

2023 Third Quarter Results Update

Presented to the EERMC By:

EERMC Consulting Team Rhode Island Energy

Date: November 16, 2023



Outline

Portfolio Performance

Consultant Team Program Highlights

Rhode Island Energy Sector Highlights

Discussion

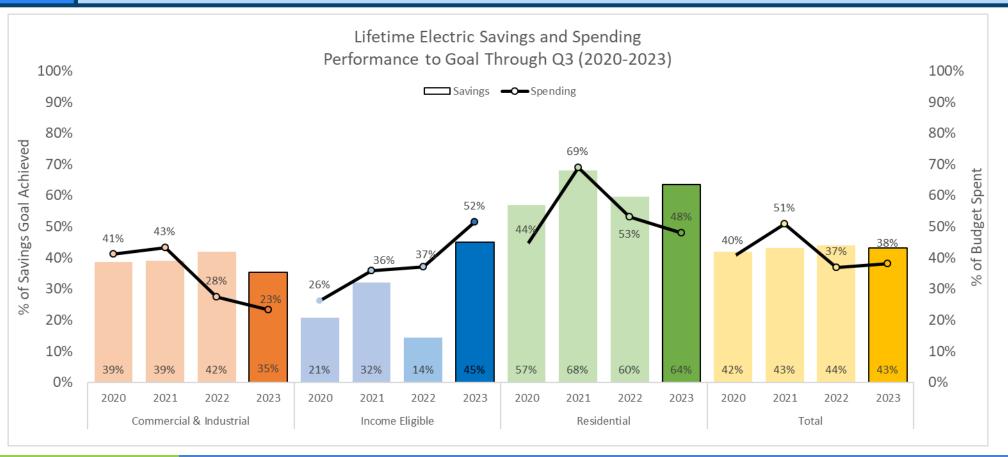






Electric Performance

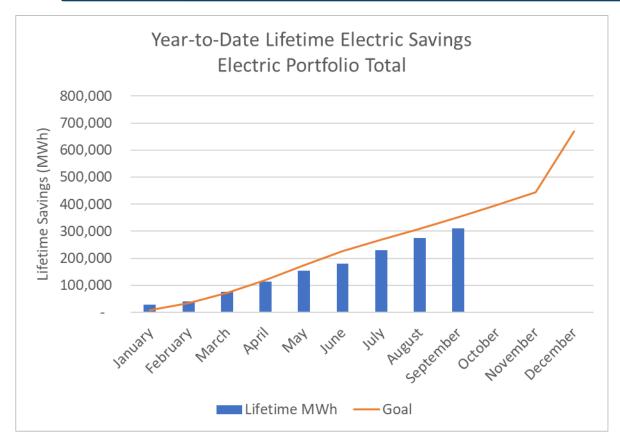
Key Takeaway Portfolio-level lifetime savings and spending as a percent of goal through Q3 are both comparable to recent years, with notable improvements in Income Eligible performance.

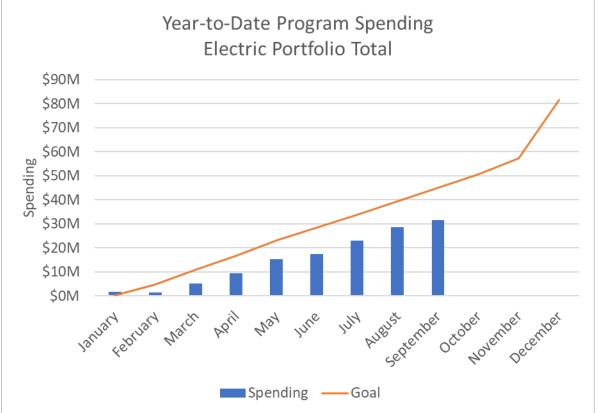




Electric Performance

Key Takeaway Based on estimated monthly achievement required to meet goals, year-to-date savings is closer to goal than spending, which is consistent with forecasted underspend.

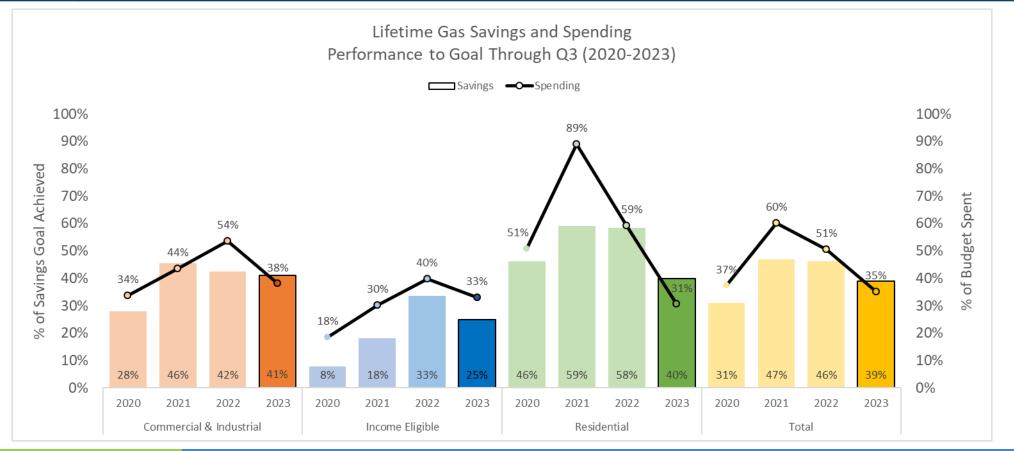






Gas Performance

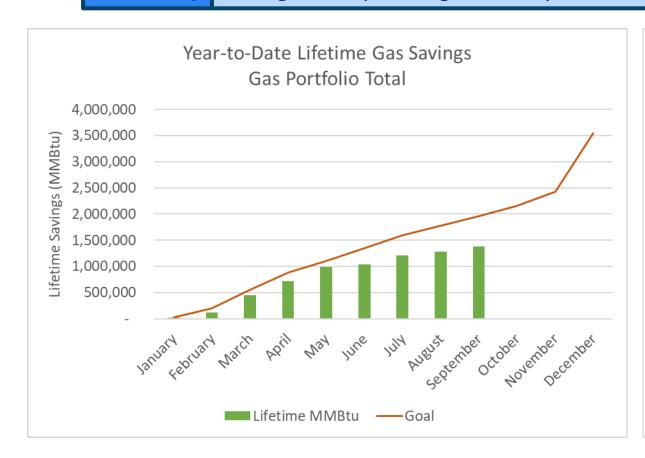
Key Takeaway Downward trend in lifetime gas savings and spending through Q3 has continued, but portfolio-level lifetime savings tracks closer to prior years than spending.

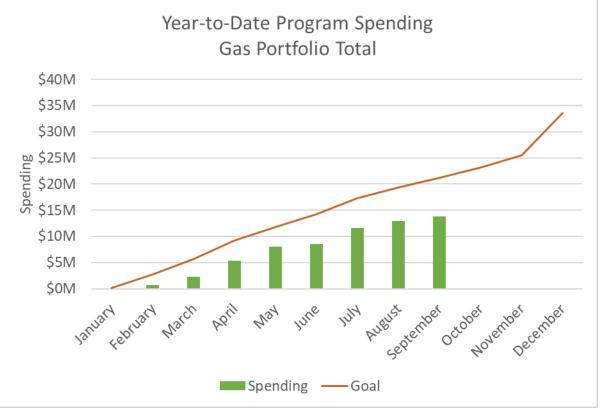




Gas Performance

Key Takeaway Based on estimated monthly achievement required to meet goals, both year-to-date savings and spending will likely fall at least 10-15% short of planned values.







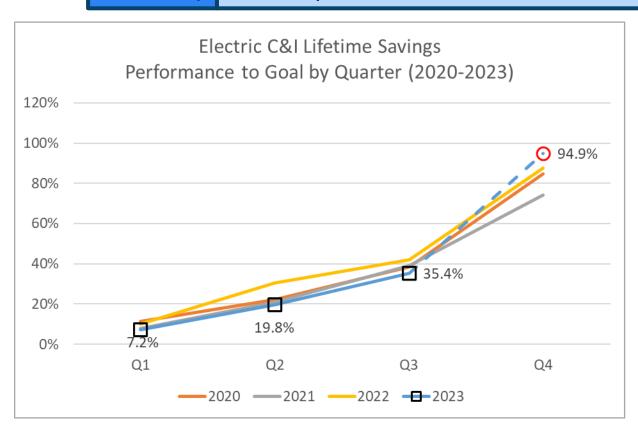


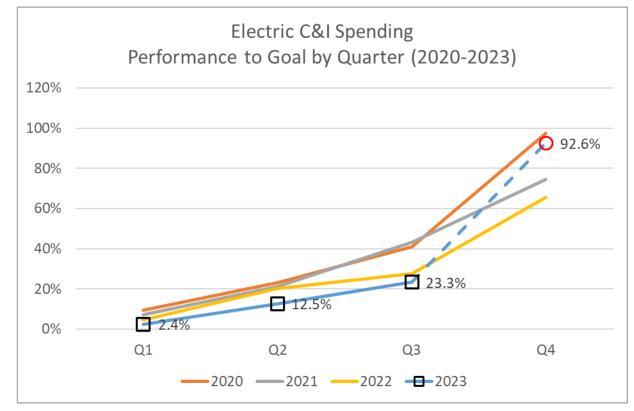
COMMERCIAL & INDUSTRIAL SECTOR HIGHLIGHTS



Electric C&I Performance

Key Takeaway Lifetime electric savings through Q3 2023 comparable to recent years, but spending is relatively lower and substantial Q4 activity required to reach spending forecast (92.6%).

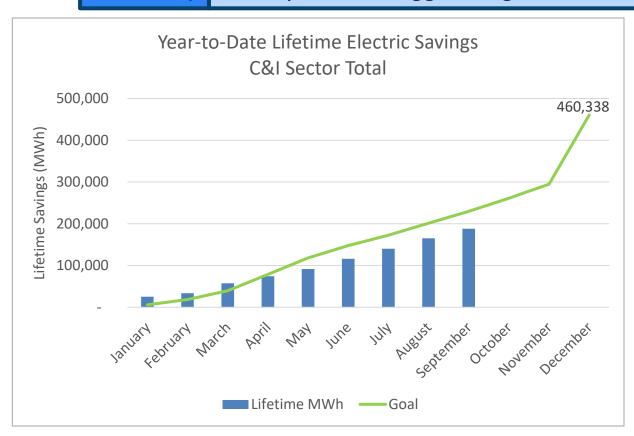


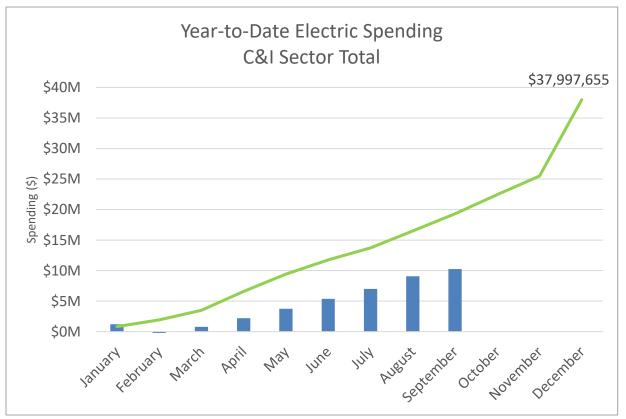




Electric C&I Performance

Key Takeaway Forecasted lifetime spending and savings are both within 10% of planned goals, but activity to date suggests significant underspend for the third consecutive year.







Share of Planned Portfolio Savings

69%

Top Saving Electric Projects

Key Takeaway Only 3 of 15 top saving electric projects are for lighting measures.

Top Saving Electric Projects	Month	End Use	Measure Description	Incentive Amount (\$)	Lifetime Savings (MWh)	Cost to Achieve (\$/kWh)
Large Commercial Retrofit	1	Other	All biogas will be used to power a 673-kW generator with supplemental natural gas, waste heat from exhaust gas will be recovered to support digester heating.	\$110,000	9,224	\$0.01
Large Commercial Retrofit	1	HVAC	EMS CONDITIONED SPACE CONTROLLED 40,001 - 80,000 sqft	\$2,700	8,892	\$0.00
Large Commercial Retrofit	4	Lighting	LEDs	\$82,905	5,713	\$0.01
Large Commercial Retrofit	3	Motors & Drives	VFD-HEATING HOT WATER PUMP 40 HP	\$130,304	2,813	\$0.05
Large Commercial New Construction	8	Compressed Air	The project includes the installation of (2) 100 HP Gardner Denver L75RS VSD air compressors by replacing the existing compressed air system. The proposed compressors are rated for 463.4 CFM @110 psig. In addition, project also includes the installation of a one new 1000 SCFM Gardner Denver RPC1000A4FP refrigerated cycling air dryer to handle the compressed air load.	\$60,970	2,747	\$0.02
Large Commercial Retrofit	1	Motors & Drives	VFD-CHILLED WATER PUMP 40 HP	\$9,200	2,135	\$0.00
Large Commercial New Construction	2	Compressed Air	VSD COMPRESSORS 50 HP TO 75 HP	\$8,160	1,999	\$0.00
Large Commercial Retrofit	4	HVAC	New PTHPs	\$63,130	1,409	\$0.04
Large Commercial New Construction	8	Whole Building	Per Design Documents	\$89,696	1,376	\$0.07
Large Commercial Retrofit	2	HVAC	HOTEL OCCUPANCY SENSORS	\$27,300	1,363	\$0.02
Large Commercial Retrofit	9	Other	On-demand gas fired DHW heaters (replacing electric), high eff gas fired on demand DHW w/ tanks (replacing existing gas fired unit)	\$48,357	1,316	\$0.04
Large Commercial Retrofit	7	Motors & Drives	VFD-CHILLED WATER PUMP 15 HP	\$24,500	1,240	\$0.02
Large Commercial Retrofit	5	Lighting	High Bay: High Output (>10,000-30,000 Lumens)	\$79,093	1,147	\$0.07
Large Commercial Retrofit	9	Lighting	High Bay: High Output (>10,000-30,000 Lumens)	\$21,150	1,121	\$0.02
Small Business Direct Install	8	Motors & Drives	Custom Motors/Drives - HVAC	\$0	1,106	\$0.00



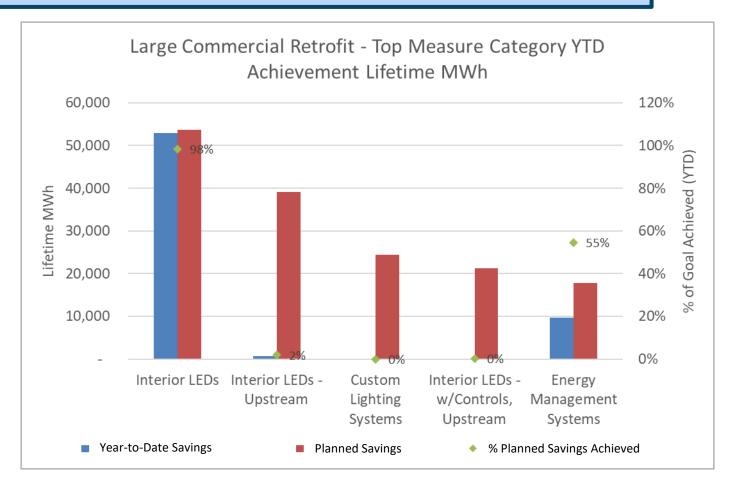
Large C&I Retrofit

Key Takeaway Forecasted lifetime savings: 102%, forecasted spending: 82%

Downstream lighting has greatly outperformed upstream lighting and other top measure categories (98% of goal through Q3).

