



STATE OF RHODE ISLAND

**ENERGY EFFICIENCY &
RESOURCE MANAGEMENT COUNCIL**

CONSULTANT TEAM

Consultant Team Review First Draft of the 2024-2026 Three-Year Plan

Presented By: EERMC Consultant Team

Date: July 20, 2023



Outline

Overview

Areas of Focus

Portfolio Overview

Commercial & Industrial Review

Residential & Income Eligible Review

Council Discussion



Areas of Focus

OVERVIEW





Areas of Focus

Quantitative review

- Initial review focused on quantitative trends over time (Actuals, Plans, Targets)
- Comparisons to Targets highlight areas with untapped savings potential

Quality assurance (QA)

- RI Energy implemented both structural and functional changes to the Plan Benefit-Cost Ratio (BCR) Models
- QA review an ongoing process

Narrative review

- Today's meeting focuses on quantitative review due to ongoing Narrative development
- We will still raise qualitative plan elements where appropriate



Portfolio Overview

OVERVIEW



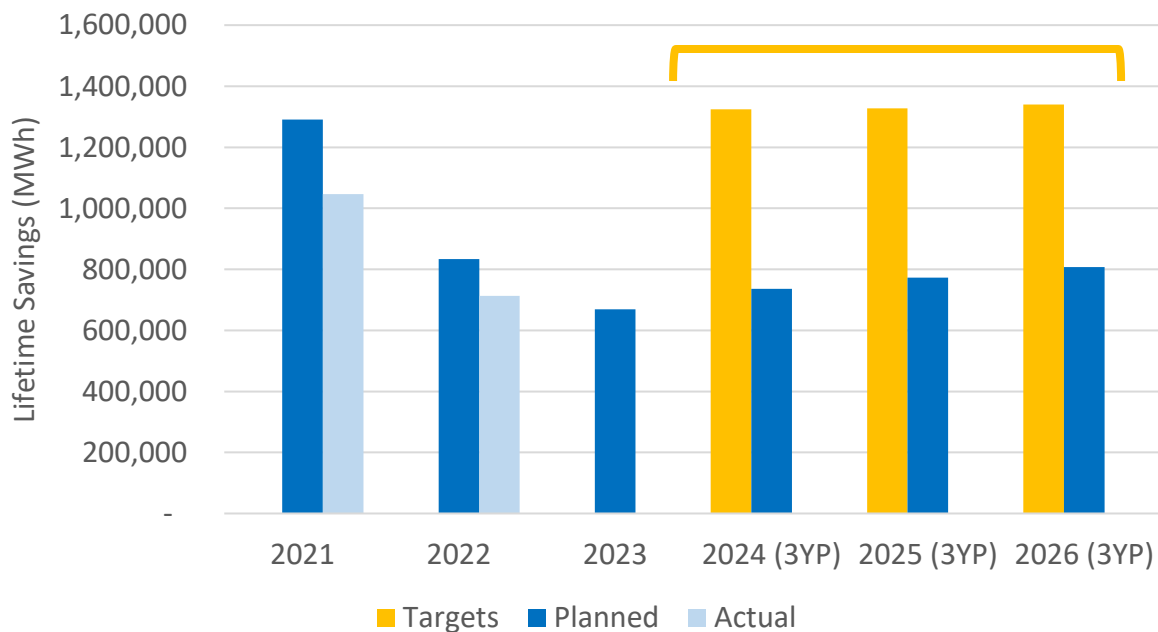


Portfolio Lifetime Savings

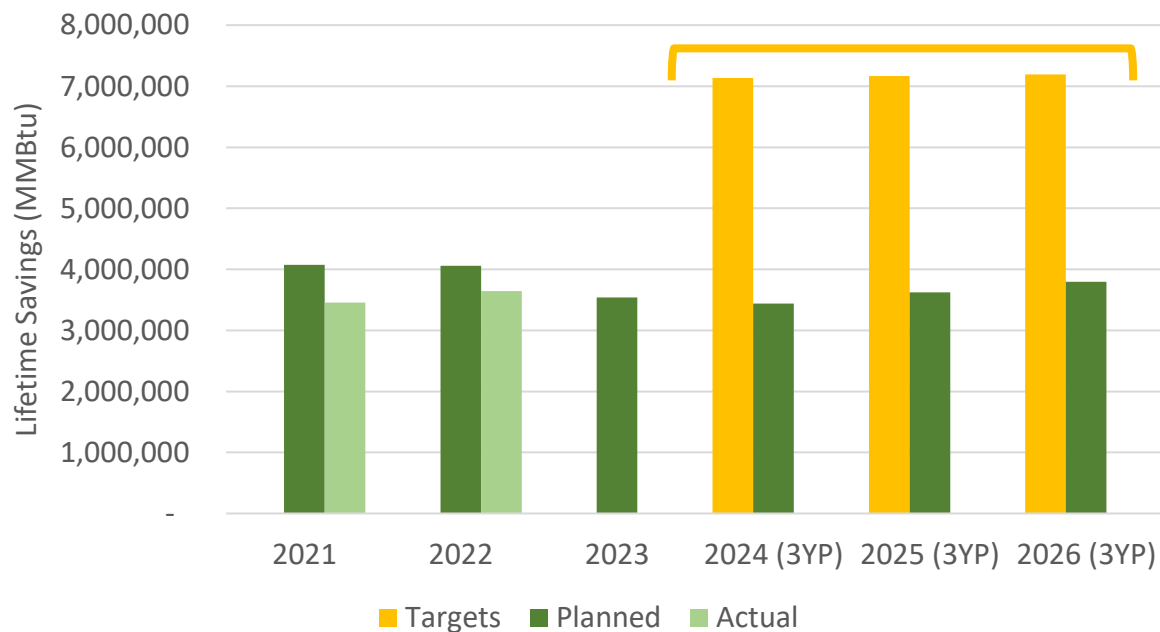
Key Takeaway

Slight increase in planned lifetime electric and gas savings year-over-year from 2024-2026, but planned savings are nearly 50% below Targets.

