

My Energy Target – Southern Maryland Electric Cooperative
Residential energy savings through goal-setting



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November 12, 2023

Agenda



Traditional approaches to residential behavioral programs



The role of goal-setting and feedback in behavioral change



My Energy Target – Southern Maryland Electric Cooperative



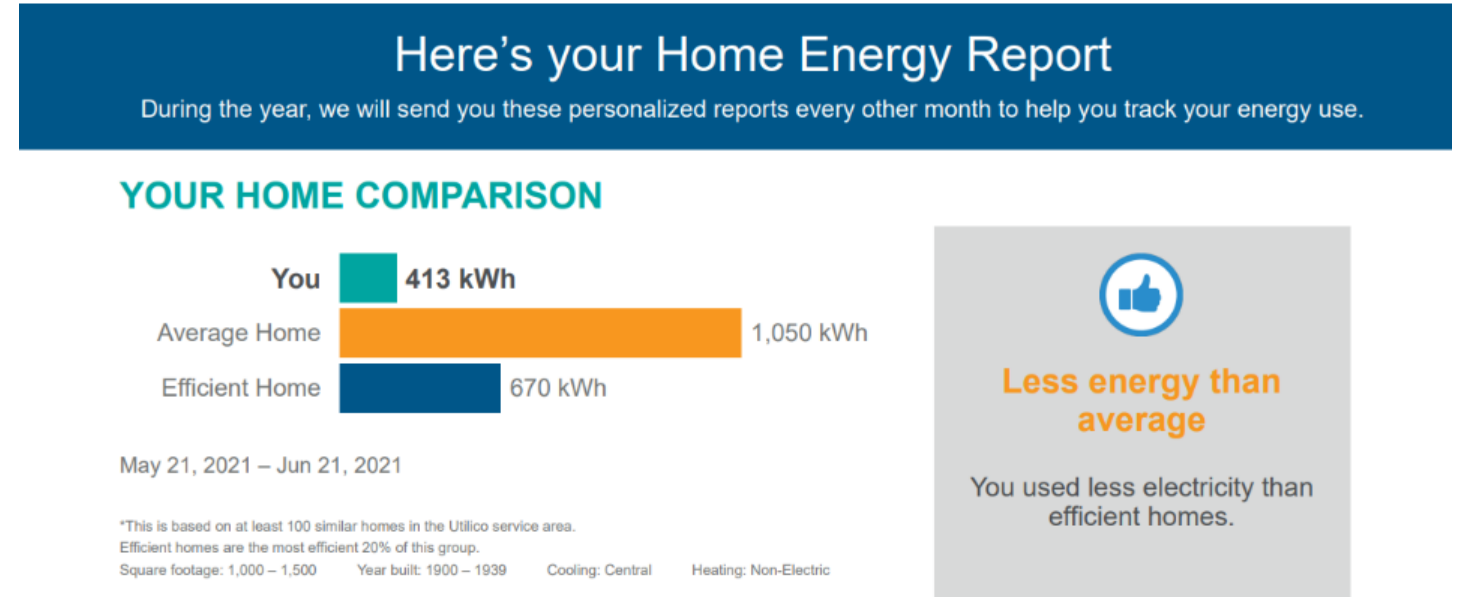
Summers 2021 and 2022 results



Future directions

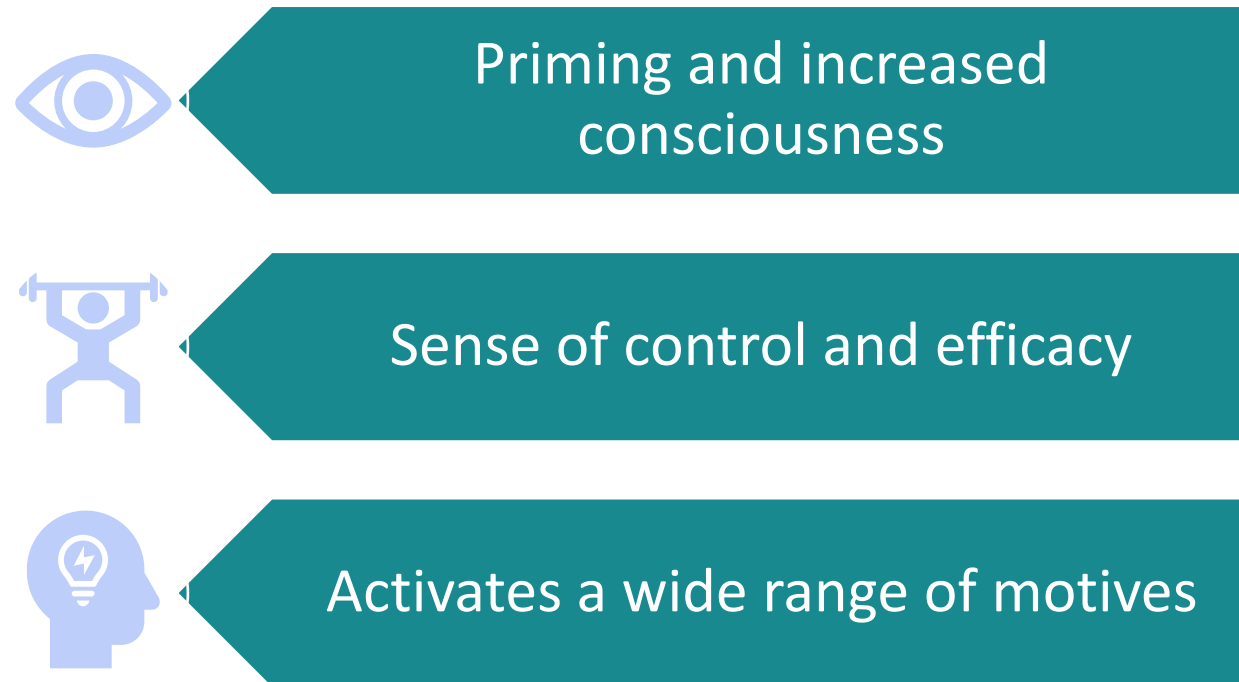
Traditional Approaches to Residential Behavioral Programs

- Traditional programs rely heavily on “neighbor comparisons”, leveraging **social norms** to reduce energy usage
- Some customers respond negatively to comparisons and **utilities are showing interest in alternative strategies**
- How else can we leverage behavioral science to design effective residential behavioral programs?



The role of goal-setting and feedback in behavioral change

- Over 50 years of research has shown the effectiveness of goal-setting on performance across a range of behaviors (Latham & Locke, 1975; Locke & Latham, 2019)
- Why does goal feedback work?



A new opportunity

Several studies have shown that goal-setting and feedback are effective at reducing residential energy use but not without limitation

- Lack of rigorous experimental designs
- Goals not provided in context of customers' usage
- Self-reported energy behavior rather than metering data
- Mostly outside of US

An opportunity to rigorously test how goal-setting and feedback impacts actual energy usage within a large US customer base

- Quasi-experimental design
- Contextualized energy reduction goals
- Real-time AMI data
- Large US customer sample

