

2021 Annual Energy Efficiency Plan

EERMC

October 8, 2020

nationalgrid



2021 Final Annual Plan – Context

- 2021 Annual Plan (2021 Plan) is our binding plan document. Filed at same time as the 2021-2023 Three-Year Plan. 2021 numbers match between the two documents
- Anticipated existence of fund balances at year end 2020 create opportunity to maintain program momentum without raising surcharges in 2021
- The Plan moves key priorities forward to make advances for customers in 2021 and position us well for beyond 2021
 - Workforce development
 - Equity focus
- **Note:** While this Plan is final, pre-filed testimony will be included with the filing on October 15th. Any vote on this Plan will be on the materials provided and not the pre-filed testimony. Further, any minor errors identified between now and the submission to the PUC will be corrected.

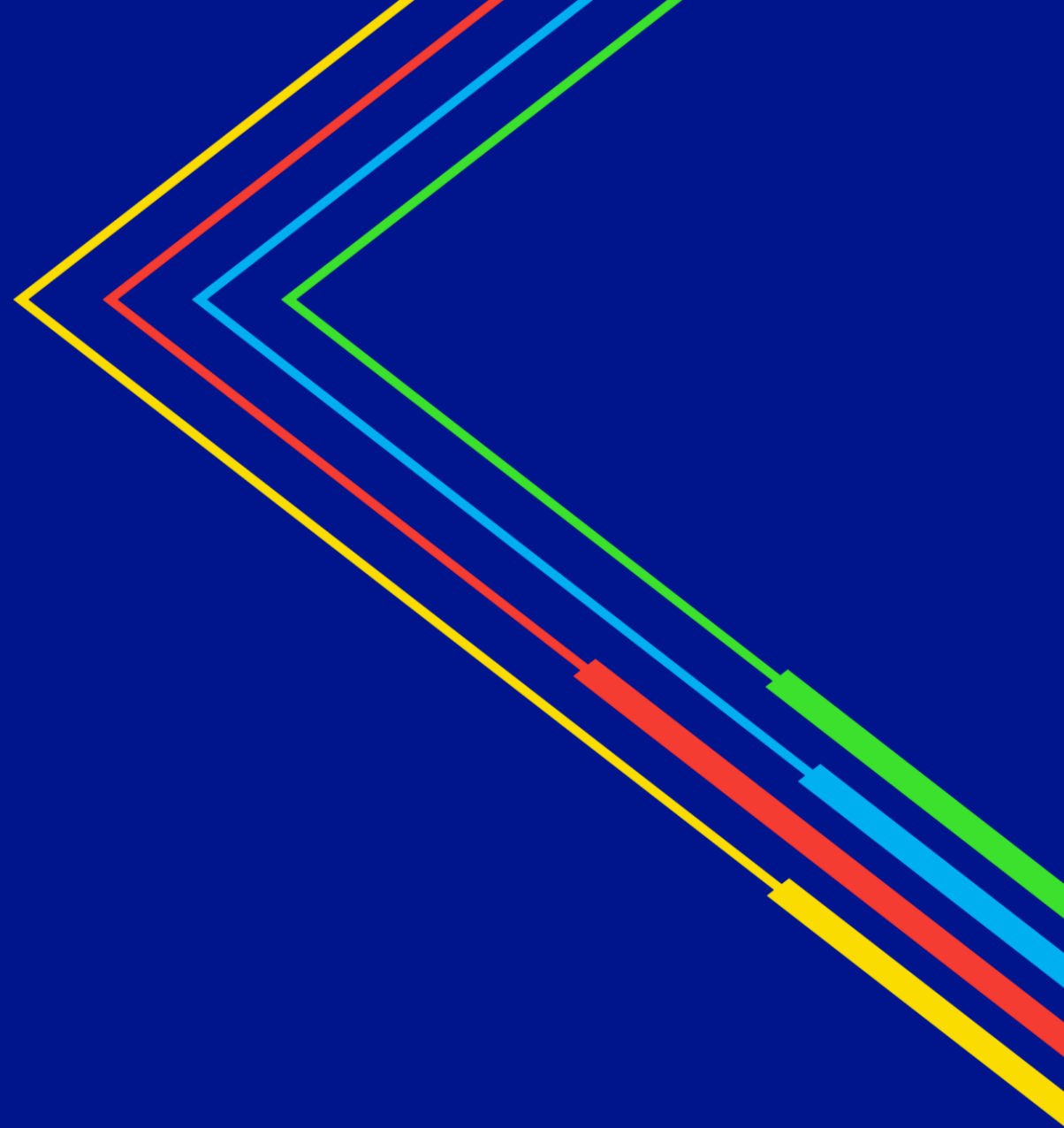
2021 Final Annual Plan – Top Line Numbers

- Electric EE and DR:
 - Annual savings: 139,478 MWh, lifetime savings: EE: 1,306,562 MWh, DR: 39.3 MW
- Gas EE:
 - Annual Savings: 425,359 MMBtu, lifetime savings: 4,206,444 MMBtu
- \$751M present value of lifetime benefits from gas EE, electric EE, and active demand response
 - \$342M added to Rhode Island's state gross domestic product
- 8,577,361 MMBtu lifetime reduction in all fuel consumption (electric, gas, oil, propane)
- 873,292 lifetime tons of carbon emissions avoided
 - Equivalent of removing 171,158 passenger vehicles from the road for one year
- 2019 Year-End Report found 877 Full Time Equivalents (FTEs) associated with National Grid EE programs, across 1,151 different companies.

2021 Annual Plan 1st Draft to 2021 Annual Plan Final

- **Finalized Surcharges and Budgets**
 - Finalized surcharges and budgets based on maintaining flat surcharges for both electric and gas portfolios
- **Refining Measure-Level Planning and Savings Goals**
 - Adjusted budgets, program approaches, and measure-level planning in consultation with stakeholders to finalize program allocations while maintaining the flat surcharge year-over-year. Resulted in some reductions in energy savings.
 - Added \$5M for Rhode Island Infrastructure Bank EBF transfer into 2021 budget. Continued to identify areas to improve cost efficiencies.
- **Incorporated final EM&V updates that impact claimable savings**
 - Incorporated final EM&V studies, notably C&I net-to-gross study and MF impact study, that impacted claimable savings
 - Largely negative effect on claimable savings despite some increases from EM&V
- **Finalized all quantitative analyses for the plan**
 - Comparison to cost of supply, benefit cost analysis, rate and bill impacts

Performance Incentive in 2021 Annual Plan



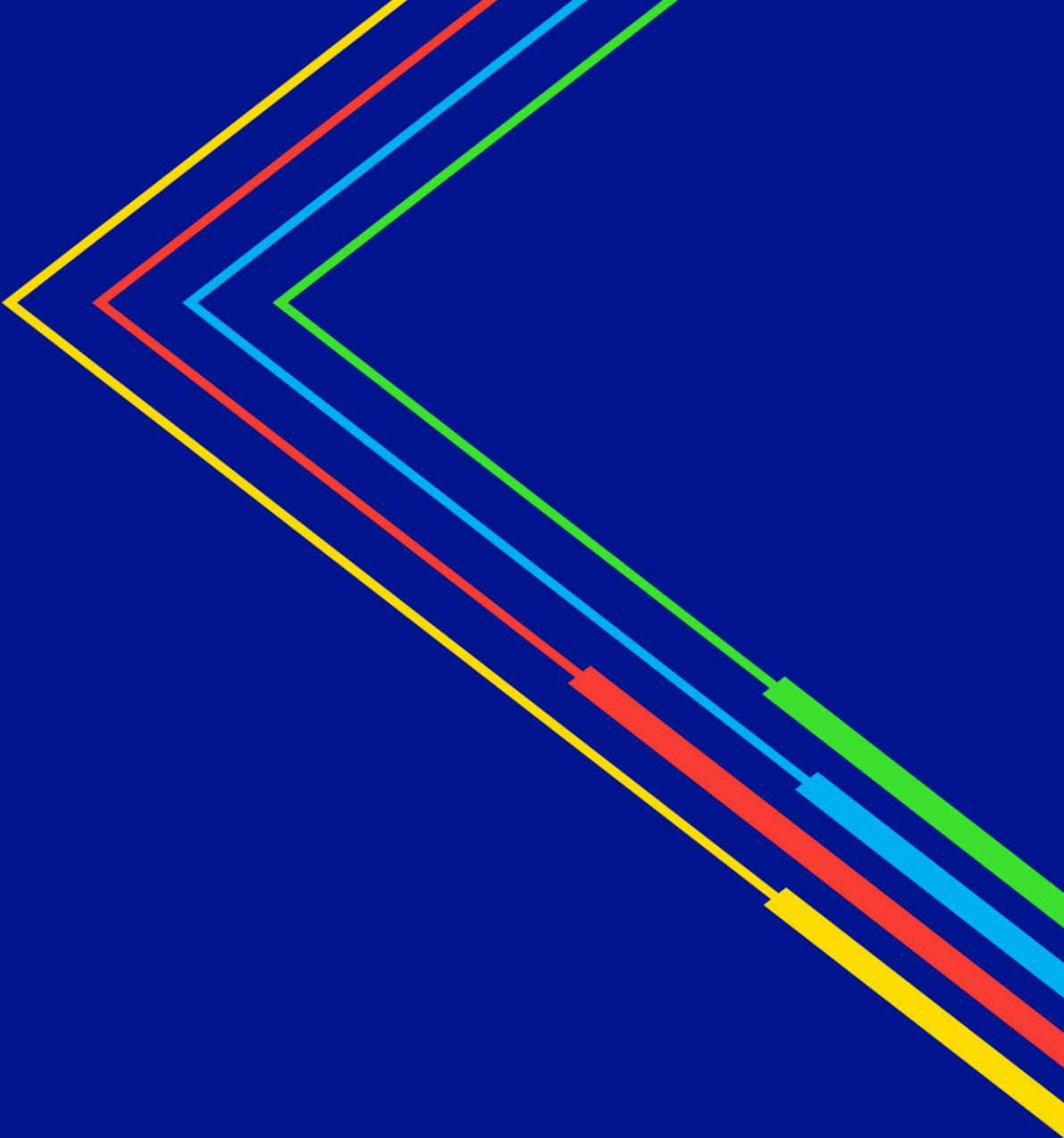
Performance Incentive Mechanism (PIM)

- Per the Standards, PIM is proposed in the Three-Year Plan
 - Annual Plan provides the specific earning opportunity for the program year
 - PIM is the result of discussions among National Grid, OER, DPUC, and C-Team that have taken place throughout the planning process
- New PIM uses a net benefits framework: The Company is eligible to earn a portion of the benefits (excluding economic benefits) the programs generate, less the cost to achieve those benefits
- Performance continues to be measured at the sector level (resi, income eligible, C&I). In 2021 earning threshold begins at achievement of 65% of net benefits in sector, capped at 125% of net benefits in sector. Linear between.