Electric Lifetime Savings (MWh) - Portfolio Total



Gas Lifetime Savings (MMBtu) - Portfolio Total



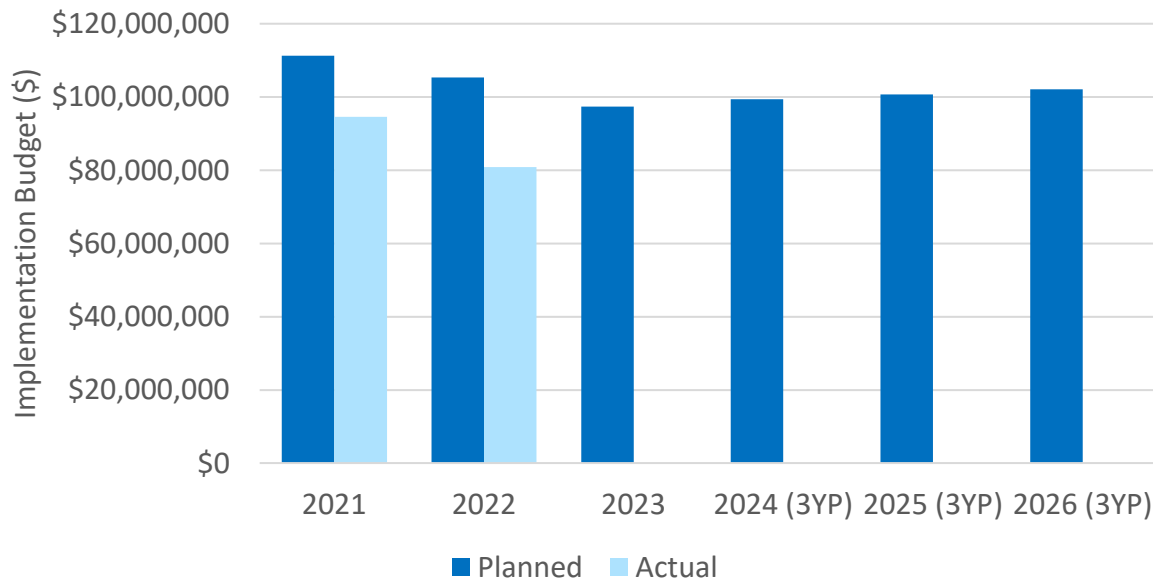


Implementation Budget

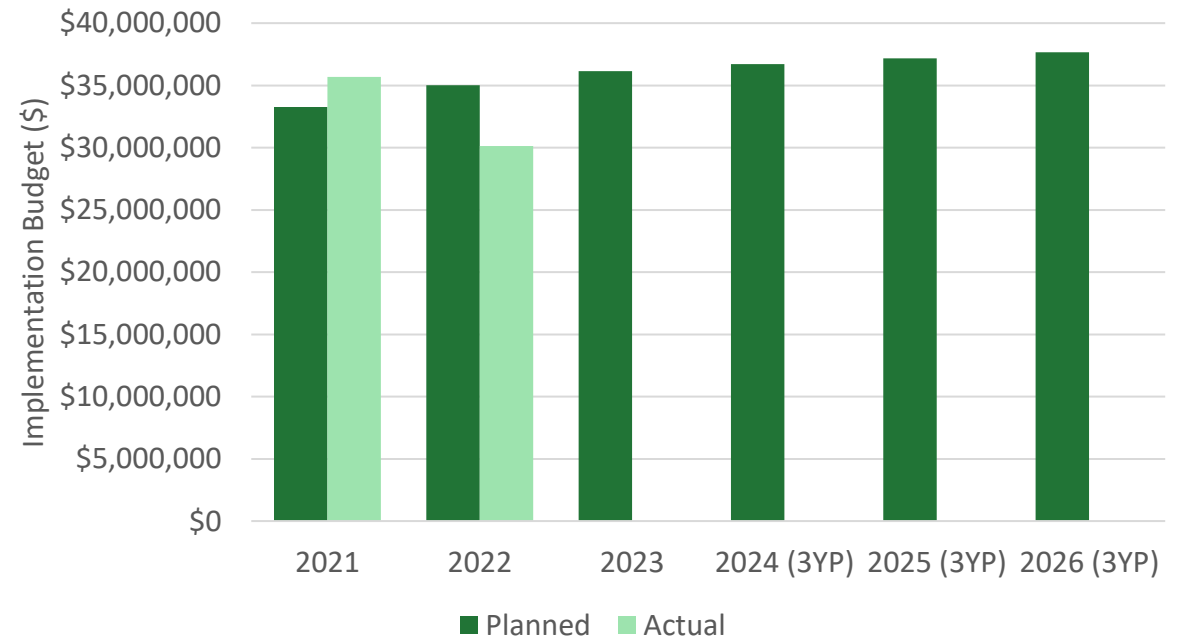
Key Takeaway

Minor increases in planned budget over the Three-Year term with over 20% increase in what was actually spent in 2022.

Electric Implementation Budget (\$) - Portfolio Total



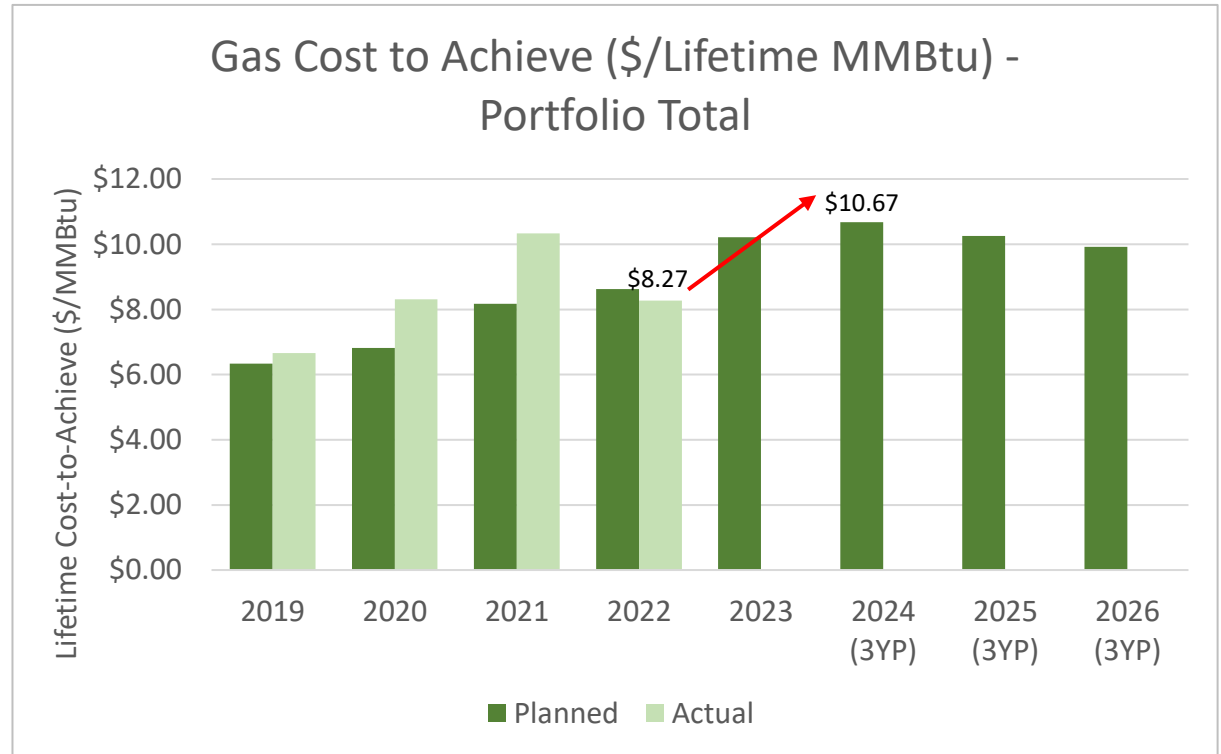
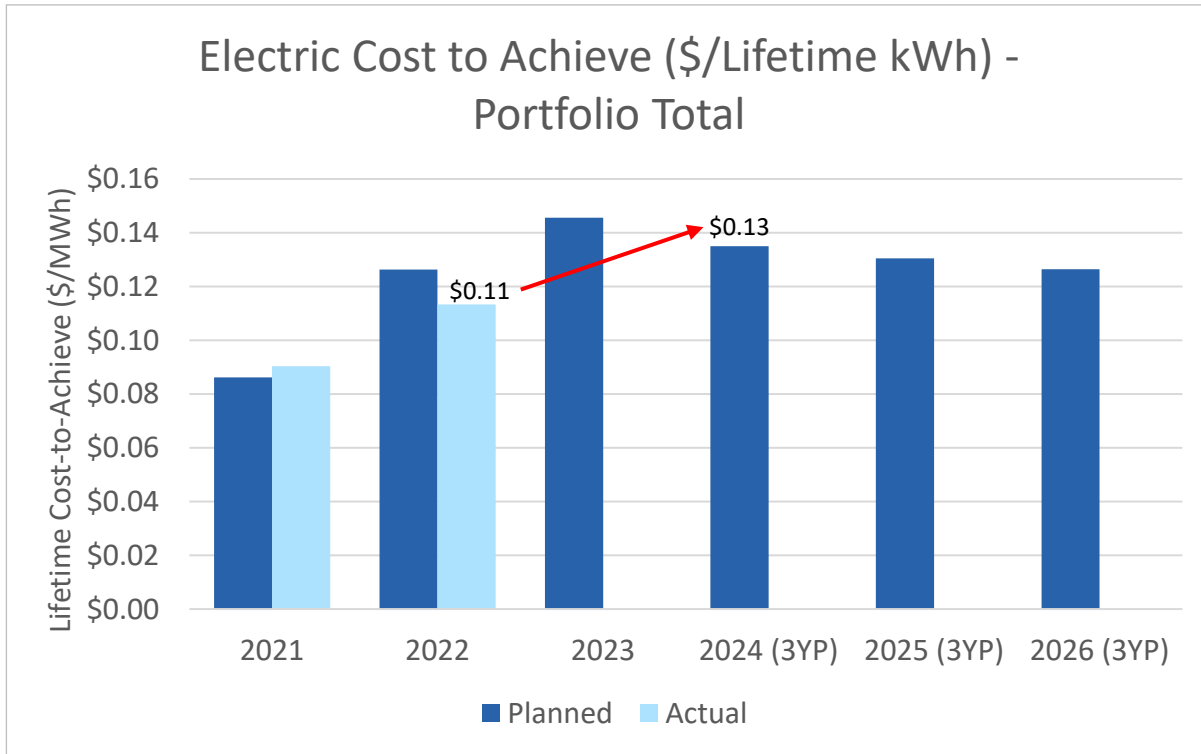
Gas Implementation Budget (\$) - Portfolio Total





Portfolio Cost to Achieve

Key Takeaway Declining cost-to-achieve during Three-Year Plan term, but higher cost-to-achieve in 2024 than 2022 actuals for both electric (+19%) and gas (+29%) portfolios.



