

# SoCalGas Residential Gap Analysis

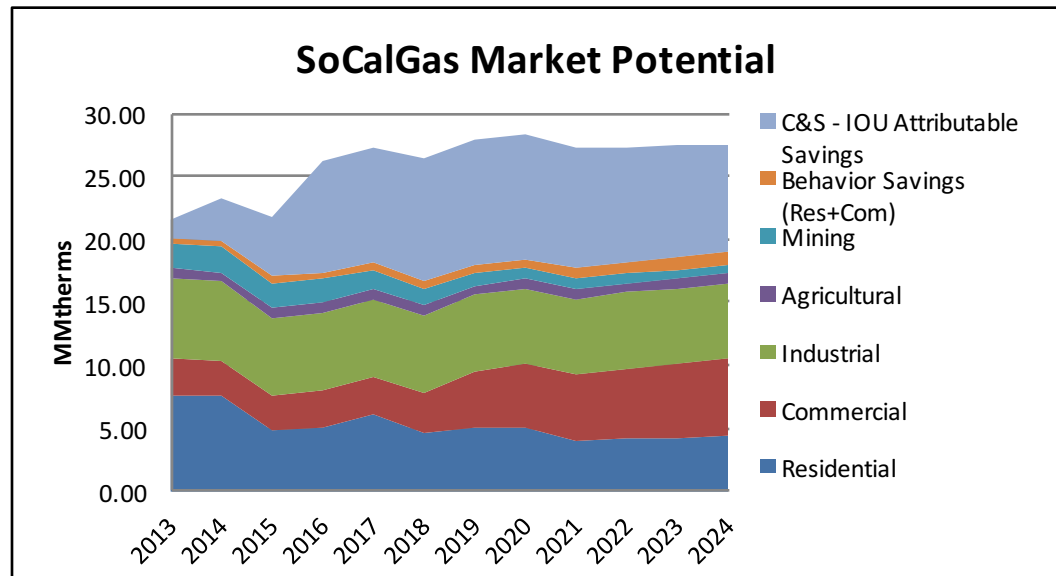
Coordinating Committee Meeting  
February 22 – 23, 2016



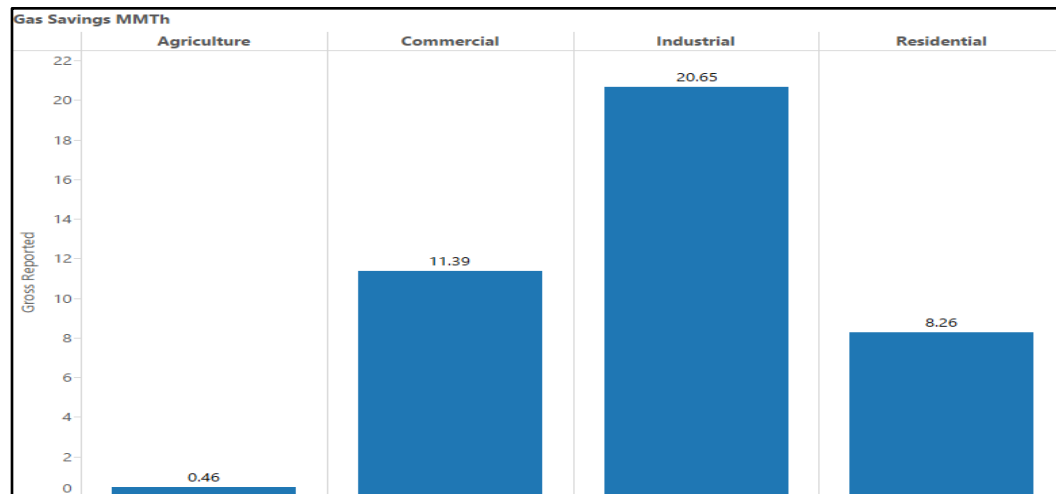
A  Semptra Energy utility

# SoCalGas Background

- » SoCalGas has 21.4 million customers through 5.9 million meters
- » These customers use over 8.7 billion therms of gas annually
- » The incremental market potential amount of savings available is between 21 and 28 million therms annually through 2024



