



ENERGY EFFICIENCY & CONSERVATION PROGRAM

PRESENTED BY:

Rick Luna

Director, Technology & Product Innovation

May 17, 2022

Approval Requested

AGENDA



- **OUR ROAD TO TODAY**
- **STAKEHOLDER ENGAGEMENT**
- **3 PROGRAM OPTIONS**
- **REQUEST FEEDBACK & VOTE**

Our objective today is to request your feedback & vote on your preferred option for a new energy efficiency & conservation program.

WORKSTREAMS IN FLIGHT



Feb'-Apr'22

- ✓ **Board of Trustees (BoT) - Brattle Group report presentation**
- ✓ **Input from Citizens Advisory Committee (CAC) & Rate Advisory Committee (RAC) & Municipal Utilities Committee (MUC)**
- ✓ **Stakeholder & community engagement ongoing**



May'22

- ✓ **Continued RAC & CAC engagement & 1:1s with City Council members**

BoT approval request

Jun'22

City Council approval request



BoT procurement approvals*

Program ends (July 31)

Jul'22

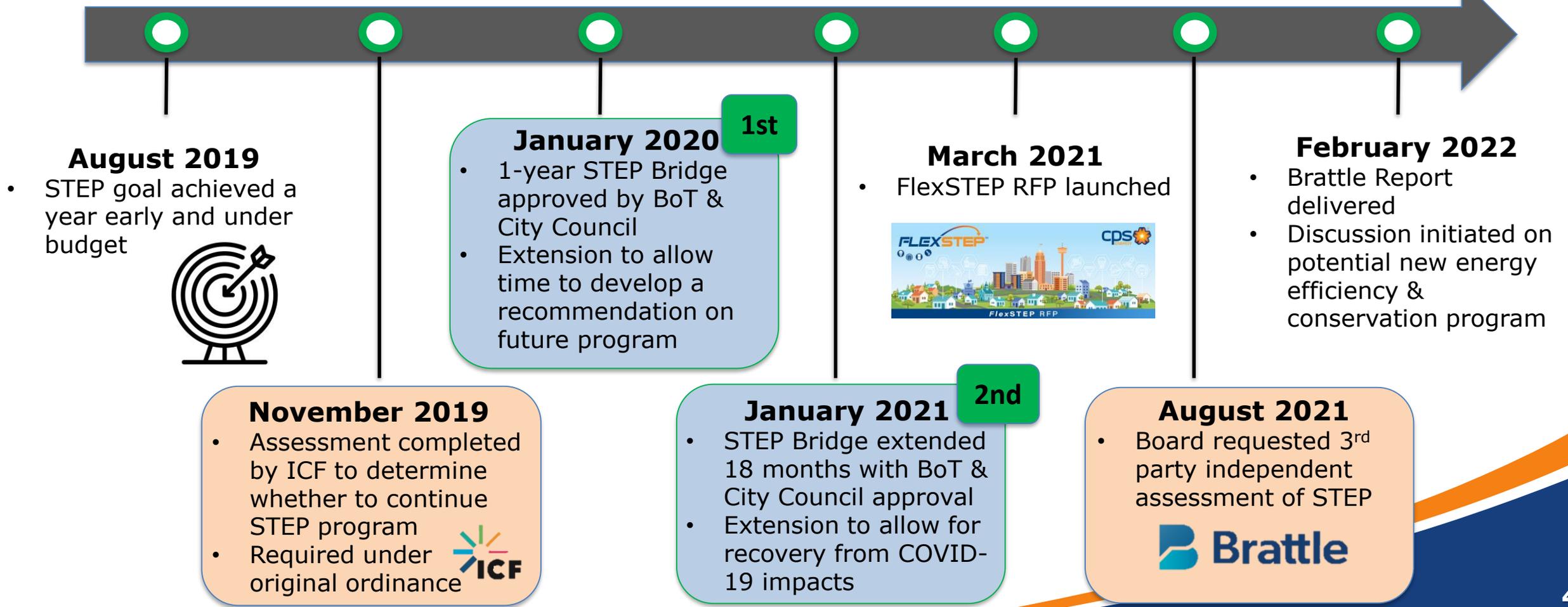
* Weatherization will require additional time due to proposed re-design

Workstreams are building toward a summer decision on the future of our Energy Efficiency & Conservation program.

