Draft 2025 Efficiency Potential & Goals Study

CPUC Workshop

May 12, 2025

California Public Utilities Commission

Agenda

Time Slot	Agenda Item
10:00-10:20	Part 1: Introduction
10:20 – 11:00	Part 2: Key Updates & Scenario Design
11:05 – 12:00	Part 3: Study Results
12:00 – 12:30	Part 4: Discussion

Gaps in timeslots are for breaks.

Webex Participant Guide

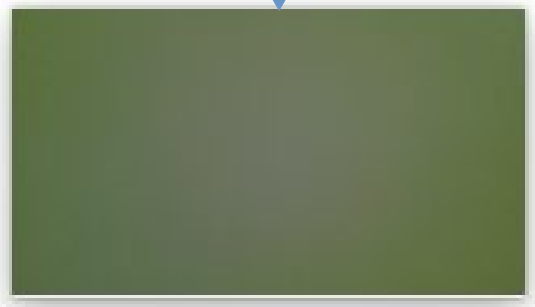
Un-Mute or Mute

Video On or Off

Click to see the participants

Click to see the chat and enter questions

If your **video is on**, you will see this box appear showing the video feed.



Gray means "on" (Not Muted, Sharing Video)

Red means "off" (Muted, Not Sharing Video)

Link to: Cisco Webex Participant Guide

Conference Call Etiquette During Q&A Sessions

- We know many are working from home, background noise if you are speaking is inevitable.
- BUT please mute yourself when you aren't speaking.
- Please do not place the line on hold.
- We are actively monitoring the chat window; consider submitting questions/comments via chat.

CPUC EE Potential & Goals Study Team

Hanna Navarro Goldberg
Project Lead

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Project Supervisor

Ali Choukeir

Will Graswich

EE Potential & Goals Background

The 2025 Study supports CPUC objectives, and provides the following:

- Informs the CPUC as it proceeds to adopt updated EE and FS goals for IOUs
- Serves as one of the several sources of guidance to the IOUs and other program administrators in portfolio planning
- Informs the budget-setting process for IOU EE portfolios
- Forecasts potential for EE savings and FS opportunities
- Provides forecasting inputs to support the procurement and planning efforts of California's principal energy agencies including the CPUC, CEC, and CAISO
- Provides forecasting inputs to support the analysis and accounting of EE contributions to SB 350 targets including doubling EE by 2030

CPUC's Energy Efficiency Goals

- Energy efficiency and fuel substitution outcomes that utilities are required to achieve annually
- CPUC adopts revised goals every two years
- Goals are informed by the PG Study which forecasts cost effective, achievable savings. Study outputs may be used for goalsetting.
- Prior to the 2023 Study goals have been set using the 1st-year savings outputs from the PG study: 1st-year GWh, MW, MMTherms

Potential & Goals Timeline and Stakeholder Engagement

Activity	Timeline
Workplan Webinar	April 2024
Income Qualified Webinar	August 2024
Measure Characterization	August 2024
Scenario Design Webinar	September 2024
Draft Results and Study Review	**TODAY**
Stakeholder comments due to CPUC	May 23, 2025
Reply comments due to CPUC	May 30, 2025
Proposed Decision Published	July 2025
Anticipated Commission vote on Decision	August 2025

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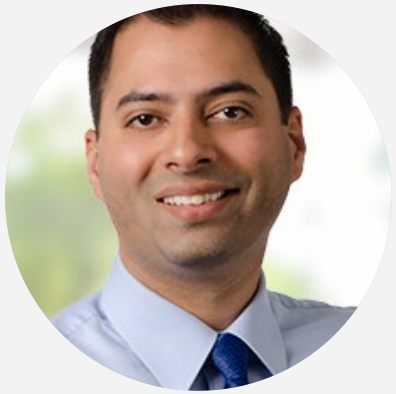
Introduction

2025 Potential and Goals Study

Guidehouse Team



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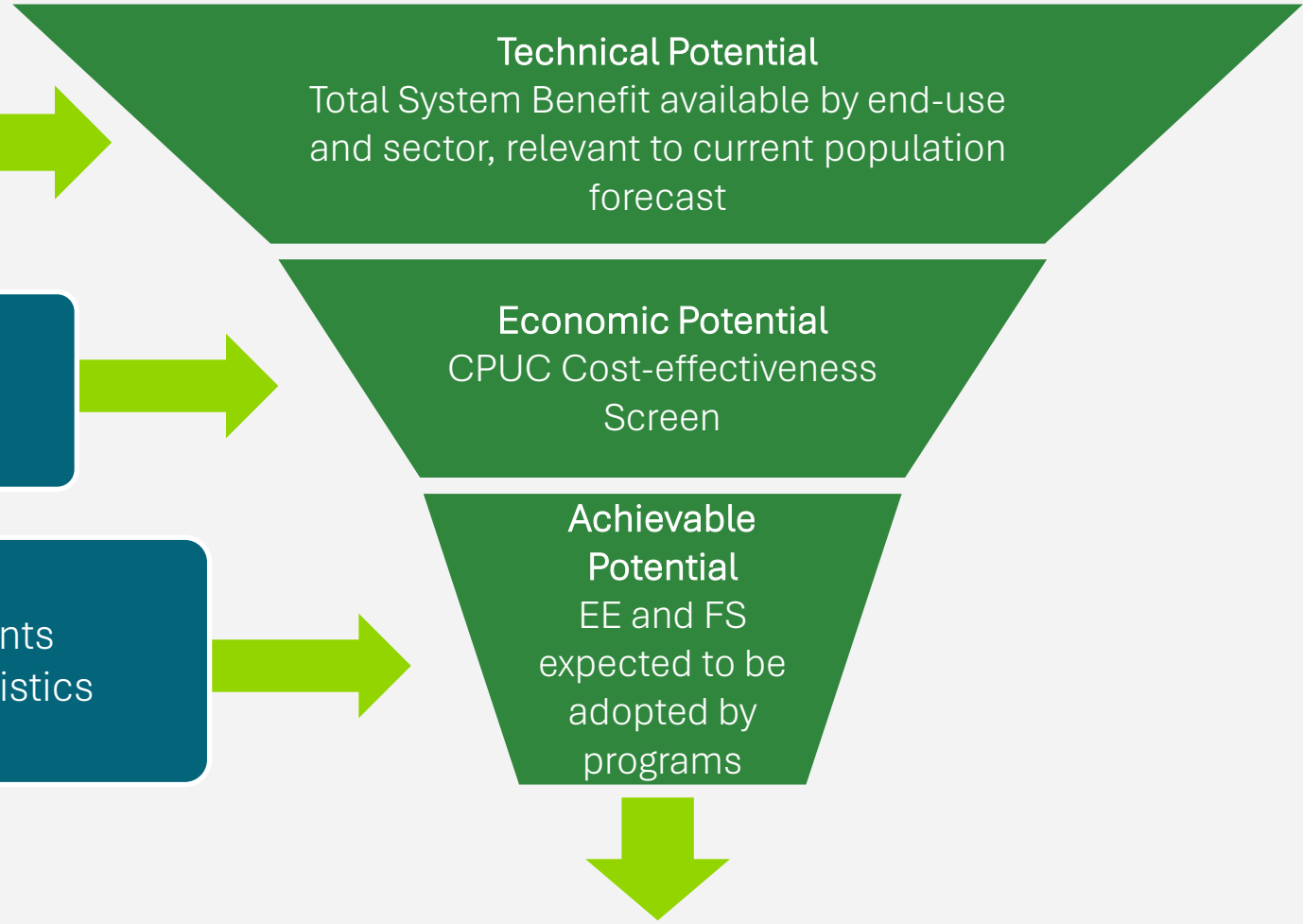
What is a Potential Study?

- Measure Energy Savings
- Measure Life
- Technology Density and Saturation

- Avoided Costs
- Measure Costs
- Program Admin Costs

- Historical Program Achievements
- Customer Adoption Characteristics



Forecasted Scenarios that Inform Goals

2025 PG Study Deliverables

EE and FS Potential Forecast

Core effort includes model development and producing scenario results.

Income Qualified Potential Forecast

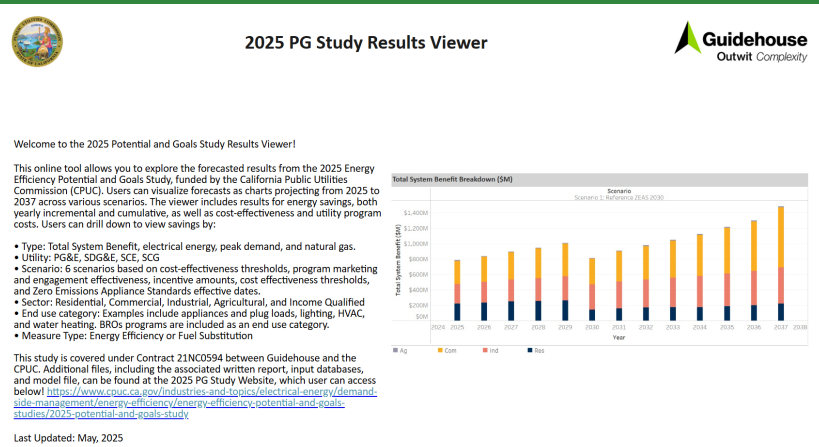
Sector-specific effort to inform ESA Goal Setting Process (report coming June 2025)

Post Processing

Post process the EE potential forecast to meet needs beyond the goal setting process

Study Products

Results Viewer



2025 PG Study Results Viewer

Guidehouse
Outwit Complexity

Welcome to the 2025 Potential and Goals Study Results Viewer!

This online tool allows you to explore the forecasted results from the 2025 Energy Efficiency Potential and Goals Study, funded by the California Public Utilities Commission (CPUC). Users can visualize forecasts as charts projecting from 2025 to 2037 across various scenarios. The viewer includes results for energy savings, both yearly incremental and cumulative, as well as cost-effectiveness and utility program costs. Users can drill down to view savings by:

- Type: Total System Benefit, electrical energy, peak demand, and natural gas.
- Utility: PG&E, SDG&E, SCE, SCG
- Scenario: 6 scenarios based on cost-effectiveness thresholds, program marketing and engagement effectiveness, incentive amounts, cost effectiveness thresholds, and Zero Emissions Appliance Standards effective dates.
- Sector: Residential, Commercial, Industrial, Agricultural, and Income Qualified
- End use category: Examples include appliances and plug loads, lighting, HVAC, and water heating. BROs programs are included as an end use category.
- Measure Type: Energy Efficiency or Fuel Substitution

This study is covered under Contract 21NC0594 between Guidehouse and the CPUC. Additional files, including the associated written report, input databases, and model file, can be found at the 2025 PG Study Website, which user can access below! https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/demand-side-management/energy-efficiency/energy-efficiency-potential-and-goals-studies/2025-potential-and-goals-study

Last Updated: May, 2025

Total System Benefit Breakdown ($M)

Scenario

Scenario 1: Reference PEAS 2030

$1,400M
$1,200M
$1,000M
$800M
$600M
$400M
$200M
$0M

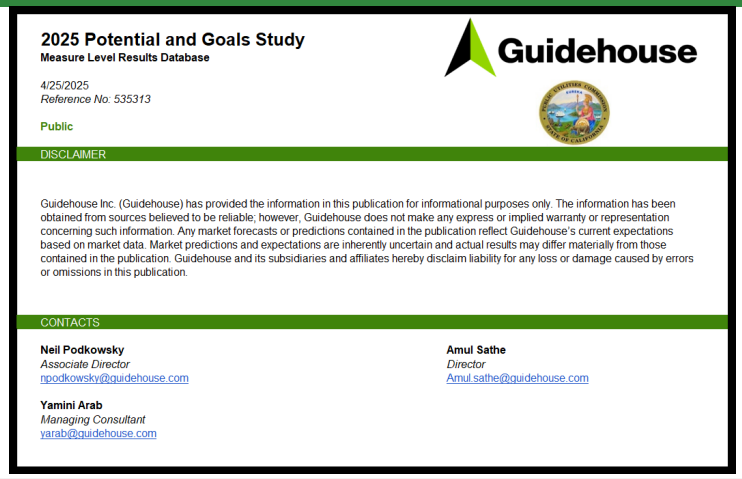
Total System Benefit ($M)