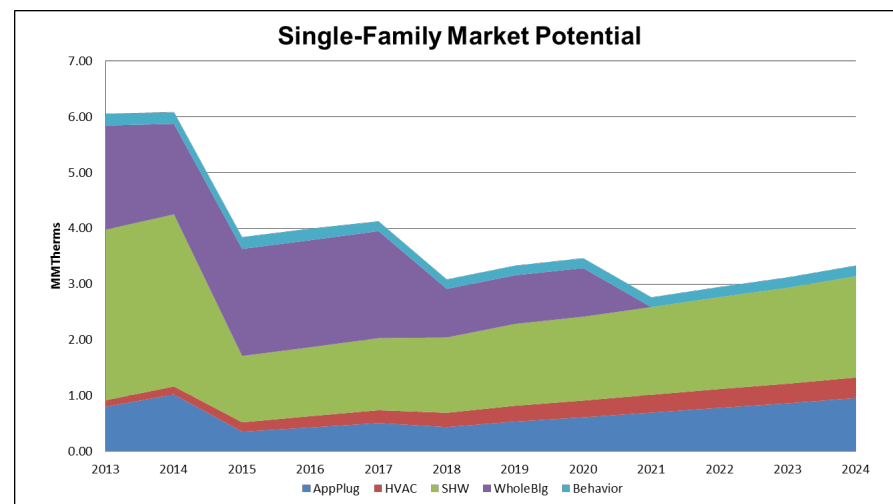
Source: Navigant potential study for SoCalGas territory



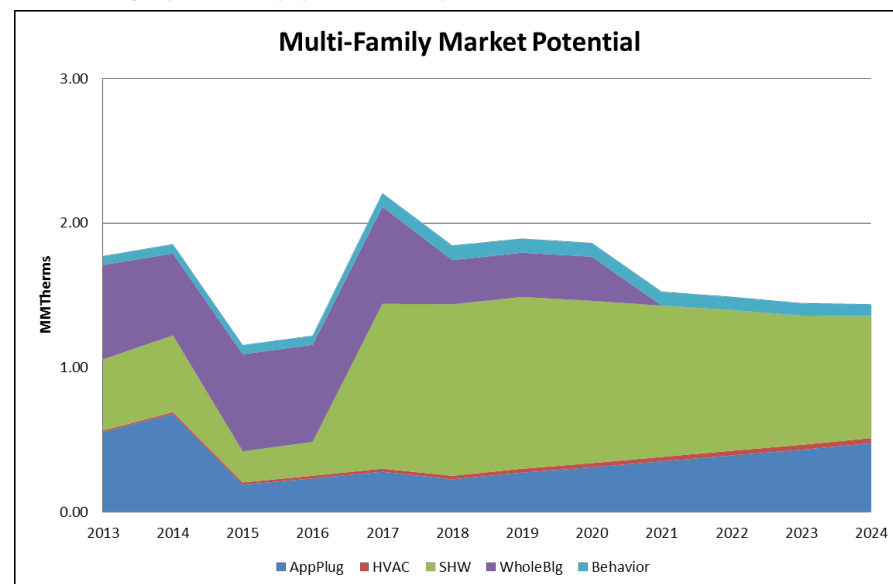
Source: EE Stats SoCalGas 2013-2014 Gross Savings

# Residential Sector Overview

- » 5.4 million residential meters
- » Weather normalized demand is about 2,570 MMtherms per year
- » EE Market Potential
  - The potential amount of savings available in this market by 2024:
    - Single Family: 3.33 MMtherms
    - Multifamily: 1.44 MMtherms
- » Strategic Plan Goals (natural gas-related):
  - New construction ZNE performance by 2020
  - Implementation of a Whole House approach to energy consumption
  - Plug Loads managed by appliances that use less energy and allow for behavioral improvements



Source: Navigant potential study by SoCalGas territory



Source: Navigant potential study by SoCalGas territory

# Residential Program Interventions

## » SW Residential Program Mapping:

Resource programs  
distributed into strategies:

**Resource**

Direct Install	Customized	Deemed
Audit	Audit	Audit
Downstream	Downstream	Downstream
	Midstream	Midstream
		Upstream