OUR ROAD TO TODAY



Discussions on the future of energy efficiency & conservation started almost 3 years ago when the original STEP goal was achieved.



RECENT ENGAGEMENTS

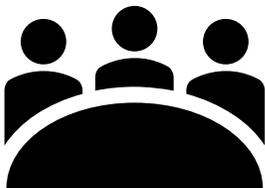


We've engaged the RAC, CAC & City Council throughout the process of developing the 3 options.



Rate Advisory Committee (RAC)

- June & September 2021 – Deep dive on STEP programs
- March 2022 – Recap of Brattle Report
- April 2022 – Discussion of key decision points
- May 2022- Consideration of 3 options



City Council

- April – Program options discussed with Municipal Utilities Committee (MUC)
- May 2022 – 1:1's with Council members



Citizens Advisory Committee (CAC)

- March 2022 – Recap of Brattle Report
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- May 2022- Consideration of 3 options

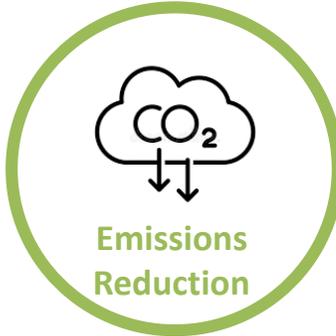
PROGRAM OPTIONS

3 SCENARIOS FOR CONSIDERATION



Address
Equity

Option 1
~\$50M



Emissions
Reduction



Future Demand
Management



Aggressive
Program
Growth



Bill Savings



Innovation

Option 2
~\$70M

Option 3
~\$100M

These program options are designed to meet multiple goals & scaled at different bill impact levels.

PROGRAM DESIGN

ALIGNING PROGRAMS TO GOALS



Program Categories	Option 1 \$50M	Option 2 \$70M	Option 3 \$100M
Weatherization	✓	✓	✓ +
Energy Efficiency	✓	✓	✓ +
Demand Response	✓	✓	✓ +
Traditional Solar Rebates			
Multifamily Weatherization	✓	✓	✓ +
Targeted Low-Income Programs	✓	✓	✓ +
Educational/ Behavioral Programs	✓	✓	✓ +
EV Charging Programs	✓	✓	✓ +
Non-Traditional Solar Options*		✓	✓ +
Battery Storage		✓	✓ +
Electrification			