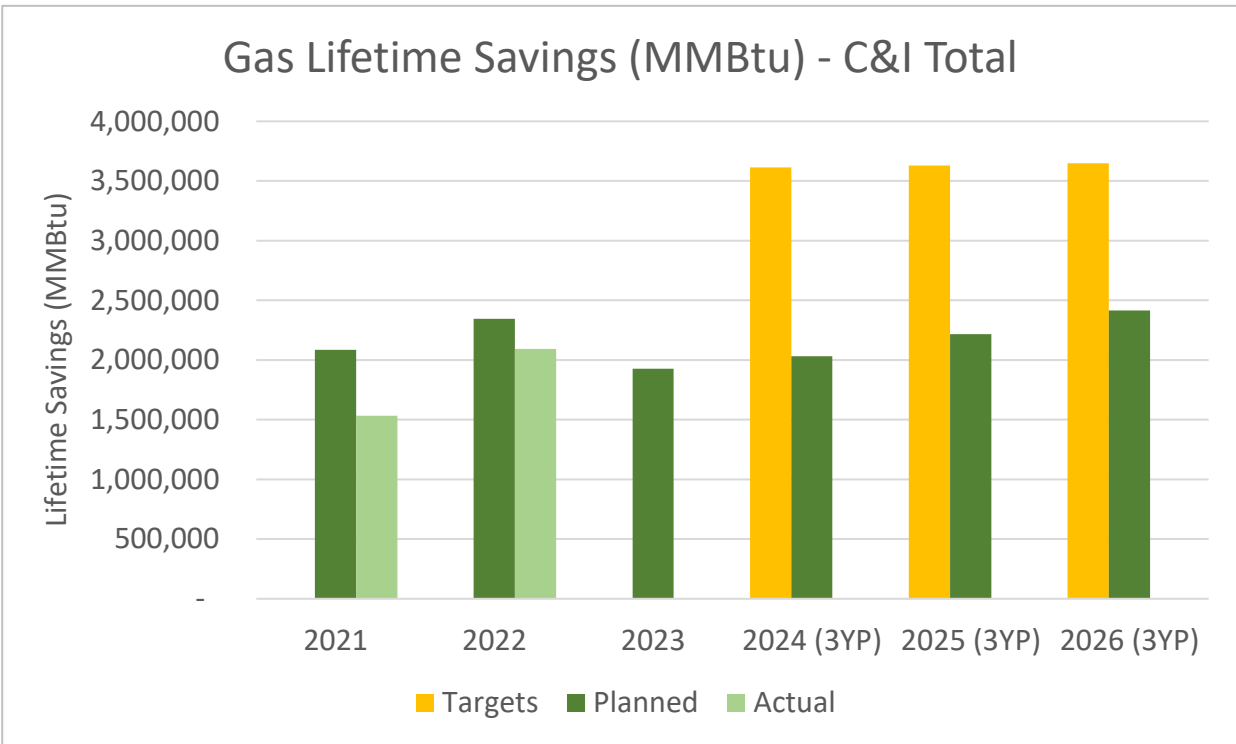
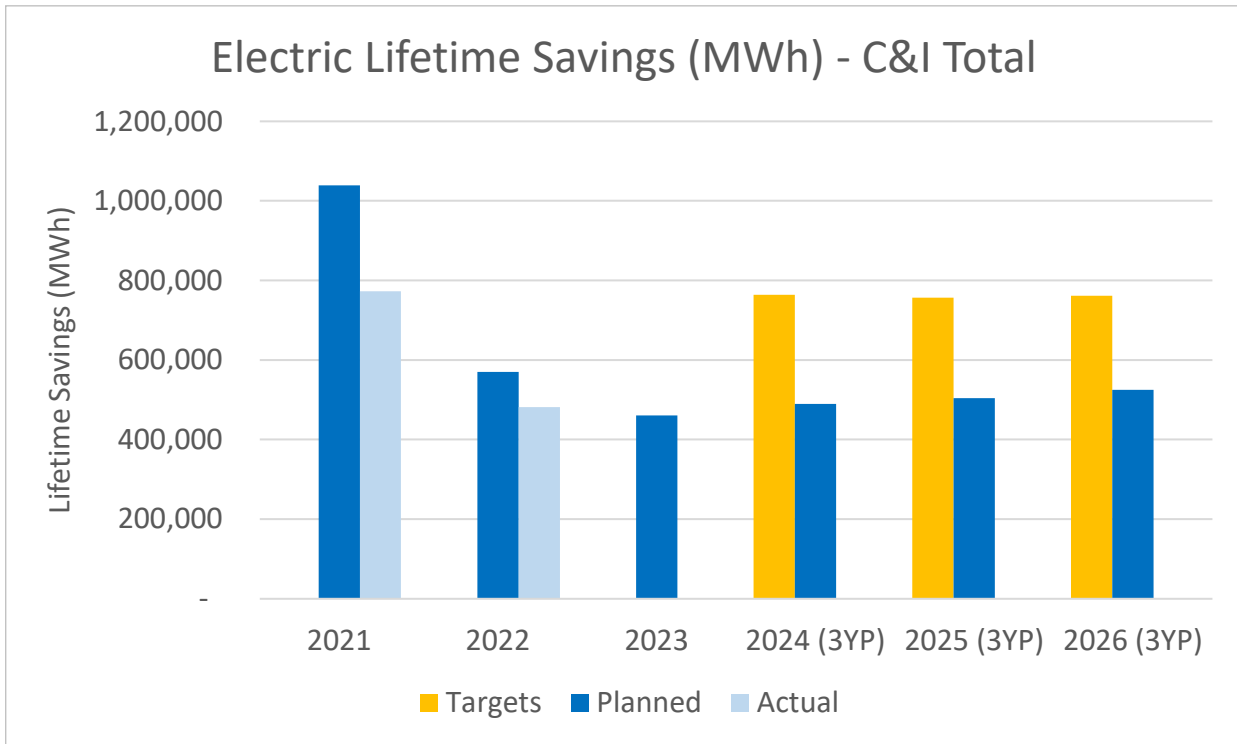


COMMERCIAL AND INDUSTRIAL SECTOR REVIEW



Commercial & Industrial – Lifetime Savings

Key Takeaway Planned 2024-2026 savings exceed 2023 Plan but ~35% below electric and gas Targets.

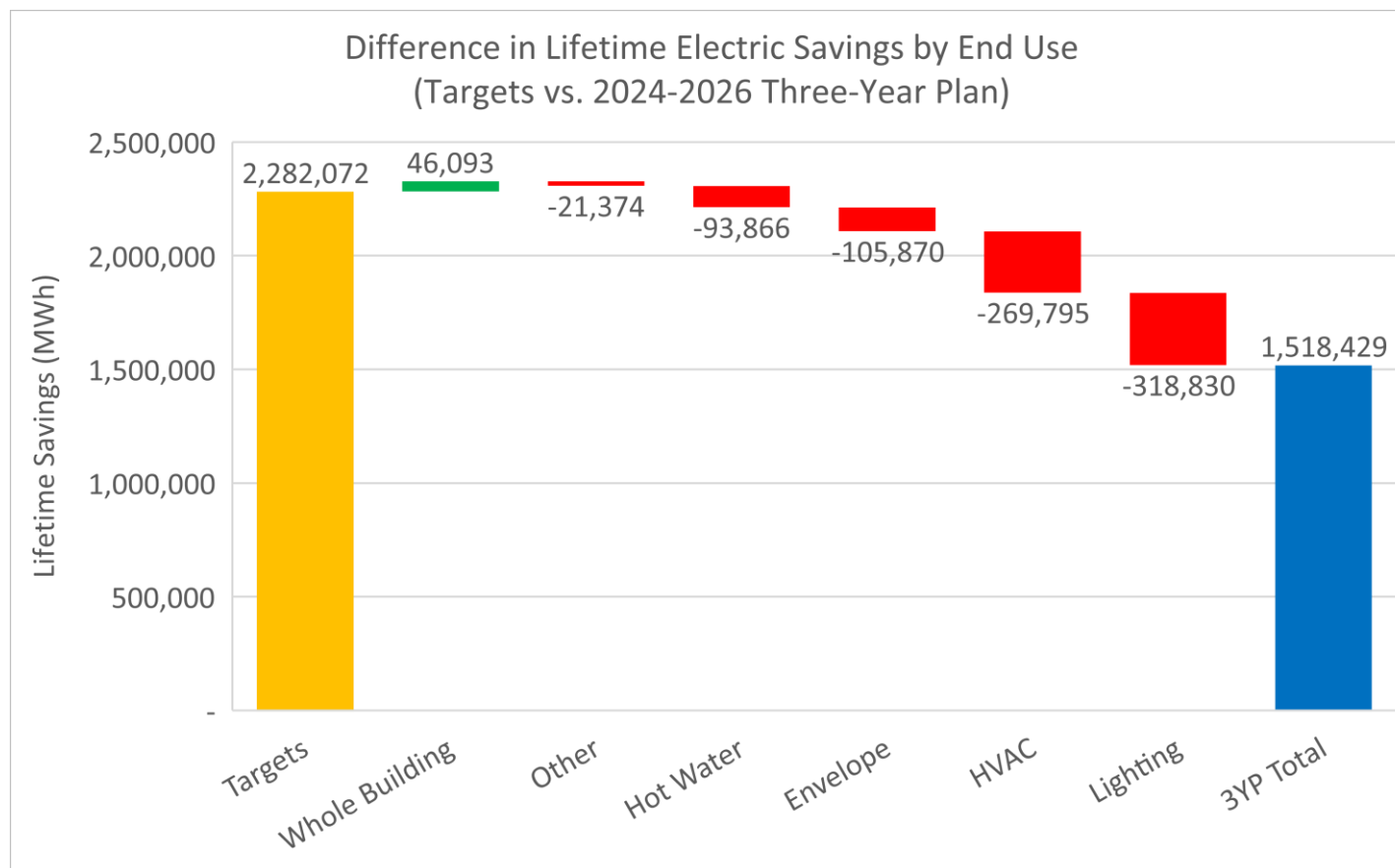




Commercial & Industrial – Electric Savings

Key Takeaway

Lighting and HVAC represent nearly 80% of gap between Three-Year Plan and Targets