**Program**

**Subprogram**

## » SW Residential Program Mapping:

Each resource strategy can  
utilize any Informational  
strategy:

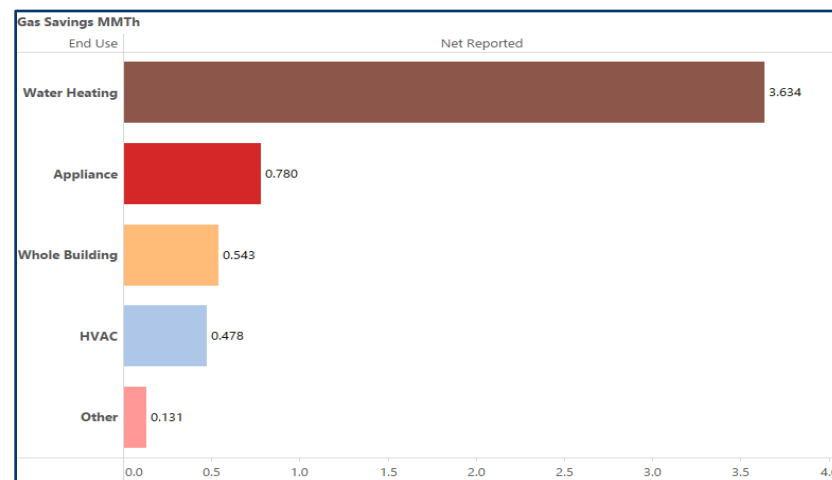
**Non-resource**

IDSM	Finance
SW ME&O	C&S
WE&T	ET

# Residential Sector Analysis

## » Sector background:

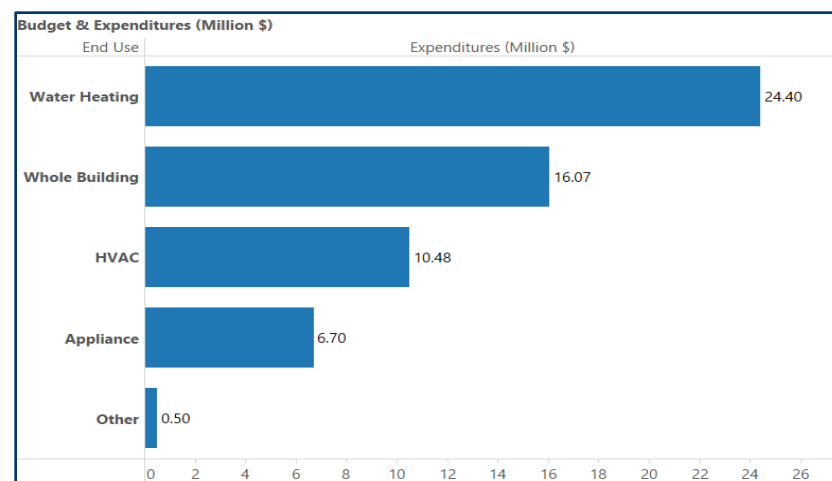
- 72.6 MMTherms (Portfolio) Energy savings goals<sup>1</sup>
- Over 3 years, SoCalGas programs in this sector have delivered 10.63 MM therms
  - 14.6% of Overall Portfolio Goal Attainment



Source: EESStats, 2013-15 SoCalGas savings by end use

## » Sector sub-programs:

- Energy Advisor, Plug Load Appliances (PLA), Multifamily, Middle Income Direct Install, Home Upgrade Program, Residential HVAC, New Construction, Manufactured Mobile Homes, On-Demand Efficiency, and Direct Therm Savings/Home Tune-Up