Existing Programs

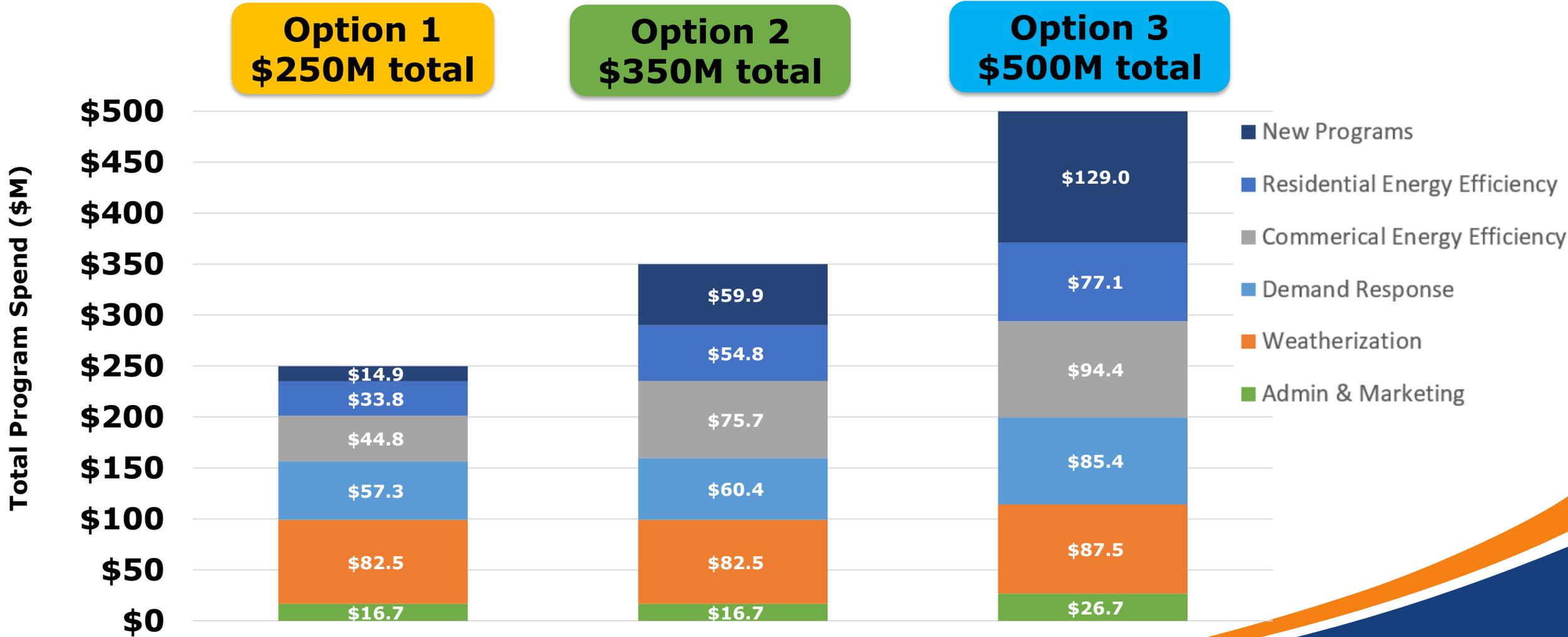
Potential New Programs

*Non-Traditional Solar Options would include community solar & other programs that lower the barrier for entry to solar.

ESTIMATED BUDGETS



These are estimated budgets by program category over the 5-year term.



All figures based on a 5 year program.

PROGRAM OUTCOMES

5 YEAR TARGETS



	Option 1	Option 2	Option 3
Demand Reduction 	~ 265 MW of incremental demand reduction	~ 410 MW of incremental demand reduction	~ 565 MW of incremental demand reduction
Energy Savings* 	~ 0.70% of energy savings per year	~ 1.00% of energy savings per year	~ 1.30% of energy savings per year
Equity 	~ 16,000 homes & ~ 10,400 multifamily units weatherized	~ 16,000 homes & ~ 20,000 multifamily units weatherized	~ 18,000 homes & ~ 30,000 multifamily units weatherized

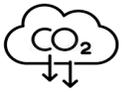
* Energy savings as a percentage of annual electric sales.

These options are designed to deliver outcomes that matter to our customers & community.

PROGRAM OUTCOMES

BENEFITS



	Option 1	Option 2	Option 3
Avg. Monthly Bill Impact*	~\$2.50	~\$3.50	~\$5.00
Total Program Cost	~\$250M	~\$350M	~\$500M
Systems Benefits** 	~\$475M <i>in lifetime avoided fuel & capacity costs</i>	~\$665M <i>in lifetime avoided fuel & capacity costs</i>	~\$950M <i>in lifetime avoided fuel & capacity costs</i>
Emissions Reduction 	~1.2 million <i>tons of avoided carbon</i>	~1.85 million <i>tons of avoided carbon</i>	~2.2 million <i>tons of avoided carbon</i>

* Bill impact projections are based on the FY2023 budget with average residential bill of 1,048 kWh per month & are subject to change.

** Based on target Utility Cost Test (UCT) of 1.90 over the life of the program.

*** Emissions are based on FY2022 emissions factors. Avoided figures based on cumulative emission reductions over the 5-year program.

Benefits are calculated based on a 5-year program.