2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038

Year

Ag Com Ind Res

Measure Level Results Database



2025 Potential and Goals Study

Measure Level Results Database

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4/25/2025

Reference No: 535313

Public

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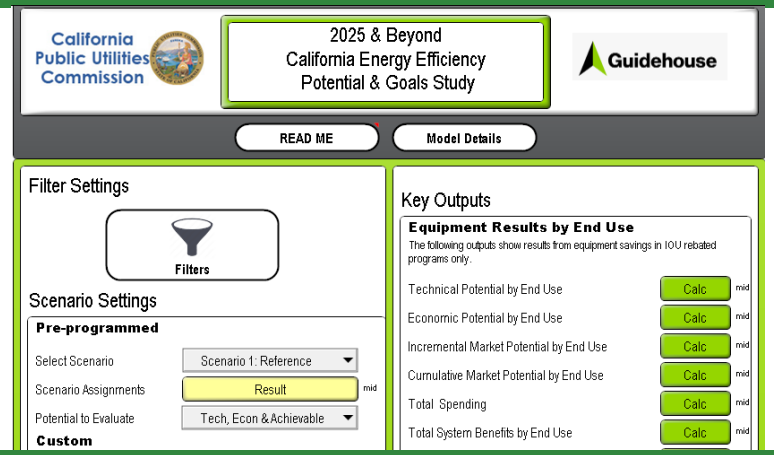
Analytica Model



California Public Utilities Commission

2025 & Beyond
California Energy Efficiency
Potential & Goals Study

Guidehouse

READ ME

Model Details

Filter Settings

Filters

Scenario Settings

Pre-programmed

Select Scenario: Scenario 1: Reference

Scenario Assignments: Result (mid)

Potential to Evaluate: Tech, Econ & Achievable

Custom

Key Outputs

Equipment Results by End Use

The following outputs show results from equipment savings in IOU rebated programs only.

Technical Potential by End Use	Calc	mid
Economic Potential by End Use	Calc	mid
Incremental Market Potential by End Use	Calc	mid
Cumulative Market Potential by End Use	Calc	mid
Total Spending	Calc	mid
Total System Benefits by End Use	Calc	mid

Technology Inputs

Section	Field Name	Units	Description
Technology Information	Technology ID	Text	Unique Technology Identifier, aligns with Common Technology Name
	Unique Technology Name	Text	Concatenation of the Sector, Technology Name, Service Territory, and Climate Zone(s)
	Common Technology Name	Text	Concatenation of Sector and Technology Name
	Service Territory	Text	Concatenation of the Utility and Climate Zone(s)
	Utility	Text	Applicable Utility (PG&E, SCE, SCG, SDG&E)
	Climate Zone	Text	Climate Zone Identifier for weather-sensitive measures: Marine, Hot-Dry, and Cold
	Primary Utility Type	Text	Applicable Fuel Type (Elec or Gas or Both)
	Technology Description	Text	Description of the Technology
	Base Year Efficiency Level	Text	Efficiency Level (Average Existing, Code, Efficient) at the study's base year (2019)
	Year Technology Becomes Code	Year	Year that a given technology level becomes code
	Conv or Emerging	Text	Whether the technology is an Emerging Technology
	End Use Category	Text	The End Use Category describes how or where the technology is used
	Building Type	Text	Applicable building type for the technology
	Sector	Text	Applicable Market Sector (Res, Low Income, Com, Ind, Ag)
	Replacement Type	Text	The replacement type of the technology (Replace on Burnout, Retrofit and New, etc.)
	Fuel Sub Technology?	Binary	Binary, 1 if the technology is a fuel substitution technology (gas to electric)
	Scaling Basis	Text	Scaling factor applied measure inputs to scale savings to the total population
	Unit Basis	Text	The technology's common unit of measure for savings, costs, and densities
	Technology Lifetime	Years	Effective Useful Life of the technology
Energy Use Data	DEER Electric Loadshape Identifier	Text	Loadshape name assigned in the DEER database. The loadshapes are used to allocate energy savings across months, on/off peak periods, and weekday/weekend for each end-use and sector, when applicable
	Electric Energy Consumption	kWh/ year/ unit basis	Electric energy consumption of the technology (kWh)
	Electric Coincident Peak Demand	kW/ unit basis	Electric energy demand of the technology during DEER peak period (kW)
	Gas Consumption	Therms/ year/ unit basis	Gas energy consumption of the technology (therms)
	Savings Source(s)	Text	Source(s) used for technology consumption data
Cost Data	Technology Cost	$/ unit basis	Equipment cost of the technology
	Technology Cost Data Year	Year	Year that the technology cost data source is from
	Applicable Repair Cost	$/ unit basis	Cost of repair for Repair-eligible technologies
	Labor Cost	$/ unit basis	Labor cost of installing the technology
	Labor Cost Data Year	Year	Year that the labor cost data source is from
	Panel Upgrade Costs	$/ unit basis	Cost of upgrading the electrical panel for electrification technologies that require a panel upgrade
	Refrigerant Avoided Costs	$/ unit basis	Cost associated with refrigerants in heat pump electrification technologies
	Cost Source(s)	Text	Source(s) used for cost data
Market Information	Technology Group	Text	Name of the technology group that the technology is categorized in, with service territory
	Common Technology Group	Text	Name of the technology group that the technology is categorized in
	Total Technology Group Density	Unit Basis/ Scaling Basis	Total density of the technology group, in units per scaling basis
	Technical Suitability	Fraction	Technical applicability of technology, numerical from 0 to 100%
			The initial saturation of the measure, which is defined as the fraction of the end use stock (total installation opportunities for the technology group) that is represented by the technology within its technology group. The

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Key Updates

2025 Potential and Goals Study

2025 Study Updates – Structure & Approach

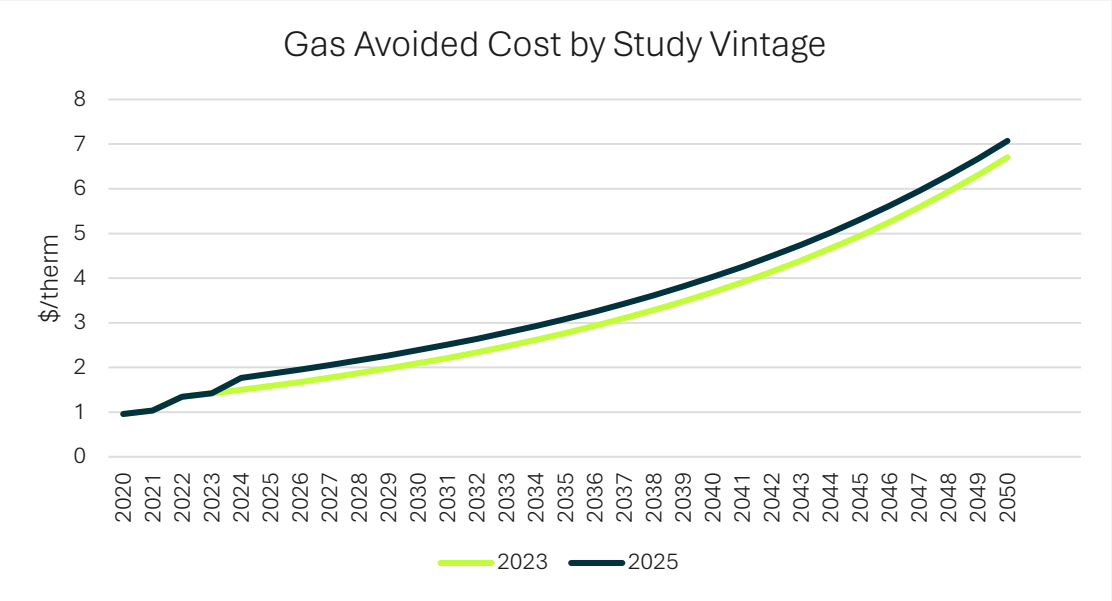
Total System Benefit (TSB)	Technical and Economic Potential modeled and outputted in terms of TSB. Measure potential calibrated to TSB rather than energy savings
Industrial, Agricultural and Commercial Custom measures	All industrial and agricultural are now top-down (no characterized measures); removed emerging technology since captured within custom; and moved commercial custom into a top-down approach Used the Custom, NMEC and SEM Market Study to inform forecast
Residential IRA Tax Credits	Used actual IRS Tax Credit Statistics to calculate an estimated $/return value for each measure qualifying for an EEHI tax credit
Incentives	Incorporated CEDARS data to define Incentive cap values
Whole building packages	Introduced eTRM measure packages as key source for characterizing Title 24 building code measures

What Changed Since the Previous Study?

Category	Update Relative to Previous Study	Directional Impact Relative to Previous Study
Cost-Effectiveness	Electric **avoided costs** decreased while gas avoided costs increased. New **measure input data** also makes FS measure more cost effective including measure lifetimes and savings assumptions	↑
Fuel Substitution	New IOU program claims data on FS program accomplishments show a dramatic increase relative to 2023 Study data. Recent program years have seen as much as 20x higher claims activity, primarily by adoption of water heating measures.	↑
Natural Gas Measures	Incorporating the anticipated California Air Resources Board **(CARB) Zero Emission Appliance Standard** impacts Gas EE and FS measures. Impacts vary across scenarios, years, and technology types	↑↓
Industrial, Agricultural, Commercial Custom	Guidehouse **restructured the analysis** of Commercial Custom, Industrial, and Agricultural EE and conducted a **characterization and market study** to support updates. Achieved TSB in recent years trended upwards for these Sector and savings types	↑
Total System Benefit	Scenario 1 Achievable TSB in 2026 is 42% higher than 2023 Study's Goal Setting Scenario	↑

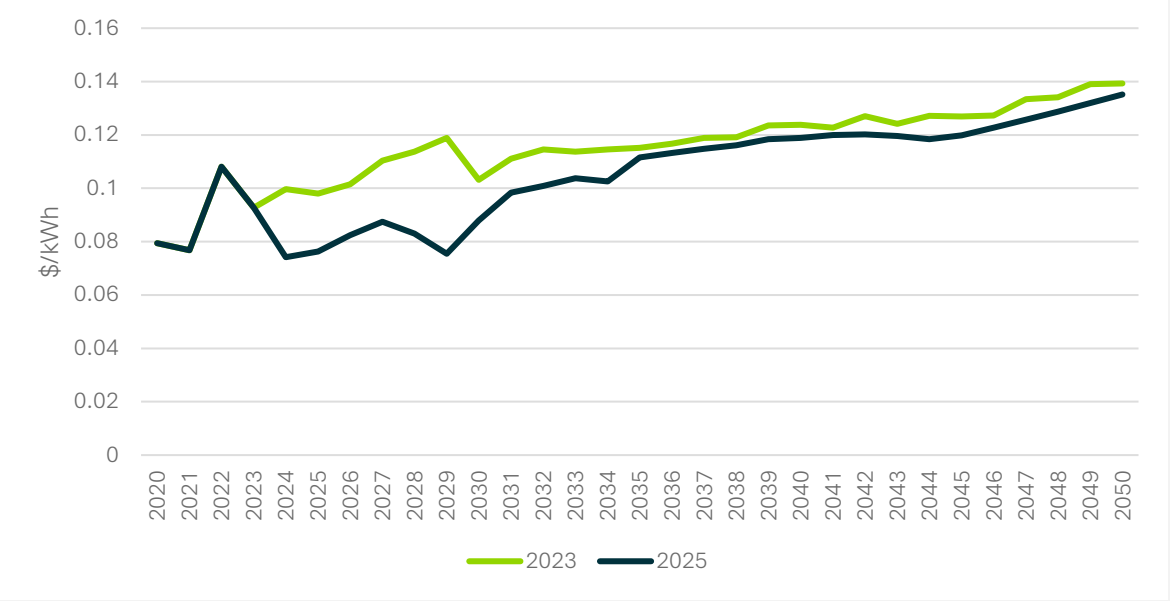
Avoided Costs

GAS



Gas avoided costs in 2025 study are consistently higher than 2023 study

ELECTRICITY



Electric avoided costs are lower for all years forecasted, and to a greater degree between now and 2030.