Source: EESStats, 2013-15 SoCalGas expenditures by end use

# Current Successful Strategies

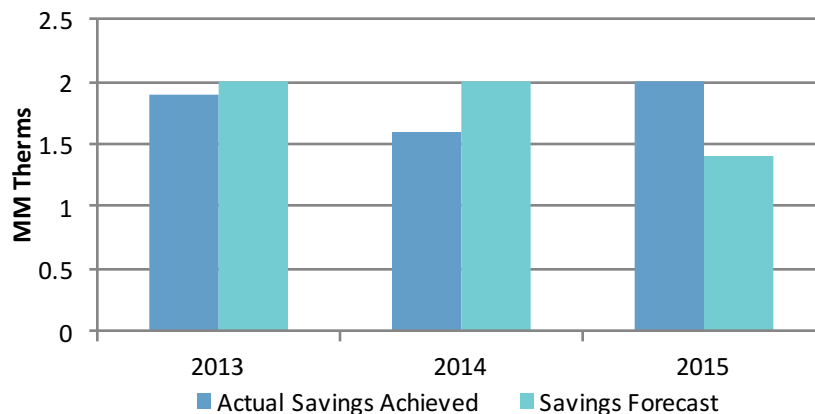
- » Launched Cold Water Washer to support market transformation
- » Case Studies in NC Residential Development that aims to implement sustainability and ZNE approaches (e.g. Playa Vista, Cherokee Lofts)
- » Joint Water-Energy Messaging in the EE Kits in PLA (MWD water messaging)
- » Tankless Water Heater Rebates

# Sector Challenge (GAP) – PLA

## » Findings

- New behavior and gas saving technologies needs to be accelerated into the market
- Although sales of energy efficient appliances remains consistent, PLA mail-in rebate applications have decreased due to cumbersome mail-in application process for the customer
- Big box retailers' costs to implement point of sale rebates are changing which could shift old strategy of downstream rebates to midstream approach

**PLA Actual vs. Forecast Savings**



## » Potential Solutions

- Streamlining current rebates; incorporating mobile technology into rebate redemption
- Work with private companies, R&D Labs, and Academia to develop and accelerate NEW solutions

## » Additional Data to assist resolving gap

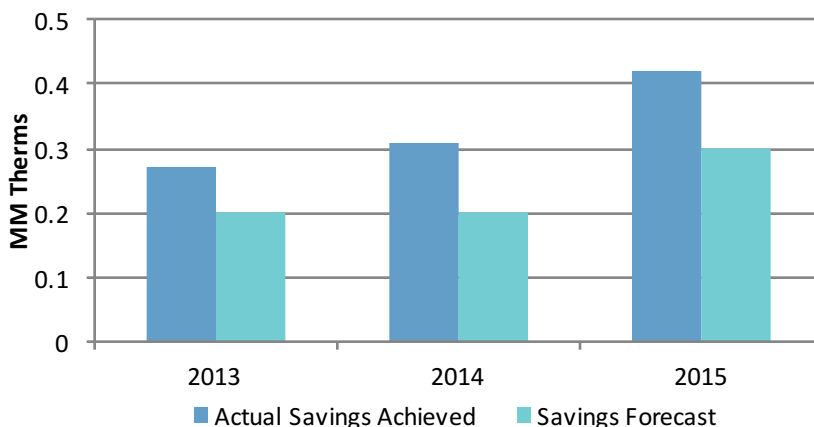
- Survey retailers on cost-benefit needs; quantify number of potential retailers versus those currently participating; market survey retailers segments that could participate
- Market technology potential for appliances

# Sector Challenge (GAP) – New Construction

## » Findings

- Code is driving the change
- Builders are just striving to be at code
- Lack of unified understanding in how new construction in residential ZNE should be designed, built and monitored.
- Incentives do not cover new incremental cost of building to code
- Removable energy loads are not included in the program design to incent

**New Construction Actual vs. Forecast Savings**



## » Potential Solutions

- Provide more flexibility to program and allow less than 100% compliance to participate in the program
- Collaborate with City Building Officials and Developers to exceed 2017 building code
- Work with a builder to do a community based case study to show that a community can be ZNE
- Specific case studies in each of the climate zones to show above code
- Add incentives for early ZNE adopters

## » Additional Data to assist resolving gap

- Collaborate with city planning and permitting departments to identify potential EE developments
- Builder potential plans for projects in a climate zone within IOU Territory

# Sector Challenge (GAP) – Multifamily

## » Findings

- Multifamily owner-tenant barrier
- Disparity between current program offering qualifications and customer income levels