TERM & ACCOUNTABILITY

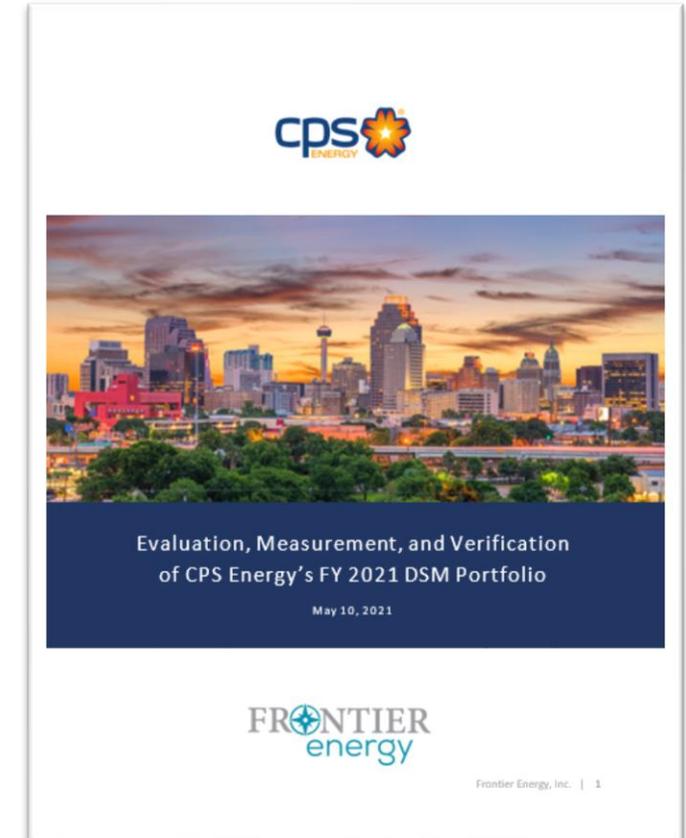


Proposed 5-Year Term

- 3-year check-in to evaluate performance & re-affirm goals.
- Annual program update to CPS Energy BoT.

Continued Accountability

- Maintain documentation of all STEP expenditures by customer class.
- Calculate annual kWh charge for review & approval by City staff before implementation.
- Provide an annual report, prepared by an independent third party consultant, that quantifies kW savings by customer class.
- Provide quarterly reports to City staff with expenditures by program & customer class, funds accumulated, & estimated kW savings.



We recommend continuing the existing STEP accountability procedures as they have worked well.

APPROVAL REQUEST



Staff recommends continuing an energy efficiency & conservation program:

- Approval of a new 5-year energy efficiency & conservation program
- Options 1, 2, or 3 or abstention (allow program to end)
- Goals on incremental demand reduction, energy savings, & weatherization
- All options will include:
 - Built-in check-in to ensure the program is on track at year 3
 - Annual reporting of results with same accountability procedures as the original STEP program

Without action, the energy efficiency & weatherization programs will end on July 31, 2022.