Early activity in the Building Analytics Program bodes well for 2024 and beyond as the offering continues to scale.

Anticipate much more activity in Q4 which may result in achievement of planned goals.





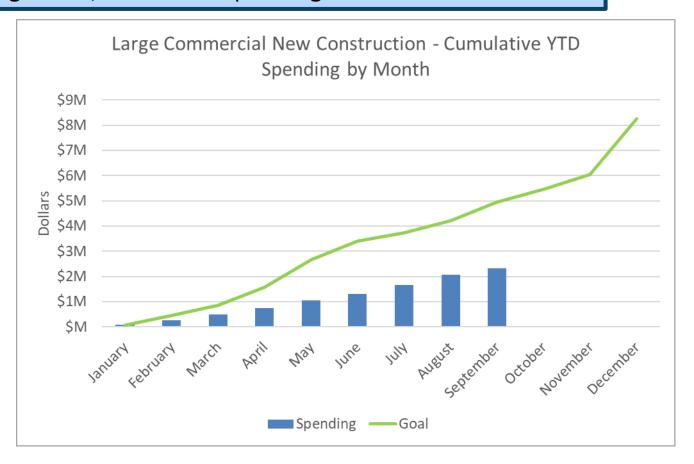
C&I New Construction

Key Takeaway Forecasted lifetime savings: 79%, forecasted spending: 79%

Spending through Q3 is substantially below estimated monthly spending required to use full planned budget.

Lifetime savings appear to be on pace to meet planned savings goals.

Savings from Variable Refrigerant Flow (VRF) Heat Pumps are more than double what was planned for 2023.





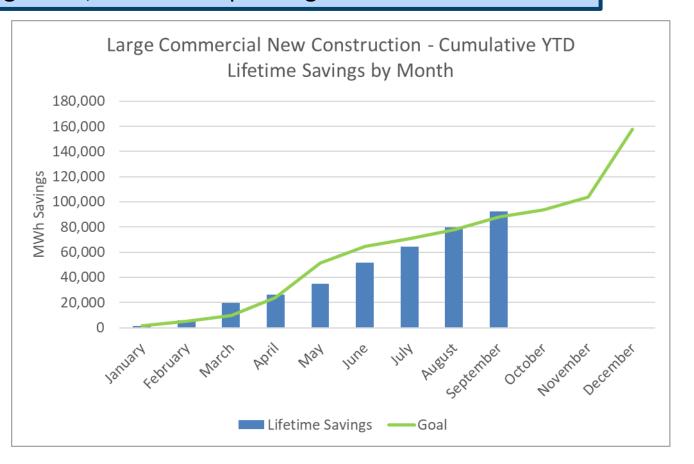
C&I New Construction

Key Takeaway Forecasted lifetime savings: 79%, forecasted spending: 79%

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Small Business Direct Install

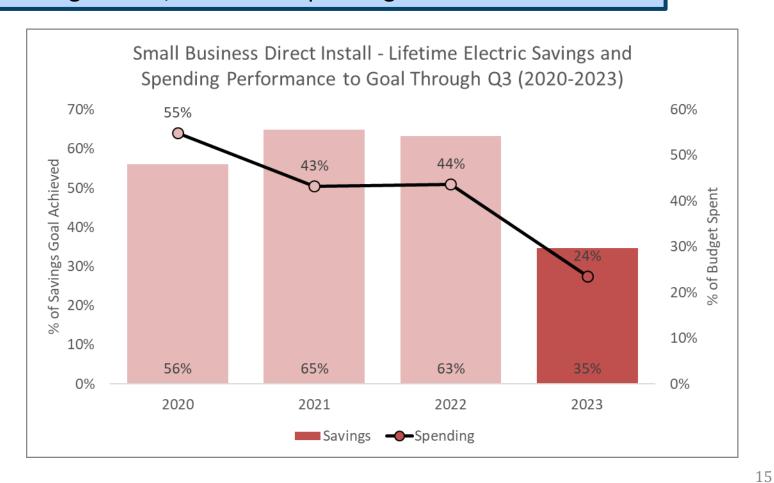
Key Takeaway

Forecasted lifetime savings: 109%, forecasted spending: 99%

Lifetime savings and spending through Q3 2023 is much lower than in prior years.

Prescriptive lighting measures have achieved less than 20% of planned savings.

Custom projects, notably **custom** lighting and motors/drives, have produced the majority of savings for the SBDI program (51% of YTD lifetime savings)



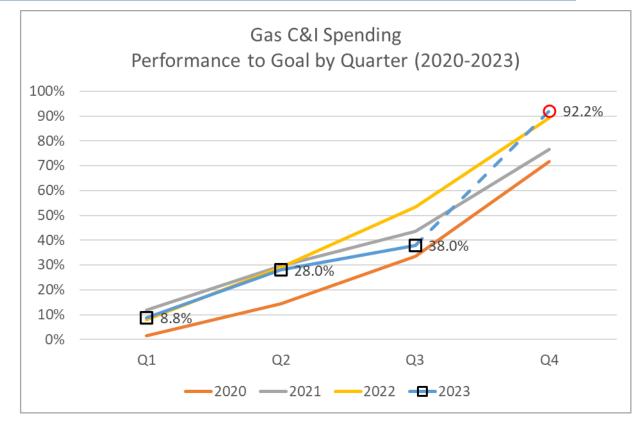
Discussion



Gas C&I Performance

Key Takeaway YTD lifetime savings and spending were boosted by upstream projects in Q1 and Q2, but momentum has slowed during Q3; forecasts still within 10% of planned goals.

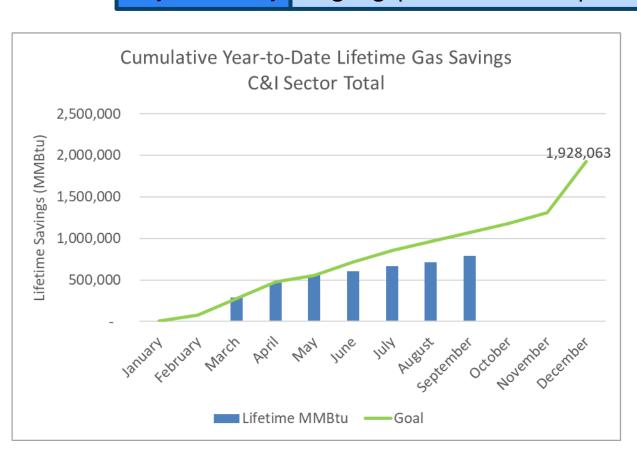


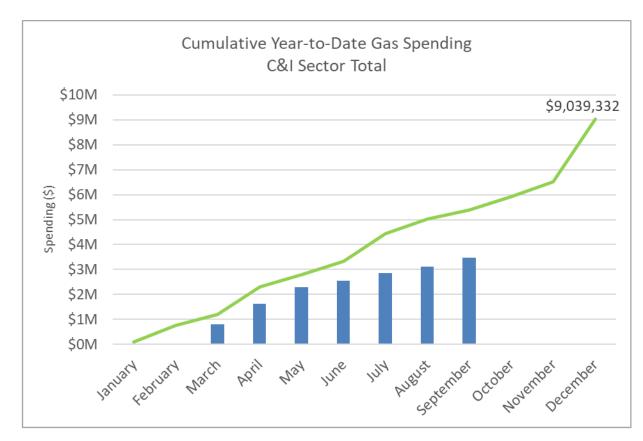




Gas C&I Performance

Key Takeaway Larger gap between YTD spending and goal than YTD lifetime savings and goal.







Share of Planned Portfolio Savings

48%

Top Saving Gas Projects

Key Takeaway 74% of lifetime savings from the top-15 saving gas projects are attributable to non-gas equipment (e.g., HVAC controls, insulation) measures.

Top Saving Gas Projects	Month	End Use	Measure Description	Incentive Amount (\$)	Lifetime Savings (MMBtu)	Cost to Achieve (\$/MMBtu)
Large Commercial Retrofit	3	Hot Water	Tank Insulation	\$88,200	56,126	\$1.57
Large Commercial Retrofit	8	HVAC	HVAC Equipment	\$5,789	17,710	\$0.33
Large Commercial Retrofit	7	HVAC	Steam Trap Repair or Replacement	\$17,800	10,384	\$1.71
Large Commercial Retrofit	9	HVAC	Steam Trap Repair or Replacement	\$22,421	9,890	\$2.27
Large Commercial Retrofit	5	HVAC	HVAC Controls and EMS	\$17,773	8,917	\$1.99
Large Commercial Retrofit	9	HVAC	Steam Trap Repair or Replacement	\$22,056	8,768	\$2.52
Large Commercial Retrofit	9	HVAC	HVAC Equipment	\$9,501	8,580	\$1.11
Large Commercial Retrofit	2	HVAC	HVAC Controls and EMS	\$5,531	8,325	\$0.66
Large Commercial Retrofit	3	HVAC	HVAC Controls and EMS	\$10,400	7,964	\$1.31
Large Commercial New Construction	9	HVAC	Other Gas - Seasonal	\$18,340	7,320	\$2.51
Large Commercial Retrofit	9	HVAC	Steam Trap Repair or Replacement	\$13,585	6,824	\$1.99
Small Business Direct Install	3	Envelope	Roof/Wall/Floor/Basement/building other Insulation	\$60,546	6,062	\$9.99
Large Commercial Retrofit	5	HVAC	Other Gas - Seasonal	\$7,960	5,890	\$1.35
Large Commercial Retrofit	9	HVAC	Operation & Maintainance	\$4,443	5,018	\$0.89
Large Commercial New Construction	4	Food Service	FRYER	\$1,600	4,989	\$0.32



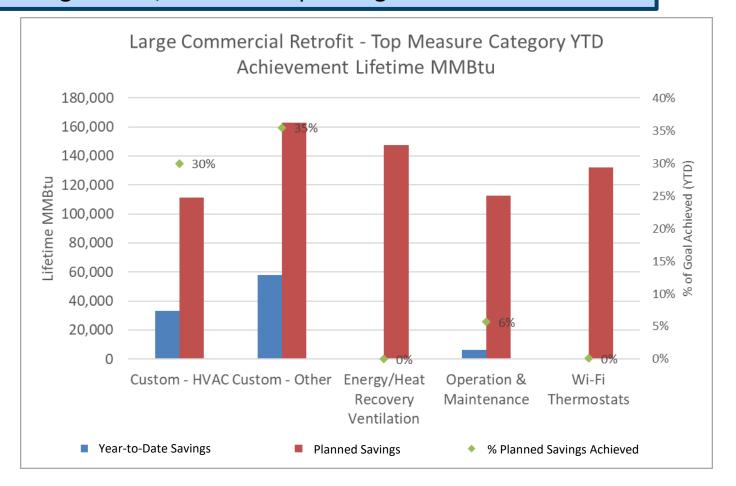
Large C&I Retrofit

Key Takeaway Forecasted lifetime savings: 103%, forecasted spending: 70%

Steam Trap Repair/Replacement is the only measure above 35% achievement of planned savings (89% through Q3), but accounts for only 6% of planned lifetime savings.

Performance to date does not suggest that the program will reach its planned goal or forecast.

More custom projects are typically completed in Q4 than other quarters, which may cause a spike in program savings and spending.



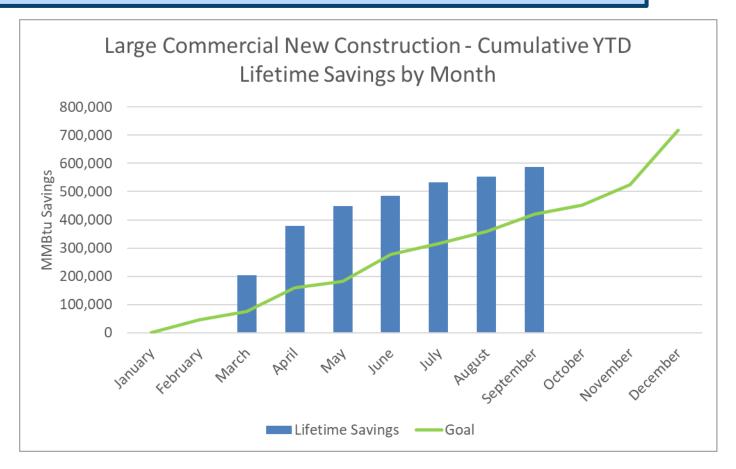


C&I New Construction

Key Takeaway Forecasted lifetime savings: 84%, forecasted spending: 132%

High YTD lifetime savings suggest that the gas C&I New Construction program would exceed planned goals.

