

SoCalGas Residential Stage 2

Sub-Committee

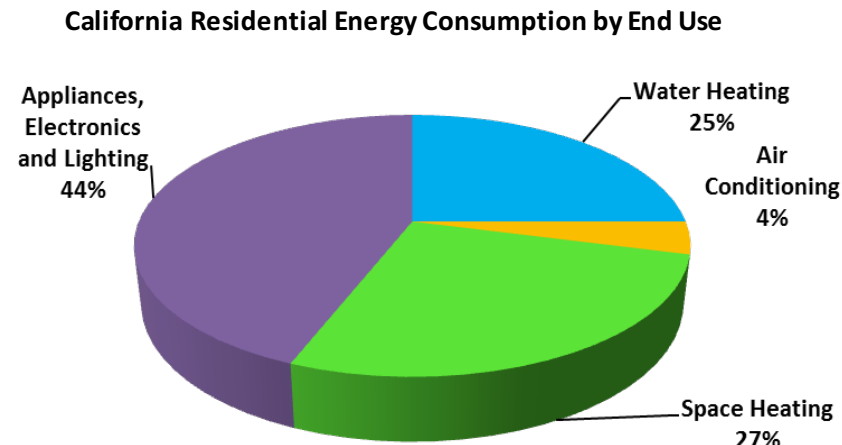
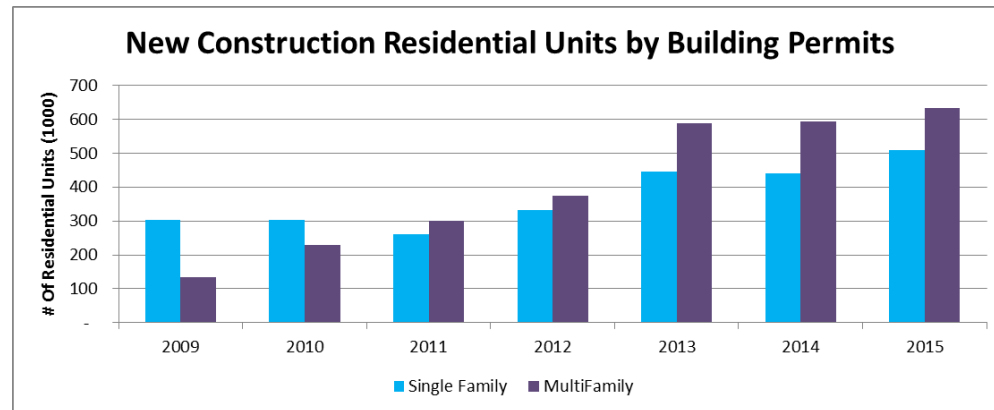
Meeting April 18, 2016



A  Semptra Energy utility

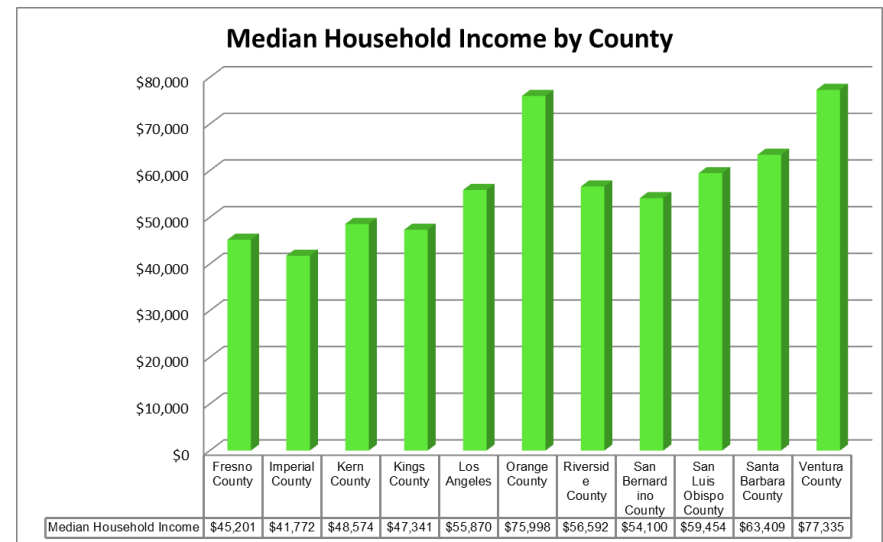
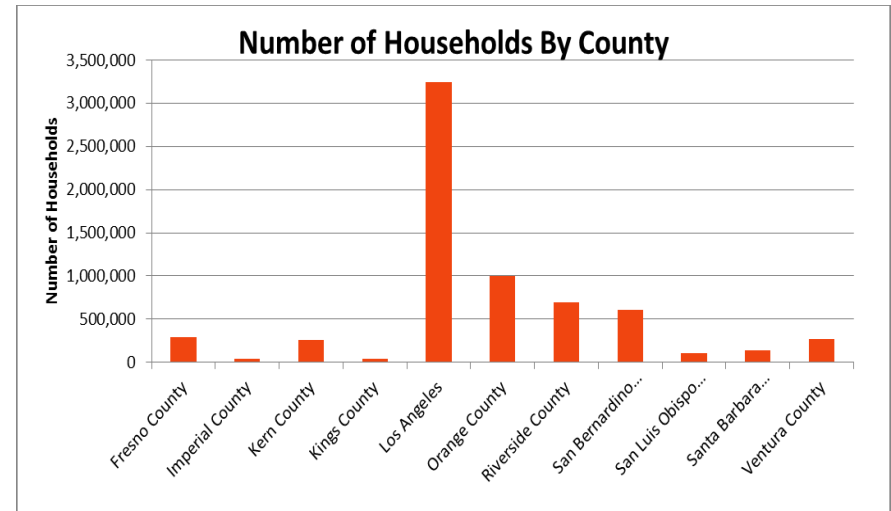
Residential Sector Profile