Impact:

- Higher gas AC + lower electric AC combine to make FS more cost-effective
- FS TSB increases
- Lower Electric avoided costs makes electric EE less cost effectiveness and lowers EE TSB

Measure Input Data

Measure input updates focused on incorporating **PY2026 eTRM measure values** and aligning with **DEER2026** updates (which were adopted December 2024 in CPUC Resolution E-5350).

Measure Update	Description
eTRM Measure Package Updates	Overall, **90% of technology groups were updated** with a newer eTRM version versus the 2023 Study Around 94% of technology groups are characterized primarily using eTRM measure packages • 72% of these were updated with a PY2026-effective eTRM version for the 2025 Study • 28% did not have a PY2026 version available in time for use; instead, the latest version was used if one was available, which was most often for PY2024
Effective Useful Life (EUL) Updates	The 2025 Study incorporates new EUL values adopted with DEER2026. Notably, the updates include **longer EUL values** for both residential and commercial **HVAC and water heating equipment**.
Default Net-to-Gross Ratio (NTGR) Updates	The 2025 Study incorporates new DEER2026 default NTGR values: • **Residential: 0.90** (previously 0.55 for non-hard to reach) • **Commercial: 0.70** (previously 0.60 for non-hard to reach) These default NTGRs (as opposed to evaluated NTGRs) are used for approximately two-thirds of characterized measures in the 2025 Study, in alignment with their eTRM characterizations.

Industrial, Agricultural, Commercial Custom

Restructured Analysis Approach

Non-Residential Savings

CEDARS Data

- Custom
- Deemed
- SEM/BROs

2023 Study Approach

Ind + Ag	*Commercial*
Generic Custom	Not characterized
Emerging Tech	Deemed + Characterized Custom
Characterized Custom	
BROs: SEM	BROs

2025 Study Approach

- Deemed – only for Commercial
- All program & measure types categorized by sector/measure type based on historical data adoption trends

Industrial, Agricultural, and Commercial Custom Characterization and Market Study

Top-down forecast using historical data informed by market actors

Objective

Enable the PG study to better capture the direction, magnitude, and rate of change of recent program trends from a top-down perspective

Market Study & Analysis

- Collected insights from program implementors and administrators via surveys
- Respondents asked to comment on historical trends by category (see categories to the right)
- 62 surveys completed

Program/Measure Categories

- Agricultural Electric & Gas
- Industrial
  - SEM
  - Non-SEM
- Commercial Electric
  - HVAC, Whole Building, NMEC, RCx
  - Process, Lighting, Refrigeration, Water Heating
  - SEM
- Commercial Gas
  - HVAC, Whole Building, Water Heating
  - NMEC, RCx
  - SEM

CARB Zero Emission Appliance Standards

September 2022

California Air Resources Board (CARB) published a SIP memo proposing a "zero-emission standard for space and water heaters," banning the sale of residential and commercial natural gas-burning HVAC and water heating appliances.

2023 Study

The CARB decision to work towards banning the sale of natural gas appliances was incorporated into the 2023 Study, resulting in the removal of applicable measures from consideration after 2030.

2025 Study

The 2025 Study includes a set of alternative scenarios applying a phased-in assumption for these standards with effective dates beginning in 2027. This flattens out the large step change forecasted in 2030 and distributed those reductions in the immediate years prior

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Scenario Design

2025 Potential and Goals Study

CARB Zero Emission Appliance Standards (ZEAS)

ZEAS 2030 Framework

- Applied in Scenarios 1-3
- All impacted measures have a ZEAS effective date of 2030
- Framework was considered in the 2023 Study

ZEAS Phased Framework

- Applied in Scenarios 4-6
- Effective dates for ZEAS-impacted measures vary between 2027 and 2031 based on an updated CARB proposal from May 2024
- For small boilers and water heaters, compliance is phased-in over a three-year period (2027 to 2029)
- This framework represents a new set of assumptions for the 2025 Study

Scenario Variable Settings

Levers → Scenario ↓	ZEAS	C-E Threshold	IRA Tax Credits	Incentive Levels Capped	Fuel Substitution	Program Engagement
1: Reference	2030	0.85	Reference	Incentive Percent - Mean	Reference	Reference
2: High TRC	2030	1.0	Reference		Reference	Reference
3: Aggressive FS	2030	0.85	Reference	Incentive Percent – 75th Percentile	Aggressive	Aggressive
4: Reference	Phased	0.85	Reference	Incentive Percent – Mean	Reference	Reference
5: High TRC	Phased	1.0	Reference		Reference	Reference
6: Aggressive FS	Phased	0.85	Reference	Incentive Percent – 75th Percentile	Aggressive	Aggressive

Incentive Levels

- Guidehouse used CEDARS record level claims from 2023 to inform and generate incentive levels best aligned with available data
- Incentive levels were first calculated at the record level as a percentage of measure incremental cost
- The mean and 75th percentile values for each end use defined conservative and aggressive scenarios
- Top end uses (in terms of TSB) for Res & Com characterized EE and FS measures are shown below:

Program Sector	EE/FS	End Use	Incentive Percent – Mean	Incentive Percent – 75th Percentile
Com	EE	WaterHeat	73%	83%
Com	EE	WholeBlg	16%	26%
Com	FS	WaterHeat	93%	98%
Com	FS	HVAC	82%	91%
Res	EE	BldgEnv	95%	95%
Res	EE	WaterHeat	94%	95%
Res	FS	WaterHeat	74%	77%
Res	FS	HVAC	81%	91%

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Study Results

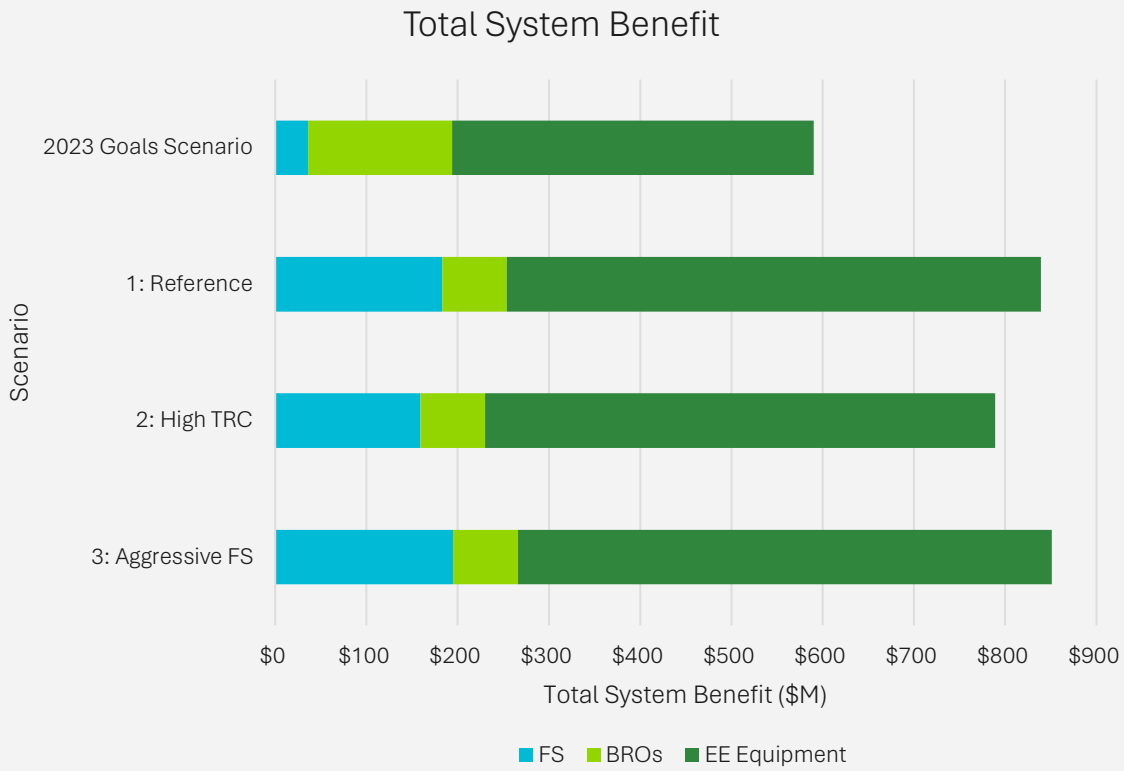
2025 Potential and Goals Study

Key Findings

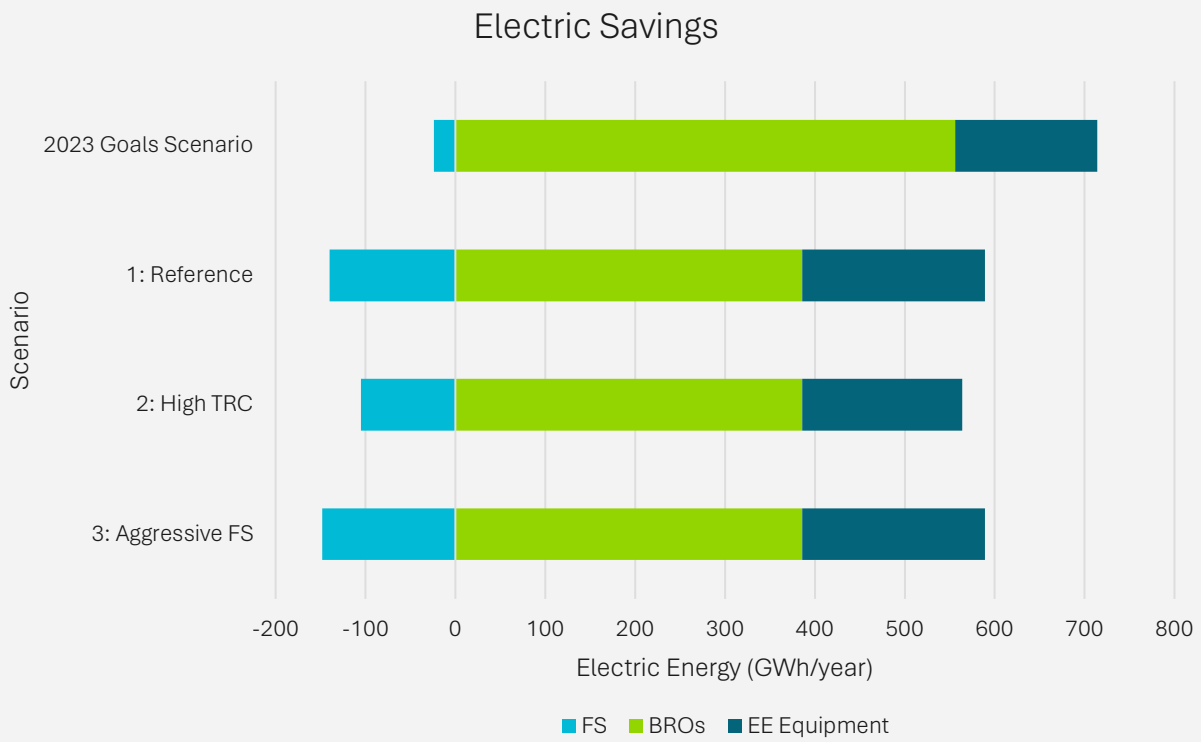
1. Overall Achievable Statewide TSB has increased by 42% driven primarily by FS technologies and the industrial sector
2. Achievable FS potential has increased dramatically, driven by the recent increases in IOU program claims relative to the data available in the 2023 study
3. Industrial sector shows an increasing sector TSB potential trend
4. Achievable Potential in not highly sensitive to the 2025 Study's Aggressive FS or High TRC Scenario assumptions
5. The savings potential from C&S continues to represent a significant portion (33-80%) of the GWh potential highlighted in this study
6. BROs programs continue to represent a significant portion of the first-year energy savings potential