Thank You



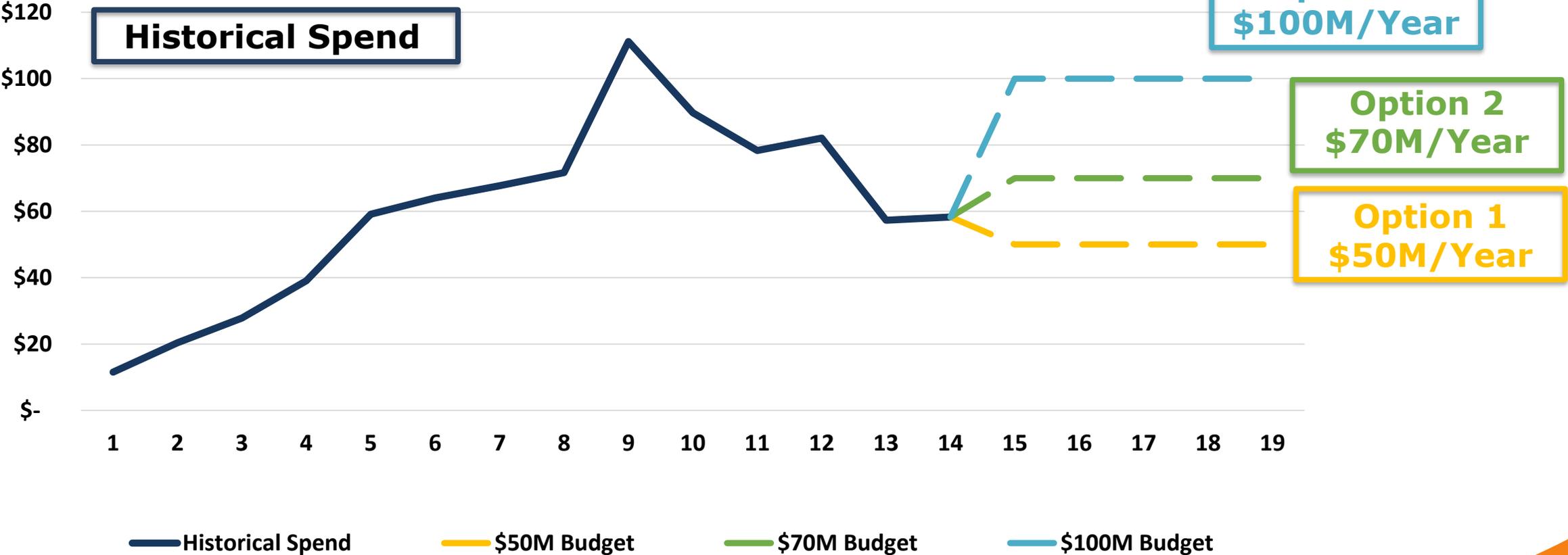
APPENDIX

PROGRAM SCALE

RELATIVE TO HISTORICAL SPEND



\$ in Millions



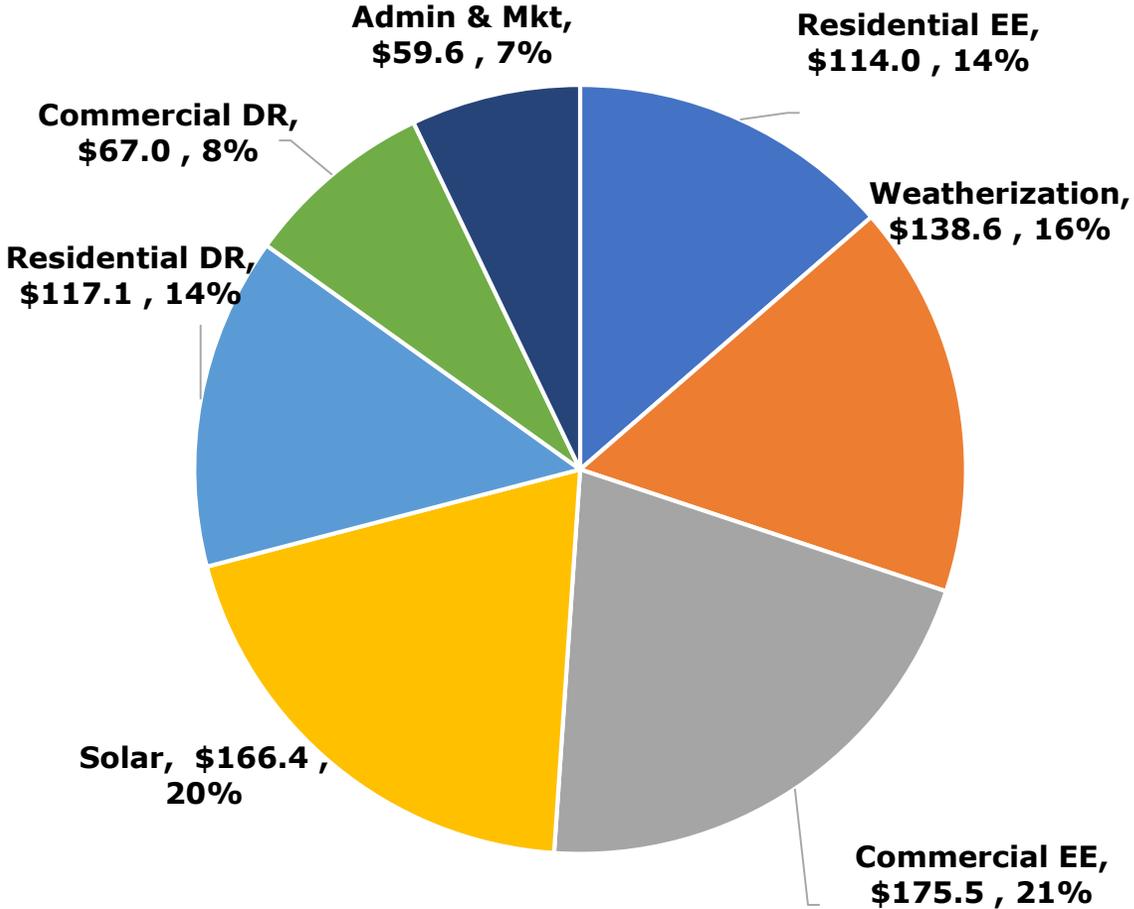
**Option 1 is comparable to early years of STEP.
Option 2 is 10% higher than STEP over its 12-year life.**