- » Represent 46% of the energy consumption within the state of California
- » Total of 10 million existing single family homes and over 3 million existing multifamily units
- » Residential new construction starts have annually on average been increasing by 14% from 2009 to 2015
- » California residential energy consumption is primarily utilized for space and water heating as well as lighting, plug load and appliances



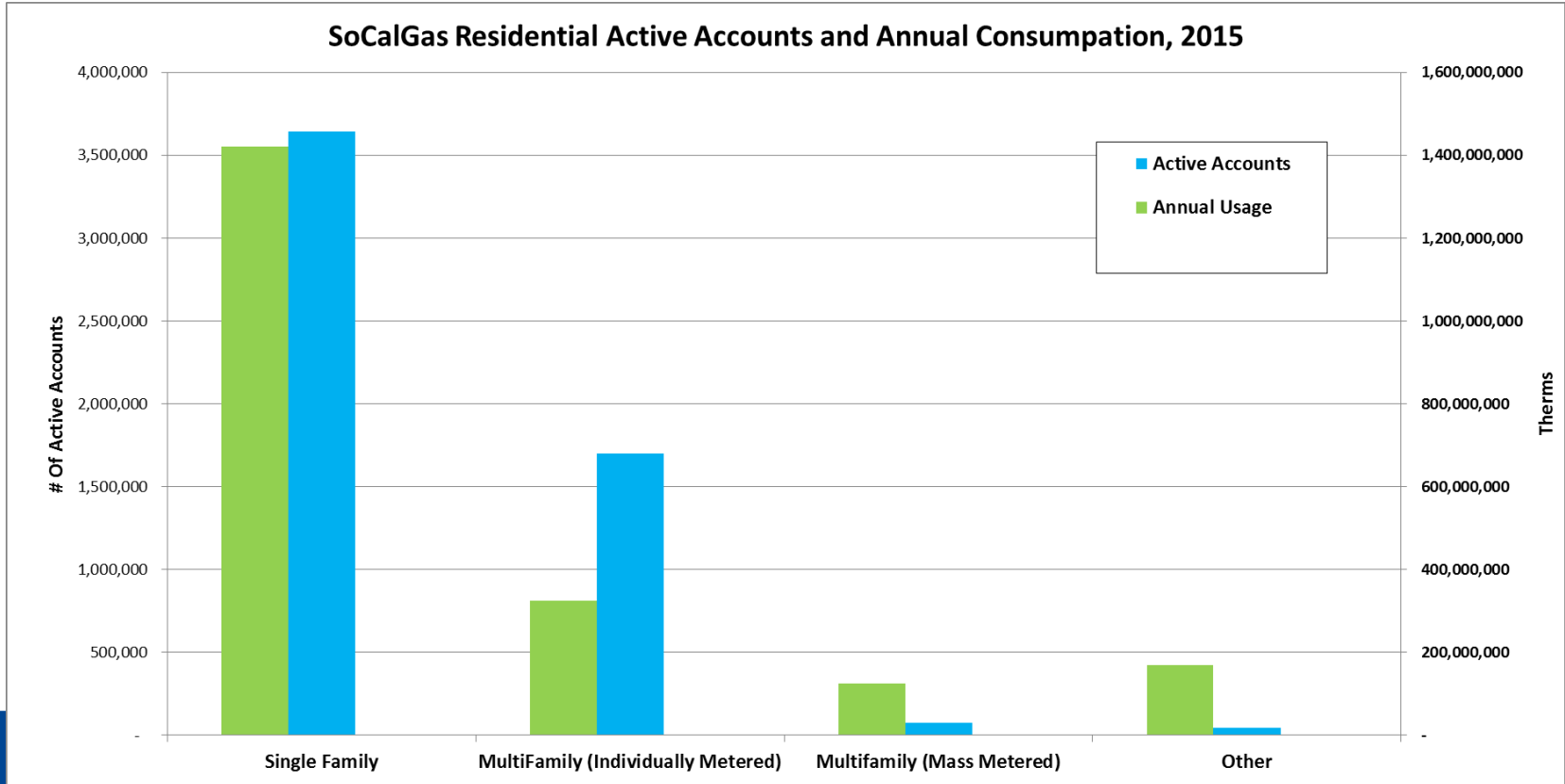
Residential Sector Profile

- » Largest number of households reside in the Los Angeles County
- » Highest median incomes resides in counties with lower household numbers, specifically Orange and Ventura County
 - Average median income:
 - Orange: \$75,000
 - Ventura: \$77,000
 - Los Angeles: \$55,000
- » Expenditures for housing, which accounted for 38% of the average household's budget in the Los Angeles area, was significantly higher than the national average of 33%
- » The age group that spends the most significant amount of average annual home improvement lies between ages of 35-44



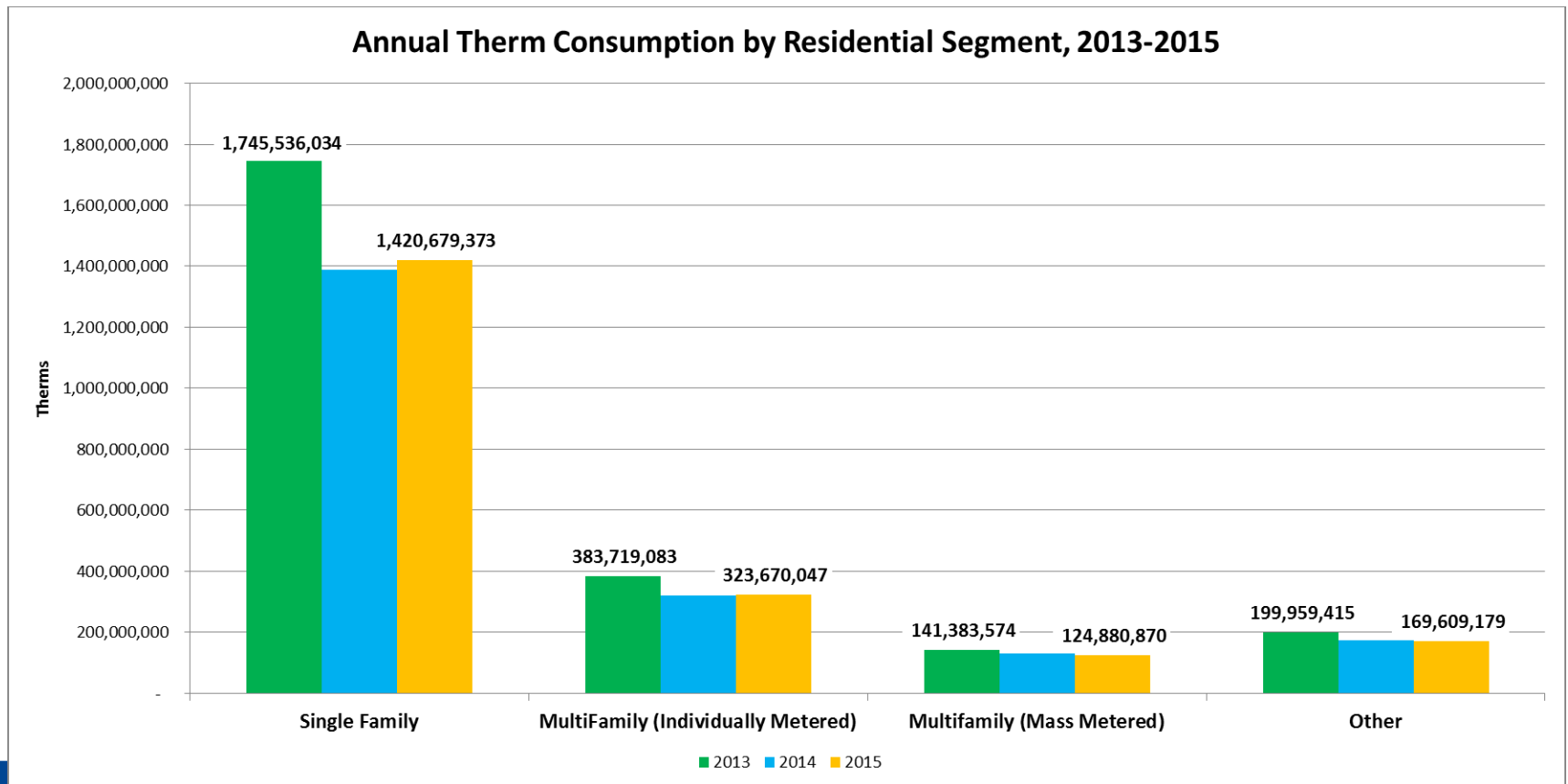
SoCalGas Residential Sector Overview

- » SoCalGas has 21.4 million gas customers through 5.9 million meters and their total annual usage is 8.7 billion therms
- » SoCalGas residential sector makes up 5.4 million of the gas meters in SoCalGas's overall territory and their total annual usage is 2 billion therms.