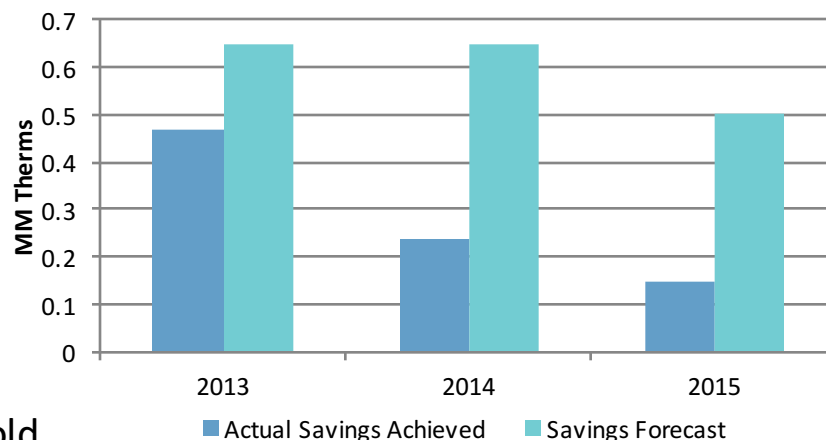
## » Potential Solutions

- Provide split incentives
- Create new measures and bundle new/old
- Work with Property Managers and Owner to understand their capitalization plan schedules
- Improve application and process
- Train the property manager to understand programs
- Case studies

## » Additional Data to assist resolving gap

- Split incentives program data
- Create survey of potential permits from Building Department for retrofit

Multifamily Actual vs. Forecast Savings



# Sector Challenge (GAP) –Whole House

## » Findings

- Participants seeking Whole House renovations lack the working capital to invest in these upgrades
- Whole House intervention strategies do not incorporate enough PLA
- Program needs to be more flexible towards the renovation occupant needs

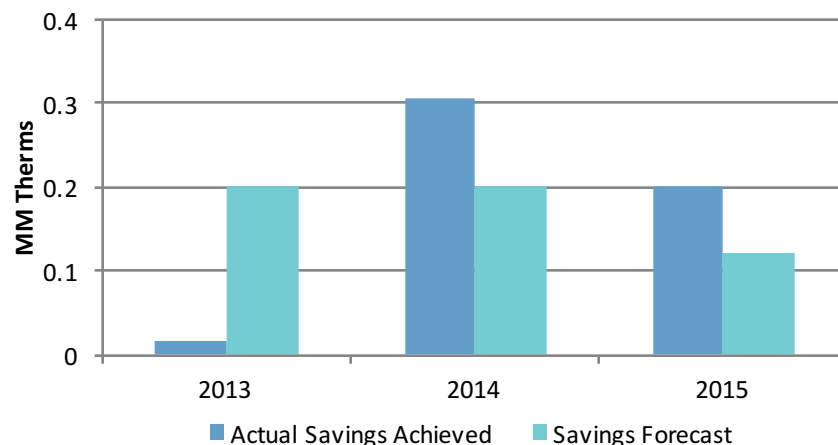
## » Potential Solutions

- Increasing financing options or upfront incentives
- Allow flexibility for Whole House participants to achieve a set energy savings threshold
- Tailor program to occupant's needs to renovate home over time.
- Market the program to include thermal comfort as one of the behavior benefits

## » Additional Data to assist resolving gap

- Risk analysis of potential expansion of offering and study of customer base that falls into this area
- Market assessment of incorporating additional PLA measures into Whole House intervention strategies

Whole House Actual vs. Forecast Savings



# Next Steps

- » Initial Gap Analysis:
  - February 22-23: Commercial/Residential
  - Mid-March: Industrial/Agricultural/Cross-Cutting/Public
- » Statewide Coordination (March 3)
  - Determine how to synchronize program offerings across PAs
- » Complete Larger Market Assessment:
  - Leverage data and research where applicable and PA specific when necessary
- » Integrate Market Assessment Data and Coordinating Committee Feedback on Commercial Gaps and Goals to Align Business Plan Outlines
- » Anticipated Filing Date for Business Plans
  - September 1, 2016