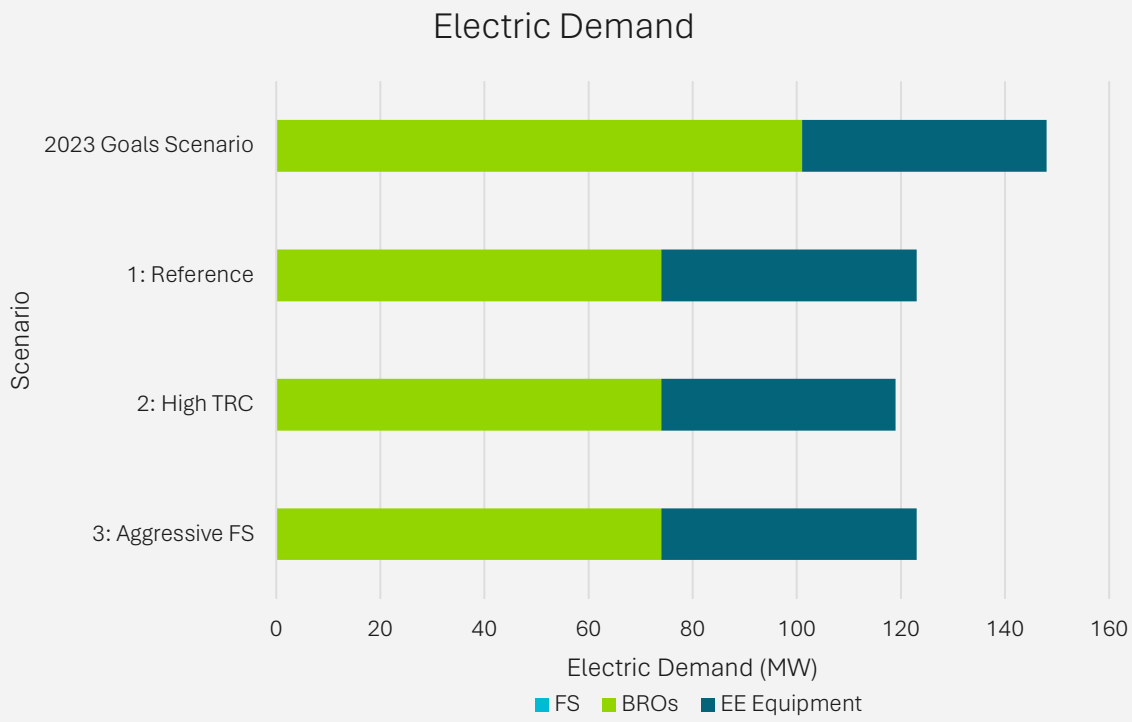
2026 Net Incremental Achievable Potential – TSB

- TSB for Scenario 1 is 42% higher than the 2023 Goal Setting Scenario
- FS achievable potential increased by over 300% versus 2023 Study – most significant driver is Com HPWH measures
- Industrial Sector achievable TSB increased 63% versus 2023
- Total achievable TSB from EE is 14%-18% higher versus prior study

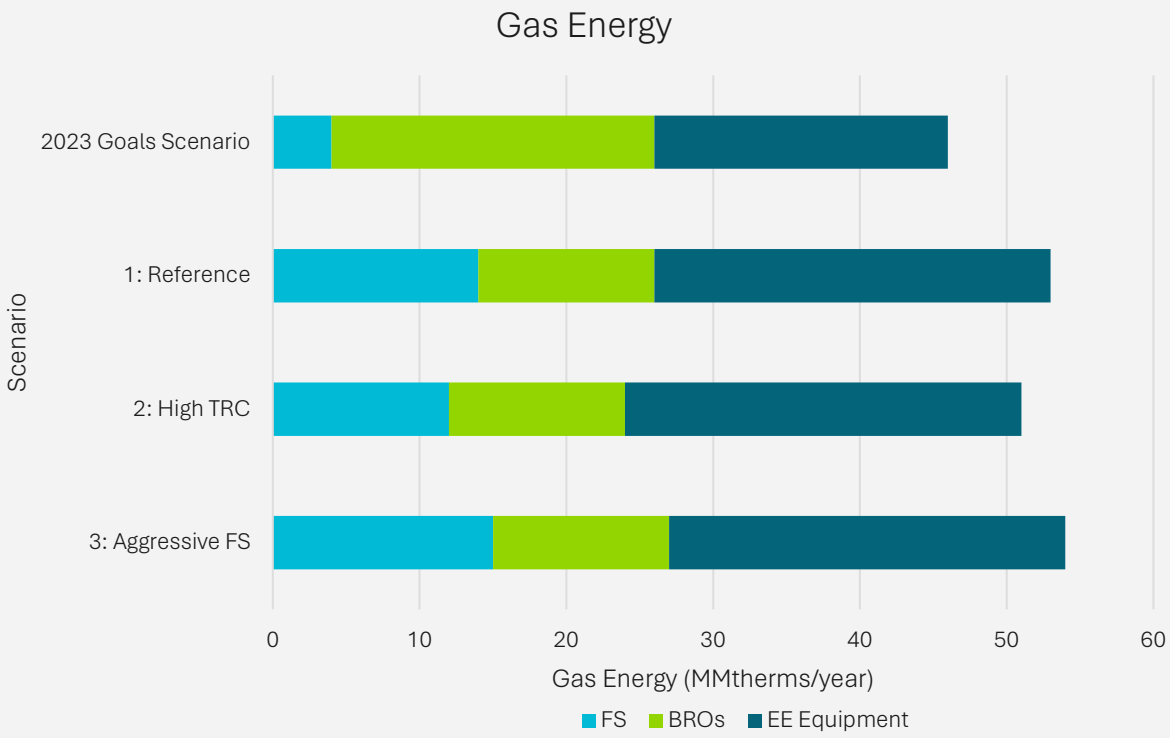


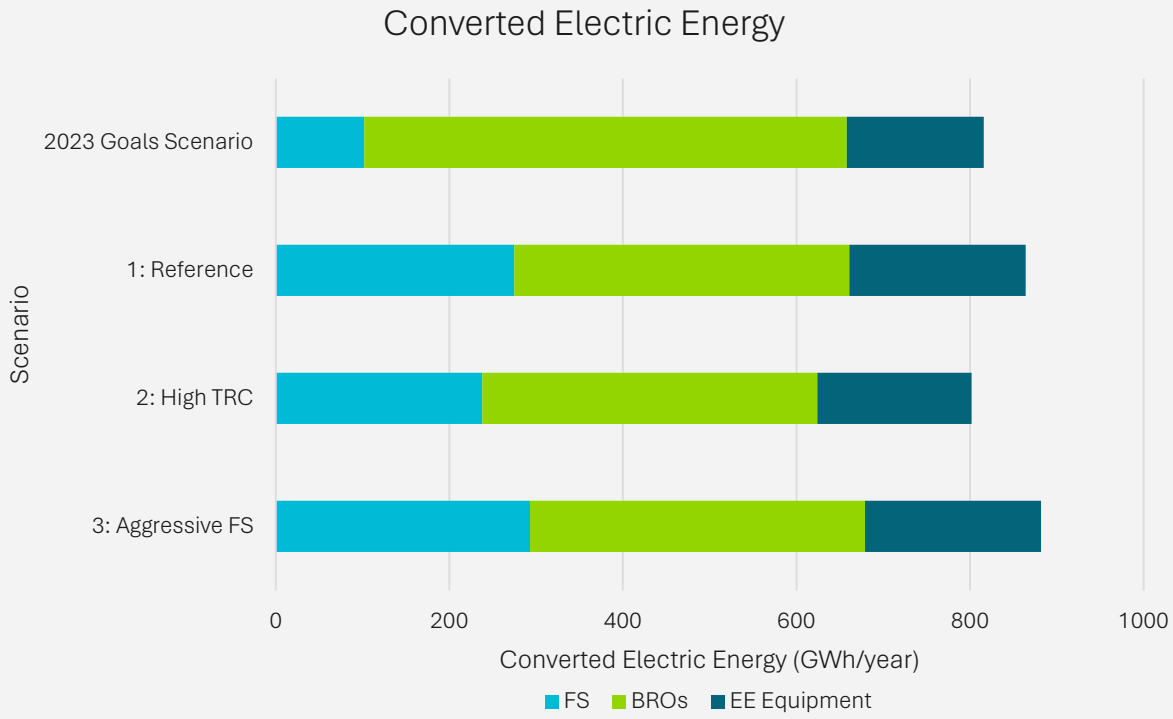
2026 Net Incremental Achievable Potential –Electric Energy and Electric Demand