SoCalGas Residential Sector Overview

- » SCG Residential energy consumption: 70% Single Family, 24% Multifamily and 6% Other (i.e. mobile homes)



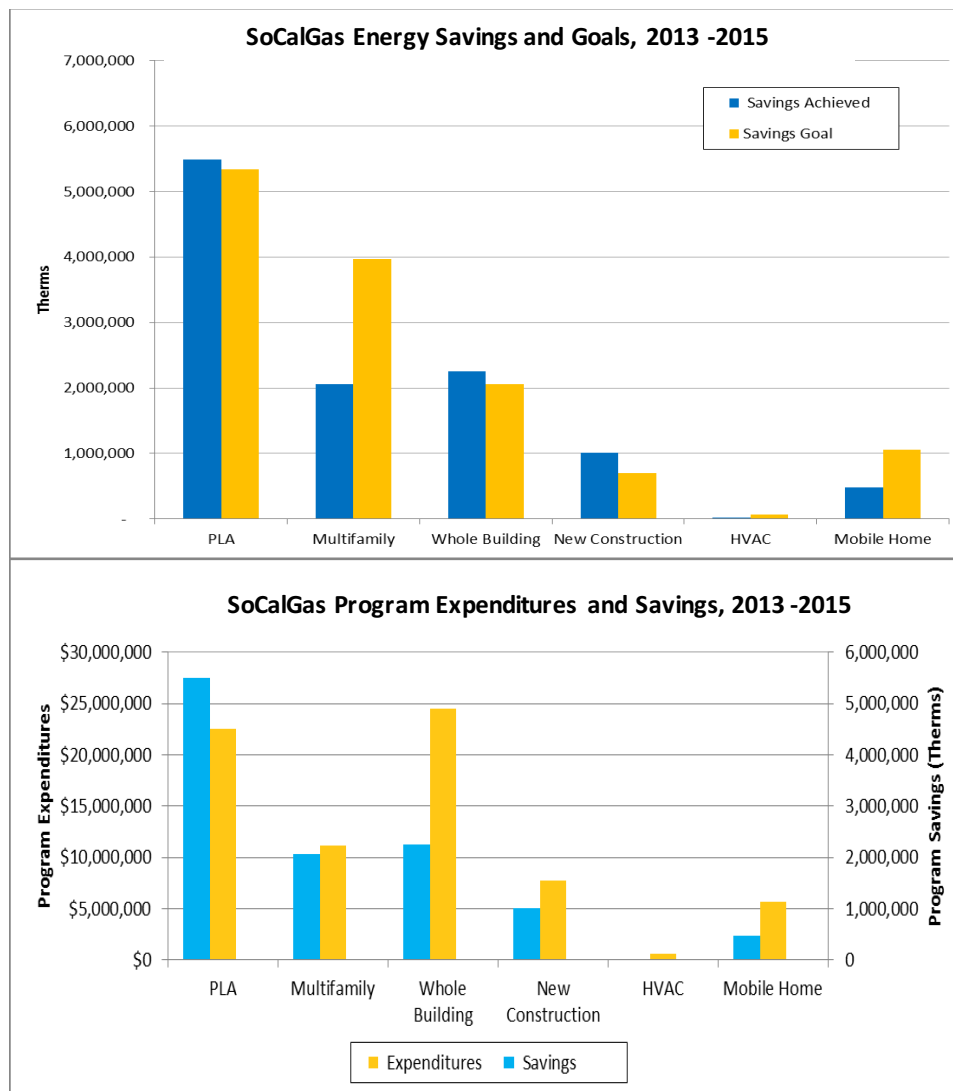
SoCalGas Residential Portfolio Overview

» 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):