HISTORICAL STEP ACHIEVEMENTS

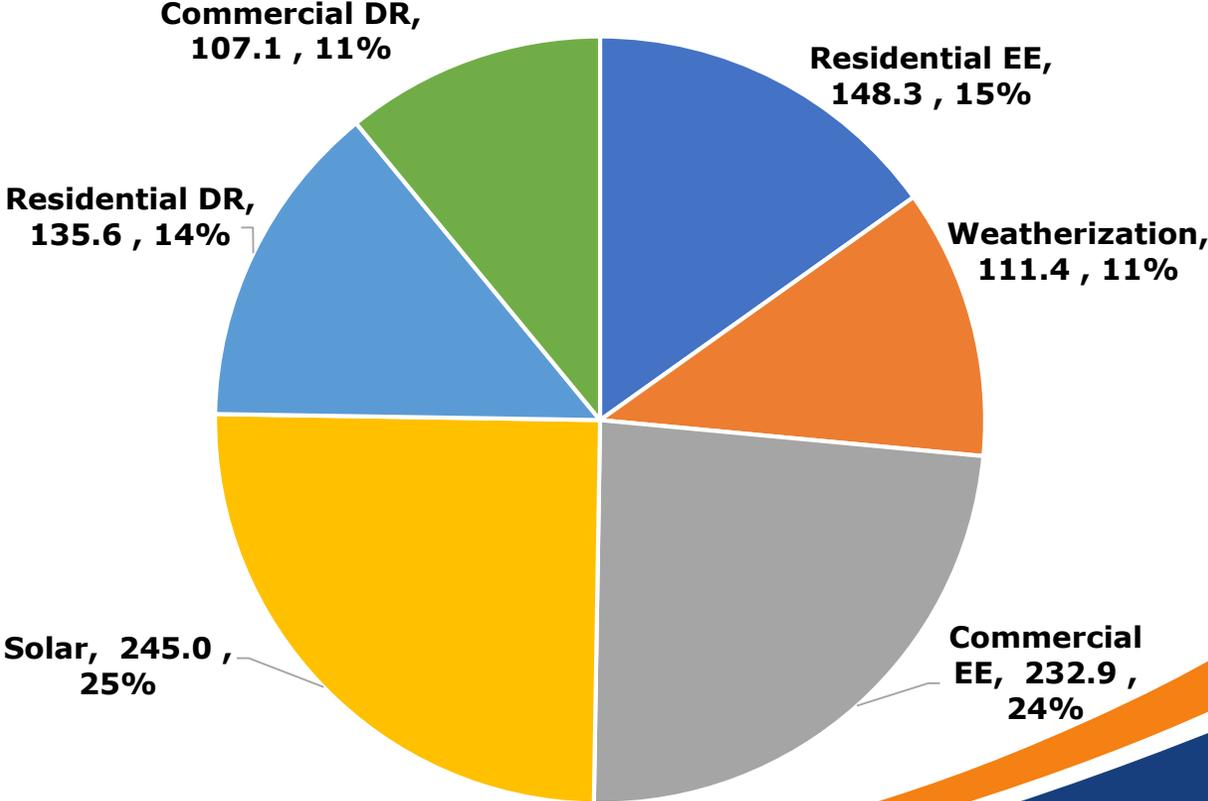
FY09-FY22



Dollars spent **\$838M**



MW Achieved **980 MW**



CURRENT STEP CONTRIBUTION

RECOVERY BY RATE GROUP



2021 Average Bill & STEP Amounts Per Customer Group

Rate Group	Total Bill	\$ Contributed to STEP per Bill	STEP % of Bill
Residential	\$ 119.89	\$ 3.63	3.0%
Small Commercial	\$ 538.65	\$ 18.09	3.4%
Large Commercial	\$ 10,986.82	\$ 408.25	3.7%
Extra Large Commercial	\$ 82,709.20	\$ 3,365.19	4.1%
Super Large Commercial	\$426,247.21	\$ 19,378.94	4.5%

We have added a way for customers to view what they are contributing to the STEP program on an average basis

