≠ Energy Efficiency Goals
- Historically, Goals are where the filters for prudency, reliability, and environmental responsibility from the Standards are factored in
- These factors typically result in a gap between Targets and Goals as defined, and that is okay

Results and Comparisons

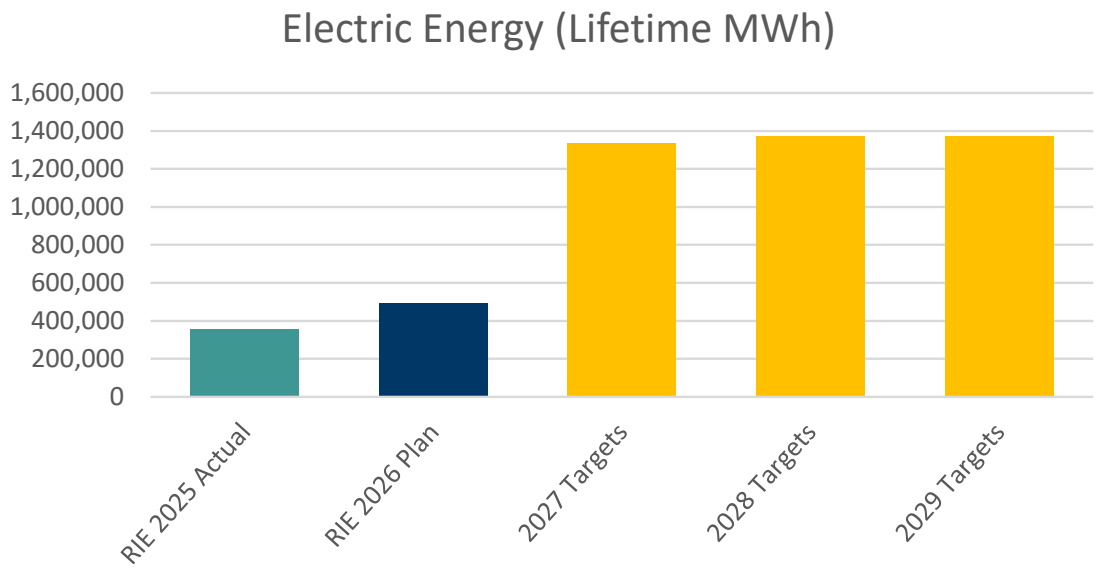
Proposed Targets and Cost-Effectiveness Results

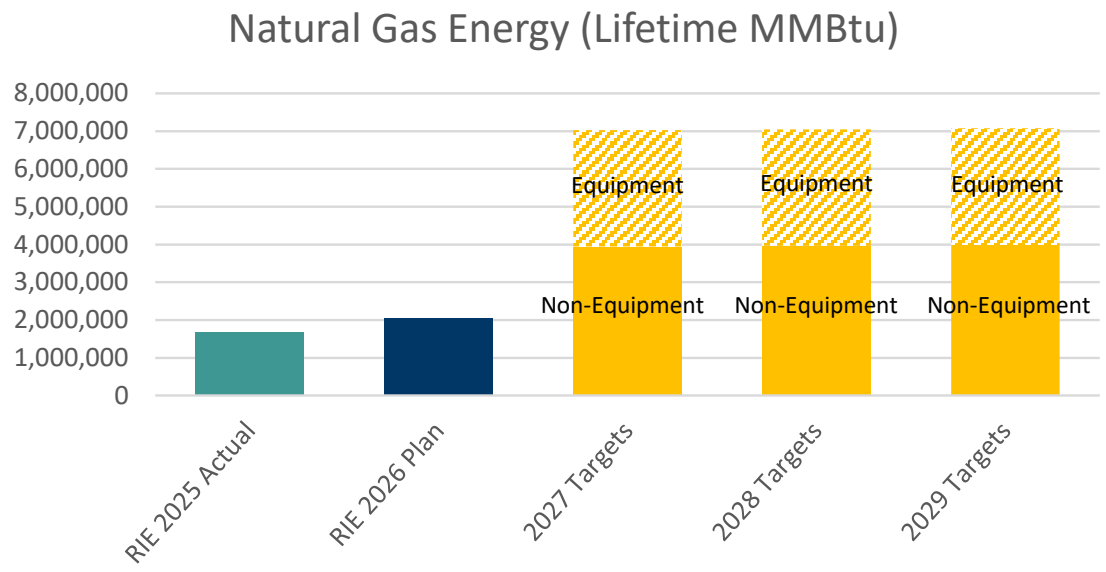
- Electric and gas energy savings targets similar to 2024-2026 values.
  - Increases and decreases to various measure level inputs partially offset each other.
- In absence of input changes, electric ADR targets held constant at 2026 values.
- 5.5% overall increase in benefits relative to 2024-2026 MPS Refresh results.
- RI Test benefit-cost-ratio (BCR) ≈ 2.9 in all years.