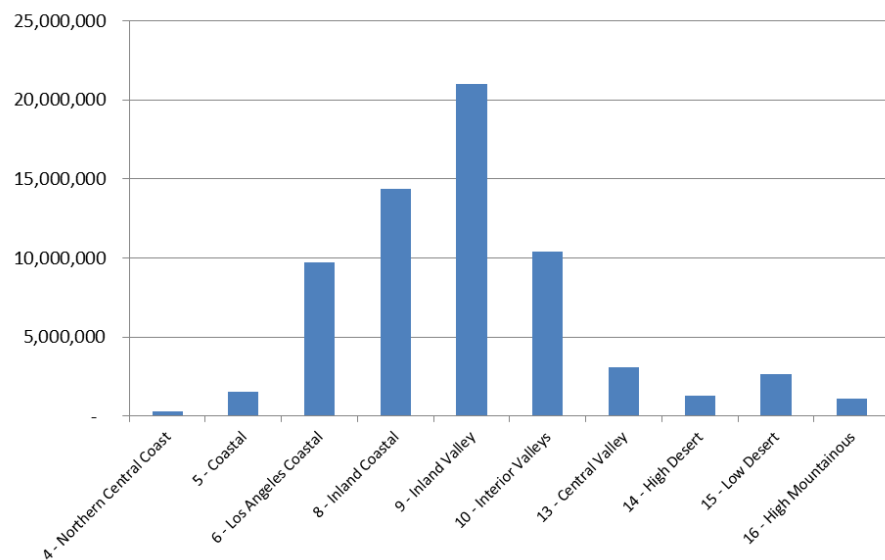
- New construction ZNE performance by 2020
- Implementation of a Whole House approach to energy consumption
- Plug Loads managed by appliances that use less energy and allow for behavioral improvements