To calculate your own monthly contribution to the STEP program, please follow the calculation below:

$$\begin{array}{rcl}
 \mathbf{\$0.00348} & \times & \mathbf{1,000 \text{ kWh}} & = & \mathbf{\$3.48} \\
 \text{Average STEP} & & \text{Monthly} & & \text{Average} \\
 \text{contribution factor} & & \text{Consumption} & & \text{contribution to} \\
 & & \text{(or Usage)} & & \text{STEP per month} \\
 & & & & \text{for a customer} \\
 & & & & \text{with 1,000 kWh in} \\
 & & & & \text{monthly usage}
 \end{array}$$

FUTURE BILL IMPACT

BY OPTION & RATE GROUP



Estimated Monthly STEP Bill Impact

Rate Group	Option 1 \$50M	STEP % of Total Bill	Option 2 \$70M	STEP % of Total Bill	Option 3 \$100M	STEP % of Total Bill
Residential	~ \$2.50	~ 2.1%	~ \$3.50	~ 2.9%	~ \$5.00	~ 4.2%
Small Commercial	~ \$12.40	~ 2.3%	~ \$17.35	~ 3.2%	~ \$24.80	~ 4.6%
Large Commercial	~ \$279.80	~ 2.5%	~ \$392.20	~ 3.6%	~ \$559.65	~ 5.1%
Extra Large Commercial	~ \$2,311.75	~ 2.8%	~ \$3,240.30	~ 3.9%	~ \$4,623.45	~ 5.6%
Super Large Commercial	~ \$13,300.80	~ 3.1%	~ \$18,643.30	~ 4.4%	~ \$26,601.55	~ 6.2%

Bill impact projections are based on CY2021 average customer usage & are subject to change.