Momentum from significant uptake of upstream food service measures has slowed during Q2 and Q3, but steady progress has occurred over time.



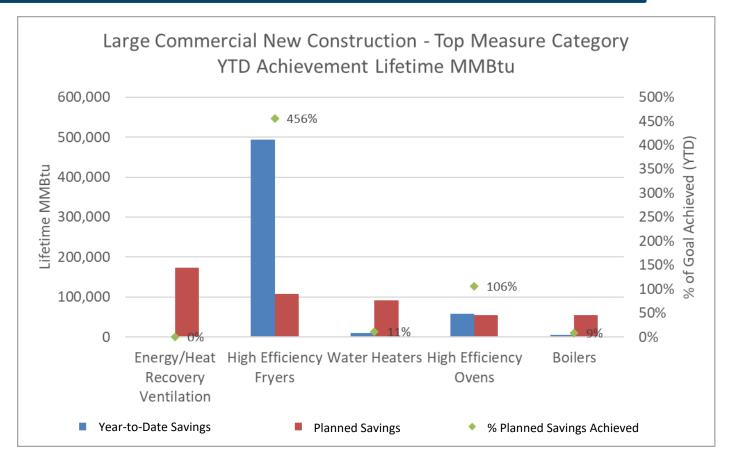


C&I New Construction

Key Takeaway Forecasted lifetime savings: 84%, forecasted spending: 132%

High Efficiency Fryers and Ovens account for 23% of planned lifetime savings, but these measures account for 94% of YTD lifetime savings.

The top planned measure, Energy Recovery Ventilation, has only achieved 0.4% of goal through Q3.





Share of Planned Portfolio Savings

3%

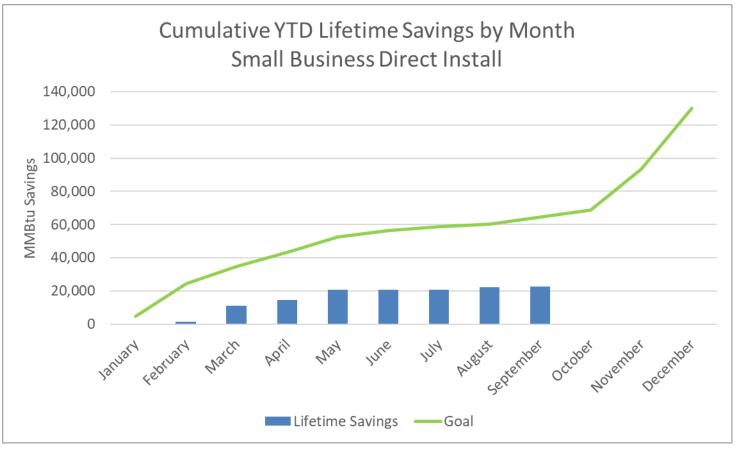
Small Business Direct Install

Key Takeaway Forecasted lifetime savings: 92%, forecasted spending: 87%

Three "Main Street" efforts conducted in 2023 in Central Falls, East Providence, and Woonsocket (only CF and EP projects represented in Q3 data).

51 total projects initiated through first two Main Streets (goal of 25 projects in both CF and EP).

Lead vendor considering methods to improve uptake including a participant database to target outreach and increasing involvement by communitybased organizations in Main Streets.

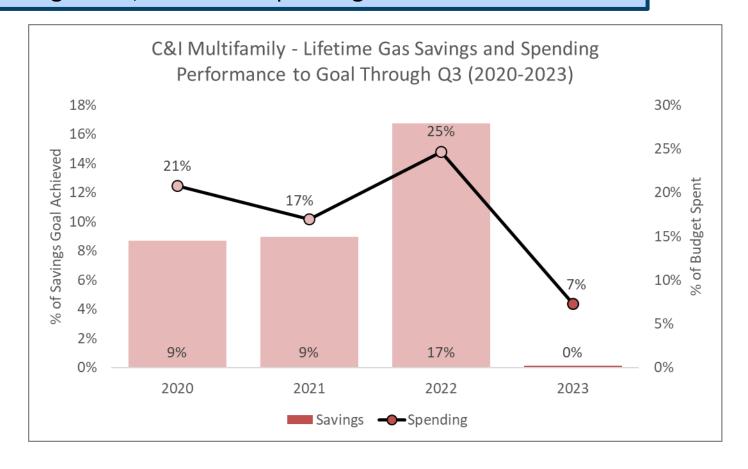


C&I Multifamily

Key Takeaway Forecasted lifetime savings: 85%, forecasted spending: 85%

Essentially no activity in the gas C&I Multifamily program has come through Q3 data reports.

Investigating errors in data reporting. YTD cost-to-achieve (incentive dollars per lifetime MMBtu saved) appears to be over 50x greater than planned.



23



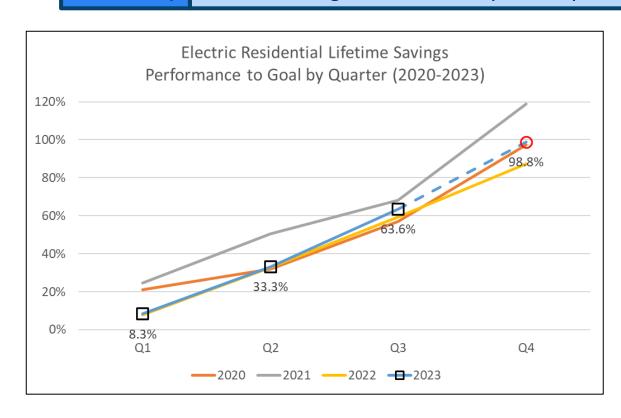


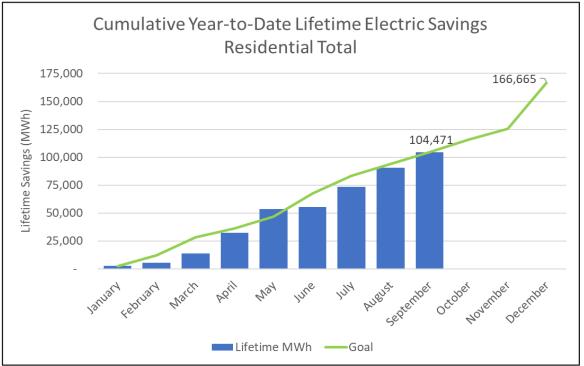
RESIDENTIAL ELECTRIC SECTOR HIGHLIGHTS



Electric Residential Savings Performance

Key Takeaway Lifetime electric savings through Q3 2023 comparable to recent years. Year-end forecast of \sim 100% is grounded in expected performance to-date.

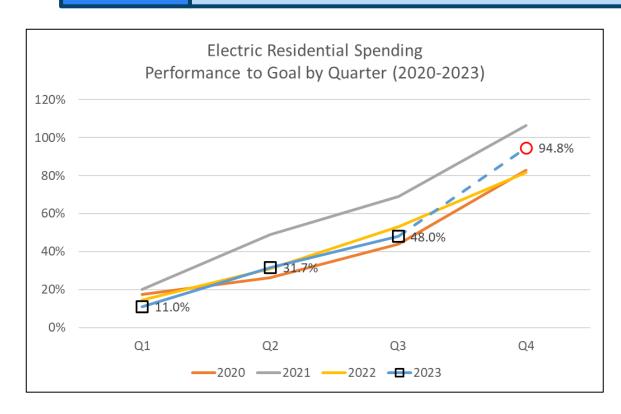


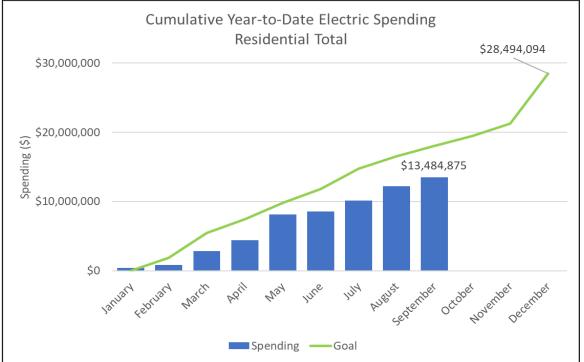




Electric Residential Spending Performance

Key Takeaway Spending through Q3 comparable to recent years but behind expected spend to-date. Indication that programs are delivering savings at lower than planned costs.







Electric Residential New Construction

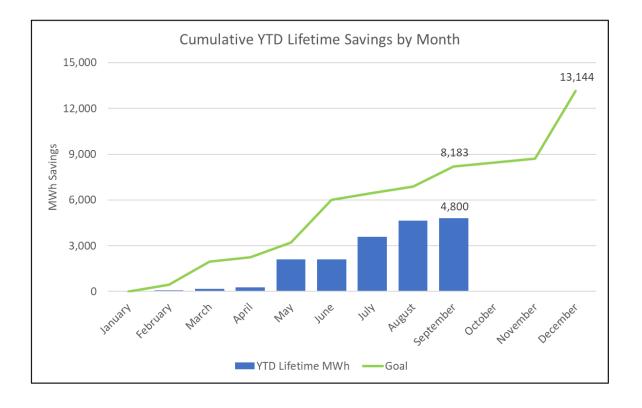
Key Takeaway Year-end savings forecast: 85%

Year-end spending forecast: 95%

Lifetime savings increased in Q2, but not enough to get back on track towards meeting goal

Significant activity required in Q4 to meet year-end savings forecast

Year-end forecasts indicate higher than planned cost-to-achieve savings





Electric Residential ENERGY STAR HVAC

Key Takeaway Year-end savings forecast: 140%

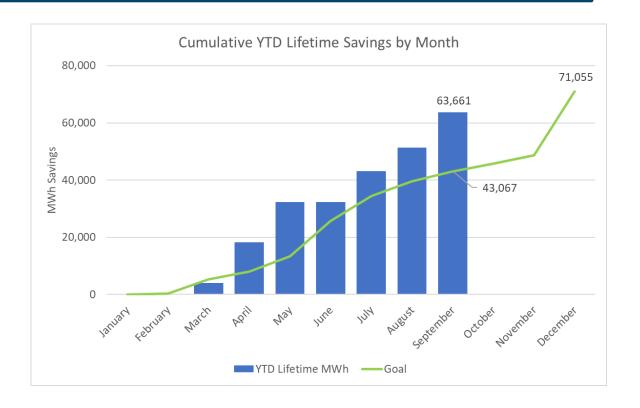
Year-end spending forecast: 95%

Program is already at 90% of goal through Q3

Central HPs and Ductless HPs replacing Electric Resistance are key drivers for program success

Year-end savings forecast expected to reach or exceed 140% of goal for the 3rd consecutive year

Savings and spending forecasts indicate a costto-achieve savings that is ~30% lower than plan





Electric Residential EnergyWise Single Family

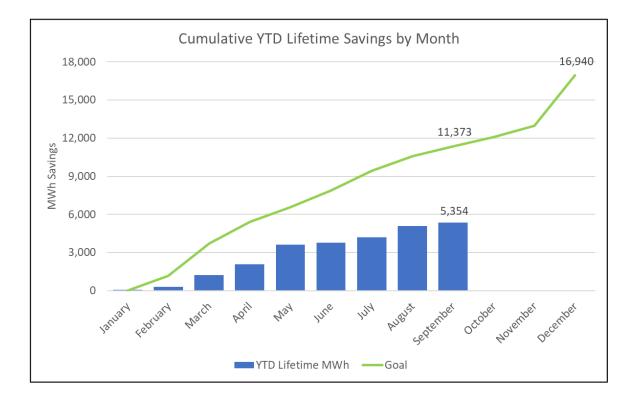
Key Takeaway Year-end savings forecast: 83%

Year-end spending forecast: 100%

Program well behind expected savings to-date and not expected to meet goal

Lower uptake on many direct install measures

Home assessments continue, but uptake on weatherization down





Electric Residential EnergyWise Multifamily

Key Takeaway Year-end savings forecast: 65%

Year-end spending forecast: 60%

Reported activity continues to be relatively stagnant

Program expects significant bump in Q4 as several projects in queue expected to complete





Electric Residential Consumer Products

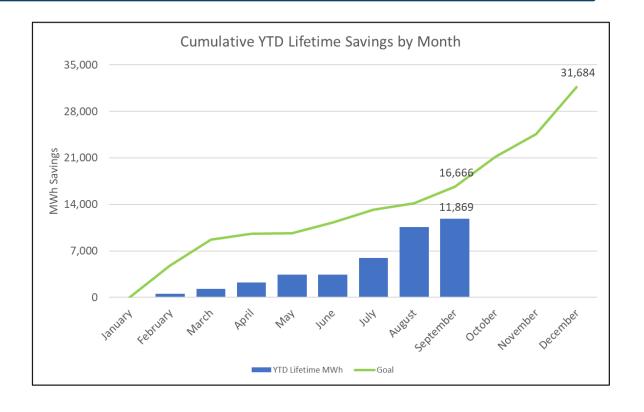
Key Takeaway Year-end savings forecast: 45%

Year-end spending forecast: 100%

Activity has picked up in recent months, but still behind expected savings to-date

Program is at 37% of goal through Q3, so unclear what is driving a year-end forecast of only 45%