- \$5.5M earning opportunity in electric EE, \$1.7M in gas EE allocated to sectors by the percentages at right

Sector	Allocation of Overall Electric PI Pool by Sector in 2021	Allocation of Overall Gas PI Pool by Sector in 2021
Residential	35%	35%
Income Eligible	20%	25%
C&I	45%	40%

Sector Team Highlights in the 2021 Annual Plan



Residential Highlights

- **Sharpening focus on Weatherization, Efficient Heating, Cooling, and Hot Water**
- **Innovation and Enhancements**
 - New bundled incentive designs
 - Improved program designs to make participation easier
 - Reduced barriers to adoption of comprehensive measures
- **Equity & Workforce**
 - Expanding 100% incentive for moderate income EW
 - Renter metric tracking where available
 - Income Eligible Services program enhancements
 - Undertaking additional research to understand non-participation barriers via non-participant study, participant study, and Multifamily census
 - Vendor training focused on offering landlords more comprehensive measures for MF units

Commercial and Industrial Highlights

Important Changes for 2021

Telecomm Initiative

- New initiative that will serve mobile, fiber optic, and cable data companies
- Focused on HVAC and other non-lighting measures highlighted in the Market Potential Study

New Construction Program

- Two new Energy Use Intensity (EUI) pathways added to drive more comprehensive savings
- Simplified incentive structure and easier pathway for small buildings participation

Combined Heat and Power (CHP)

- Enhanced incentive structure for biofuels

Small Business

- Substantial increase in gas weatherization, set aside funds to assist with pre-weatherization barriers
- Planned for a dramatic increases in projects with lighting with advanced controls (Target = 30% of projects)
- Planned for a dramatic increase in HVAC controls projects

Investments for the future

Energy Management Platform

- Enabling strategy that will allow the Company to have greater visibility into aging equipment and the customer's decision-making criteria.

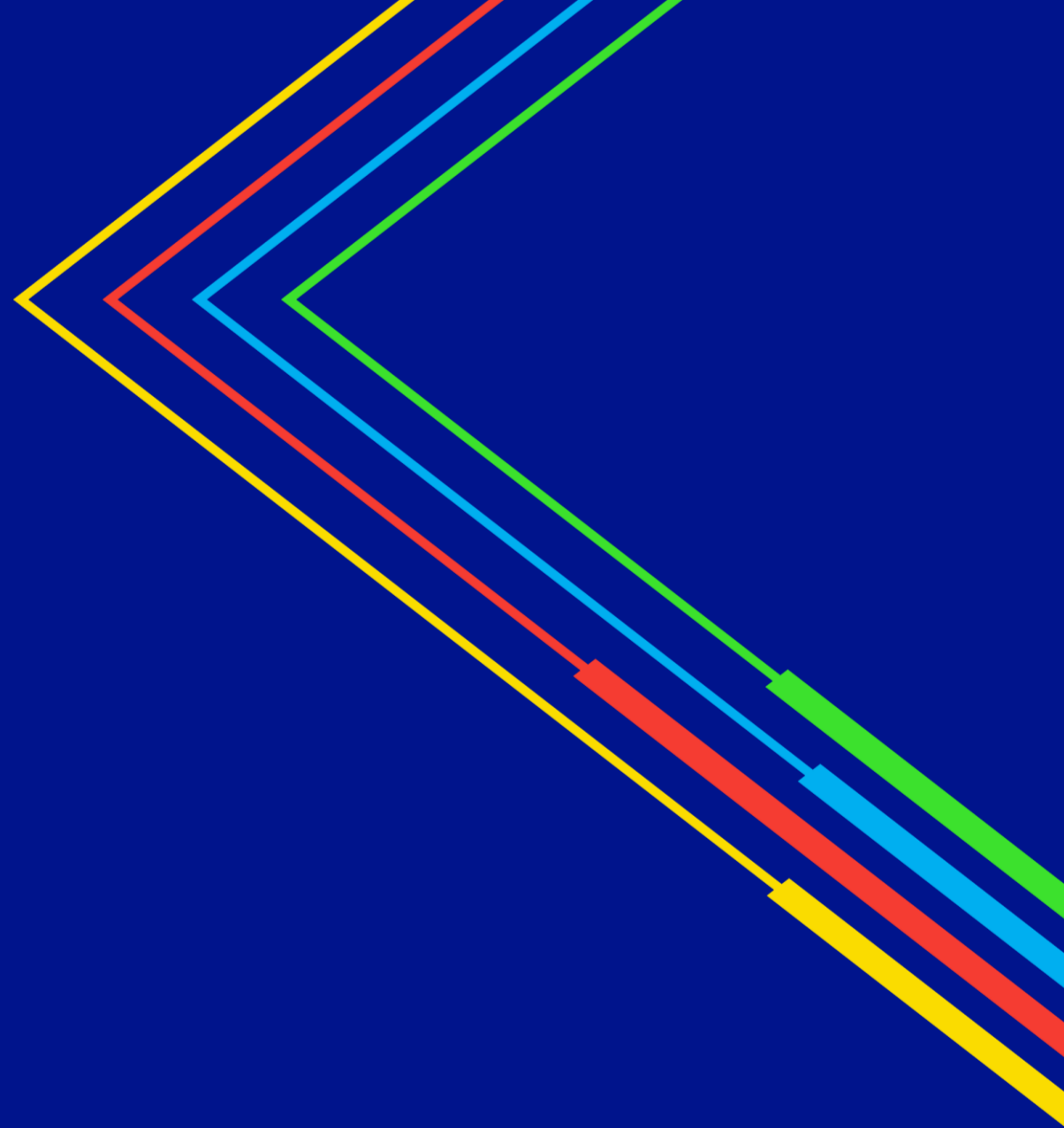
Barriers and Program Improvement Research

- The Company has hired an external research firm to assist in research into barriers for the largest areas of savings as identified by the Market Potential Study.
- The Company will also be working with our research partner to develop go-to-market strategies for the aforementioned areas.