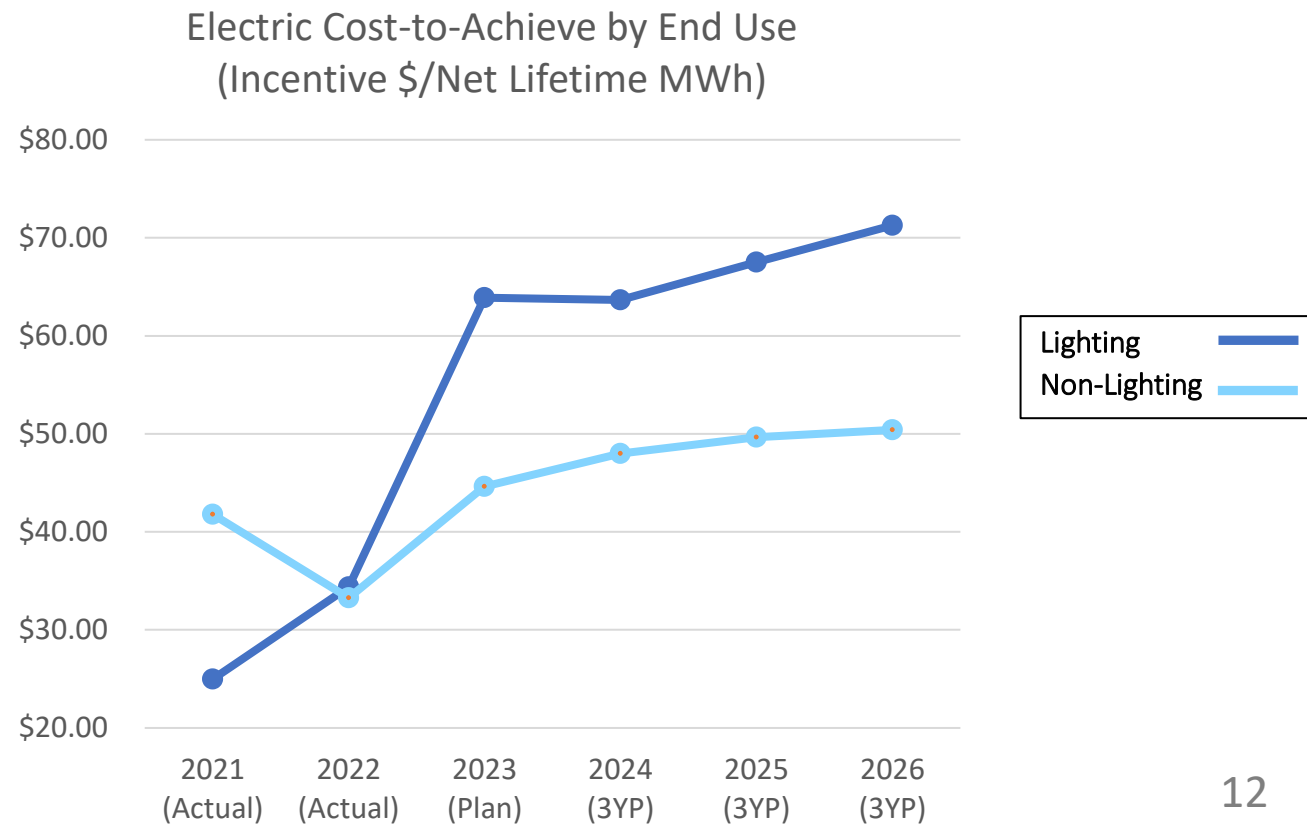


Commercial & Industrial – Electric Costs

Key Takeaway 2024-2026 average electric cost-to-achieve over 60% higher than 2022 actuals, but measure lives and net-to-gross values suggest evaluation impacts are not main driver.

Average Measure Life (Years)	Lighting	Non-Lighting
2021 (Actual)	12	12
2022 (Actual)	8	12
2023 (Plan)	7	12
2024-2026 (3YP)	7	12

Net-to-Gross Ratio	Lighting	Non-Lighting
2021 (Actual)	60%	61%
2022 (Actual)	62%	67%
2023 (Plan)	64%	71%
2024-2026 (3YP)	63%	72%



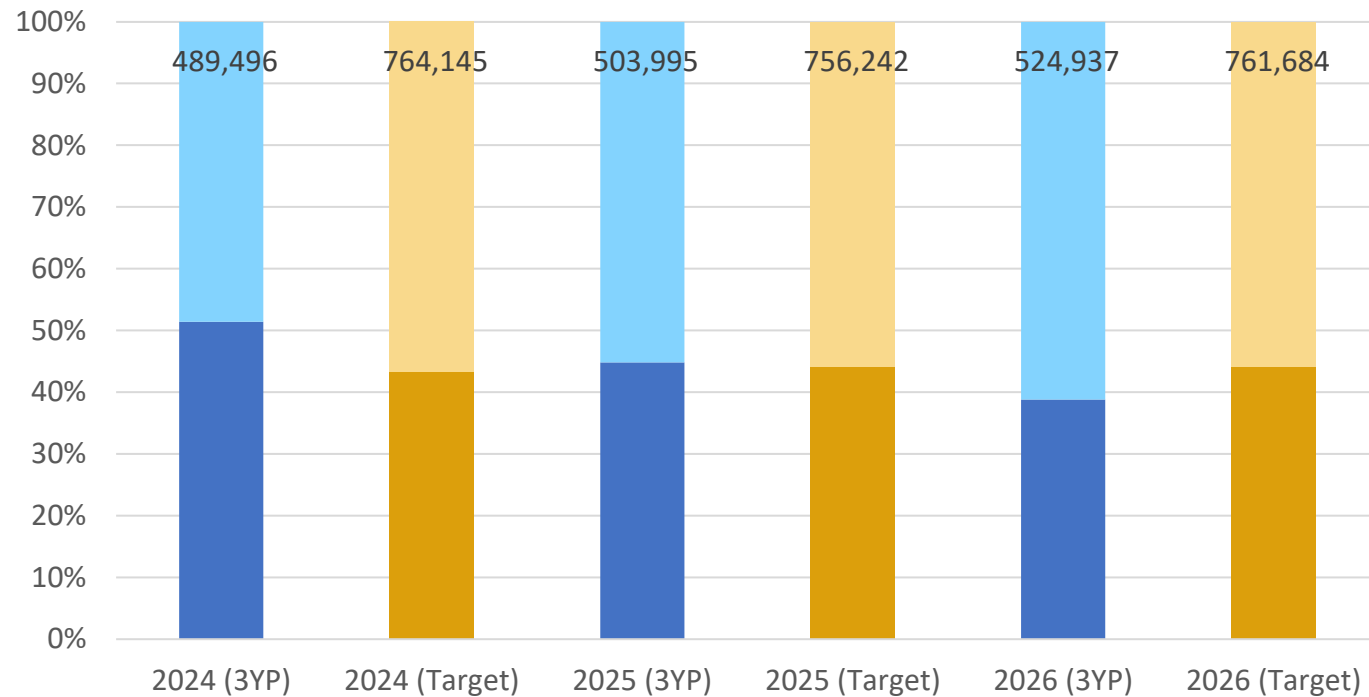
Note: Expect updated Evaluation Study results for 2023 Plan Second Draft



Commercial & Industrial - Electric Savings

Key Takeaway Magnitude of planned savings lower, but distribution of savings consistent with Targets. Share of non-lighting savings increased over 2021-2023 (Plan & Actual).

Lifetime Electric Savings and Distribution by Measure Category
(Targets vs. 2024-2026 Three-Year Plan)



Three-Year Plan

- Lighting (Dark Blue)
- Non-Lighting (Light Blue)