Expect savings and spending will be more closely aligned by year-end





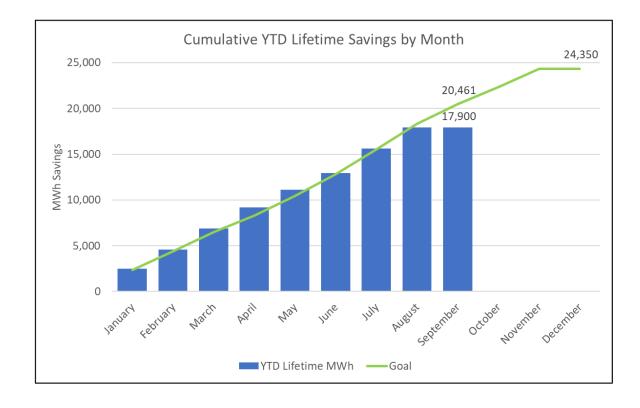
Electric Residential Home Energy Reports

Key Takeaway Year-end savings forecast: 80%

Year-end spending forecast: 100%

Program has a uniform pattern of savings achievement throughout year

Expect this will continue through Q4 and that program will get closer to goal than is currently forecasted



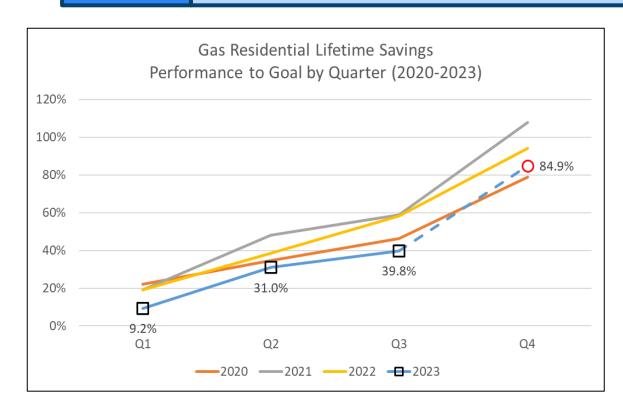


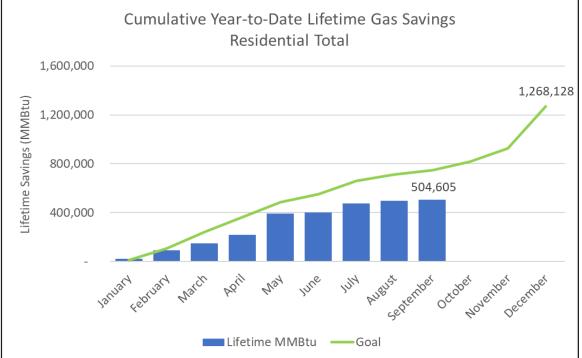




Gas Residential Savings Performance

Key Takeaway Lifetime gas savings through Q3 2023 slightly behind recent years and significantly behind expected performance to-date.

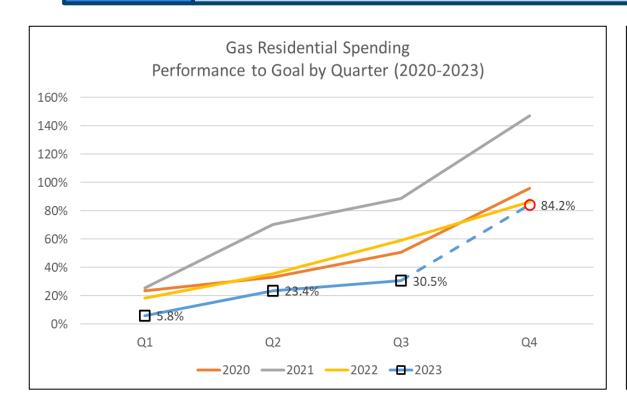


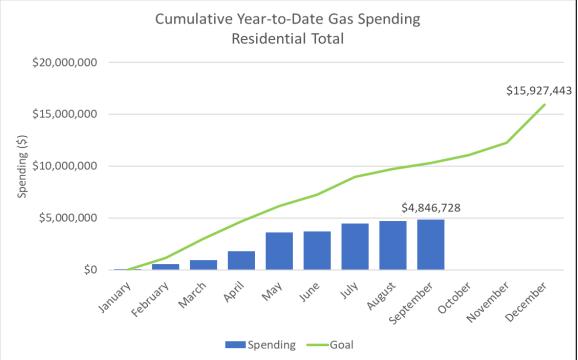




Gas Residential Spending Performance

Key Takeaway Spending through Q3 tracking behind recent years and expected spend to-date. Significantly more activity than is typical for Q4 will need to occur to reach forecast.







Gas Residential New Construction

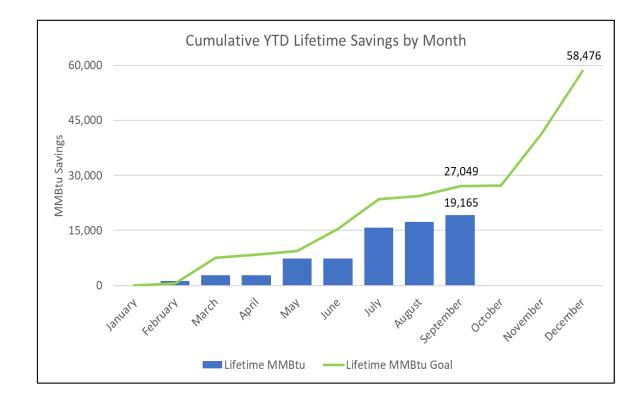
Key Takeaway Year-end savings forecast: 85%

Year-end spending forecast: 100%

Activity picked up during Q2, but not enough to get back on track towards meeting goal

Based on typical pattern of activity in Q4, year-end forecast seems reasonable

Similar to electric program, year-end forecasts indicate higher than planned cost-to-achieve savings





Share of Planned Portfolio Savings 15%

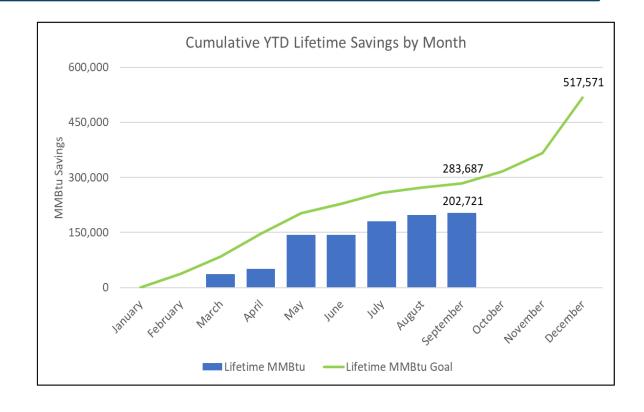
Gas Residential ENERGY STAR HVAC

Key Takeaway Year-end savings forecast: 77%

Year-end spending forecast: 82%

Program savings through Q3 are behind expected savings to-date

Expect bump in Q4 as activity typically increases in the cooler months





Gas Residential EnergyWise Single Family

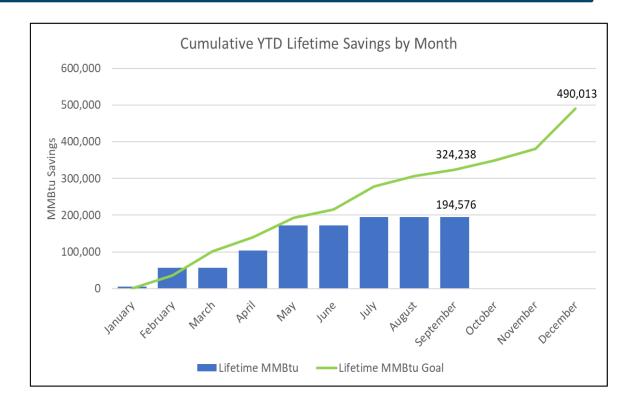
Key Takeaway Year-end savings forecast: 100%

Year-end spending forecast: 90%

Savings have been relatively stagnant over the Q2 period, though this may be a data reporting issue

Program will need a significant uptick in activity in Q4 to hit year-end forecast of 100%

Year-end forecasts indicate that program may be delivered at a lower than planned cost-to-achieve savings





Gas Residential EnergyWise Multifamily

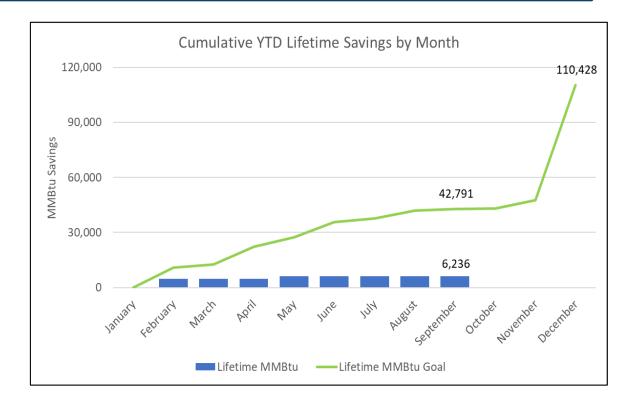
Key Takeaway Year-end savings forecast: 45%

Year-end spending forecast: 45%

As is the case with the electric program, reported activity continues to be stagnant

Expect the usual year-end bump with this program, but will fall well short of goal

Stresses the importance of completing projects earlier in the year





Gas Residential Home Energy Reports

Key Takeaway Year-end savings forecast: 97%

Year-end spending forecast: 100%

Savings are tracking ahead of expected savings to-date, so program is on track to be at or near 100% of goal

Like electric, the gas version of this program has a relatively consistent and predictable savings pattern





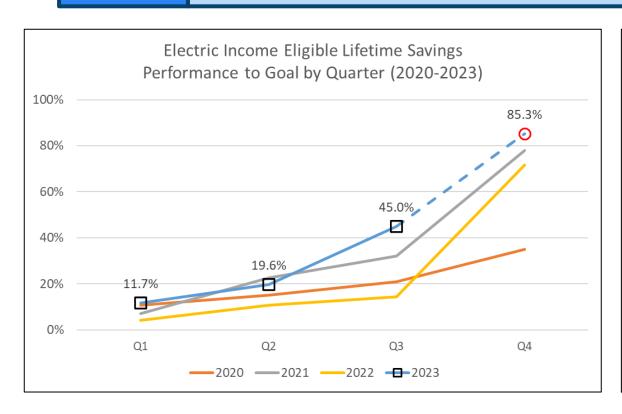


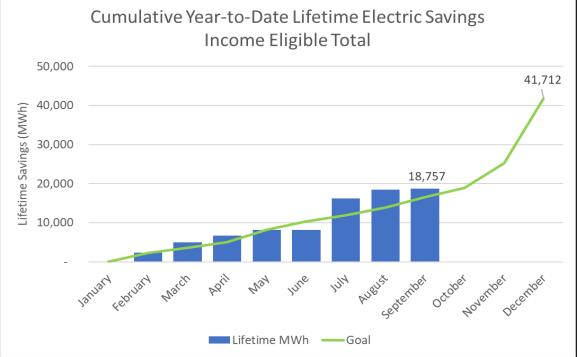
INCOME ELIGIBLE ELECTRIC SECTOR HIGHLIGHTS



Electric Income Eligible Savings Performance

Key Takeaway Lifetime electric savings through Q3 2023 outpacing recent years <u>and</u> expected performance to-date. Savings may outperform year-end forecast.

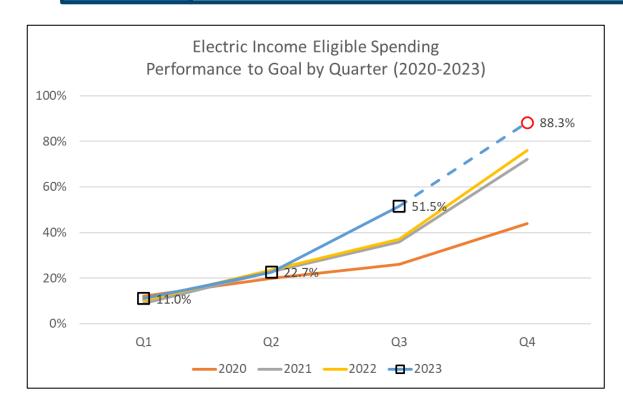


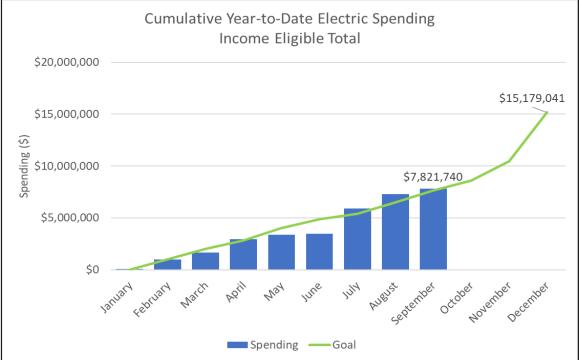




Electric Income Eligible Spending Performance

Key Takeaway Spending through Q3 higher than recent years and on-pace with expected spend to-date. Spending may end up higher than year-end forecast if trend continues.