	Year	Electric Energy (Lifetime MWh)	Natural Gas Energy (Lifetime MMBtu)	Electric Active Demand Response (MW)	PV Benefits, RI Test (Million 2026$)	PV Costs, RI Test (Million 2026$)	BCR, RI Test
Historical	*2024*	*1,397,644*	*7,058,839*	*86.7*			
	2025	*1,401,610*	*7,090,690*	*89.7*			
	2026	*1,413,953*	*7,119,585*	*94.6*			
Proposed	2027	1,336,355	7,023,507	94.6	$478.4	$163.4	2.93
	2028	1,369,188	7,053,153	94.6	$484.9	$166.0	2.92
	2029	1,371,613	7,082,800	94.6	$483.2	$166.8	2.90

Proposed Targets Relative to Rhode Island Energy 2025 Actuals and 2026 Plan

- Electric and gas energy savings targets far exceed both RIE 2025 Actuals and 2026 Planned savings.
- Comparison presented for content; values not directly comparable due to, for example, additional LCP considerations and plan priorities embedded in RIE values





Proposed Targets Relative to Leading States from ACEEE 2025 State EE Scorecard

- Electric and gas energy savings targets presented in incremental annual terms for comparison to ACEEE 2025 State Energy Efficiency Scorecard data (https://www.aceee.org/research-report/u2502).
- Electric targets within the range of *actual* achievement in the Top 5 states.
- Gas targets nearly 75% higher than top-ranked state for gas EE program performance.

State	2023 Net Annual Electric Energy Savings as a Percentage of Retail Sales
MD	2.56%
NJ	2.01%
MI	1.74%
IL	1.56%
CA	1.55%
2027-2029 RI Target (Avg.)	**1.83%**

State	2022 Net Annual Gas Savings as Percentage of Retail Sales
MI	0.95%
CA	0.90%
MA	0.81%
MN	0.79%
RI	0.71%
2027-2029 RI Target (Avg.)	**1.65%**

*Note: 2027-2029 RI Targets presented relative to 2024 RI statewide sales from U.S. Energy Information Administration

Methodology Updates

Methodology Updates

The following modifications were made to targets development methodology in response to:

- Initial feedback received in response to draft results presentation at February Council meeting; and
- Continuing internal QA/QC

1. Adjusted modeled lighting savings for RI mercury ban
2. Reduced modeled lighting controls savings to account for increasing LED saturation
3. Adjusted New Construction measure savings for IECC 2024

Mercury Ban Impacts

1. Adjusted modeled lighting savings for RI mercury ban

- As of January 1, 2025, RI General Laws § 23-24.9-6.1 (2025) bans the sale of most compact and linear fluorescent lamps.
- Approximated split of "Replace-on-Failure" and "Early Replacements" lighting measures from MA 2019 C&I Lighting Inventory and Market Model Updates report (29% ROF / 71% ER).
  - Early Replacements generally assume legacy technology baselines (e.g., fluorescents)
  - Replace-on-Failure adjusted to assumed early generation LED baseline
- Replace-on-Failure savings from first to second generation lighting products derived from NREL's ComStock commercial buildings analysis platform (19% savings relative to original values in MPS Refresh)

Lighting Controls Updates

2. Reduced modeled lighting controls savings to account for increasing LED saturation

- As originally modeled in MPS Refresh, non-residential lighting controls measures generally assumed control of legacy lighting tech (e.g., flourescents) .
- Saturation of LED lighting adjusted referencing the 2022 Rhode Island C&I Lighting Market Characterization and Adjusted Measure Life Study (76% LED by 2027).
- Savings for lighting controls installed with LEDs reduced to 19% of originally modeled savings in MPS Refresh

State Energy Code Updates

3. Adjusted New Construction measure savings for IECC 2024

- In November 14, 2024, Rhode Island officially adopted the 2024 IECC in full with no state amendments.
- PNNL analysis of IECC 2024 relative to previous code IECC 2021 found 7.3% and 17.4% site energy savings for residential and commercial buildings, respectively
- Savings for all New Construction measures uniformly reduced by these values.