2026 Net Incremental Achievable Potential – Gas Energy and Converted Electric Energy

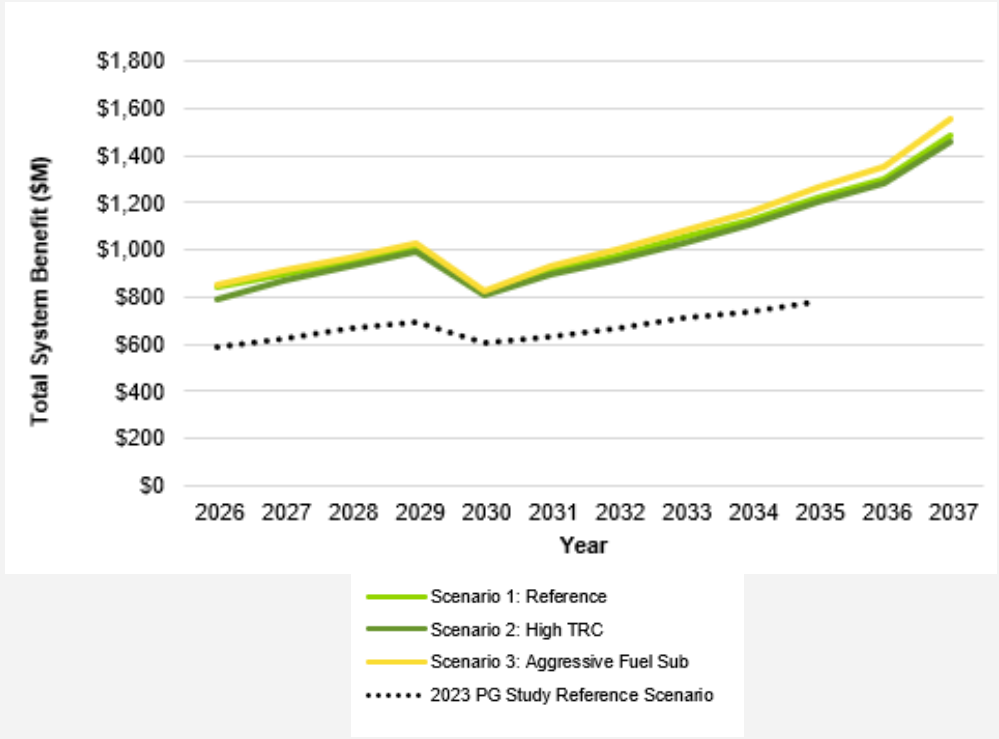




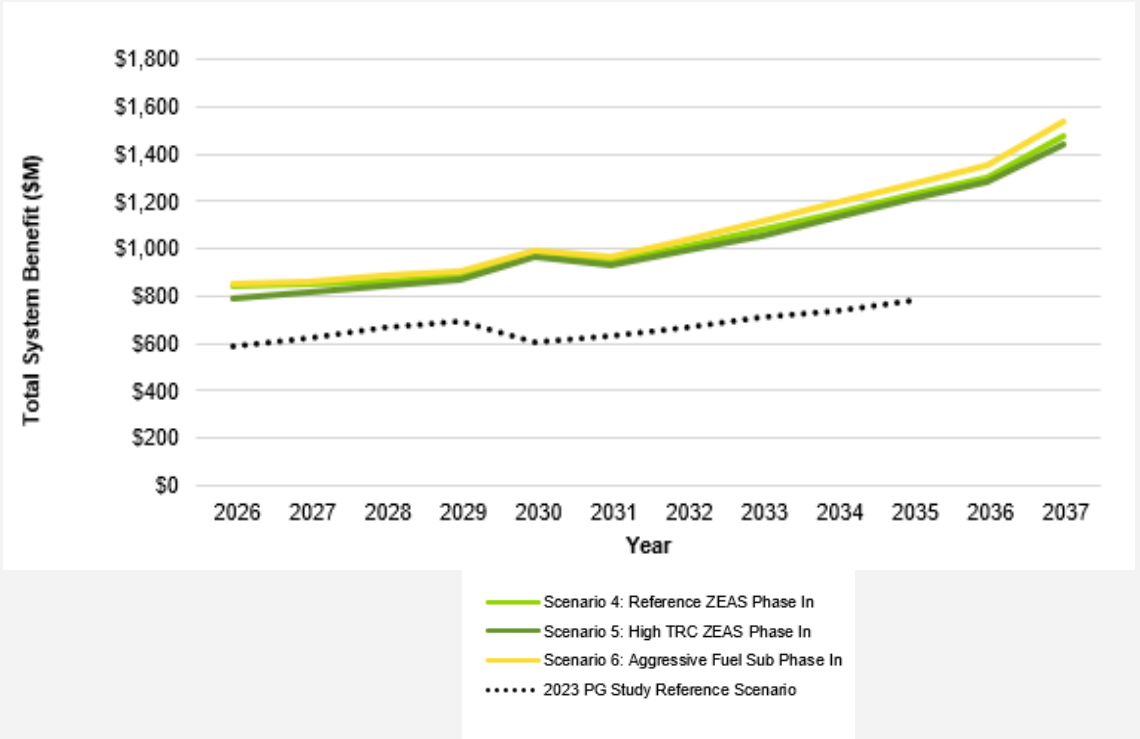
TSB by Scenario

- Scenario 1 Achievable TSB is 42% - 45% higher in the initial 4 years of the study period versus 2023 Goal Setting Scenario
- Current Study increase vs 2023 trends up over the study period to as high as 55%
- 2030 ZEAS impact is consistent with the 2023 Goal Scenario in the shape of the year-over-year trend

TSB ($M) by Scenario (2030 ZEAS)

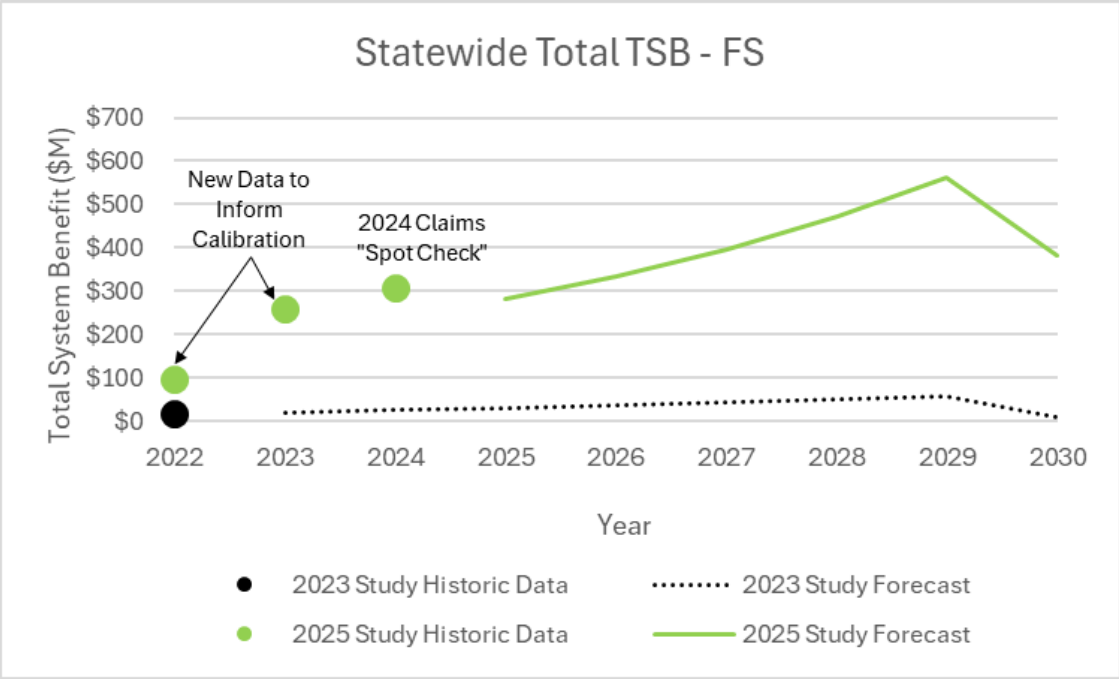


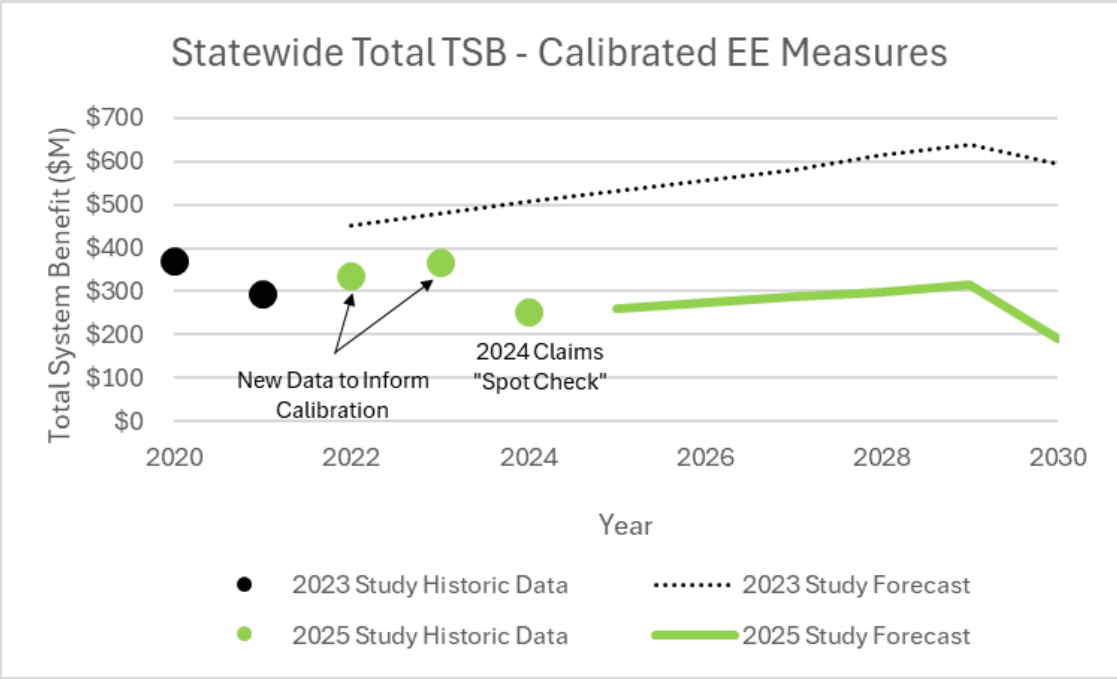
TSB ($M) by Scenario (2027 Phased)



Increase in Achievable Fuel Substitution

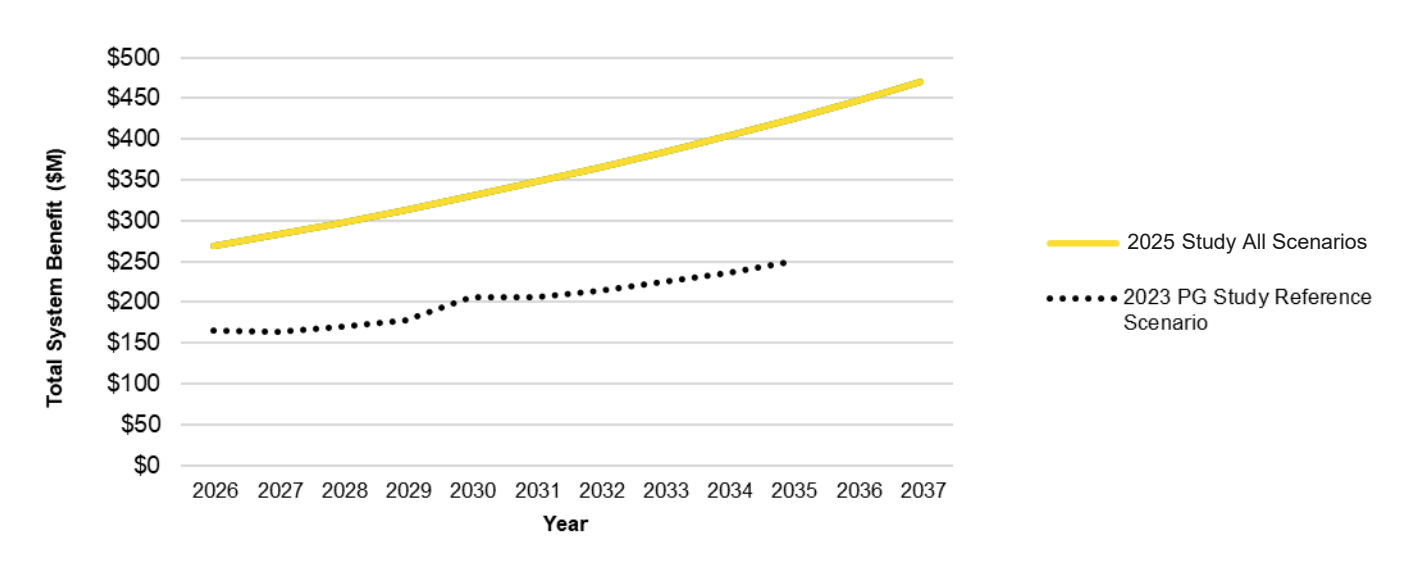
- Increase in FS potential is driven by actual increases observed in CEDARS claims to which the model is calibrated
- 2022-2024 FS claims are higher than the data available for calibration in the 2023 Study, driving a higher forecast
- Claims from characterized EE measures show general decreases in TSB since 2020, modeled forecast is consistent with 2024 claims