Electric Income Eligible Single Family

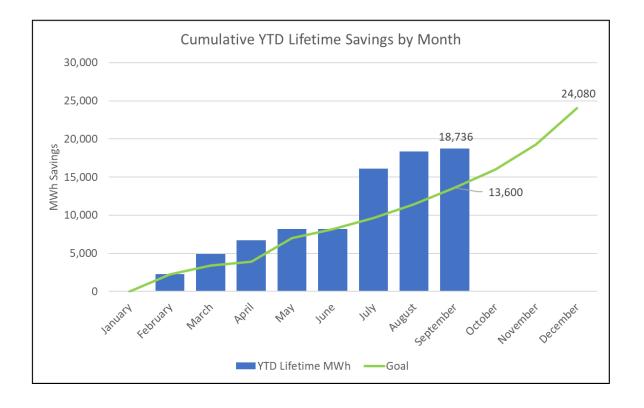
Key Takeaway Year-end savings forecast: 100%

Year-end spending forecast: 93%

Program is well ahead of expected savings to-date and is well on track to meeting goal (78% through Q3)

Savings success largely being driven by direct install and appliance replacements, which is driving lower cost-to-achieve values than planned

Does mean that uptake on weatherization is behind plan





Electric Income Eligible Multifamily

Key Takeaway Year-end savings forecast: 65%

Year-end spending forecast: 72%

Virtually no activity reported through Q3

Expected savings pattern shows ability to claim a significant portion of savings in Q4

Program will likely fall well short of goal even if pipeline comes through and a program gets a big bump in Q4





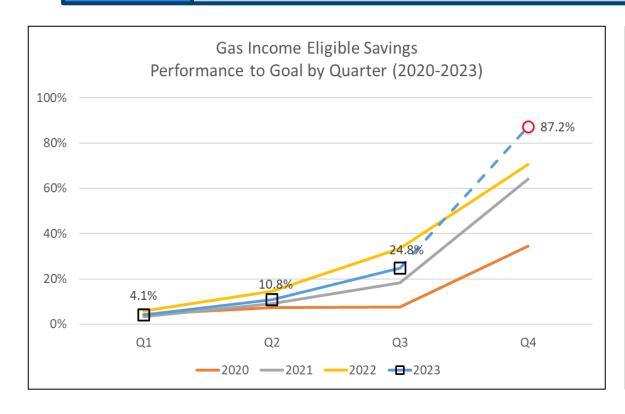


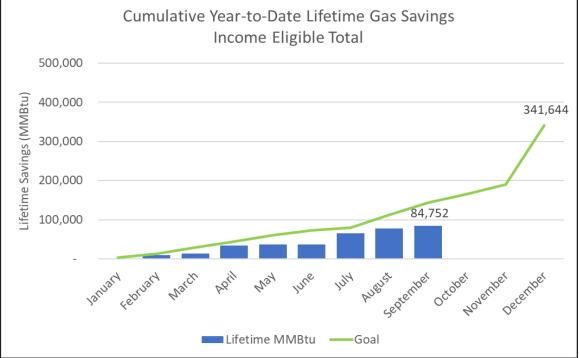
SECTOR HIGHLIGHTS



Gas Income Eligible Savings Performance

Key Takeaway Lifetime gas savings through Q3 are in the range of recent years. Significant uptick in Q4 is not out of the norm, meaning year-end forecast is plausible.

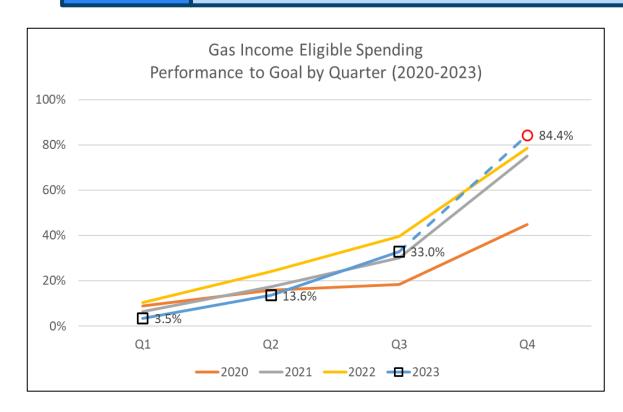


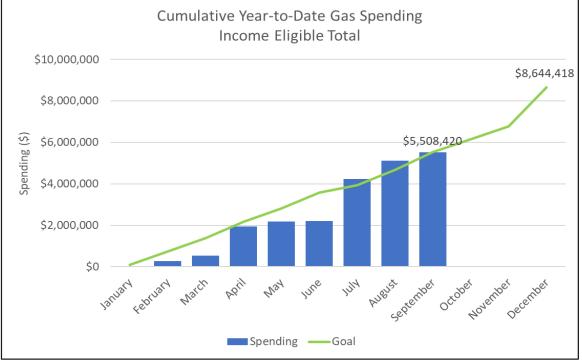




Gas Income Eligible Spending Performance

Key Takeaway Spending through Q3 is comparable to recent years and on track with expected spend todate. This indicates potential of spending near 100% of budget.







Gas Income Eligible Single Family

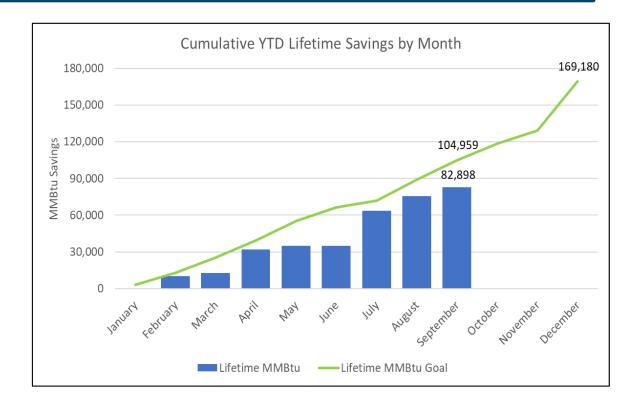
Key Takeaway Year-end savings forecast: 72%

Year-end spending forecast: 74%

Increase in activity in Q2 compared to previous months

Expect slight bump in Q4, though likely not enough to get back on track towards hitting goal

Less direct install and appliance measures in gas version of program, which in part explains difference in performance between the electric and gas sector





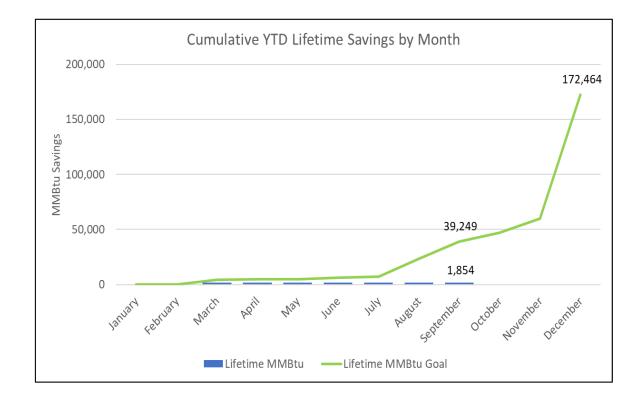
Gas Income Eligible Multifamily

Key Takeaway Year-end savings forecast: 103%

Year-end spending forecast: 103%

Virtually no activity claimed through Q3, however pipeline expected to get program to near savings goal

Even if pipeline comes through, program is well behind expected savings to-date which puts stress on those projects to complete









Residential Highlights



Residential New Construction

- The RNC Program Vendor partnered with local builders and designers to establish a local Passive House chapter (https://passivehouseri.org/). The chapter's mission is to promote the Passive House Building Energy Standard in Rhode Island through public outreach, education, advocacy, and training.
- The RNC Program Vendor continued to provide technical support for Zero Energy homes across the state, including 162 seeking Passive House certification and 240 seeking DOE Zero Energy Ready certification. The number of Zero Energy Homes in the pipeline has increased by 100% since 2022.

Consumer Products

The ENERGY STAR Products dehumidifier recycling events, through the end of the 3rd quarter, have already exceeded last year's record of 1,093 dehumidifiers recycled (13 events). Thus far, Rhode Island Energy's recycling program has already collected 1,344 old and inefficient dehumidifiers at 12 events. In Westerly, a single event record was set on September 2nd with 241 dehumidifiers collected and recycled.

BUSINESS USE ©Rhode Island Energy



Income Eligible & Codes Highlights

C-Team Program Highlights



Income Eligible Services

— As the Company plans to transition to a more comprehensive assessment in 2024, the Lead Vendor has been working with DHS to arrange training that will upskill Tier 1, the basic appliance management program (AMP) assessment, program specialists to the comprehensive audit. DHS has funding available for this training and a contractor focused on training.

Energy Codes

To help prepare the industry for the anticipated adoption of 2024 IECC in Rhode Island next year CSTS developed a training outlining the content currently being reviewed and finalized by the International Code Council. 2 trainings were held in Q3 at the Lincoln Town Hall and the Tiverton Library.

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Commercial & Industrial Highlights



Large Commercial Retrofit

EnergySmartGrocer: An "Aerofoil" measure was installed at three big-box retail stores located in Warwick and Smithfield, reducing air infiltration on open refrigerator cases and reducing the volume of refrigerated air escaping from the case. While refrigerator case doors are more efficient, the retailer was unwilling to introduce a barrier between customers and the retailer's products. Total savings are estimated at approximately 17,000 kWh and 1,000 therms.

Small Business Direct Install

The Central Falls Main Street event resulted in twenty-nine audits of which twenty converted to projects. Most of these projects were minority owned microbusinesses, resulting in an incentive spend of nearly \$66k and over 84,000 kWh net savings.

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Council Member Discussion

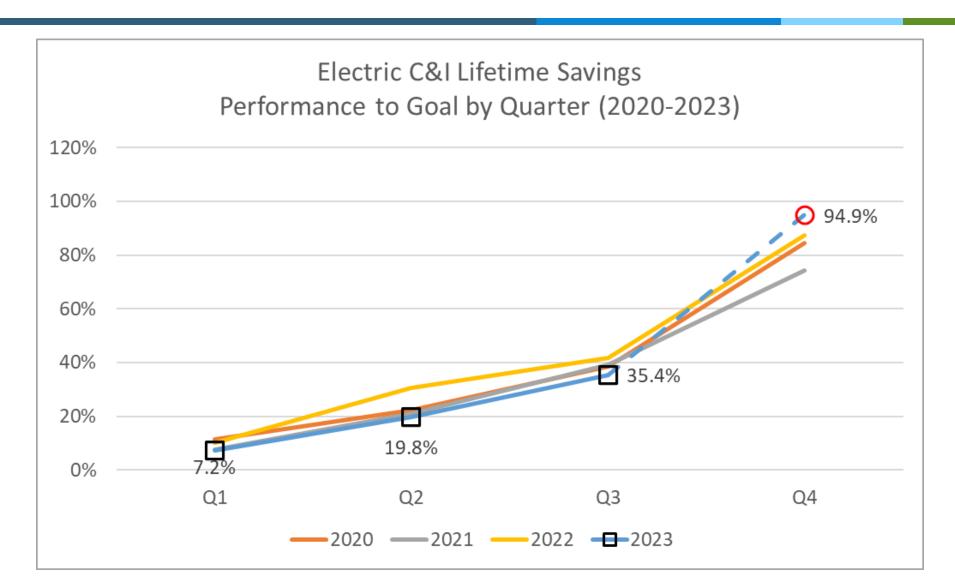


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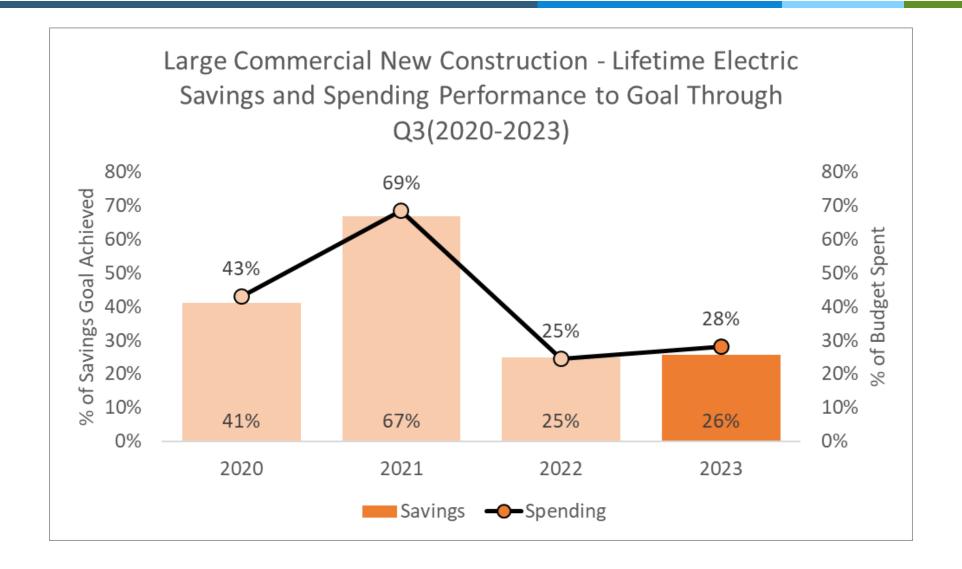