Next Steps & Council Discussion

Next Steps

Targets due to Public Utilities Commission by April 1st

Proposed Targets presented in Report provided with todays meeting materials

- Report presents Targets, development methods, and comparisons to other benchmarks

Following a Council vote, C-Team will work with Counsel to file Targets with PUC

Council Member Discussion

- Do the proposed Targets meet the LCP requirement to identify all potentially available cost-effective efficiency?
- Are there additional findings, analyses, or clarifications the Council needs before it is comfortable recommending these Targets?
- How should other policy/priorities be considered (e.g., including or excluding new efficient gas equipment)?

Appendix

Report Components

EE & Conservation Targets

Required — Savings targets for electric and gas through energy efficiency over a three- to six-year period

Required — How savings targets are cost-effective and supported by one or more relevant market potential assessments

Required — Whether savings targets are intended to represent investments that are also reliable, prudent, environmentally responsible, and less than the cost of supply

Optional — Strategies for achieving savings targets over at least a three-year period

SRP Recommendations

Optional

Recommendation for processes, including screening criteria, for identifying SRP investments that potentially meet LCP Standards

Optional

Strategies/technologies that potentially contribute to SRP

Performance Incentive & Standards

Performance Incentive Plans

Optional

– Recommendations for performance incentives that the distribution company is eligible to earn through LCP

LCP Standards

Optional

– Recommendations for updates to LCP Standards

Rulings & Stakeholder Process

Recommended Rulings

Required

- State findings that the Council and/or OER recommend the PUC adopt by Order

Stakeholder Processes

Required

- Minutes of public Council meetings at which the report was discussed

Required

- Presentations related to the development of the report made at public Council meetings

Development Approach for 2027-2029 Targets

Approach to developing the 2027-2029 Targets leveraged a strategically focused update to the “2024-2026 MPS Refresh”:

1. Assume 2024-2026 MPS Refresh measure level data as the analytical foundation
2. Extrapolate modeled participation from 2024-2026 through 2029.
3. Update select measure input assumptions to reflect known evaluation findings and other market changes
4. Update cost-effectiveness analysis
5. Perform benchmarking and other contextualization of results

Approach, Continued

1. Assume 2024-2026 MPS Refresh measure level data as the analytical foundation

- The 2024-2026 MPS Refresh represents the most relevant, recent analysis of the State's Demand Side Management (DSM) market
- Granular, measure level data enabled targeted adjustments to key measure inputs based on recent EM&V findings and other market data

2. Extrapolate modeled participation from 2024-2026 through 2029

- Establish participation trendlines to forecast participation for 2027-2029

Approach, Continued

3. Update select measure input assumptions to reflect known evaluation findings and other market changes

- Adjusted measure input assumptions from the 2024-2026 MPS Refresh potential for the following:
  - Savings values, measure lives, net-to-gross, and realization rates as documented in the 2024 through 2026 versions of the RI Technical Reference Manual (TRM)
  - Limited updates to those measures accounting for a cumulative ~80% of lifetime savings in the 2024-2026 MPS Refresh (57 electric measures and 17 gas measures)

- Measures updated based on federal standards with compliance dates on or after January 1, 2026
  - Measures with compliance dates in 2029 were not adjusted assuming a minimum 12 month sell-through period for existing stock

- Updated efficiency equipment saturations from program and market activity (e.g., updated LED saturations)

Approach, Continued

4. Update cost-effectiveness analysis

- Demonstrate portfolio level cost effectiveness using the RI Test
- 2024-2026 MPS Refresh used costs from the 2021 Avoided Energy Supply Costs (AESC) study. Relevant costs updated to assume values approximately consistent with 2024 AESC
  - Multivariable regression used to establish relationship between resource savings and RI Test benefits (by sector, end-use, and primary fuel)
  - Changes in avoided costs simplified and expressed per unit energy (or demand) saved relative to the 2021 AESC values
  - Note: 2027 AESC study results anticipated in Fall 2026
- Measure costs adjusted for inflation

Value	Benefits Multiplier (AESC 2021 to AESC 2024)
Electric Energy (kWh)	1.16
Summer Peak Demand (kW	0.69
Gas (MMBtu)	1.00
Propane (MMBtu)	1.32
Oil (MMBtu)	1.15

Approach, Continued

5. Perform benchmarking and other contextualization of results

- Compare results to recent **RIE planned and actual savings**
- Benchmark to recent performance of DSM programs in leading states leveraging **ACEEE State Scorecard** data
- Compare results to the implied carbon reduction required by EE programs in the State's **2025 Climate Action Strategy**