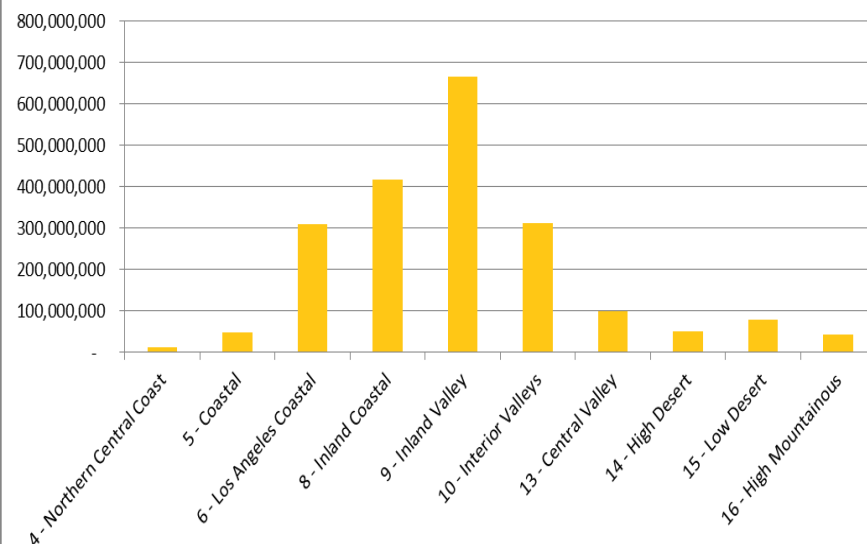
SoCalGas Residential Portfolio Overview



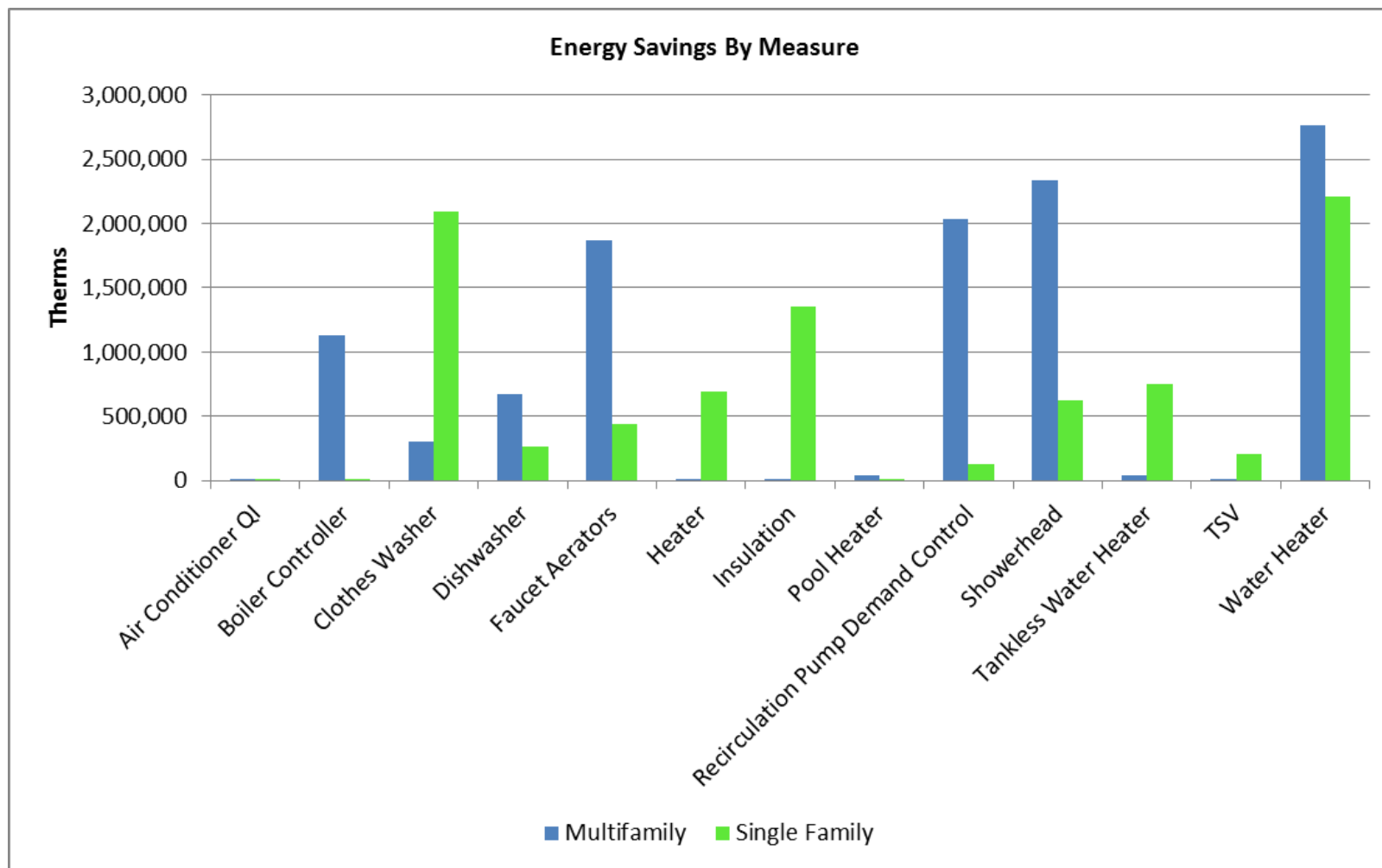
Number of Customers by Climate Zone



Annual Gas Consumption by Climate Zone



SoCalGas Residential Portfolio Overview



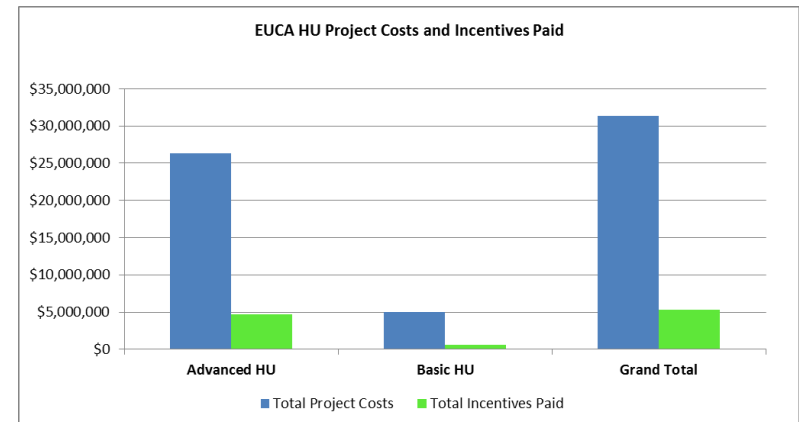
Problem Statement 1: High Costs for Executing Whole Building Upgrades is Limiting the Opportunity to Serve the Potential Market.

» Observations

- Within the 2013-2015 programs cycle, the SoCalGas Whole Building Programs constituted for over \$17 million in program expenditures but has consistently achieved its savings targets.
- In addition, the market potential as previously discussed in existing home upgrades is ever increasing however program funding is limited.
- SoCalGas does maintain a few partnerships with our electric service utility and 2 municipalities' utilities which allow for program costs such as implementation fees and incentives to be shared.

» Data

- SoCalGas EUCA Home Upgrade program amounts to 21% of SoCalGas Residential Sector energy efficiency expenditures
- The EUCA Home Upgrade program constitutes for one of the lowest TRC programs in SoCalGas' s Residential Portfolio, having an average TRC of .24 over the 2013-2015 program cycle.



Strategies

» ***Engage and Build Partnerships with Non-Participating Local MOUs***

- In efforts to increase program cost effectiveness and to maintain the ability to reach additional market potential in the SoCalGas territory, we need to look at building additional partners with other electric providers, such as municipality utilities.
- Expanding our partnerships would significantly reduce the burden for administering the program and assist in increasing the overall program cost effectiveness.