Appendix

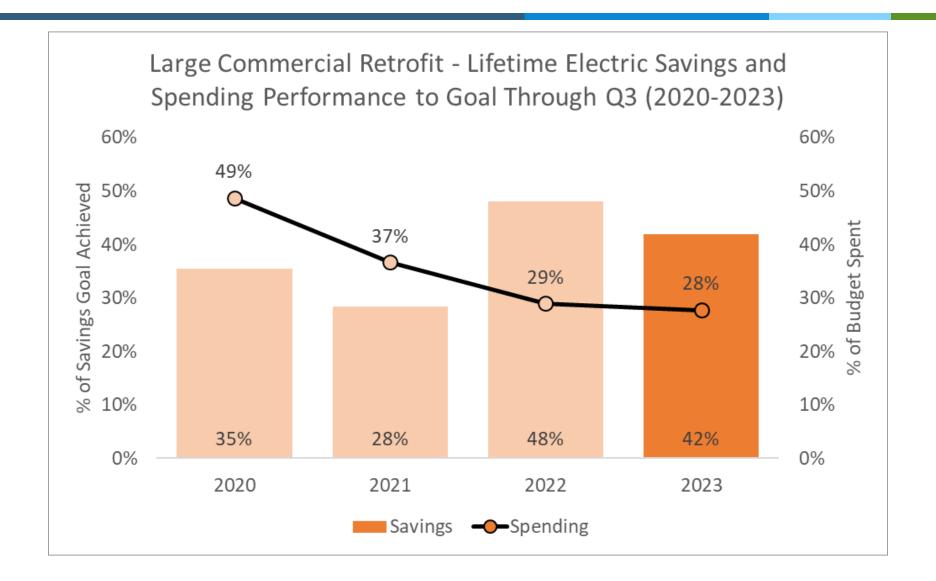
Electric C&I Performance



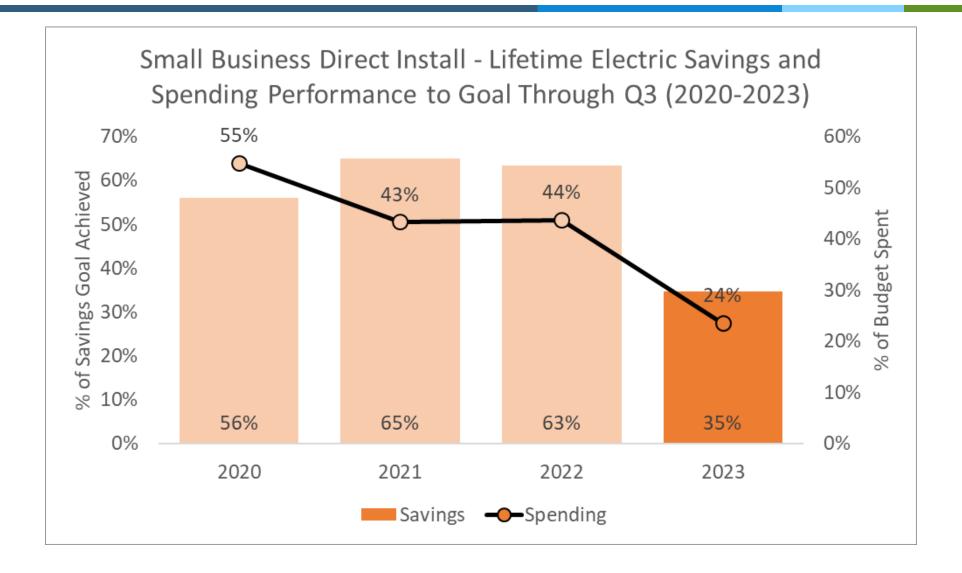
Electric C&I Programs



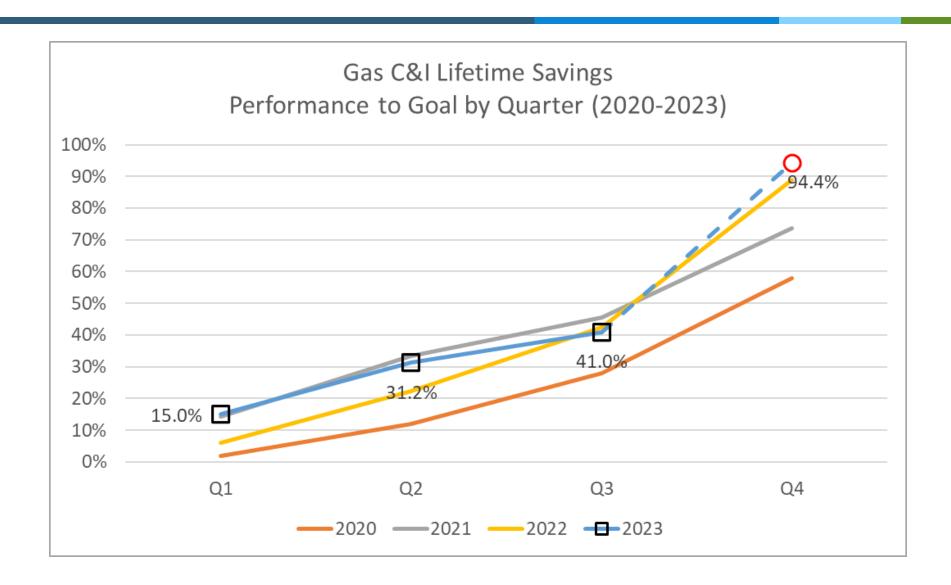
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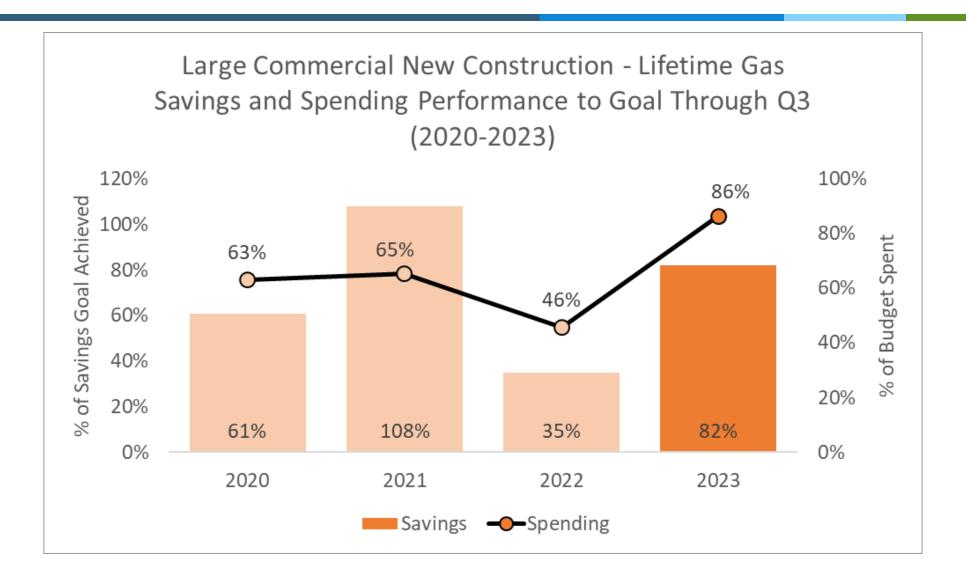
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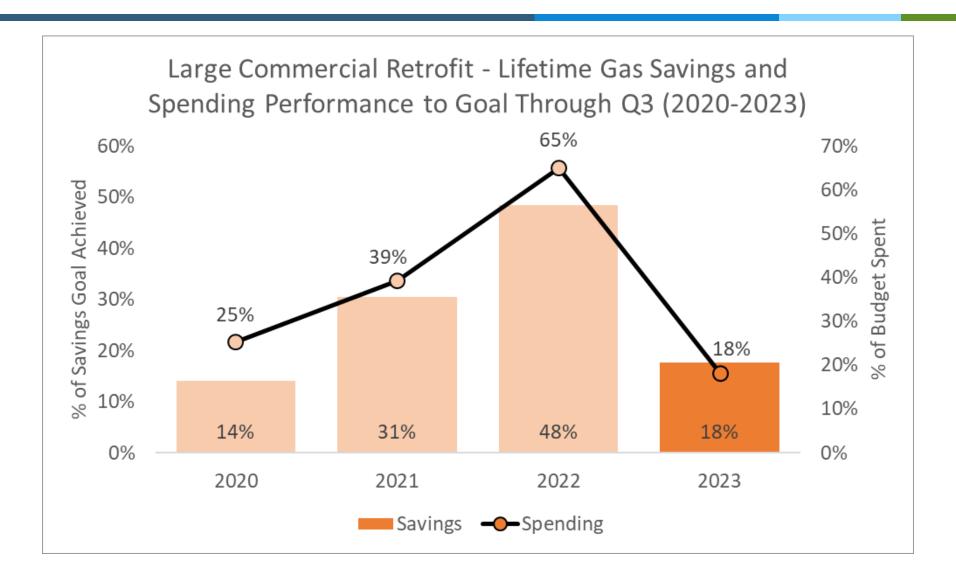
Gas C&I Performance



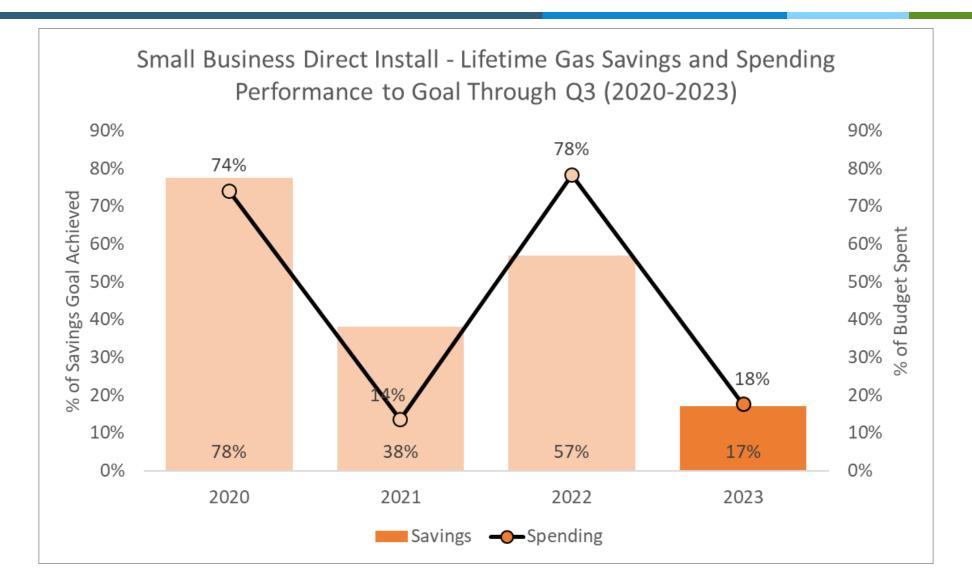
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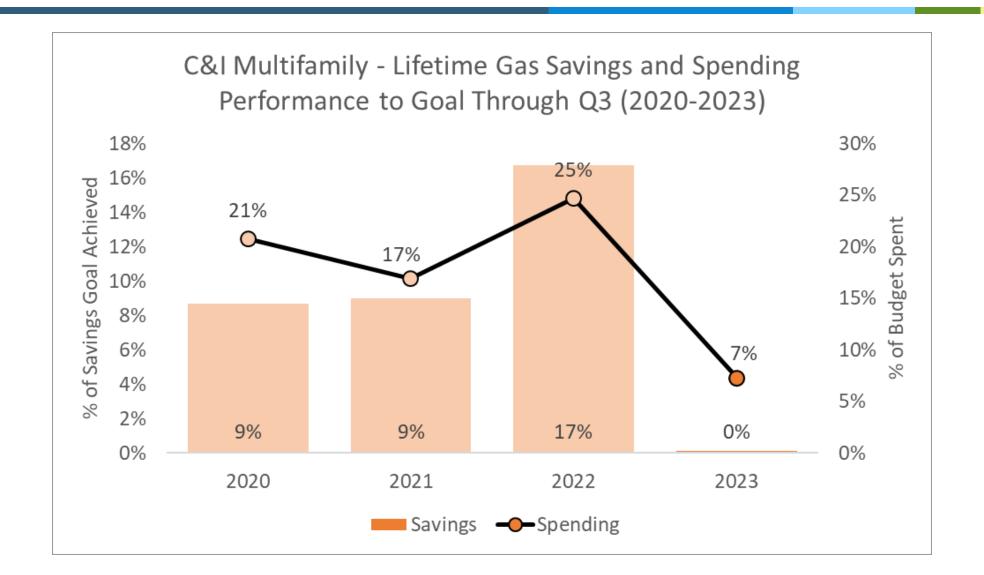
Gas C&I Programs