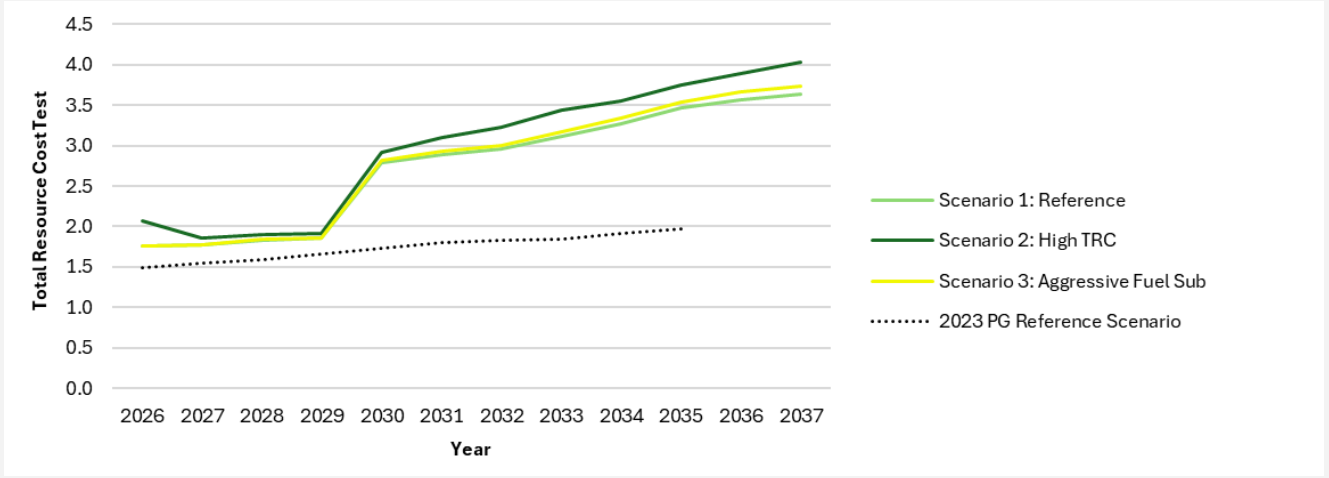
Industrial Sector

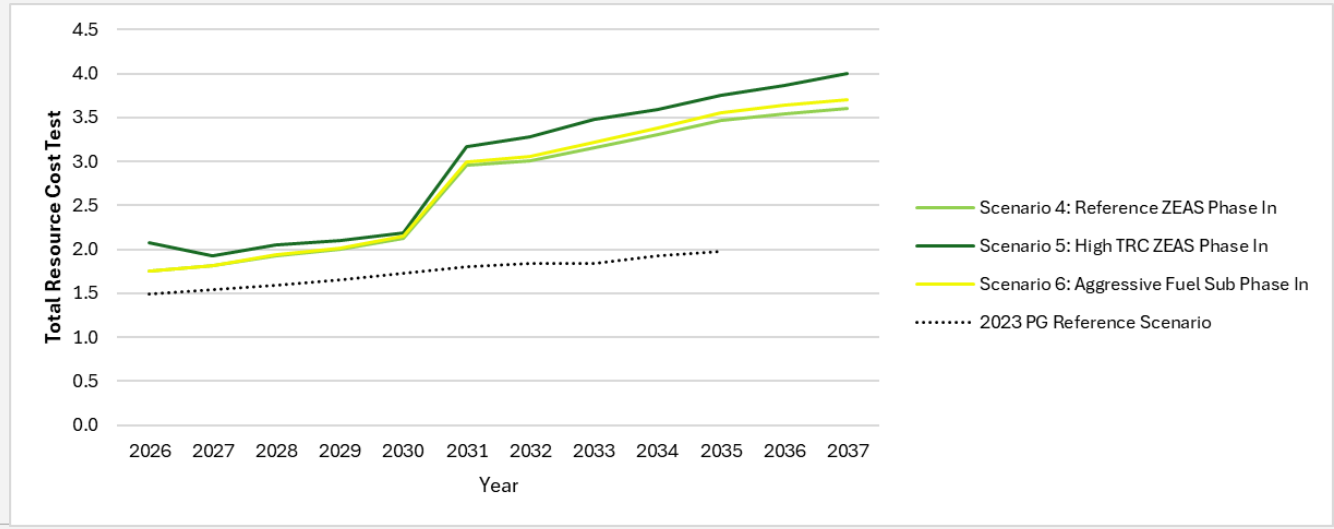
- Industrial sector has an increasing TSB potential trend, with CEDARS data showing increased sector wide achieved TSB with growth in SEM savings (Whole Building measures)
- Overall TSB EE increasing 14%-18% is driven by growth in the Industrial Sector and is coincident with a greater portion of the TSB generated by Ind measures with longer EULs
- There was a total growth of 63% achievable EE potential in the Industrial Sector compared to the 2023 Study



Cost Effectiveness by Scenario

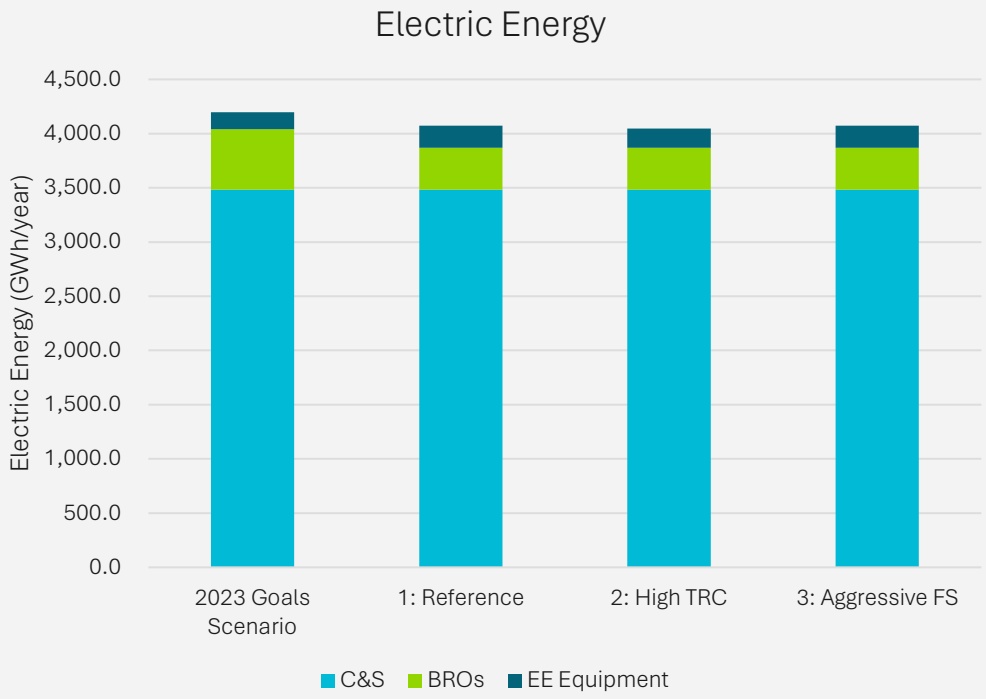
- Cost-effectiveness over the 2025 Study period represents a 60%-80% increase over the 2025 Study driven by:
  - Decreases in electric avoided costs versus the 2022 ACC vintage
  - Dramatic increases between 2030 and 2031 due to high impact FS measures
  - Applied measures lifetimes for several key measures increasing since 2023 study following the most current DEER Resolution
  - Growth in achievable potential for FS and SEM measures study-over-study
- High TRC threshold in Scenarios 2 and 5 has a modest impact

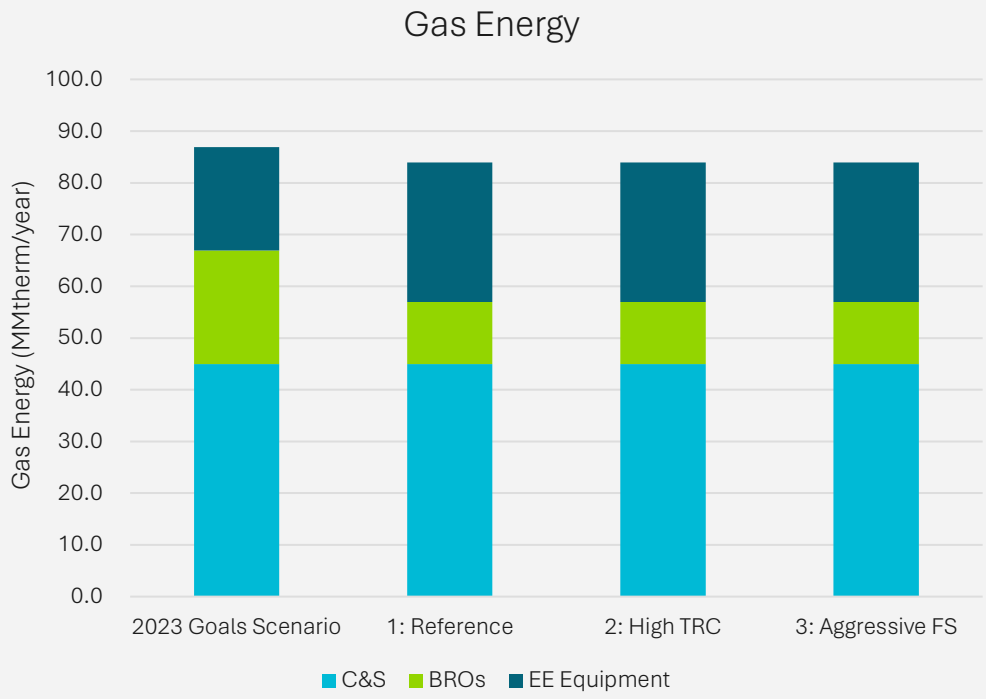




Study Potential – All Savings Sources

2026 First Year Energy Efficiency Savings





Guidehouse

Results by End Use

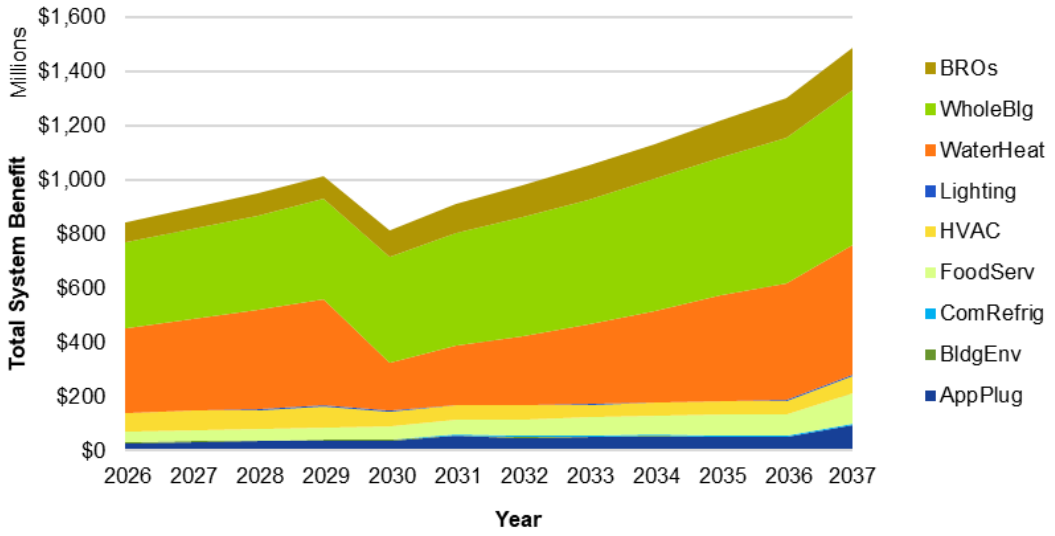
2025 Potential and Goals Study

TSB Results – EE/FS Equipment + BROs Combined

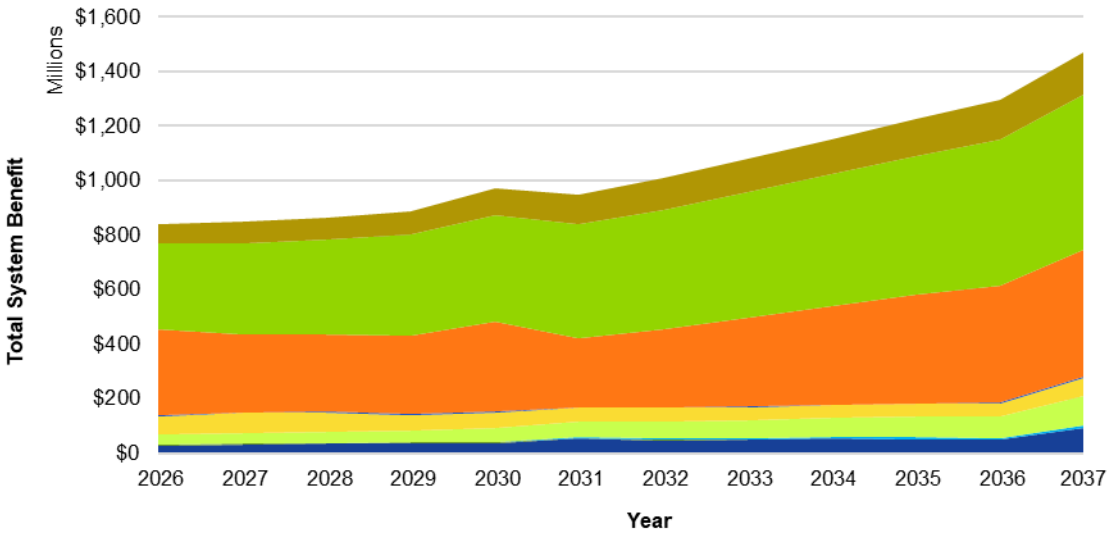
Scenario 1 and 4: Reference

- Overall Achievable TSB for EE and FS measures are dominated by Water Heating, Whole Building, and BROs measure types