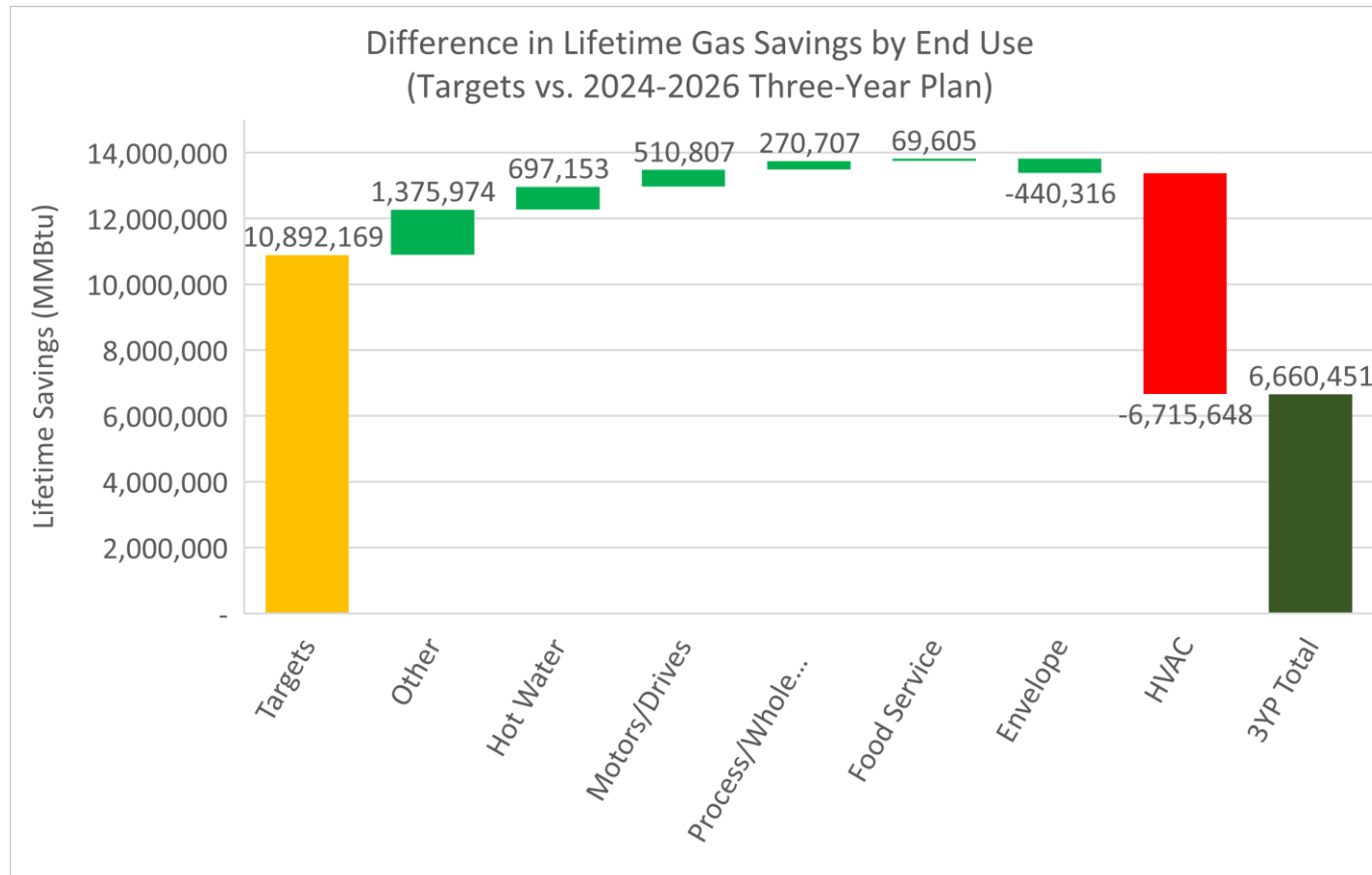
Targets

- Lighting (Dark Orange)
- Non-Lighting (Light Orange)



Commercial & Industrial – Gas Savings

Key Takeaway Large gap in HVAC savings, but planned decrease in incentive \$ per lifetime MMBtu.



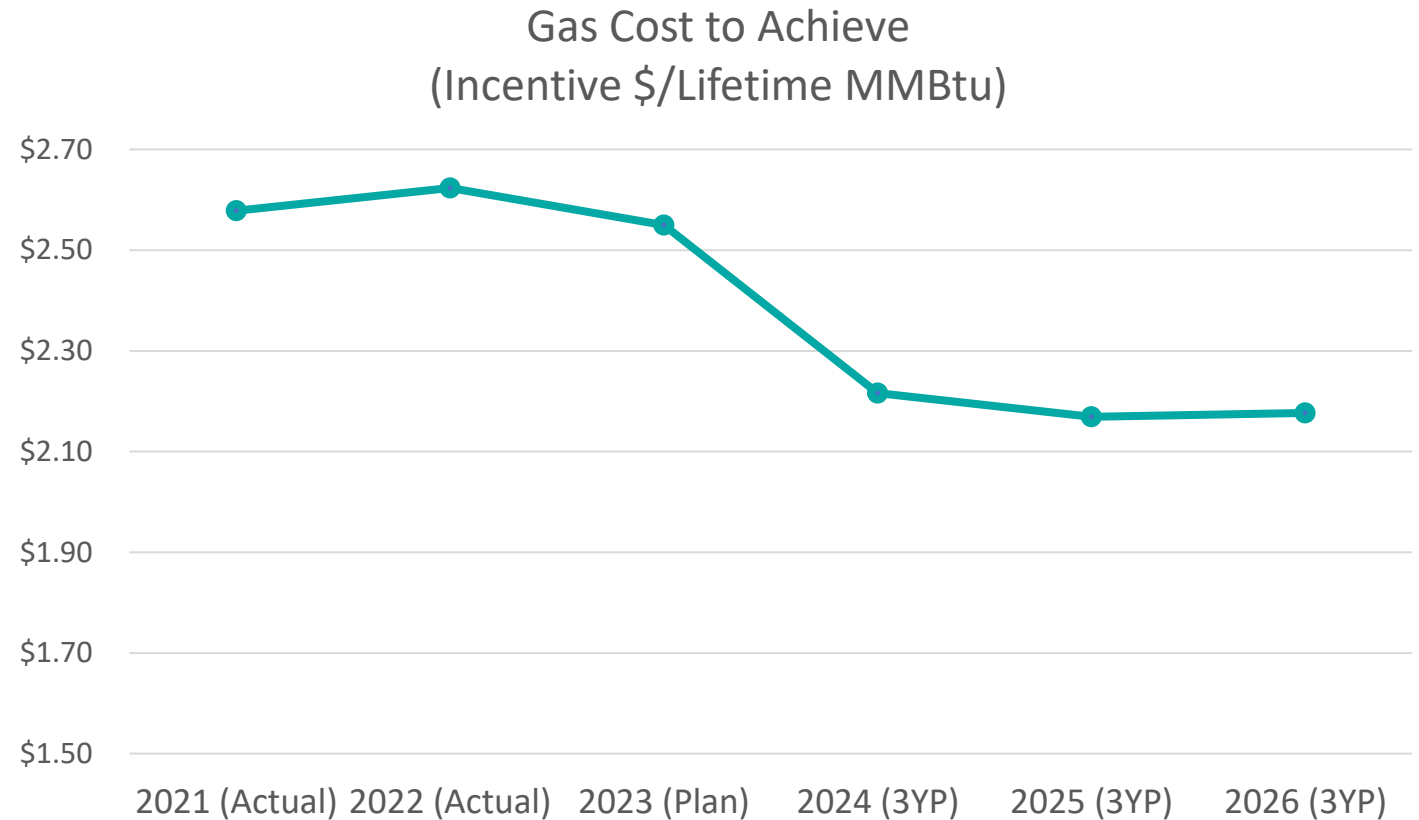


Commercial & Industrial – Gas Costs

Key Takeaway 2024-2026 average gas cost-to-achieve 17% lower than 2022 actuals, which is consistent with discussions on right-sizing gas equipment incentives.

Average Measure Life (Years)	Total Gas
2021 (Actual)	11
2022 (Actual)	11
2023 (Plan)	12
2024-2026 (3YP)	13

Net-to-Gross Ratio	Total Gas
2021 (Actual)	79%
2022 (Actual)	88%
2023 (Plan)	83%
2024-2026 (3YP)	85%



Note: Expect updated Evaluation Study results for 2023 Plan Second Draft



RESIDENTIAL SECTOR REVIEW





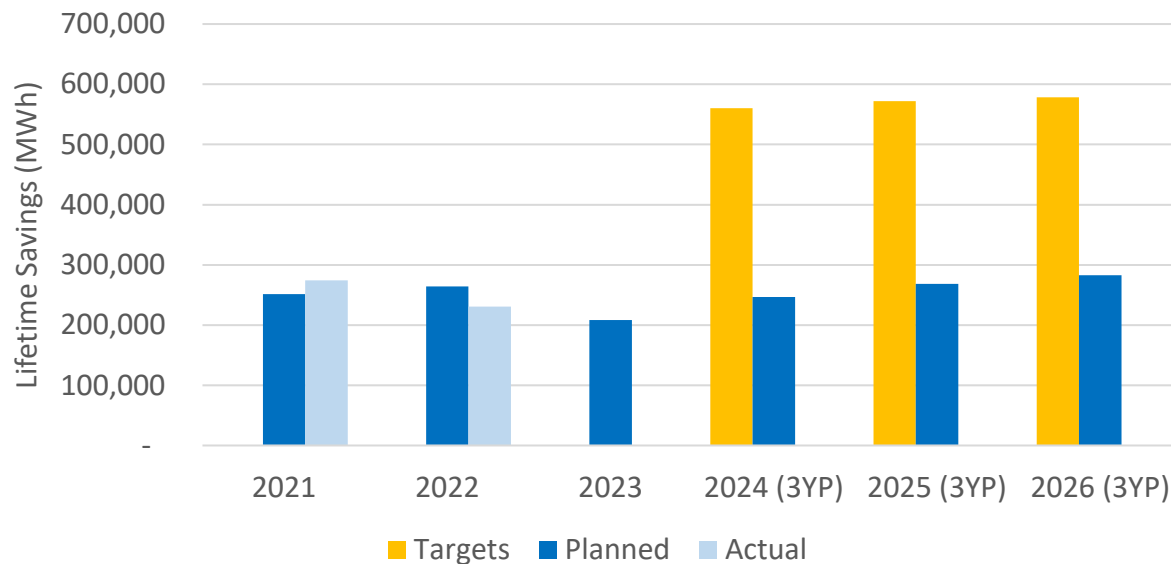
Residential & Income Eligible – Lifetime Savings