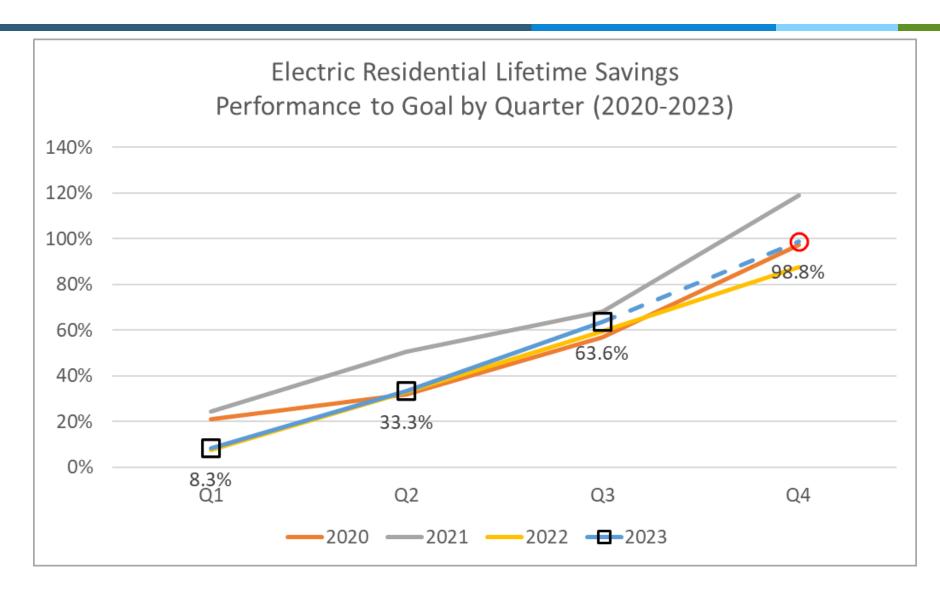
Gas C&I Programs



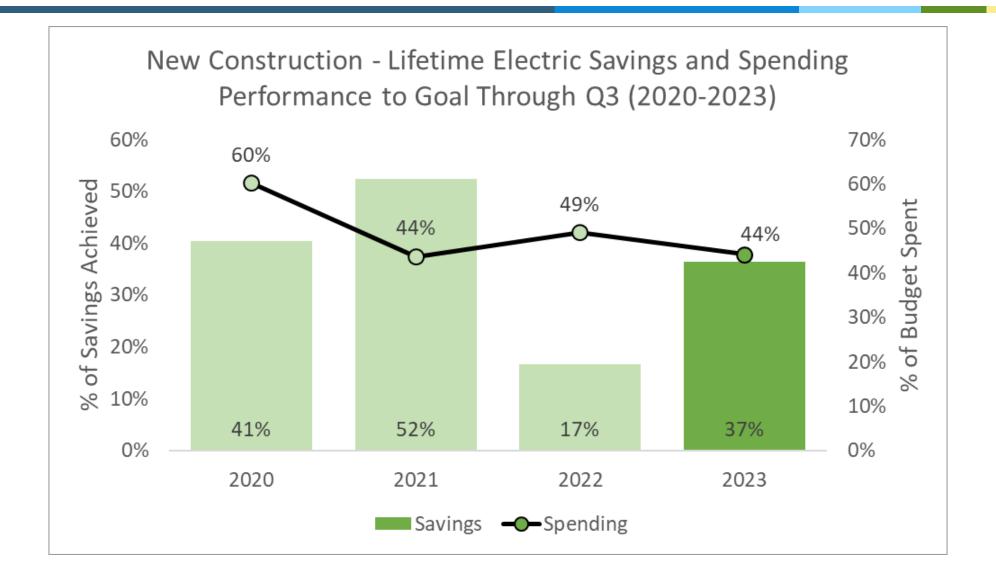


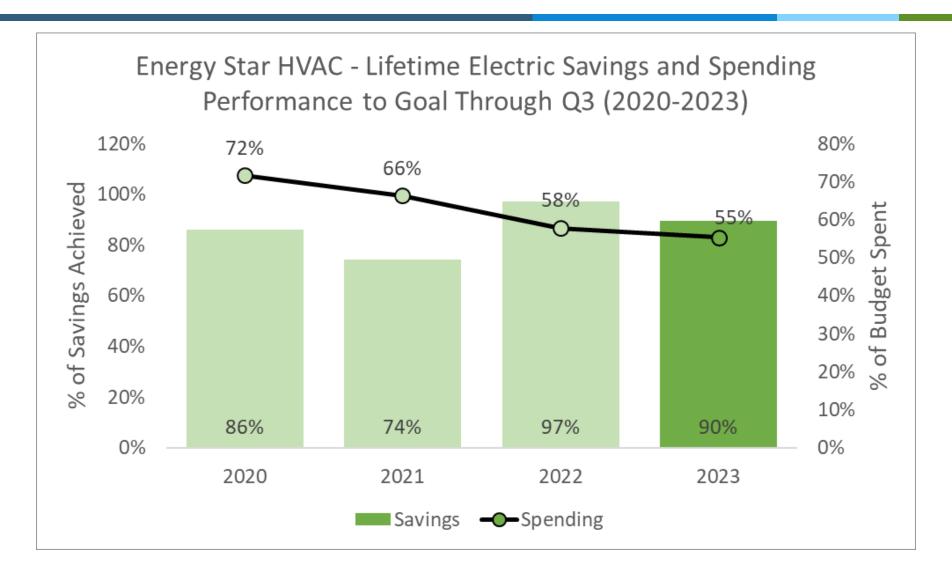


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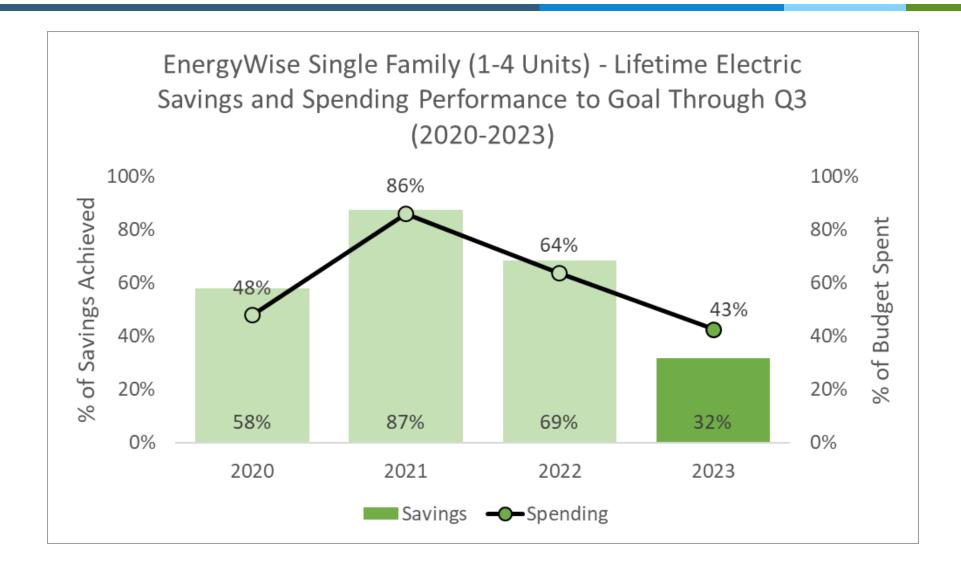