2030 ZEAS



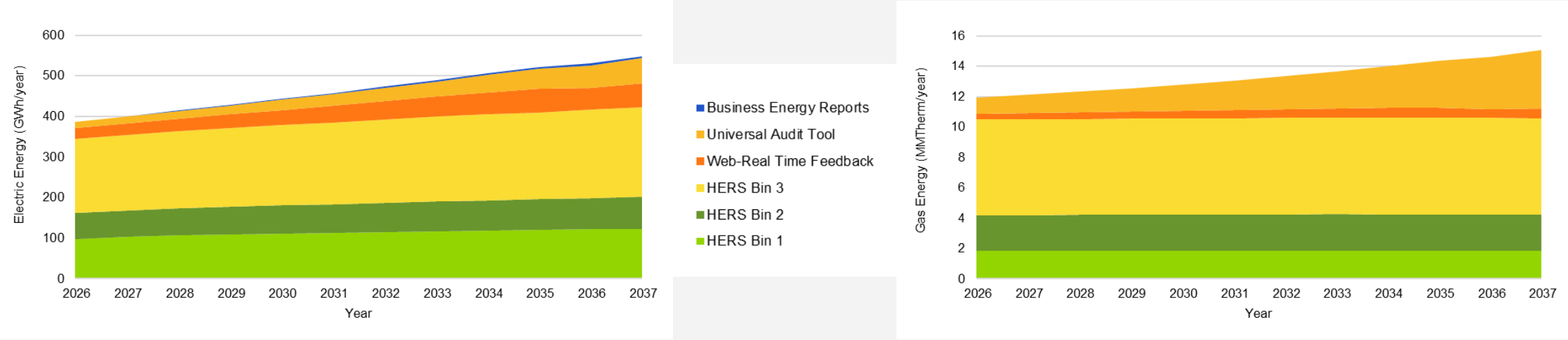
Phased ZEAS



BROs

Savings grow as participation increases over time

- BROs measures provide the bulk of total first year achievable energy savings (GWh and therms) in each year and consistently perform at levels 180% of greater than electricity savings associated with equipment-based measures for each year
  - **Residential**: Home Energy Reports (HERs) presents the greatest statewide potential for electric, gas, and peak demand.
  - **Commercial**: Business Energy Reports are the only visibly contributing element, have significantly smaller impact than residential impacts



Questions

- Ruling on 5/2/2025 issued a set of questions for stakeholders to respond to
- This is an opportunity to ask clarifying questions
- Feedback can also be provided – though parties should file formal comments for your recommendations to be considered

Ruling Questions

- Which scenario – either in the draft study or an alternative recommendation – is most appropriate to inform 2026-2037 goals?
- The 2025 study modeled two implementation timelines for the California Air Resource Board's Zero Emission Appliance Standard (ZEAS). Should a scenario that includes the ZEAS as having an effective date in 2030 or beginning in 2027 be selected?
- All scenarios in the 2025 study include the impacts of the federal Inflation Reduction Act (IRA) tax credits. How would you recommend IRA tax credits be represented in California Energy Data and Reporting System (CEDARS) claims? Please provide a recommendation for:
  - A value for the tax credit
  - How to determine whether a measure is eligible for the tax credit
  - How to represent, or distinguish between, eligible and ineligible properties:
  - New home construction (not eligible)
  - Home businesses (20 percent credit)
  - Must be customer's primary residence

Ruling Questions

- Fuel substitution potential increased significantly between the 2023 and 2025 studies, primarily due to increased program activity. Does the 2025 study reasonably estimate fuel substitution potential for 2026 – 2037? Please justify your response.
- Do you agree with the data assumptions and methodology used in the study? If not, please provide justification and indicate which alternative publicly available data sources should be used, and/or specific alternative methodological approaches.
- Do you have any recommendations for timeline or process adjustments for future potential and goals studies?

Reminders and Next Steps

Stakeholder engagement is critical and CPUC and the Potential and Goals Study team values the input and direction provided.

- Study-related comments are formal, filed in the R.25-04-010 proceeding.
- Study-related comments are due May 23, 2025
- Reply comments are due May 30, 2025.

Formal comments may only be filed by parties to the R.25-04-010 proceeding. For information about becoming a party to a CPUC proceeding, visit www.cpuc.ca.gov/Party_to_a_Proceeding.

Questions and Discussion

Stay Informed

CPUC's 2025 Energy Efficiency Potential & Goals Webpage:

2025 Potential and Goals Study

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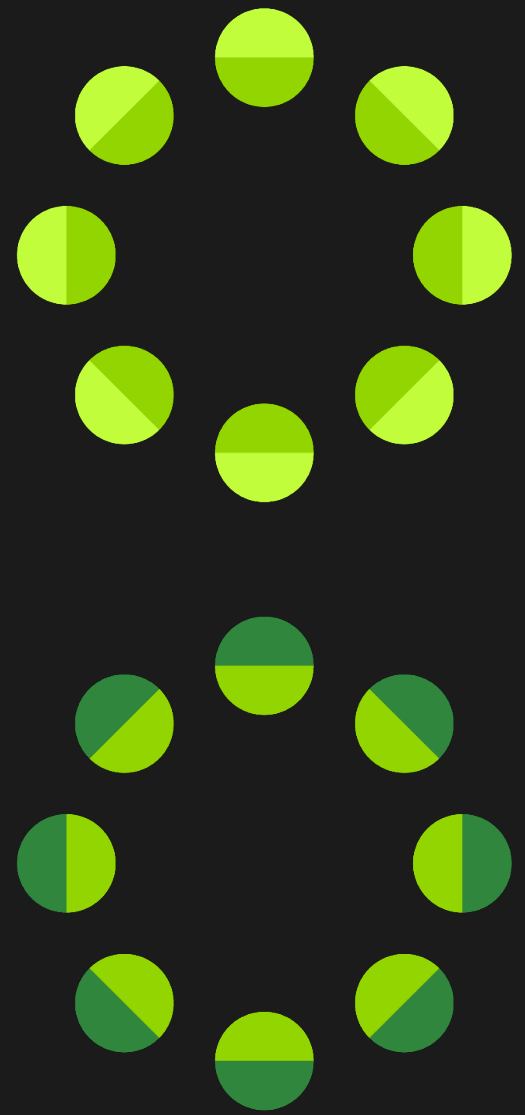


Guidehouse

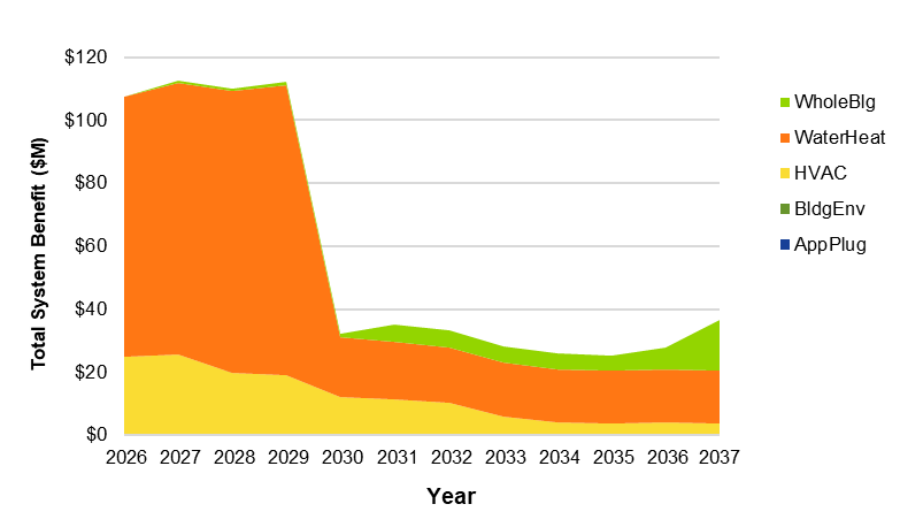
Appendix:
Results by End Use

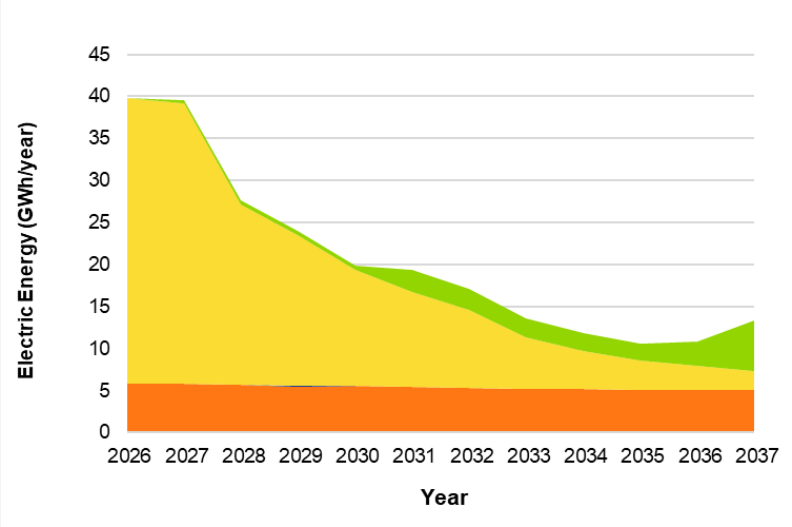
2025 Potential and Goals Study

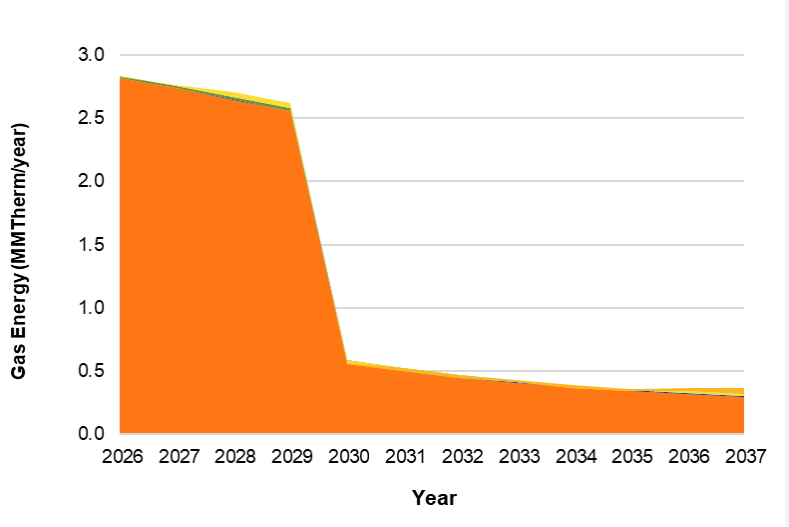
Residential - EE Equipment

Scenario 1: Reference

- Water heat and HVAC end uses are major drivers of TSB and energy savings
- TSB and Gas impacts are significantly impacted by ZEAS