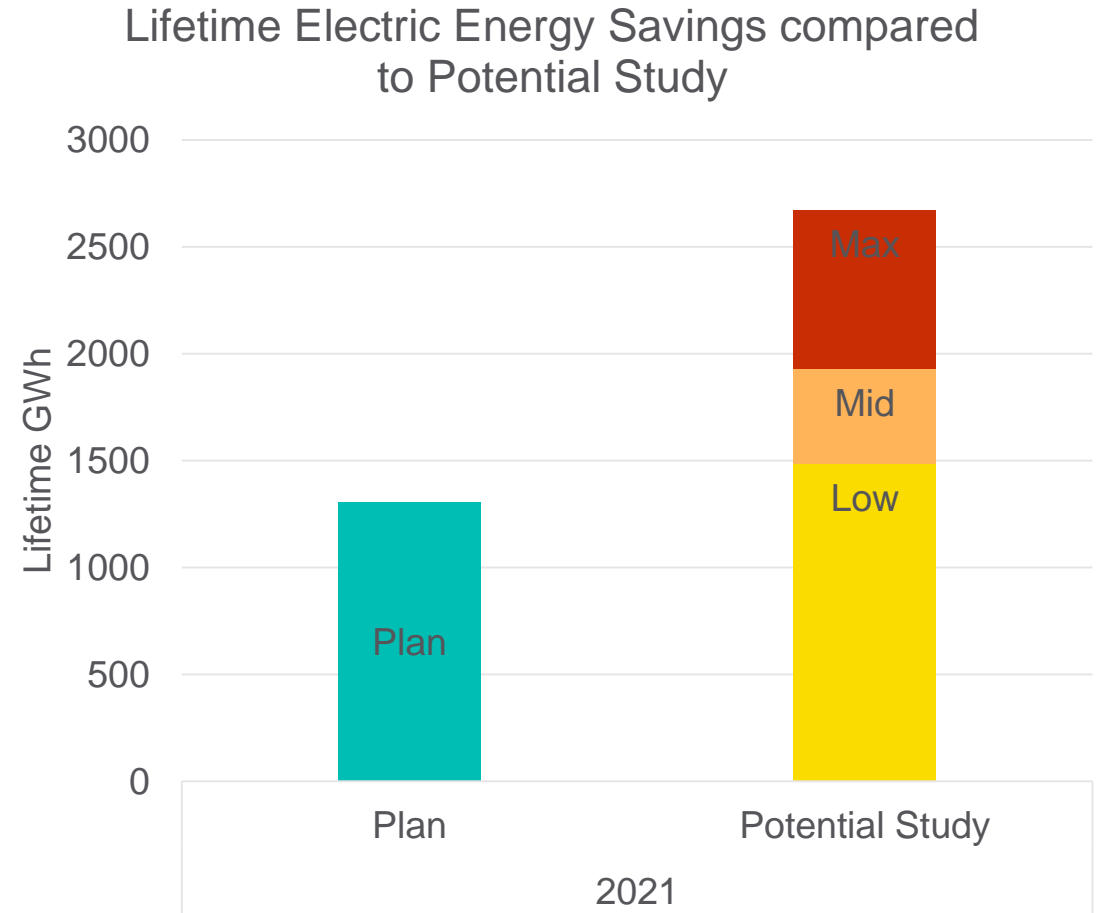
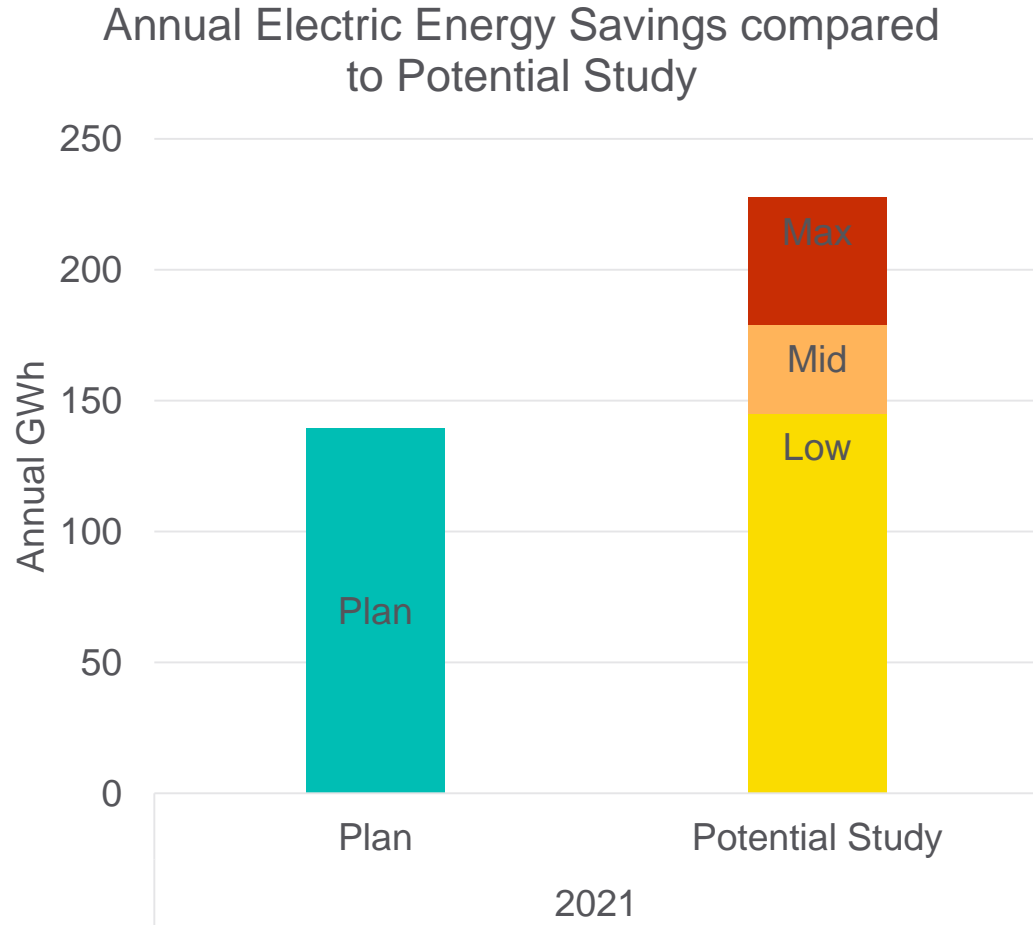
Funding for Efficient Building Fund (EBF)

- The Company has included \$5MM in the budget to support investments in EE for municipalities and quasi-state agencies.

Plan Savings Goals: Electric Energy Efficiency (EE) and Combined Heat and Power (CHP)

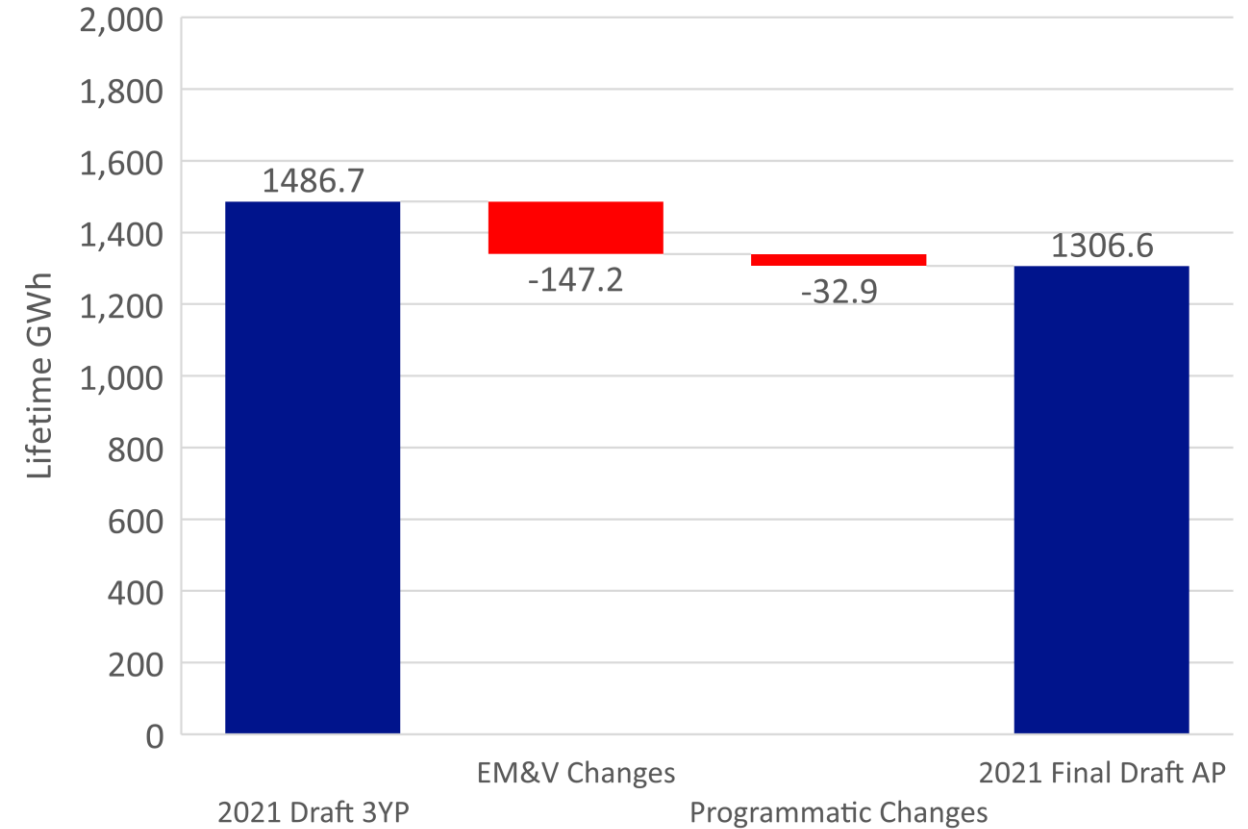
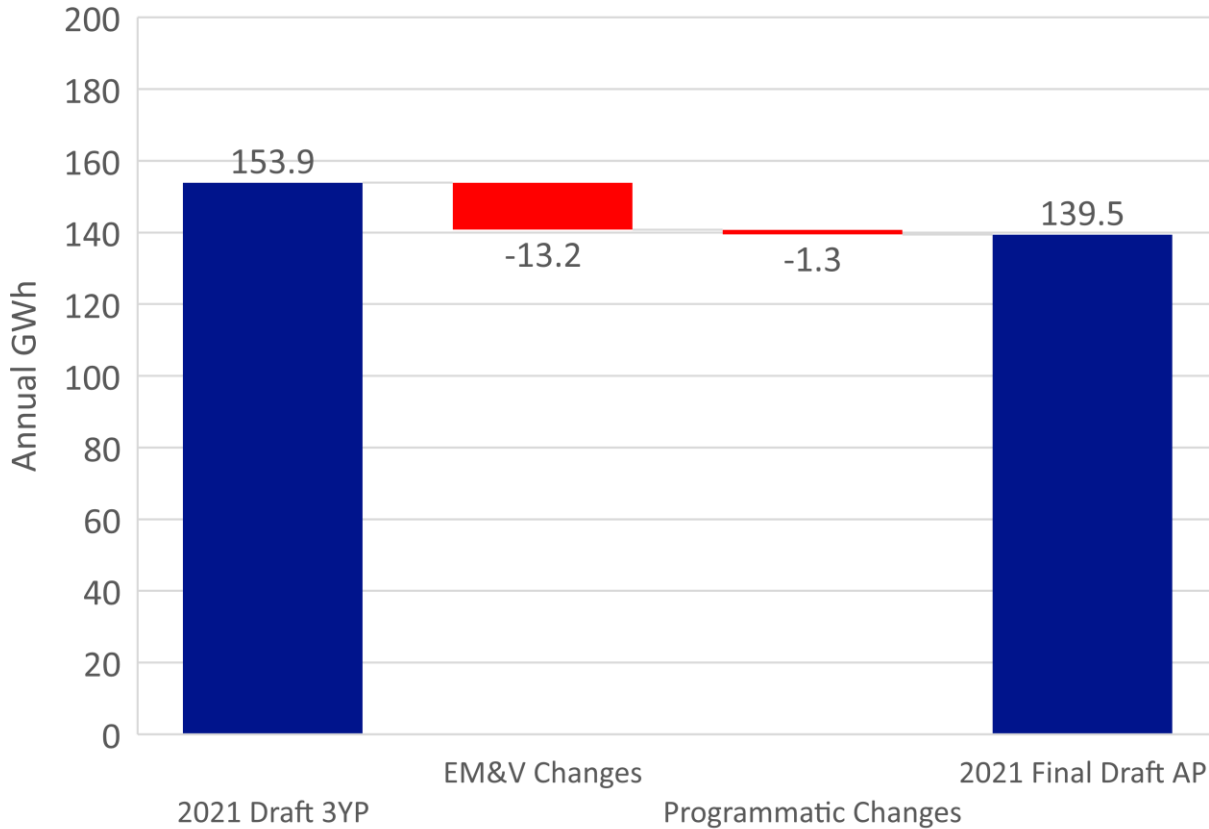