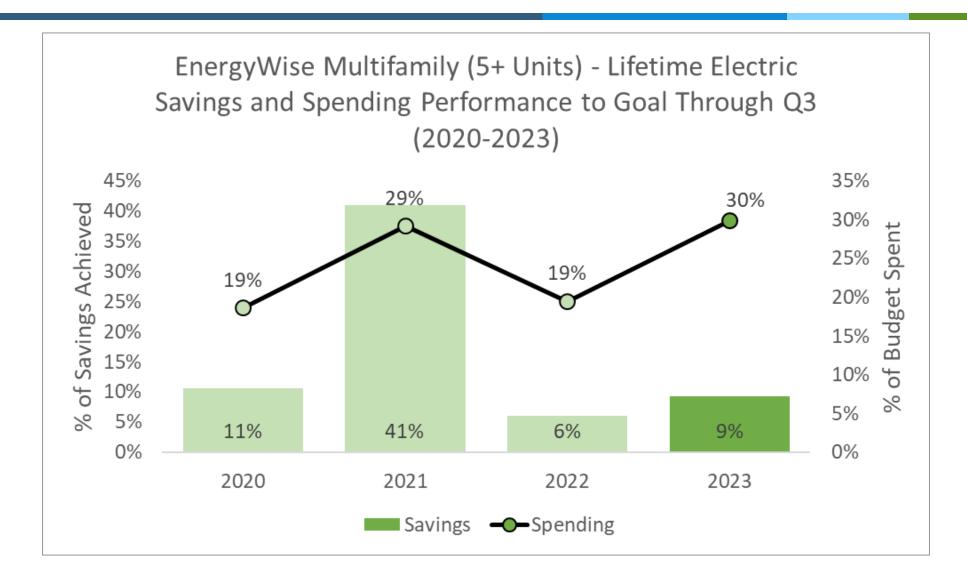


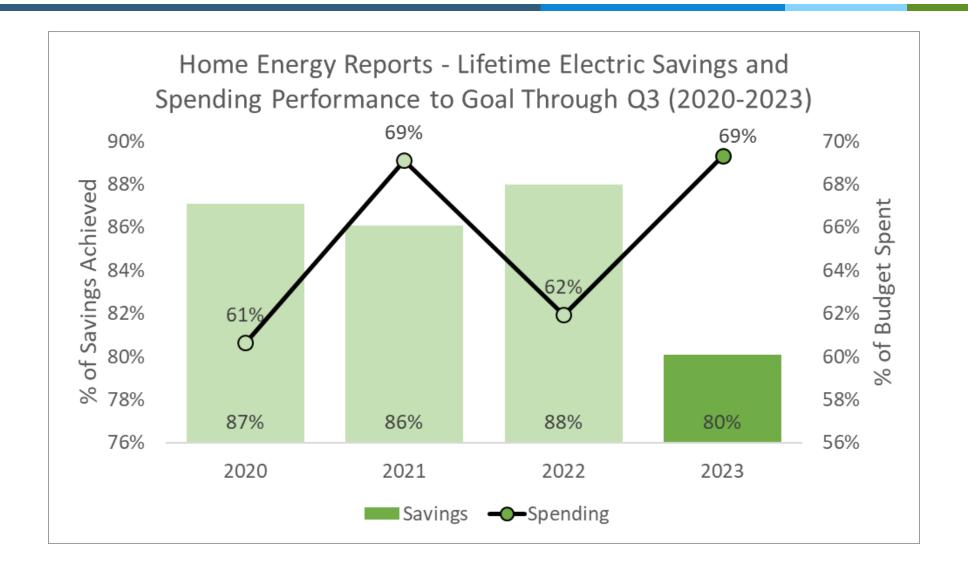




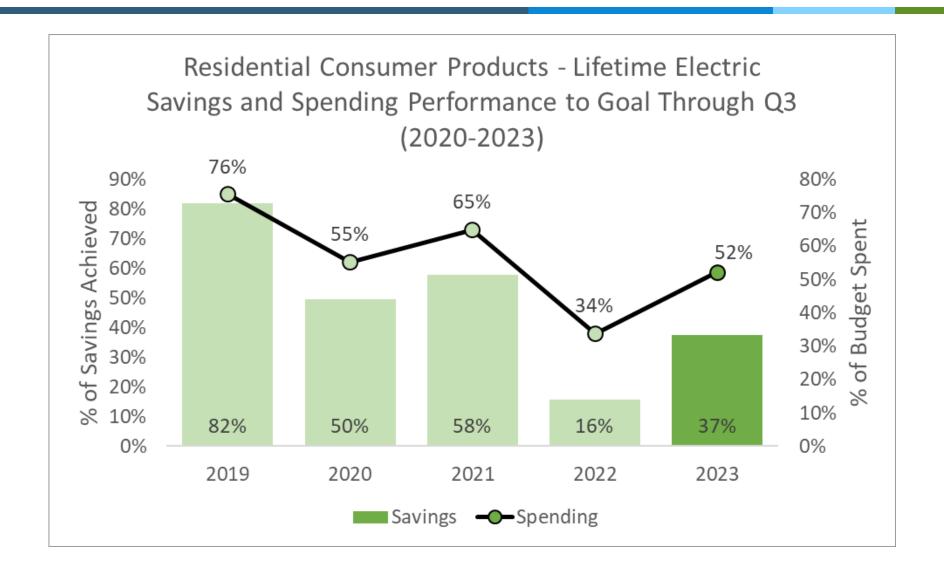






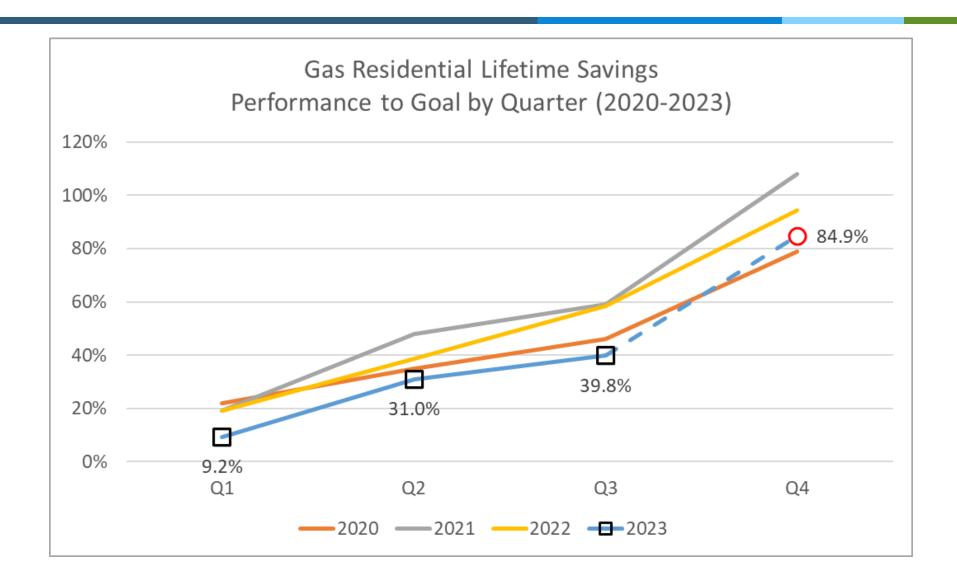




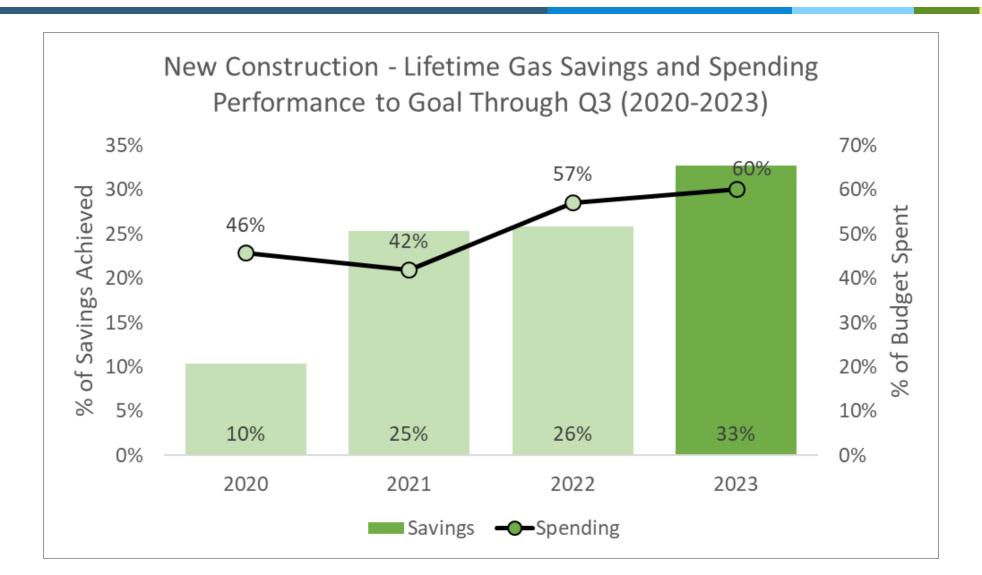


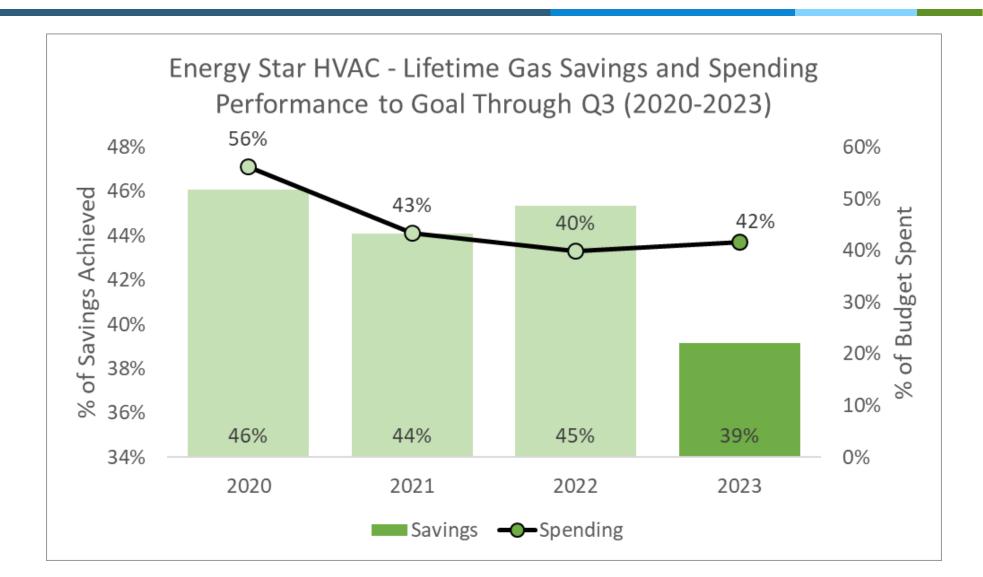
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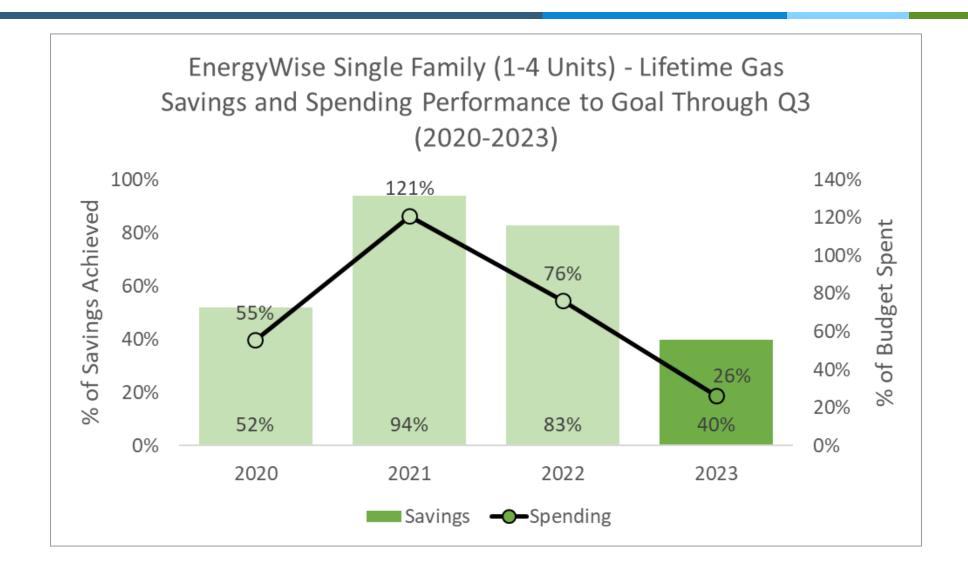
Gas Res Performance



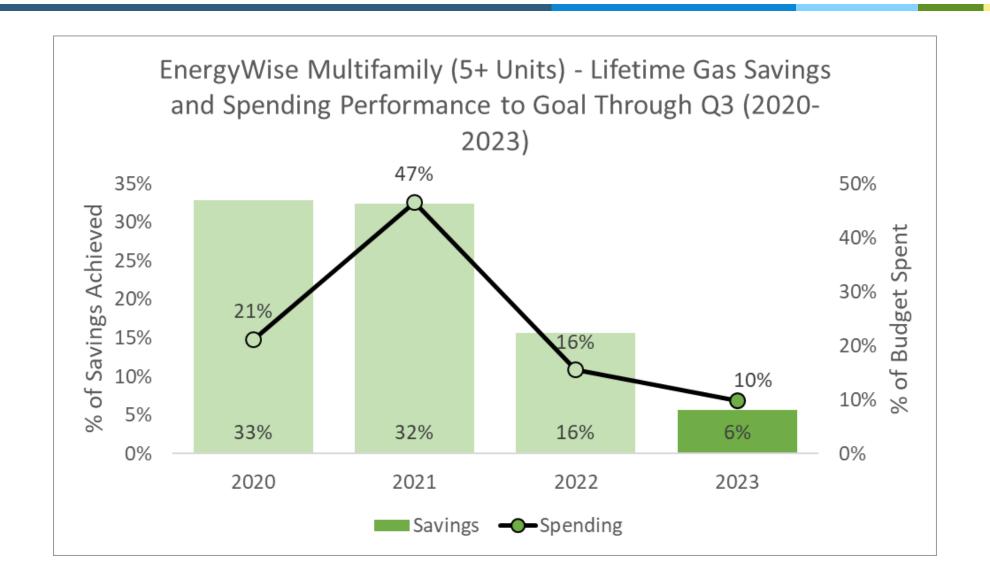


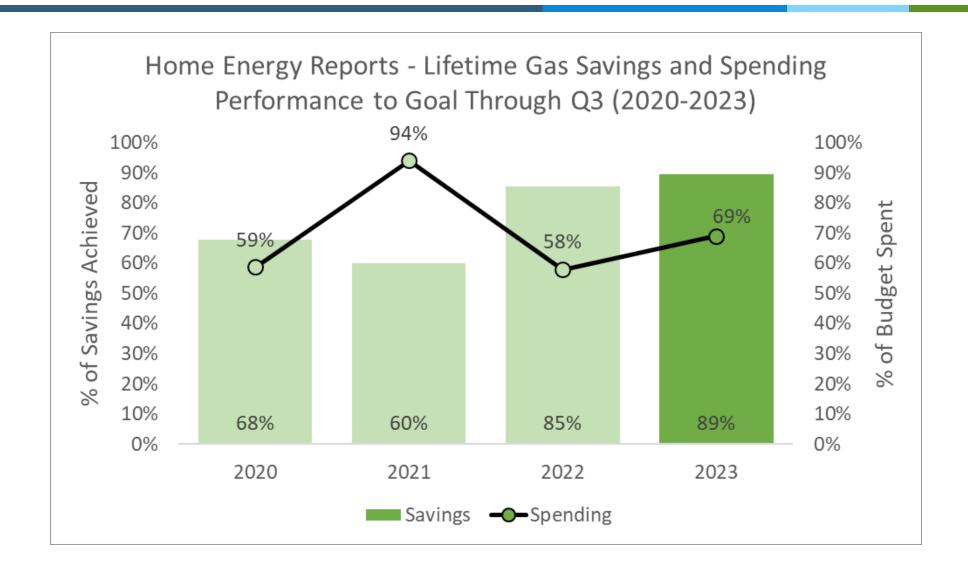




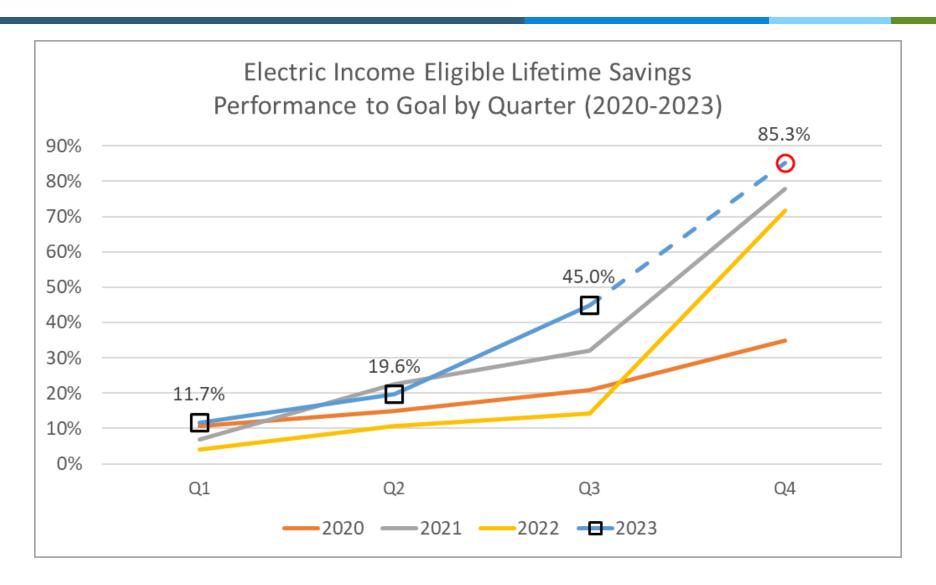




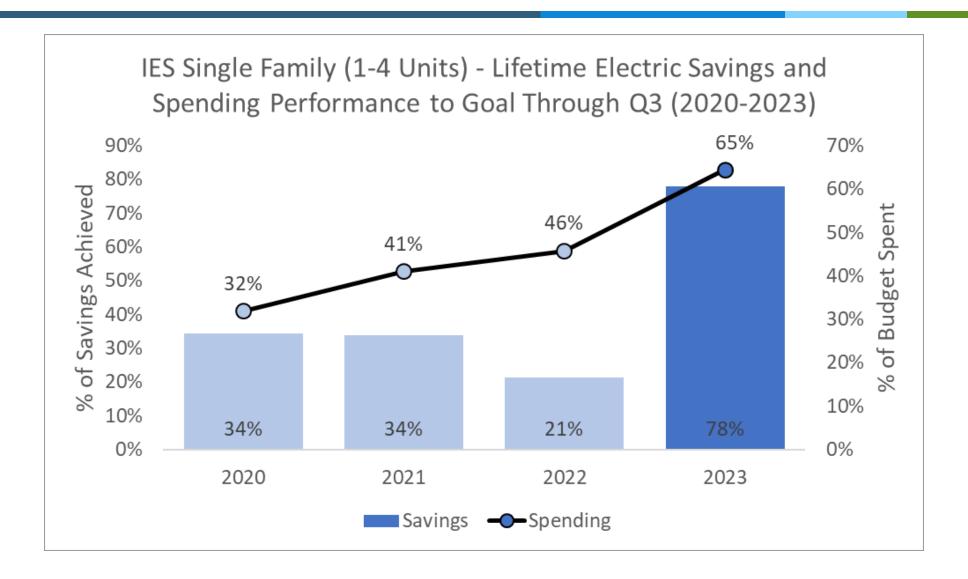




Electric IE Performance

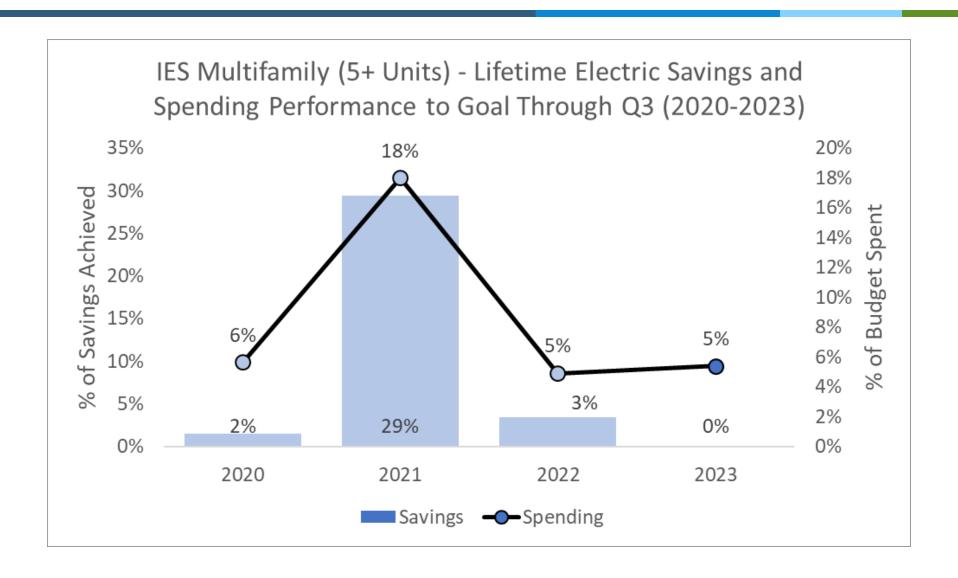




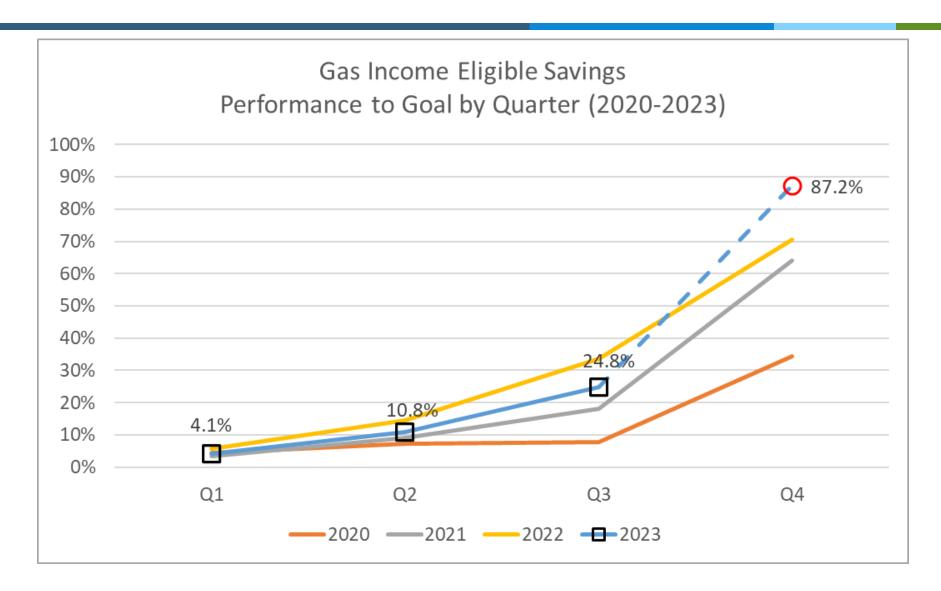




Electric IE Programs



Gas IE Performance



Gas IE Programs