» **Key Partners**

- IOU's, MOU's, RENs and Trade Groups

Problem Statement 2: Whole House Existing Building Programs Current Funding Does not Support Market Transformation Objectives

» Observation

- The EUCA Home Upgrade Program has been designated by the CPUC as a market transformation (MT) oriented program to help meet the Long Term Strategic plan 40% reduction by 2020.
- Under current rules, the cost burden to the IOUs of being an MT program is not offset by commensurate benefits because specific definitional issues of what an MT program is and how it will be evaluated and treated distinctly from normal resource acquisition programs have not been addressed.
- For example, as an MT-oriented program, the IOUs are currently required to spend money on non-energy savings activities such as workforce development and training without the benefit of being able to claim future non-participant energy savings.

» Data

- Recent dramatic increase in Home Upgrade job submittal
- In 2014-2015, in an effort to better define and develop Home Upgrade fully as an MT program, the IOUs funded and published “A Comprehensive Strategic Market Transformation (SMT) Plan for a Home Upgrade Program SMT Initiative.”
 - The Plan states, “Determining cost-effectiveness for a market transformation program can utilize the same principles and general structure as cost-effectiveness approaches for RA programs, but they require different inputs in many cases.”

Strategies

» *Incorporate Market Transformation Performance to Whole Building Programs*

- Seek incentives that reward efforts that are effective at changing markets, reducing market barriers, and increasing market penetration.
- Seek out program modifications to the Home Upgrade so that regulators can base program performance on indicators of market effects, with the observed market effects linked to reductions of market barriers.

» Key Partners

- Regulators, IOUs, MOUs, RENs, Implementers

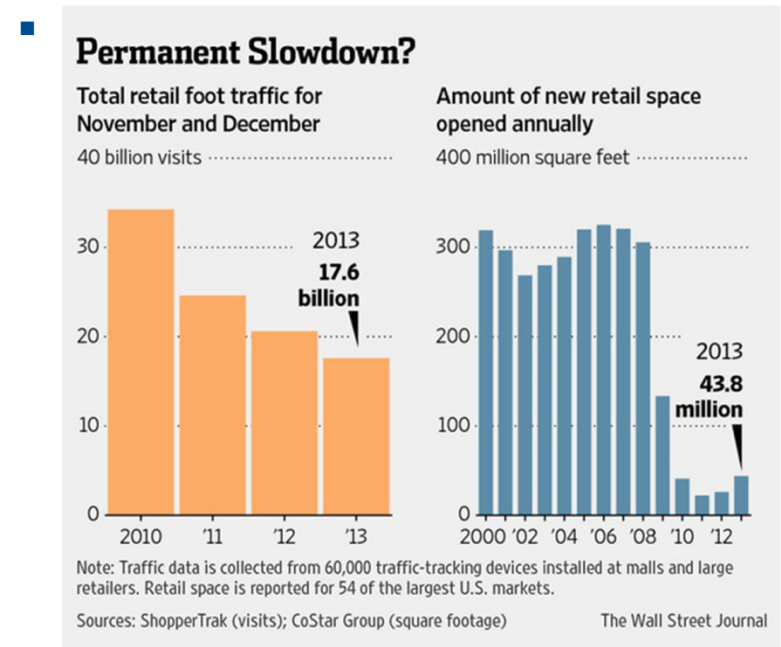
Problem Statement 4: Delivery Channels for Point of Sale Rebates are diminishing thus Reducing Future Potential PLA Savings

» Observations

- Early program participation from the retailers showed POS as 11% of the PLA portfolio.
- The POS program has grown to 78% of the PLA portfolio as of 2015.
- Recently, the POS program has seen a decline in participating retailers.
- The reasons for declining retailer participation are due to retailer's internal costs and costs for implementing the POS program.

» Data

- Since the recession, big-box retailers have struggled to maintain sales and foot traffic
- Wal-Mart had posted eight consecutive quarters of declining sales at stores open more than 12 months as of 3rd Qtr 2014



Strategies

» *Utilize Mail-In Rebate Option*

- To address the large gap of POS rebates, SoCalGas will boost its efforts and programmatic campaign to solicit customer to mail-in rebates on their PLA EE measures.

» *Streamline Current Rebates and Incorporate Mobile Technology*

- By shifting data collection and submission to a mobile platform, rebate applications can be submitted instantly after purchase. This step eliminates the normal one- to three-week delay and results in customers receiving their rebate checks sooner.

» Key Partners

- Small and Big Chain Retailers, Distributors, IOUs, 3rd Party Implementers

Problem Statement 5: Diminishing Returns and Increasing Costs is Causing Indifference to Above Code Energy Efficiency in the Residential New Construction Builder Community.