Potential Study, Final Annual Plan – Electric EE + CHP GWh Savings



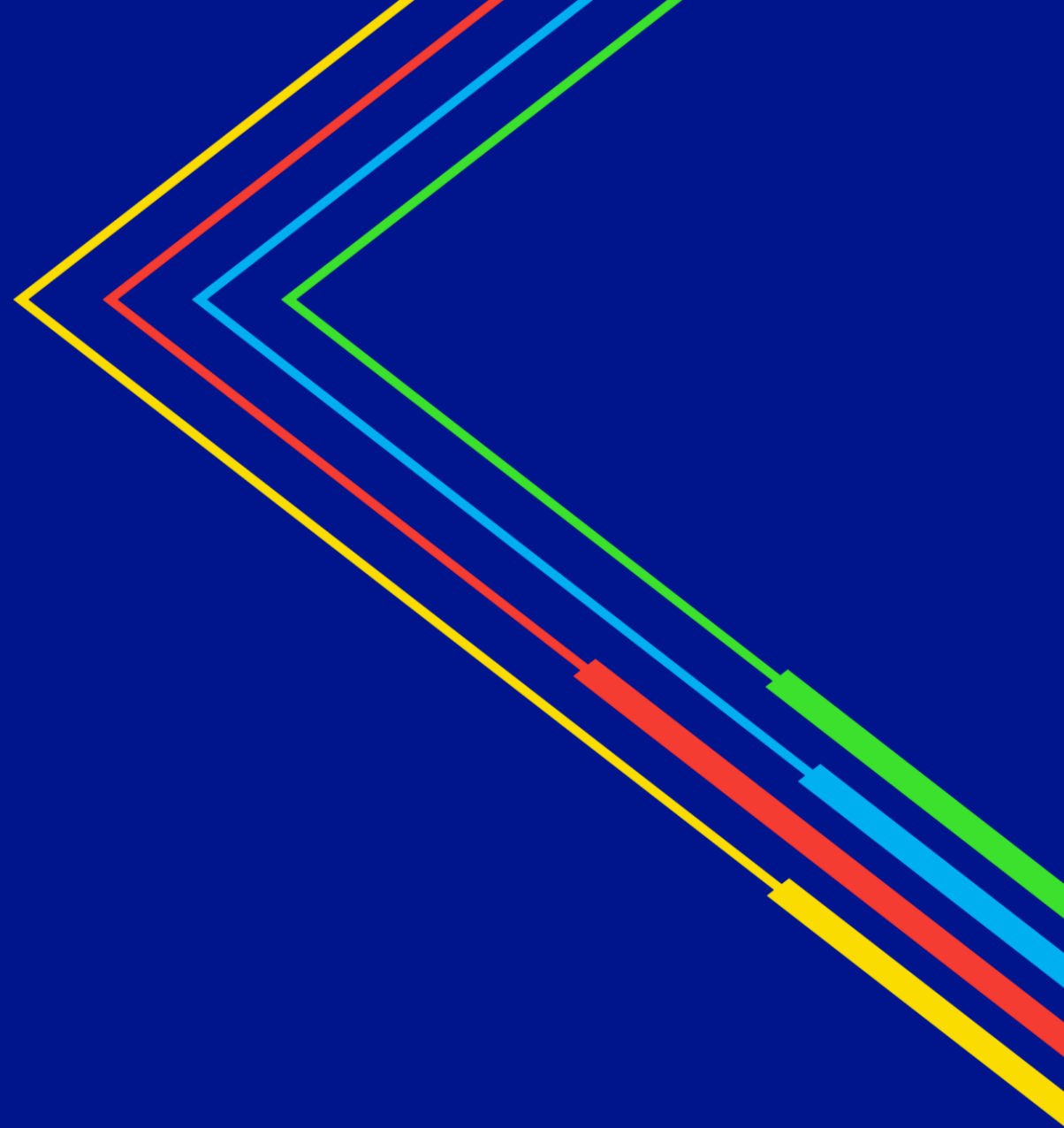
Gap to targets remains due to surcharge and budget constraints with a 4% annual MWh gap to low scenario and a 12% lifetime MWh electric energy savings gap to low scenario.

Electric EE and CHP – Drivers of Change Between 2021 in the Draft 3YP and Final Annual Plan



Final 2021 Plan decreases annual electric energy savings goal 10% and lifetime energy savings goal 12% from Draft 3YP; combination of EM&V and programmatic decreases

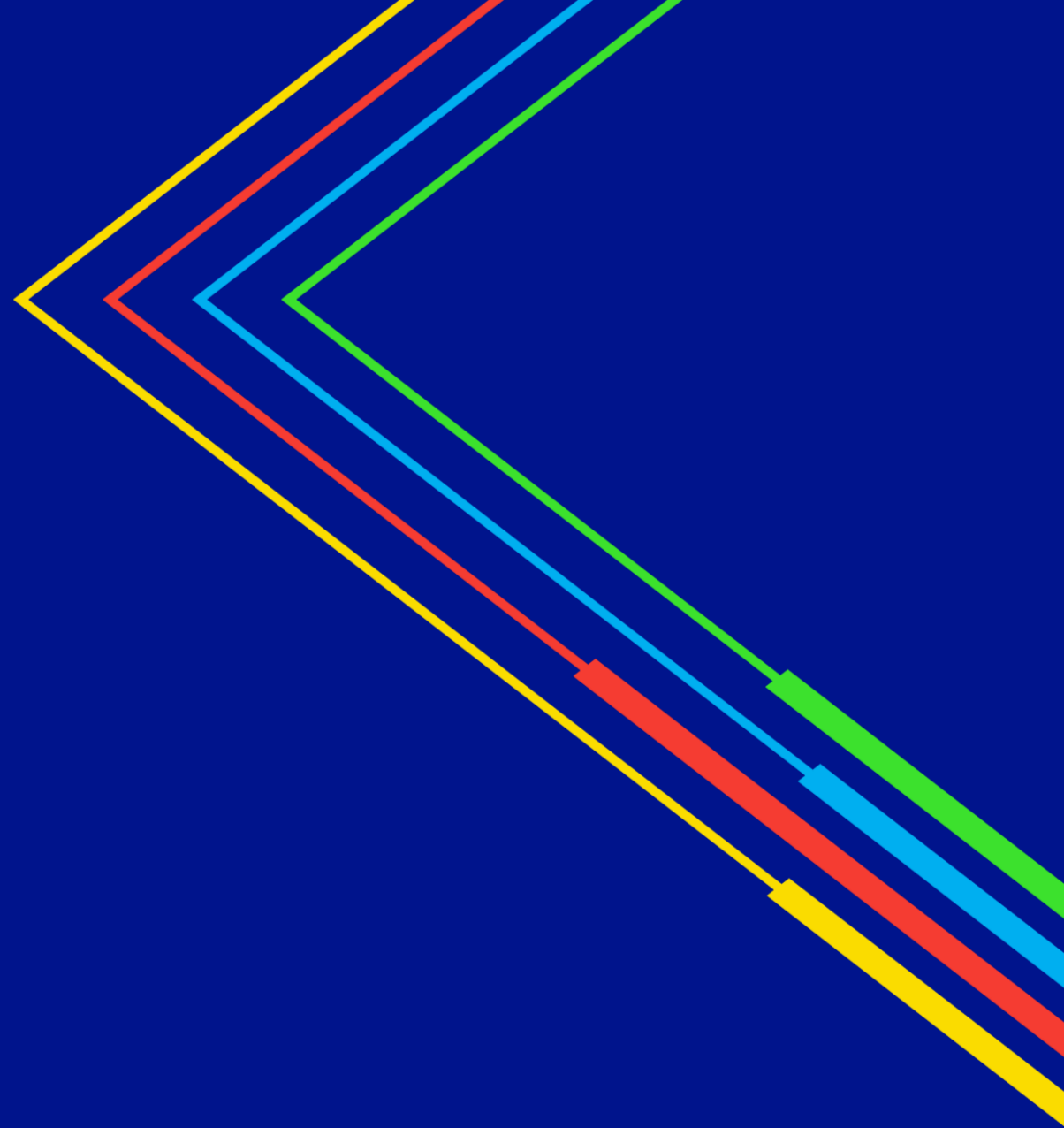
Plan Savings Goals: Electric Demand Response (DR)