Key Takeaways

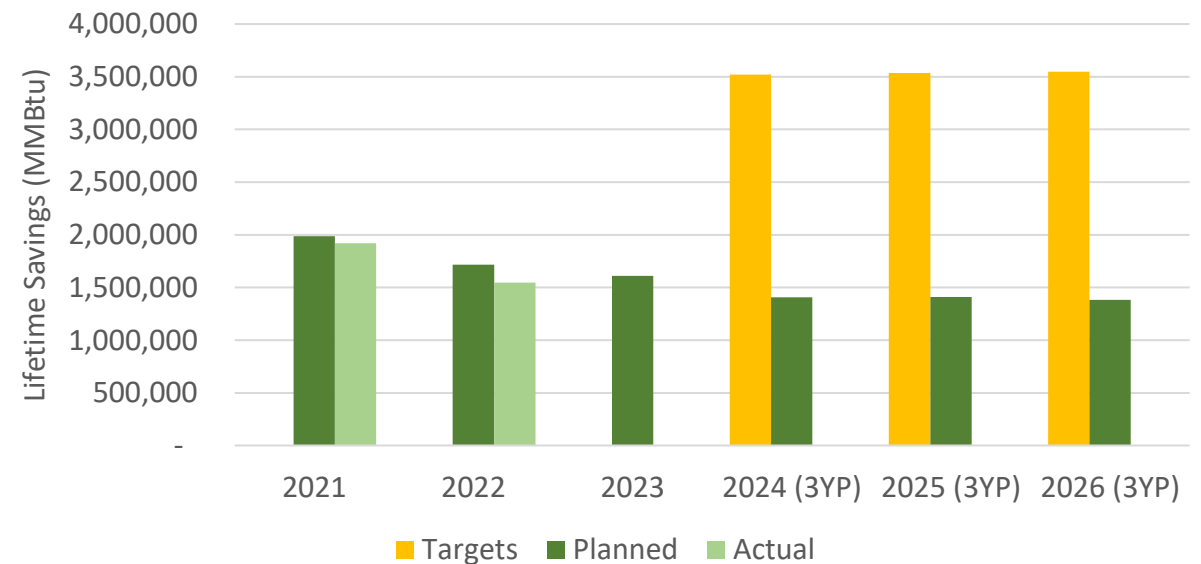
Electric: Planned 2024-2026 savings exceed 2023 Plan but over 50% below Targets

Gas: Planned 2024-2026 savings below recent plans and actuals, and 60% below Targets

Electric Lifetime Savings (MWh) - Residential & Income Eligible Total



Gas Lifetime Savings (MMBtu) - Residential & Income Eligible Total

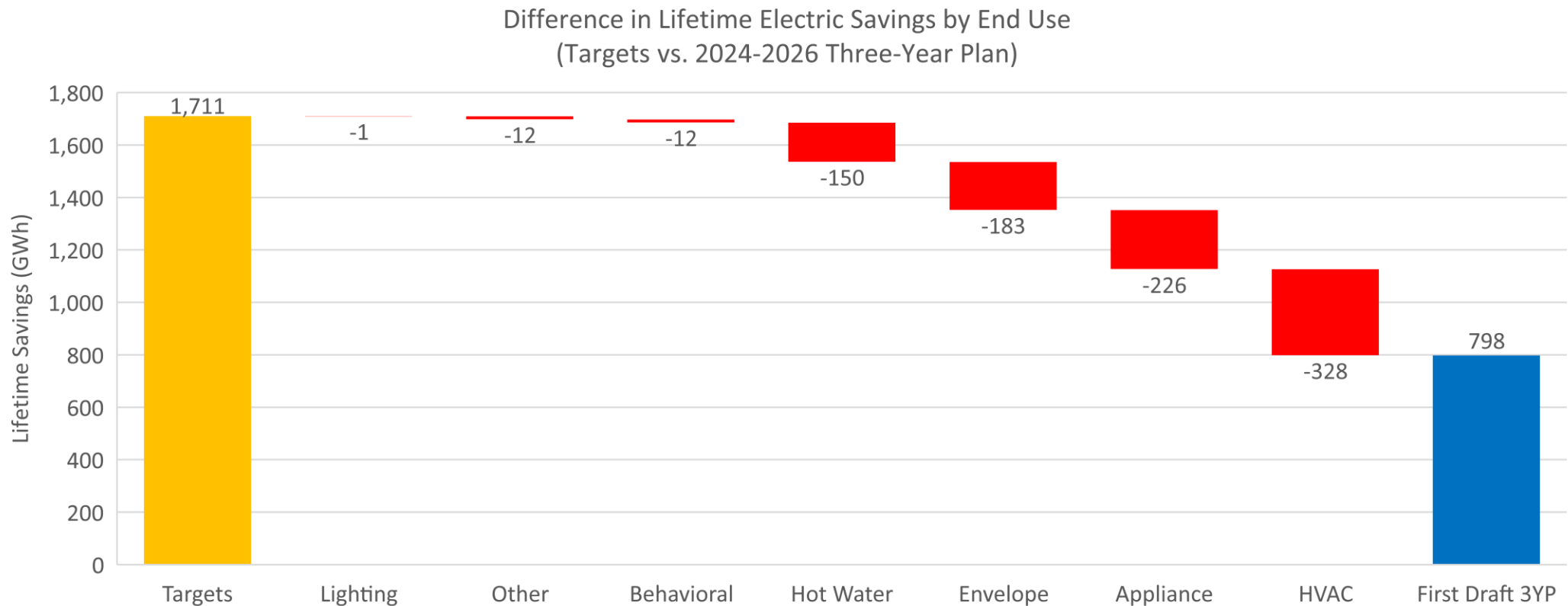




Residential & Income Eligible – Electric End Use Savings

Key Takeaway

Nearly the entire gap between the Three-Year Plan and Targets is distributed amongst major end-uses with HVAC representing the largest share at over 35% of the gap.

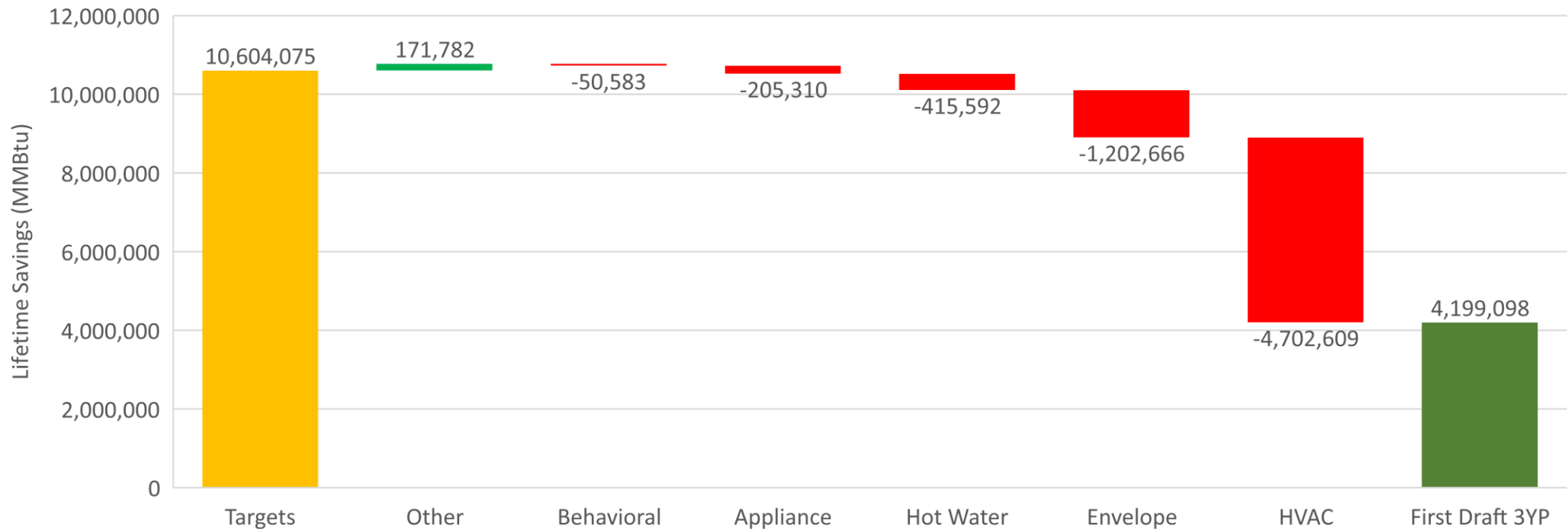




Residential & Income Eligible – Gas End Use Savings

Key Takeaway Over 75% of the gap between the Three-Year Plan and Targets is from the HVAC end use. Combined with envelope, these two end uses make up over 90% of the gap.