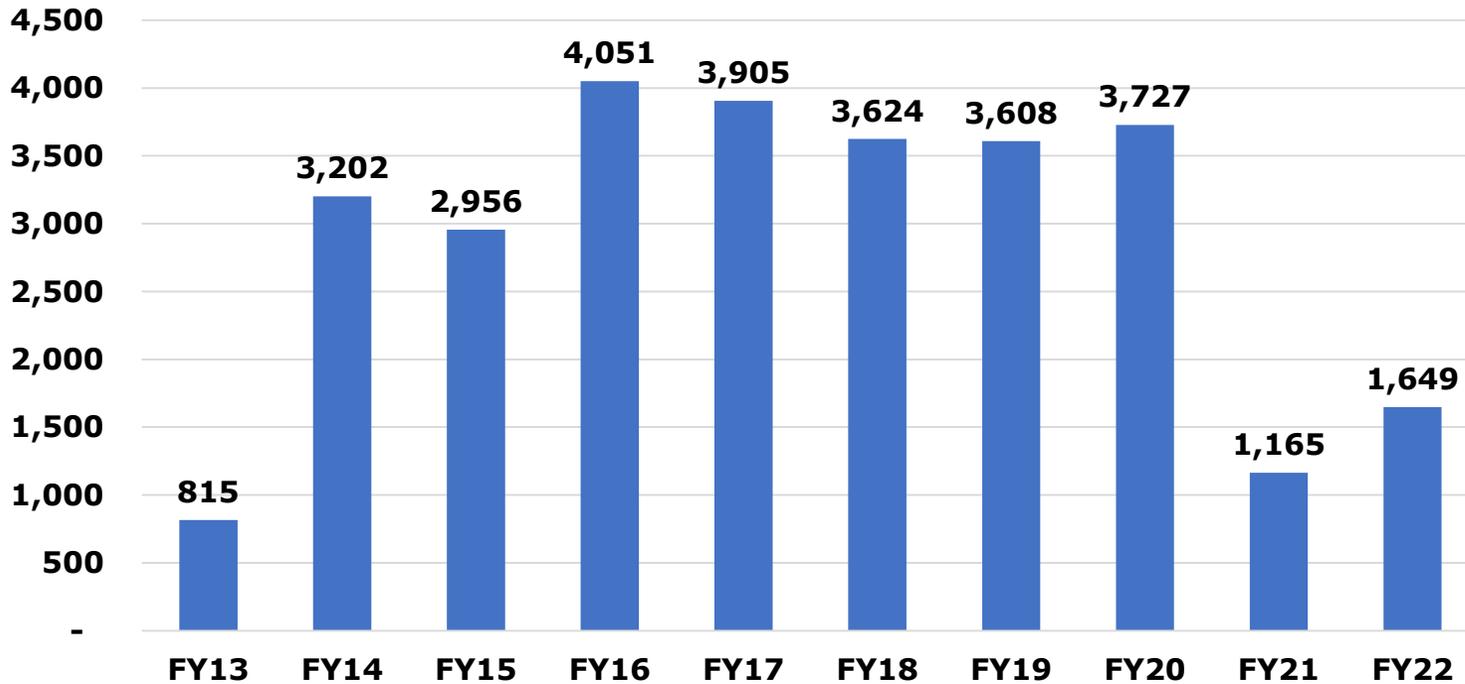
WEATHERIZATION

PAST PERFORMANCE



Homes Weatherized by Year (STEP)

28,700 Homes since FY13



Note: FY21 & FY22 figures are lower due to the impact of COVID-19.

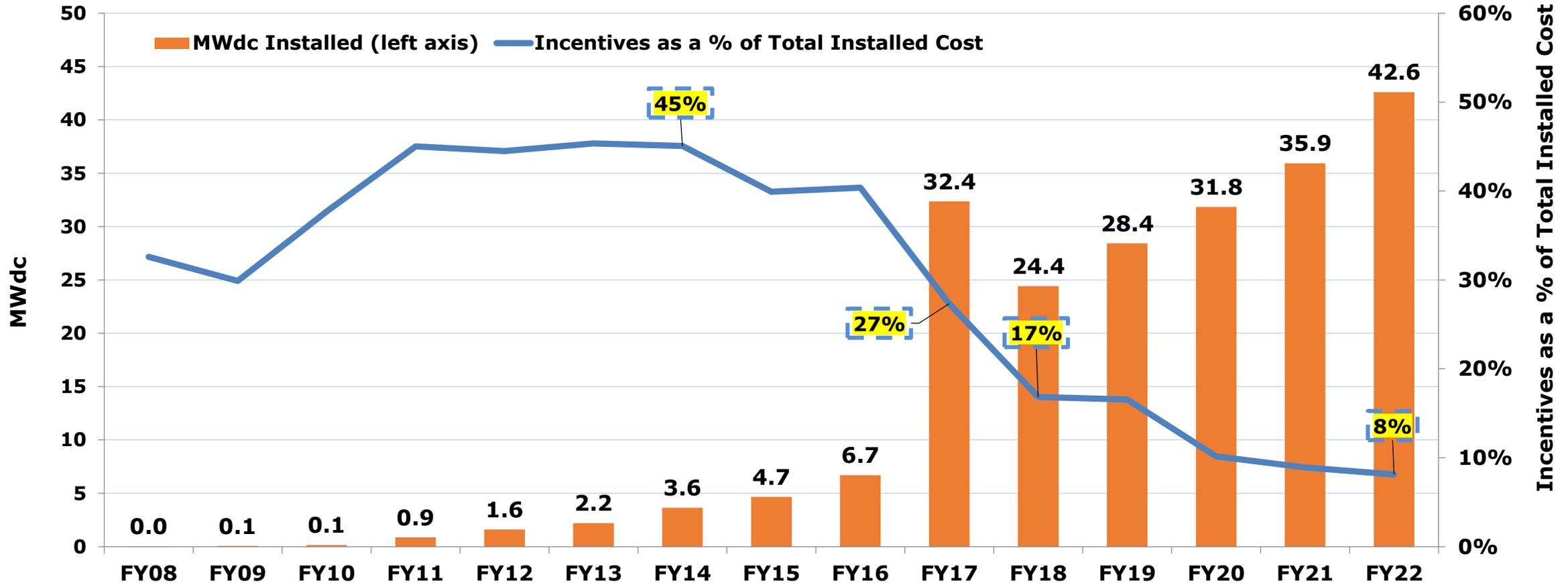
FY22 Measure Mix

Measures	# of homes measure was installed in
Air infiltration	1,556
Attic insulation	1,529
Solar screens	1,471
LED lightbulbs	1,346
Wall insulation	661
Hot water heater	390
Floor insulation	245
Duct sealing	186

Customers save an estimated \$450 annually after weatherization services have been completed in their home

TRADITIONAL SOLAR REBATES

ADOPTION RELATIVE TO REBATE LEVEL (RESIDENTIAL)



In FY 22, the solar rebate offset 8% of the cost of an installed residential system.