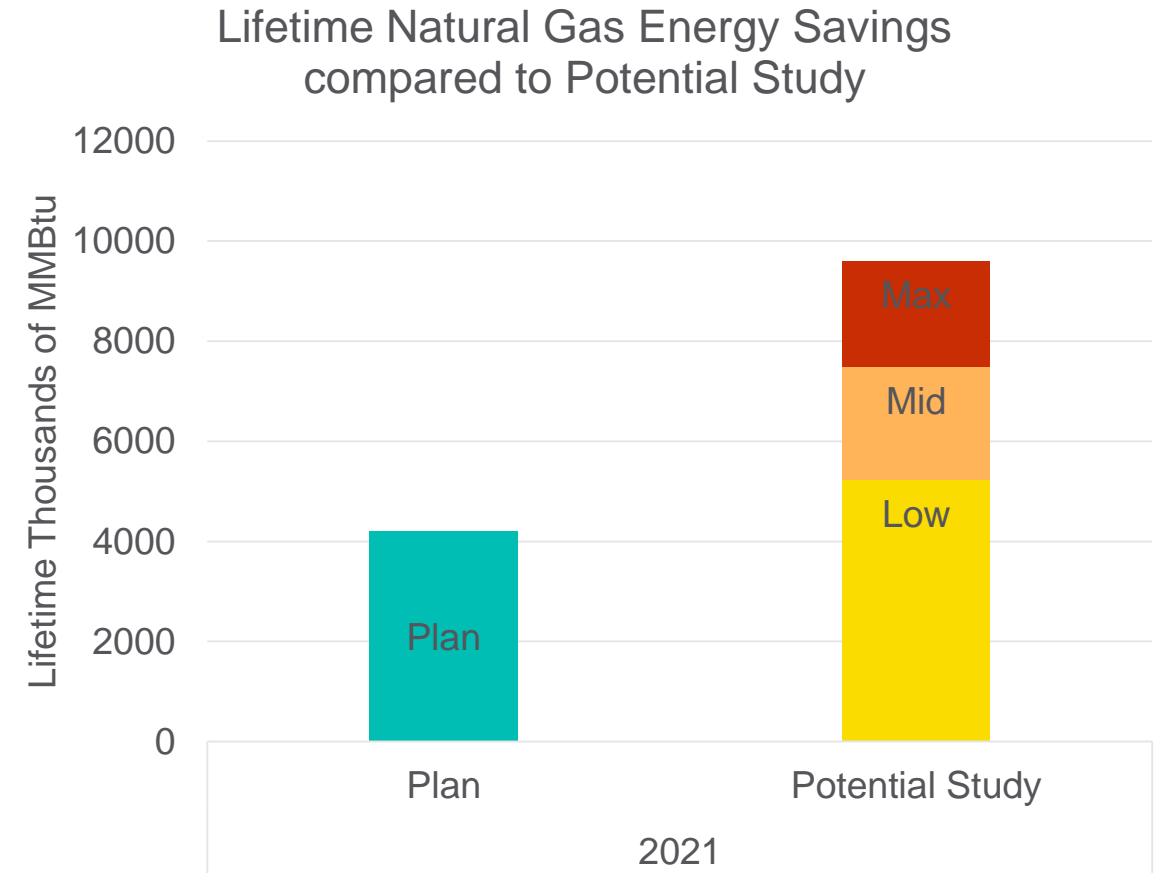
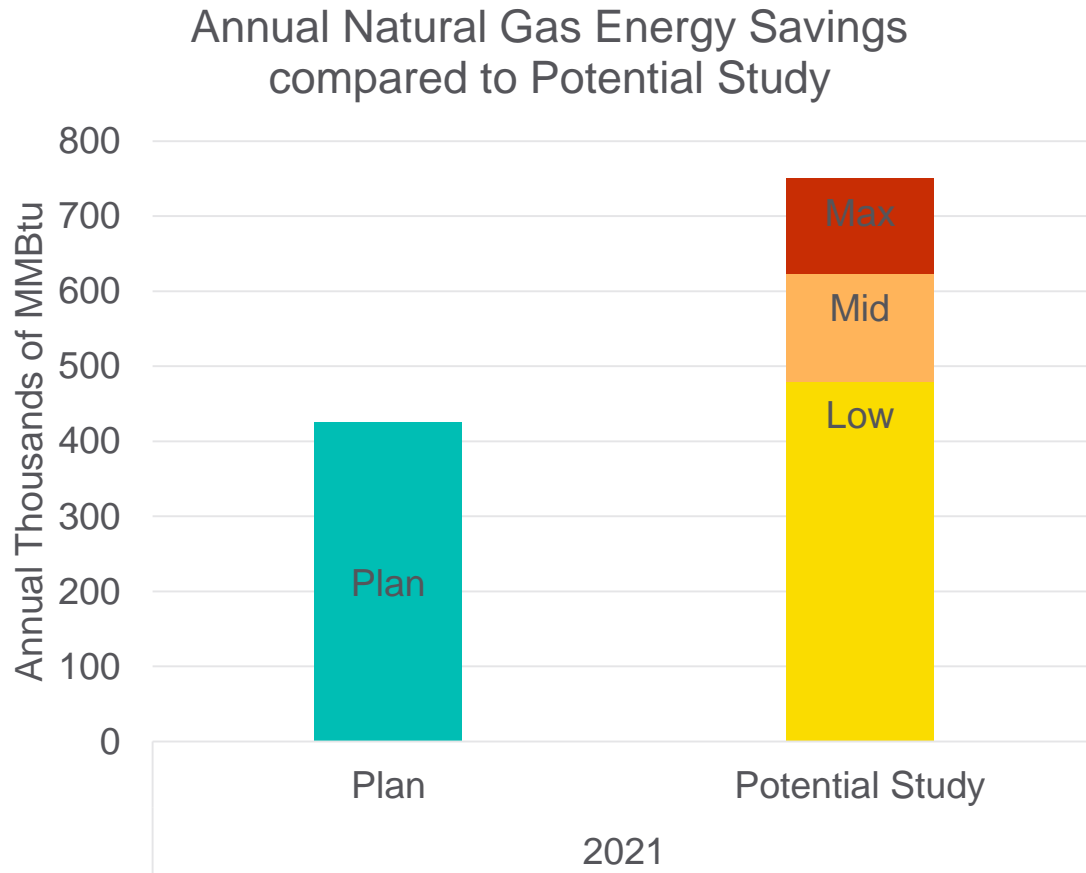
Electric DR – Drivers of Change Between 2021 in the Draft 3YP and Final Annual Plan

- Portfolio adjustments increased residential DR and EV DR in the final Annual Plan, with corresponding reductions in the C&I offering to allow the DR program to continue to grow and diversify its offerings to more customers.
- EM&V also reduced claimable savings for the C&I DR offerings from the first draft of the Three-Year Plan to the final Annual Plan.

Plan Savings Goals: Natural Gas Energy Efficiency (EE)



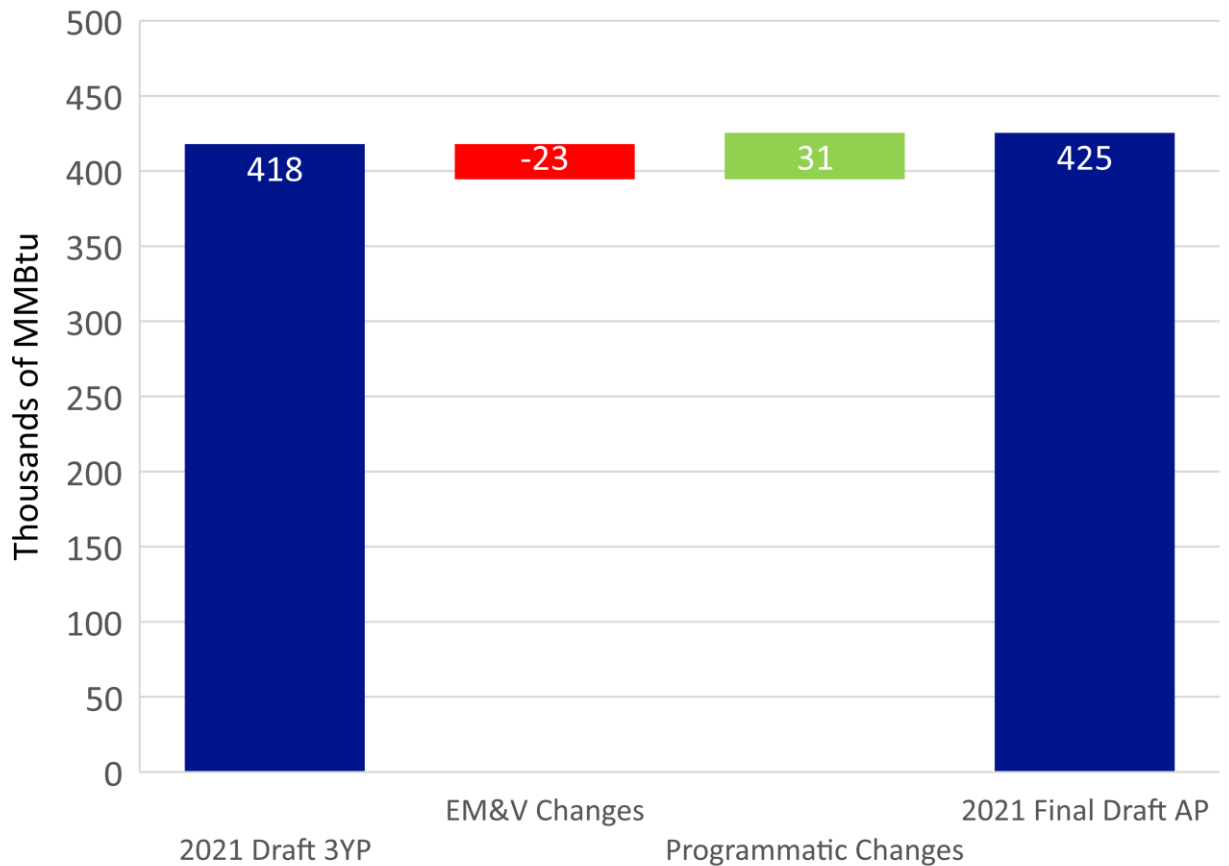
Potential Study, Final Annual Plan – Natural Gas EE MMBtu Savings