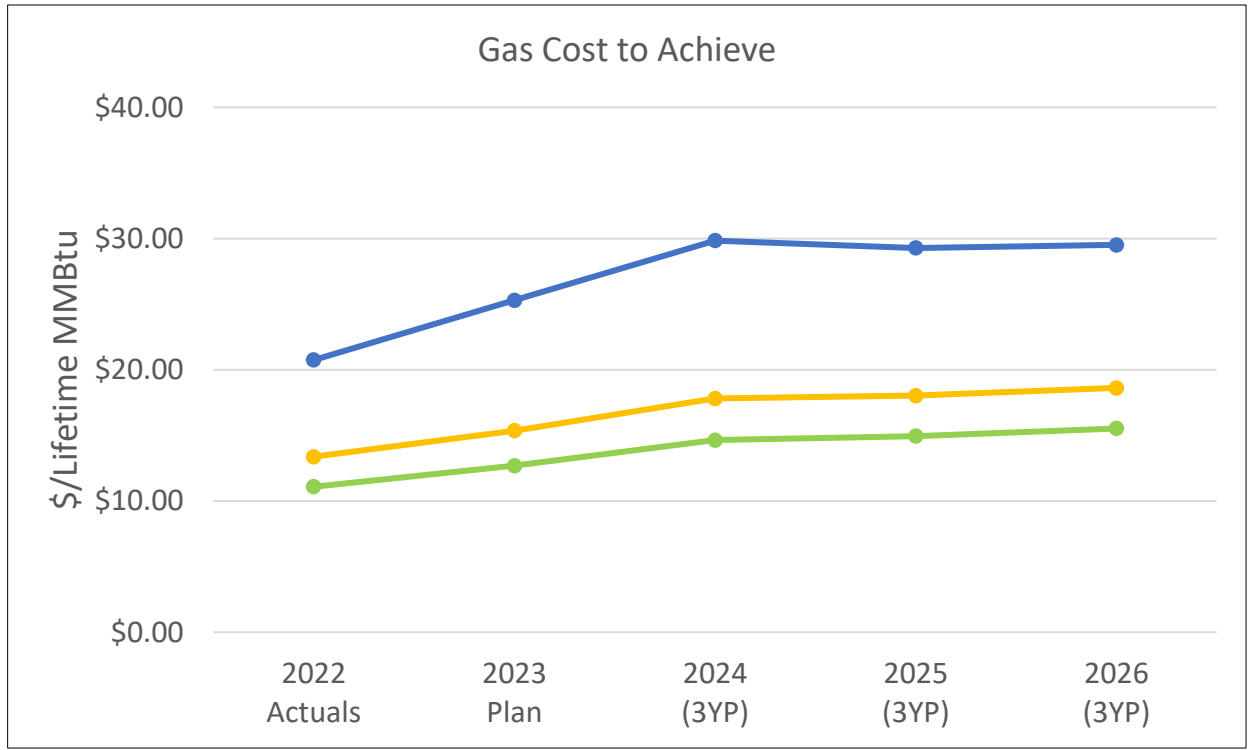
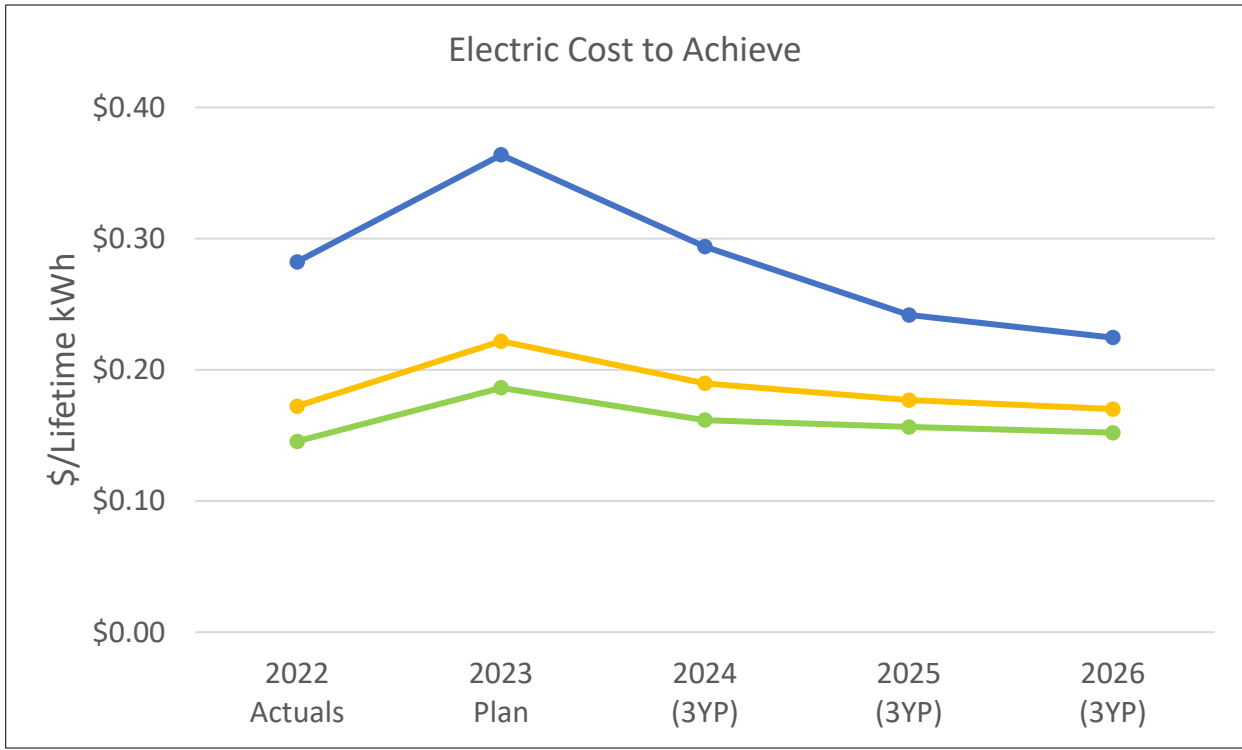
Difference in Lifetime Gas Savings by End Use
(Targets vs. 2024-2026 Three-Year Plan)





Residential & Income Eligible – Cost to Achieve

Key Takeaway **Electric:** Cost-to-Achieve closer aligned with recent actuals; decreasing over time
Gas: Cost-to-Achieve higher than recent actuals and plans; increasing over time

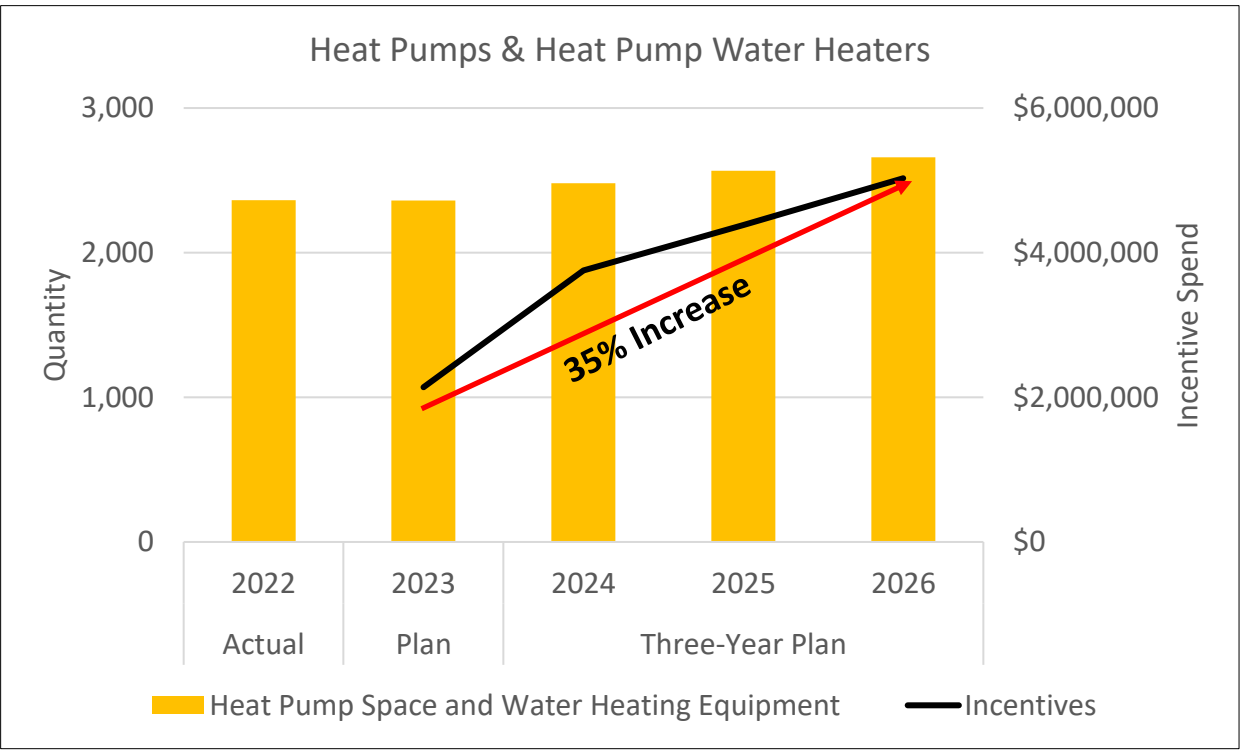
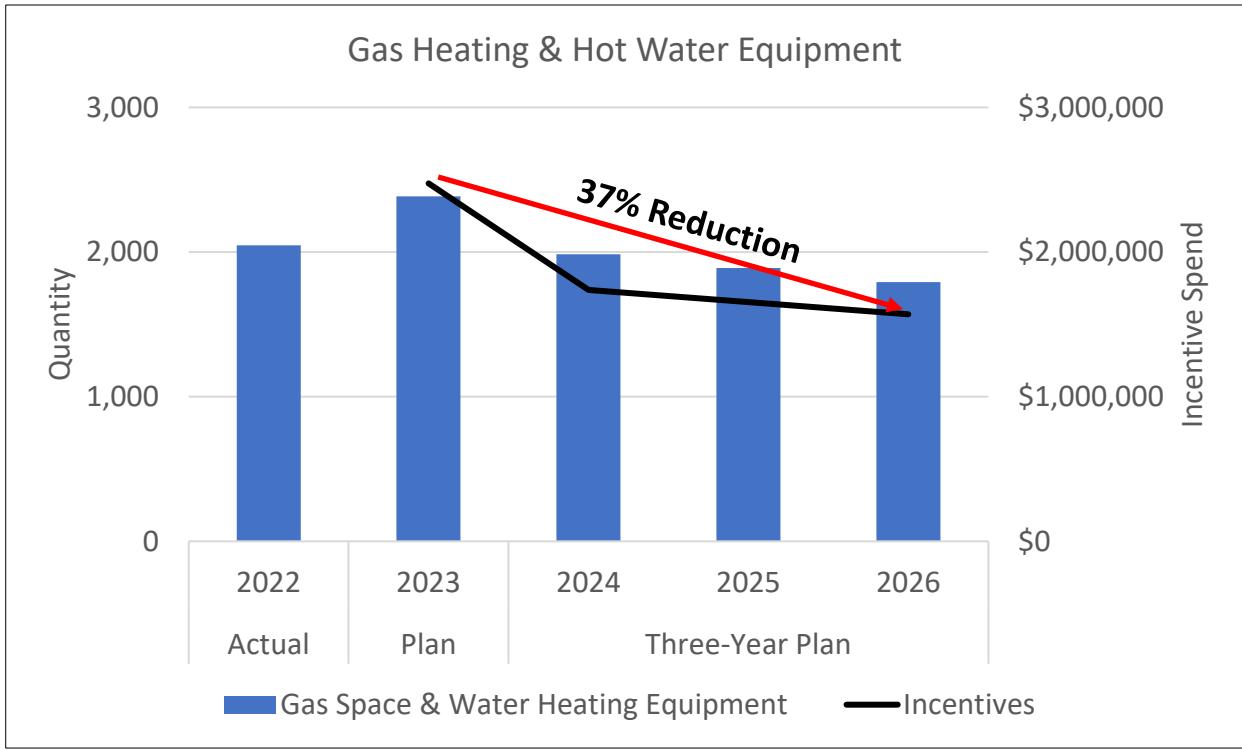