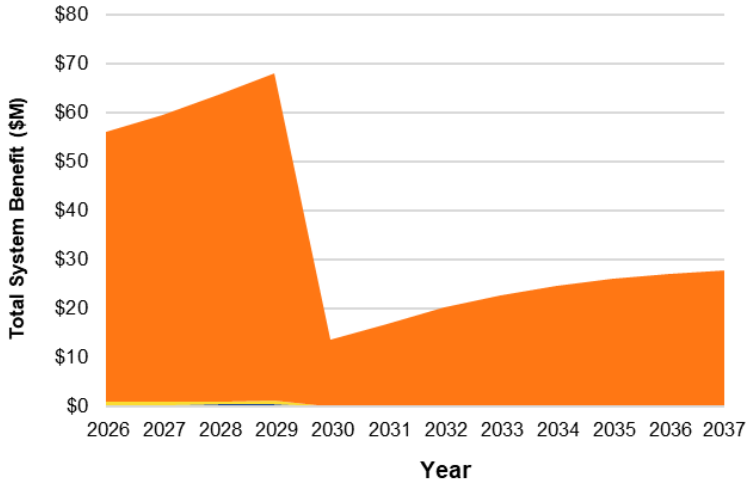


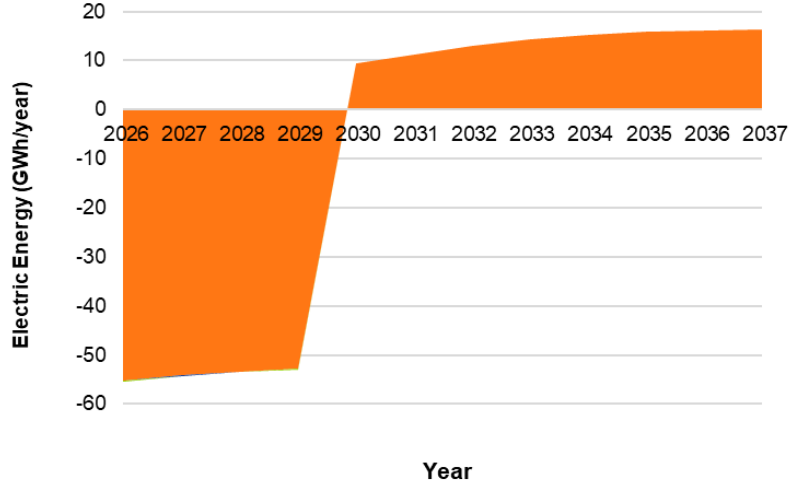


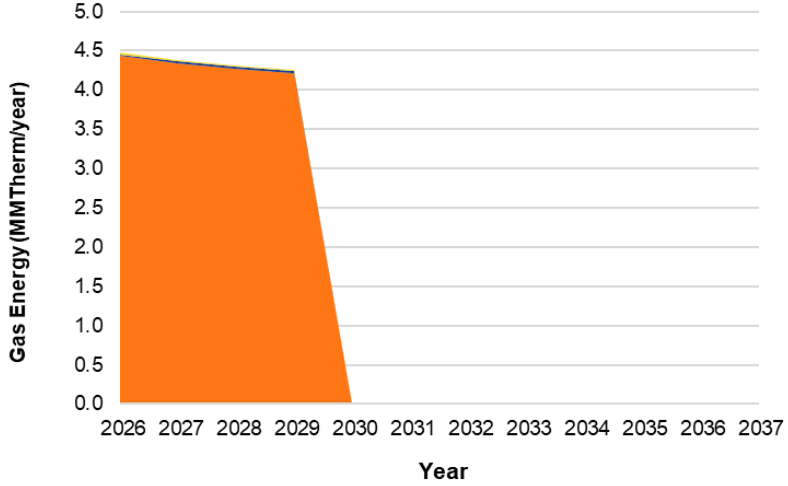
Residential – FS Equipment

Scenario 1: Reference

- Water heat end use is the exclusive driver of Residential FS TSB and energy impacts
- Electric energy impacts post-2030 are the result of a shift to an electric baseline for HPWH measures



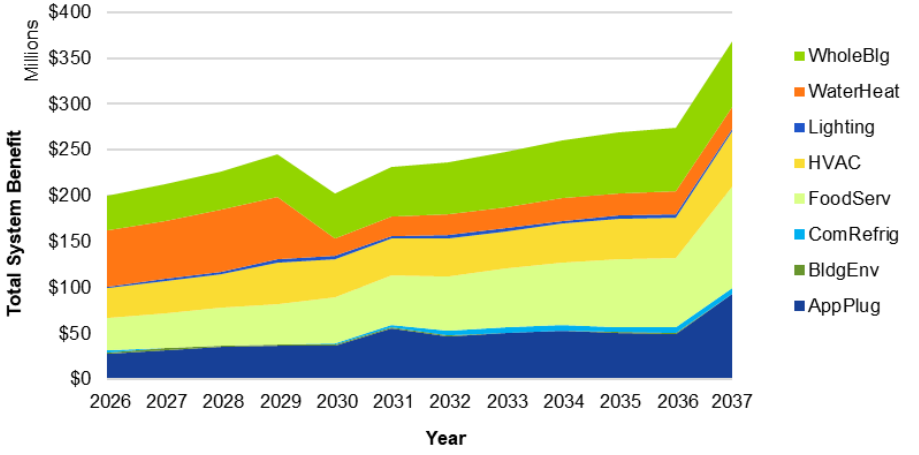


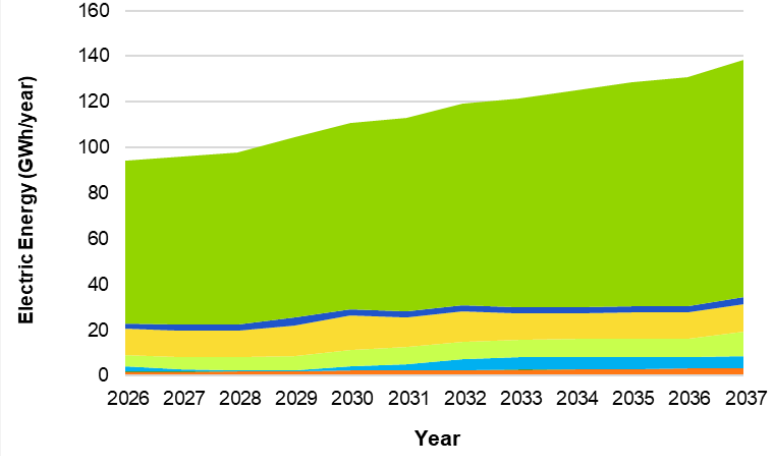


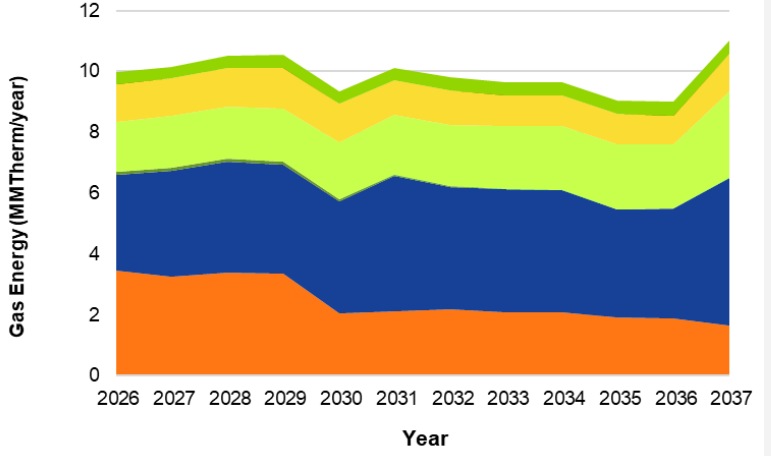
Commercial - EE Equipment

Scenario 1: Reference

- Achievable TSB for Commercial Sector EE has multiple significant end uses
- Electric EE energy savings are primarily Whole Building, driven by SEM measures



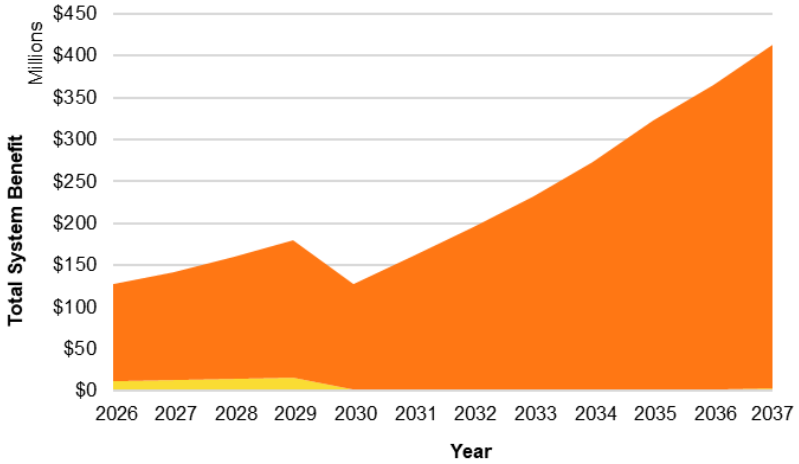


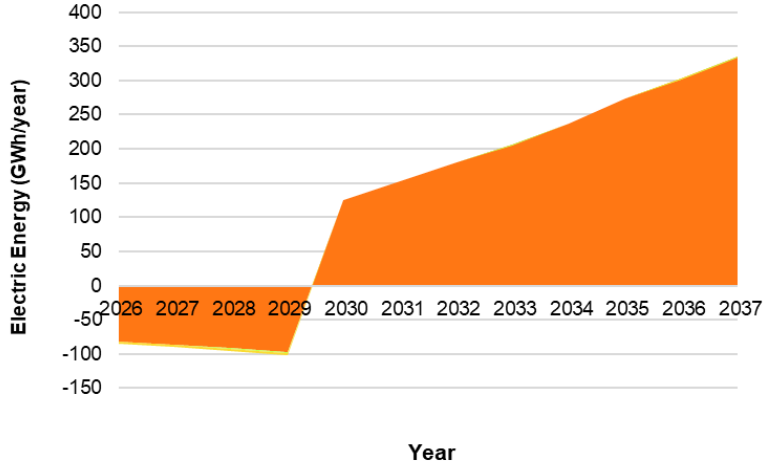


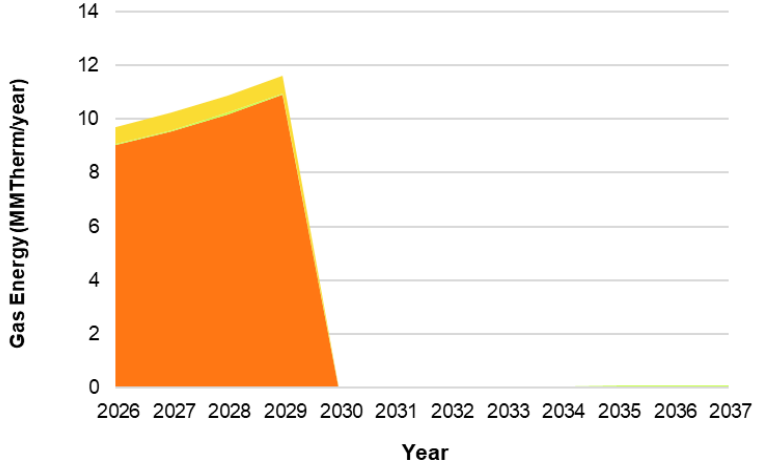
Commercial – FS Equipment

Scenario 1: Reference

- TSB growth is dominated by growth in water heating and very small contributions by HVAC
- Electric energy impacts post-2030 are the result of a shift to an electric baseline for HPWH measures







Ind/Ag – EE Equipment

Scenario 1: Reference

- Restructuring of potential methodology does not impact forecast as much as the historical trends and market actor inputs