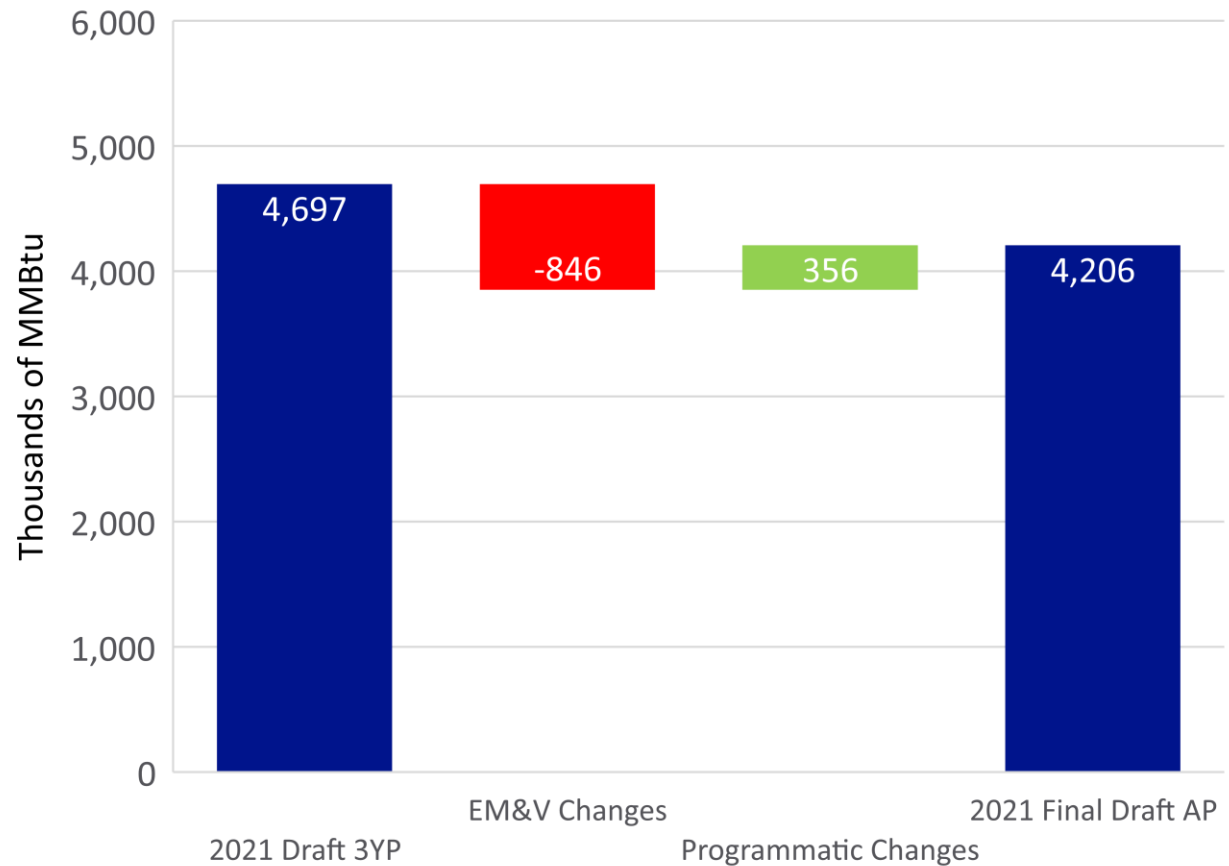
Gap to targets remains due to surcharge and budget constraints with a 11% annual MMBtu gap to low scenario and a 20% lifetime MMBtu electric energy savings gap to low scenario.