● Income Eligible
 ● Residential
 ● Residential & Income Eligible



Residential & Income Eligible – HVAC Program

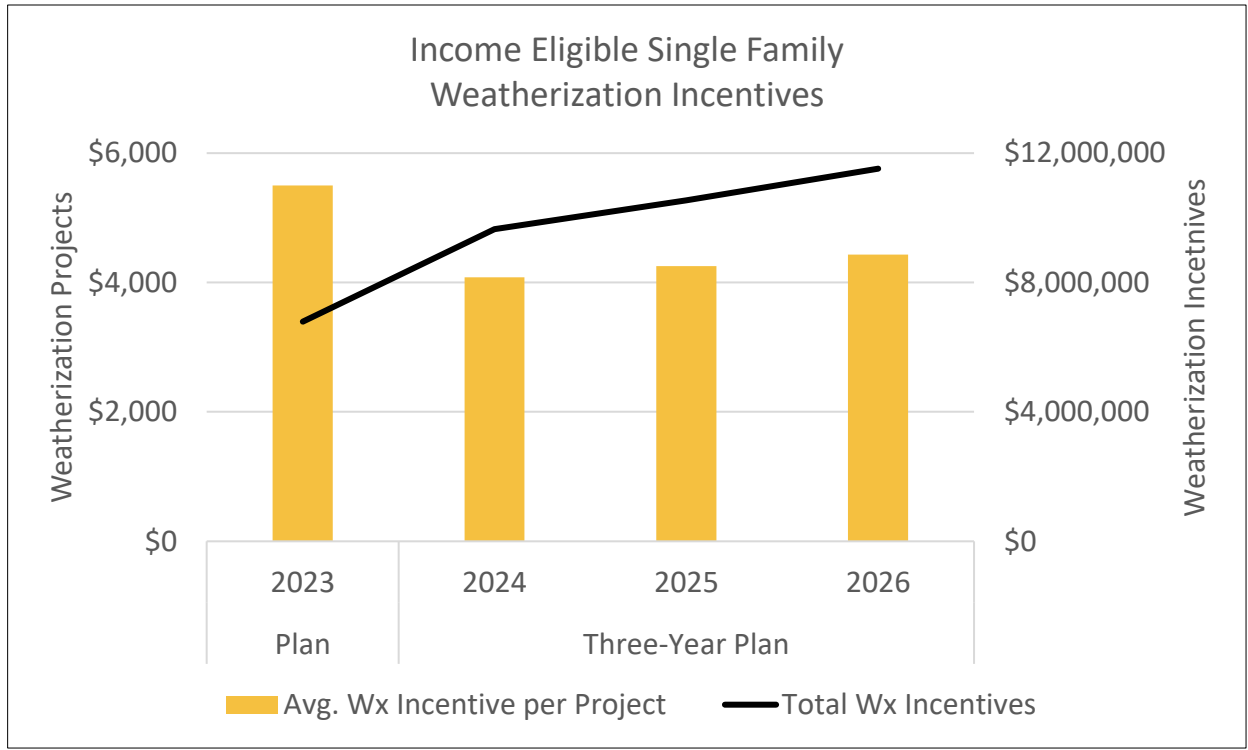
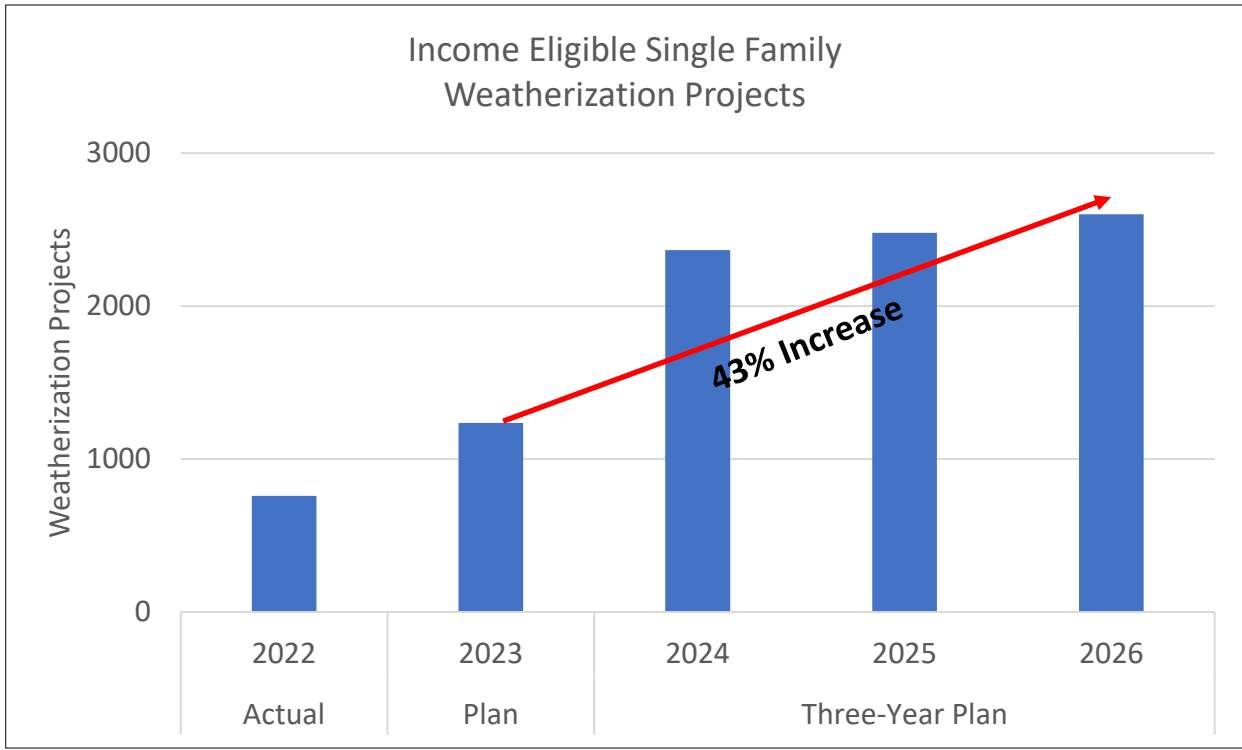
Key Takeaway Gas space and heating water equipment and associated incentives decrease over time, while heat pump space and water heating equipment increases over time





Residential & Income Eligible – Income Eligible SF Weatherization

Key Takeaway Significant increase in planned weatherization projects; Increase in planned incentives, but assumed spend per project has decreased from 2023 Plan





Council Member Discussion