My ENERGY TARGET

Let's start saving

\$100

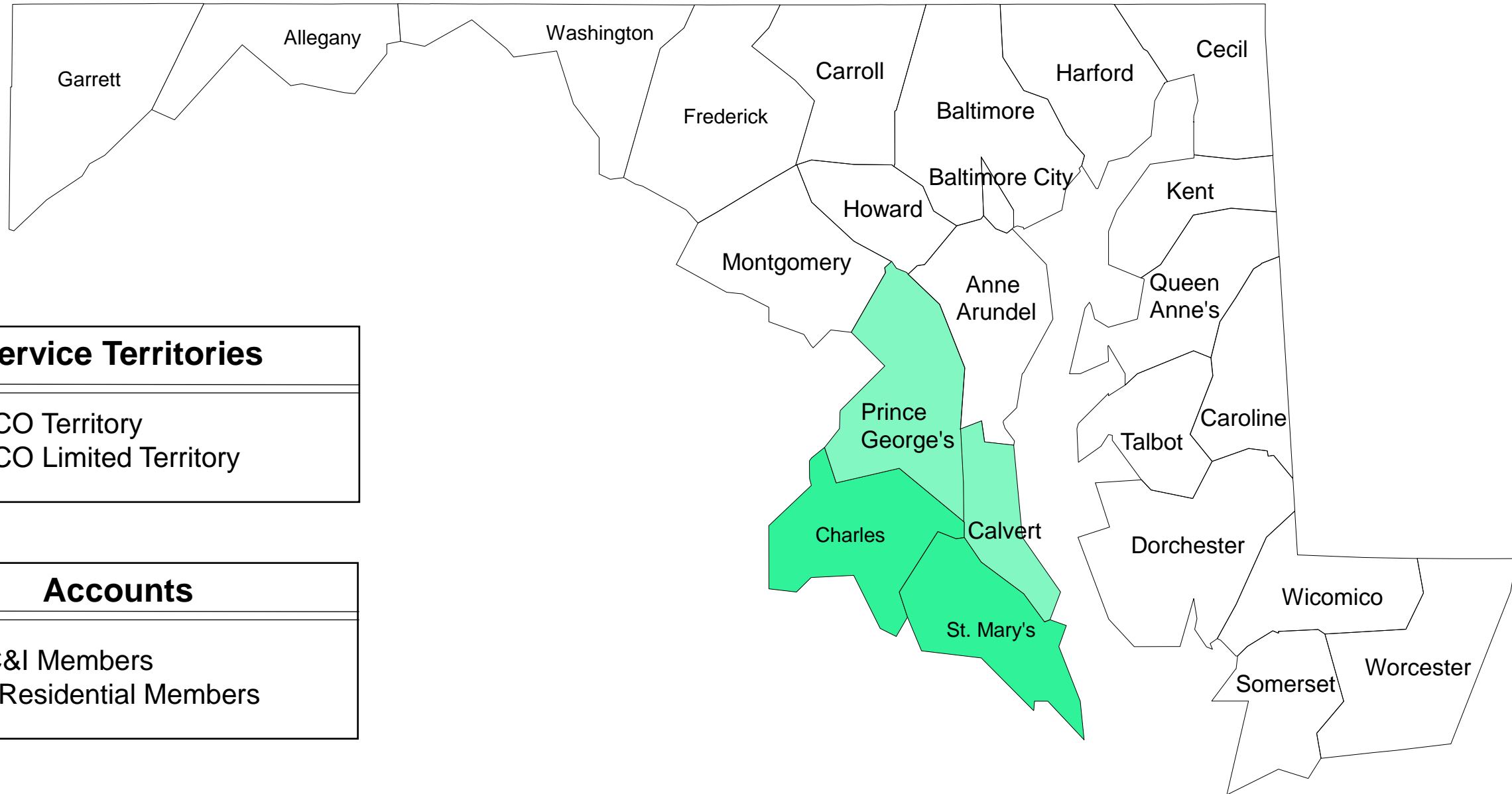
\$150

SMECOSM
People. Power. Progress.