Gas EE – Drivers of Change Between 2021 in the Draft 3YP and Draft Annual Plan

Annual MMBtu

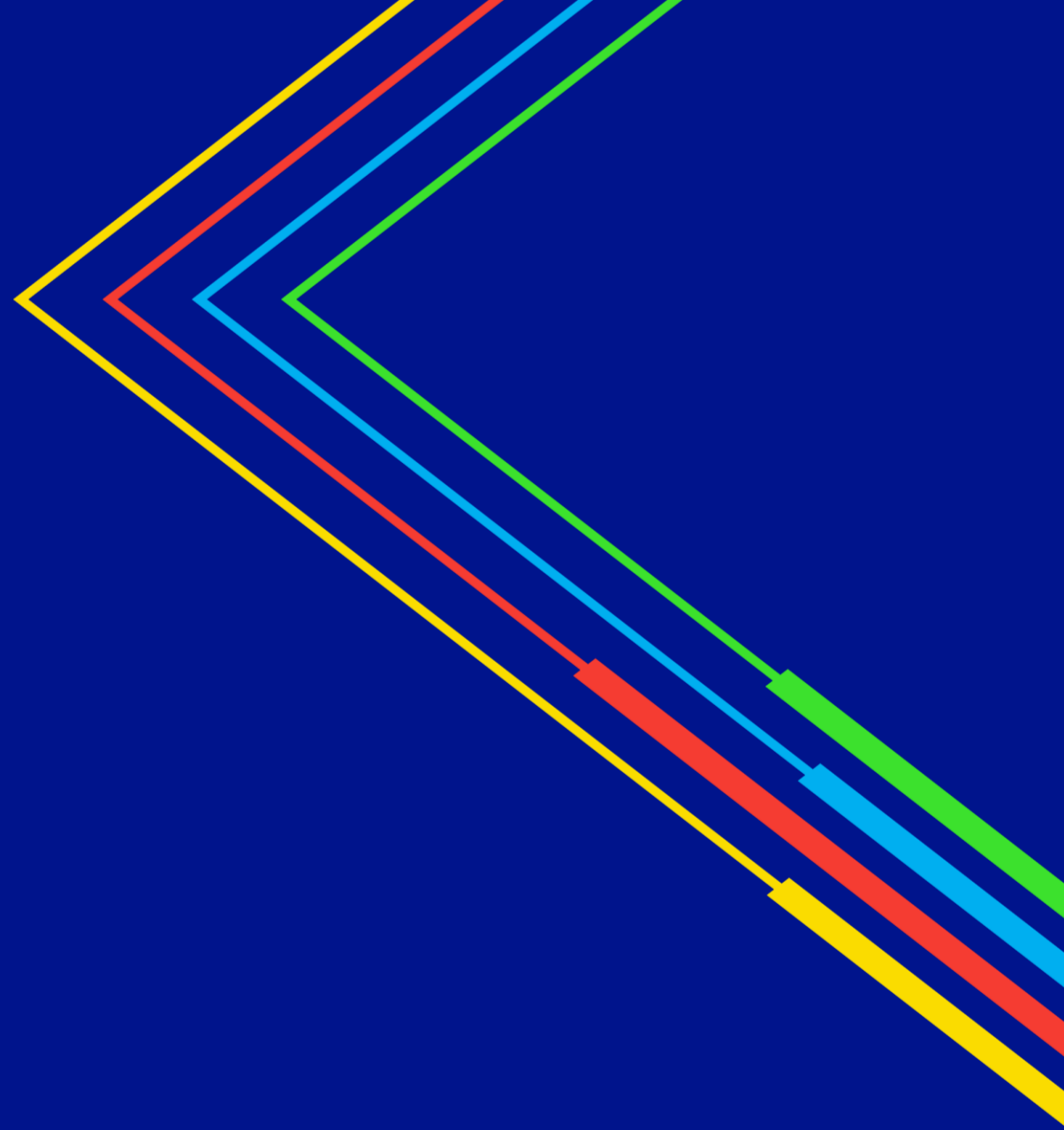


Lifetime MMBtu

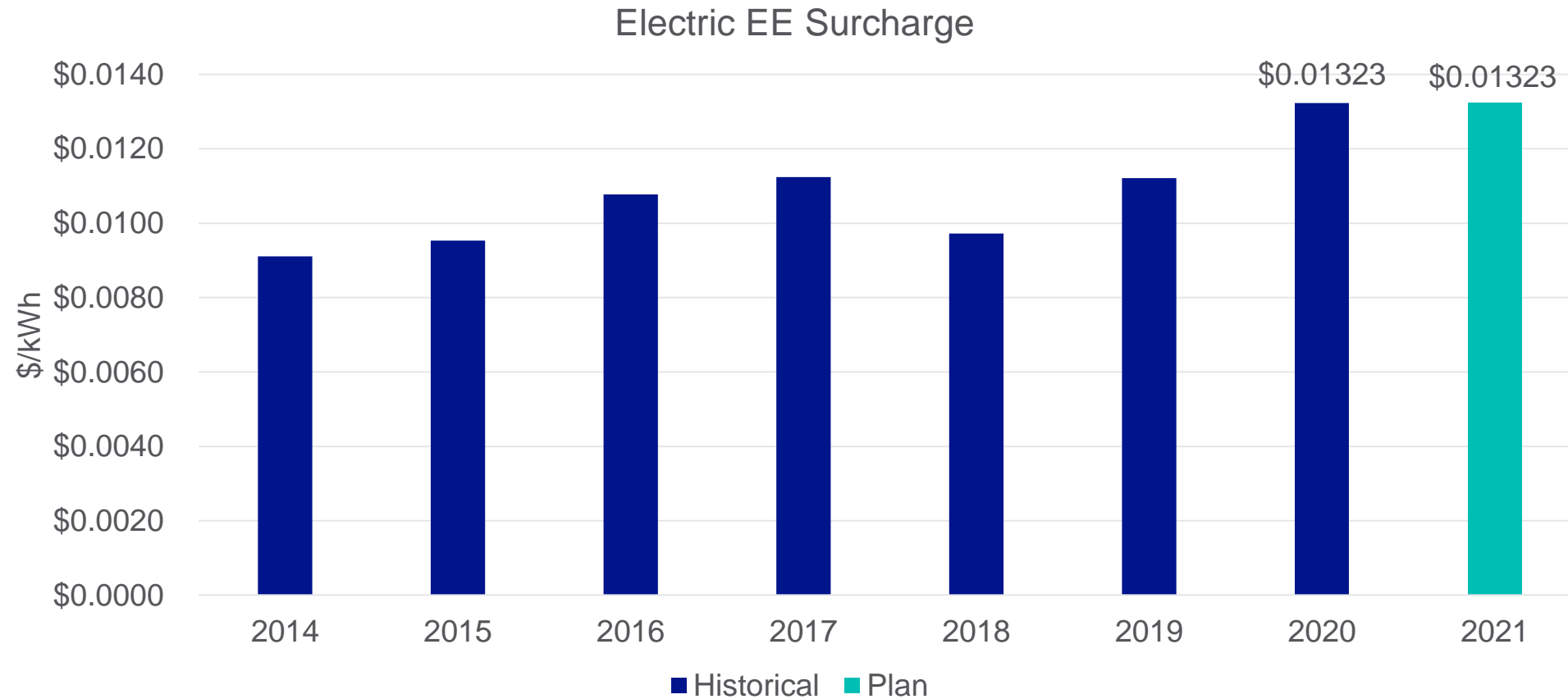


Final 2021 Plan increases annual gas energy savings goal 2% and decreases lifetime energy savings goal 10% from Draft 3YP; programmatic increases and EM&V decreases

Plan Budget, Surcharge, Rate and Bill Impacts, and Benefits

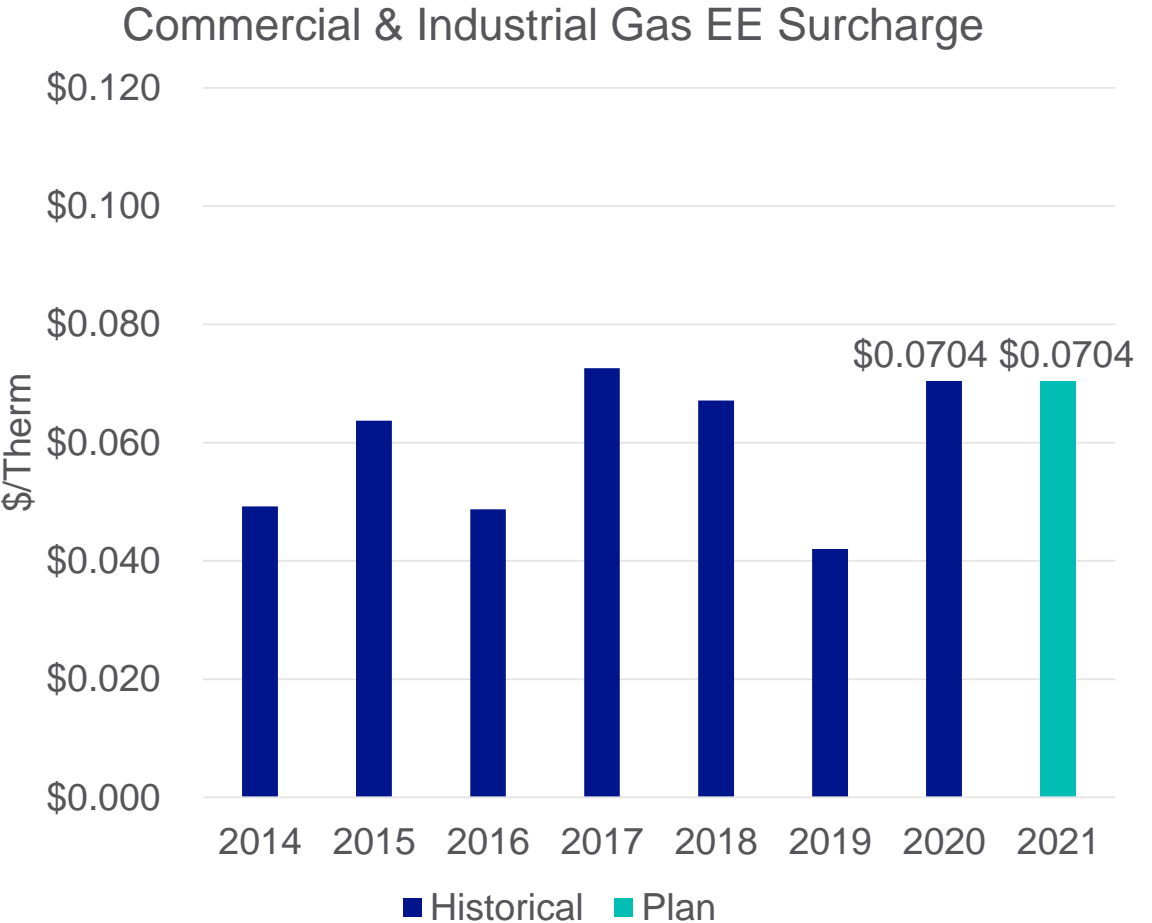
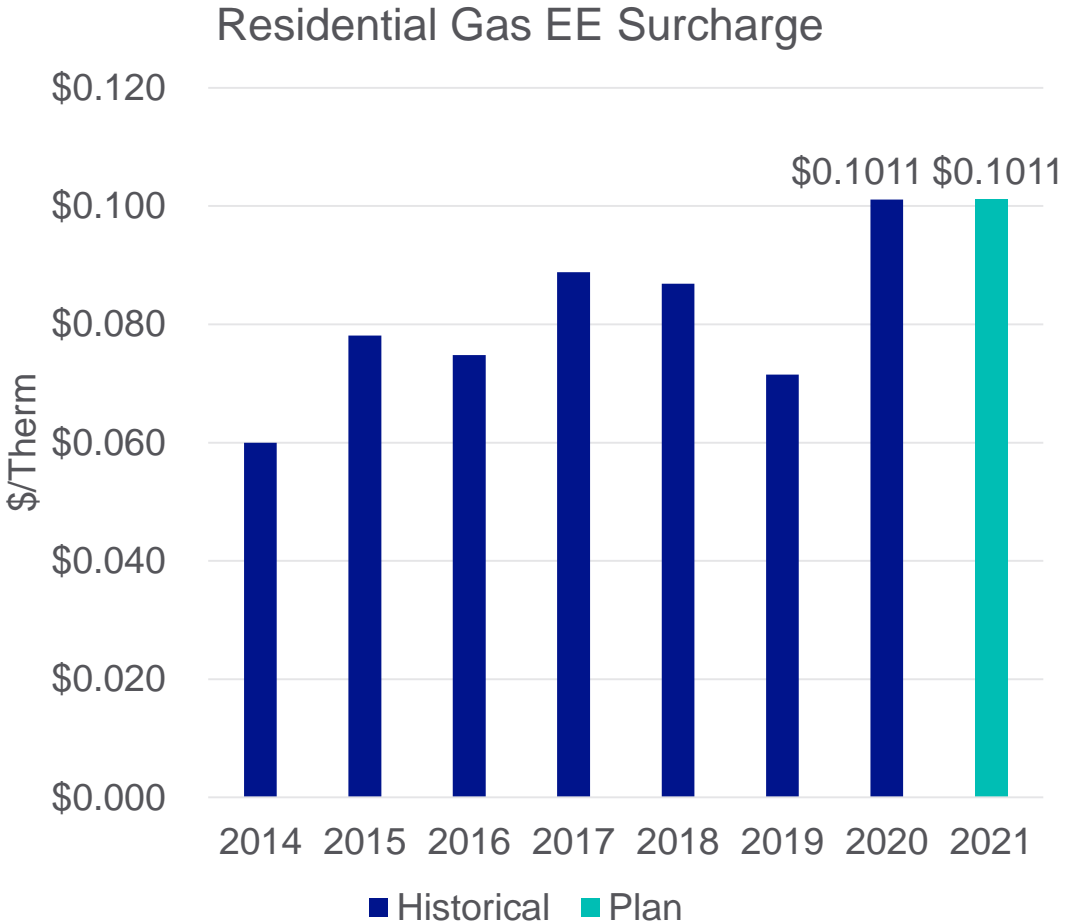