→ My Energy Target – SMECO



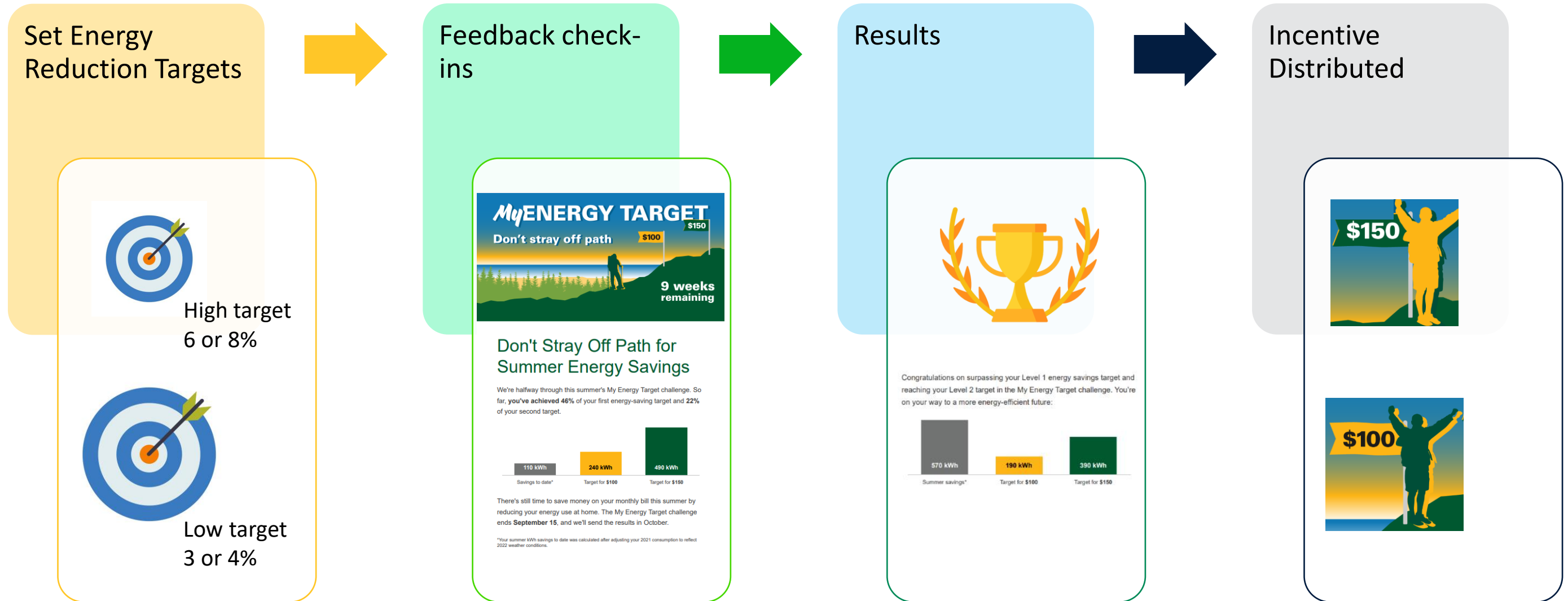
SMECO Territories and Accounts



Service Territories	
■	SMECO Territory
■	SMECO Limited Territory

Accounts
15k C&I Members
170k Residential Members

My Energy Target – SMECO



My Energy Target – SMECO



- Customers were randomly selected to participate in the My Energy Target program or assigned to a matched-comparison group within a [quasi-experimental design](#)
- All customers were also enrolled in SMECO’s HER program
- Challenge period lasted from June to September in 2021 and 2022



Summer 2021



Summer 2022

Treatment	$N \approx 17,000$	$N \approx 6,000$
Comparison	$N \approx 19,000$	$N \approx 33,000$

- Data analysis approach
 - Weather normalization of baseline period for treatment and comparison groups
 - Treatment versus comparison analyzed via Mean Differences of Differences Regression Model






Summers 2021 and 2022 Results



Summer 2021



Summer 2022

	Overall Program Savings	749,202 kwh	837,559 kwh
	Total customers that saved	47%	62%
	Saved but Missed Target	14%	12%
	Hit Low Target (3 or 4%)	11%	12%
	Hit High Target (6 or 8%)	22%	38%

Other Notable Results



Summer 2021

- Large majority of high-target achievers saved > 10%
- Savings for customers with higher engagement was >1.5x greater than the overall group at 1.12% vs 0.65%
- 95% of High-Target achievers and 86% of Low-Target achievers continued to save after program conclusion



Summer 2022

- Large majority of high-target achievers saved > 10%
- Savings for customers with higher engagement was 2.4x greater than the overall group at 1.51% vs 0.63%

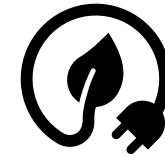
Other Notable Results

Customers with **higher** summer savings are more likely to:

Be single and
unmarried



Have participated in an
EE program before MET



Have opened Welcome
or Mid-summer MET
email



Have lower annual
incomes

<\$50K

Have more cooling-
related usage relative
to baseload



Customers with **lower** summer savings are more likely to:

Have higher annual
incomes

>\$125K

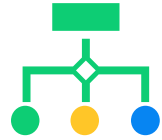
Have high baseload
consumption



Future Directions



Increased number of feedback check-ins



Different incentive approaches



Income- and age-qualified customers

Thank You





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