Electric EE Surcharge – Historical to 2021 Annual Plan Comparison



Electric surcharge held flat between 2020 and 2021 due to surcharge constraint and anticipated 2020 fund balance

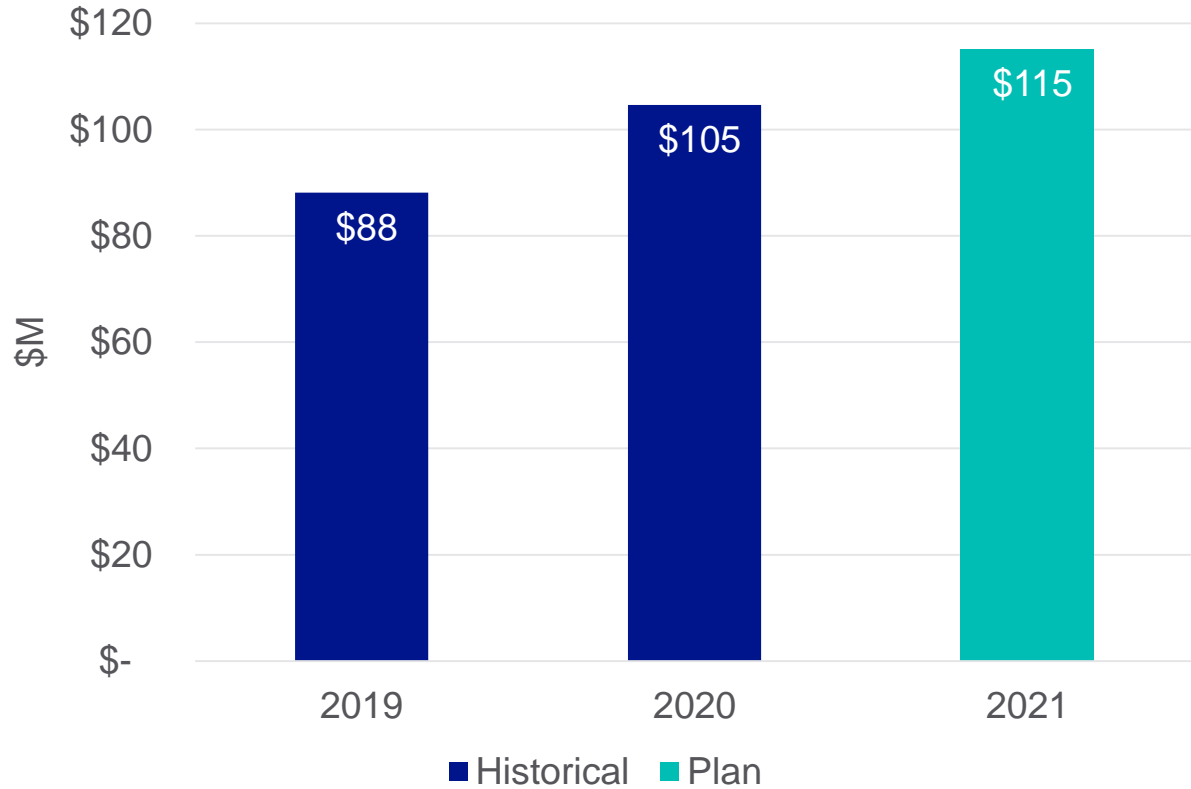
Gas EE Surcharge – Historical to 2021 Annual Plan Comparison



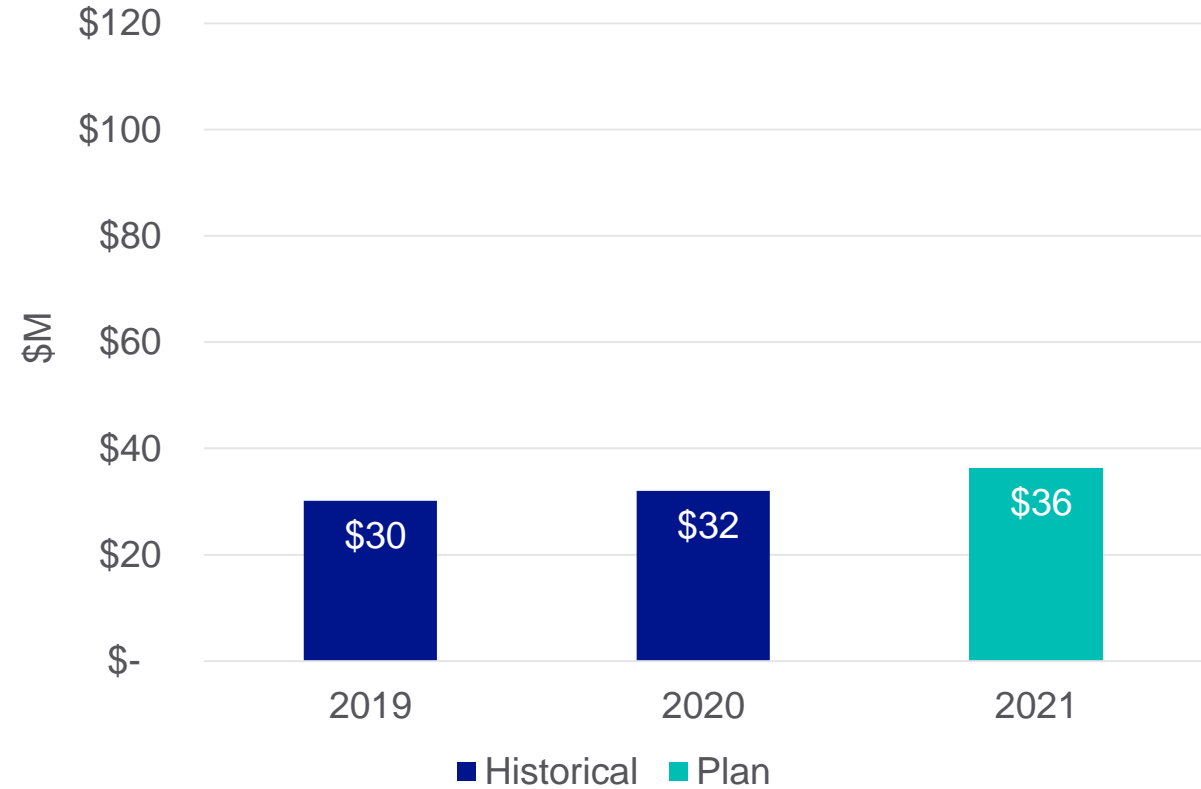
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Past Spending vs. Annual Plan – Budget Levels

Electric Implementation Budget



Gas Implementation Budget



Does not include performance incentives. 2019 actual spending, 2020 approved budget, 2021 proposed budget.

Total 2021 Annual Plan Final budget increases by 11% from 2020 planned level; electric 10%, natural gas 13%

Rate and Bill Impacts

- Electric and Gas used similar methodologies to assess the long-term impact to rates and average bills due to the 2021 plan, in contrast to a counterfactual of no EE programs.

- Electric:** average participants and average customers save on bills, most customers see a slight increase in rates

Electric Sector	Long-term change in rates due to 2021 Programs	Long-Term Average Change in Bills		
		Non-Participants	Average Customer	Average Participant
Residential	0.41%	0.41%	-0.42%	-0.42%
Income eligible	1.23%	1.23%	-2.46%	-2.54%
Small C&I	0.37%	0.37%	-0.81%	-8.88%
Medium C&I	0.03%	0.03%	-1.66%	-9.02%
Large C&I	-0.16%	-0.16%	-2.72%	-4.44%








- Gas:** average participants save on bills, with all customer groups seeing a slight increase in rates

Natural Gas Sector	Long-term change in rates due to 2021 Programs	Long-Term Average Change in Bills		
		Non-Participants	Average Customer	Average Participant
Residential (Model 1: HERs only)	0.0%	0.02%	0.00%	-0.01%
Residential (Model 2: All Programs Ex. HERs)	0.4%	0.41%	0.15%	-5.29%
Residential (Model 3: All Programs)	0.4%	0.43%	0.15%	0.03%
Income eligible	0.7%	0.75%	-0.16%	-4.48%
Small C&I	0.3%	0.25%	0.19%	-7.12%
Large C&I	0.4%	0.41%	0.00%	-1.16%

Benefits and BC Ratios

- All programs and portfolios are cost effective in the 2021 Plan under the RI Test. Energy efficiency is also less than the cost of supply in 2021.
 - Electric EE is \$121.2M less than alternative supply
 - Gas EE is \$14.1M less than the alternative supply
- Electric portfolio will generate approximately \$606M in lifetime benefits. RI Test ratio of 4.31, indicating for every dollar spent \$4.31 in benefits are generated. Total Resource Cost (TRC) test ratio of 2.01 for the electric portfolio.
- Gas portfolio will generate approximately \$145M in lifetime benefits. RI Test ratio of 3.00, indicating for every dollar spent \$3.00 in benefits are generated. TRC test ratio of 1.61 for the portfolio.

Important Dates

April 23	3YP Term Sheet Distributed	
June 11	First Draft of 3YP Distributed	
August 27	First Draft of Annual Plan Distributed	
September 10	First Draft Stakeholder Comments Due	
September 11	TWG Meeting on Annual Plan First Draft	
September 17	EERMC Meeting	
October 1	Final Draft of Annual Plan and 3YP Distributed	
October 8	EERMC Votes on Annual Plan and 3YP	
October 9	TWG Meeting	
October 15	Plans Filed with PUC	

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