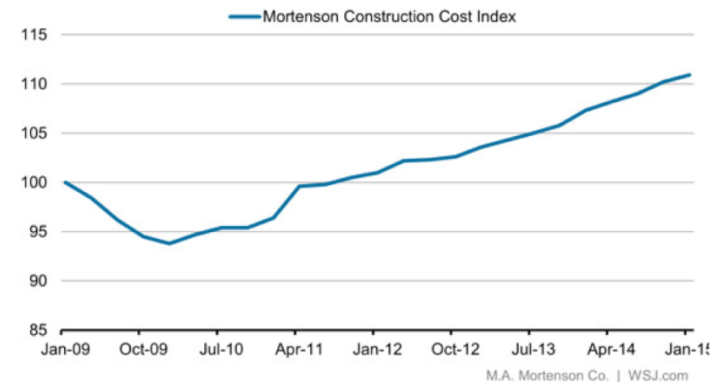
» Observations

- As the housing market recovers, new home construction demand is increasing, and so are costs. Three main causes for rising construction costs include:
 - Rising Material and Transportation Costs
 - Competition For Labor and Trades people
 - Low Mortgage Rates
- As Title 24 requirements become more rigorous, the builder community is moving away from attempting aspirational goals necessary to meet CAHP qualification thresholds and simply building to code due to the diminishing returns in available incentives

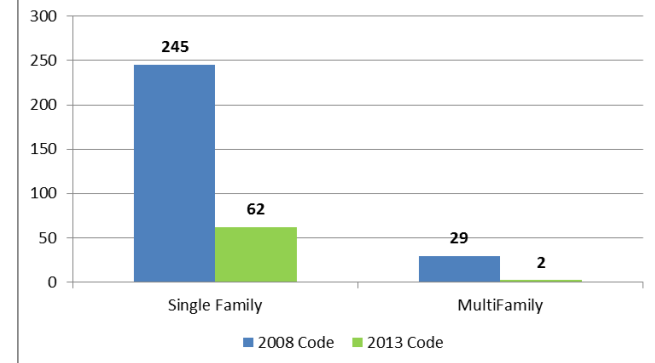
» Data

The Price of Recovery

Construction costs are rising



Number of CAHP Projects Completed



Strategies

» *Relax CAHP 100% Project Compliance Rule*

- Suggest CAHP begin accepting partial single-family and multi-family low-rise project enrollments. With this program enhancement, any plans in a project that are 100% compliant in all orientations can be enrolled.

» *Perform Additional In Depth Marketing to Identify Effective Incentive Levels*

- Additional marketing could be done in this sub sector to identify the correct price point for encouraging participation and above code upgrades

» Key Partners

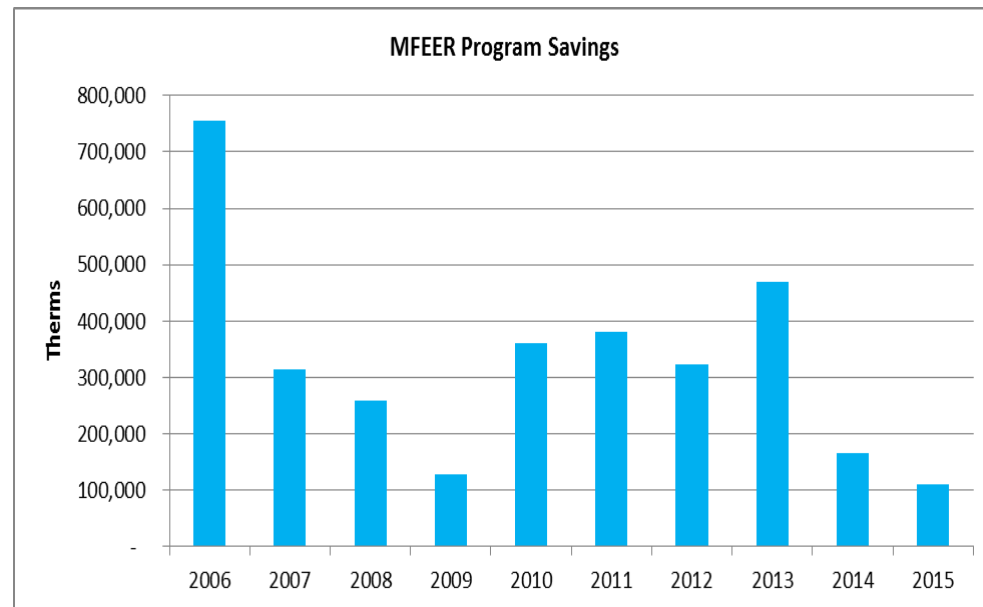
- Builders, IOUs, Contractors, Trade Associations

Problem Statement 3: Significant Decrease in Enrollment in Multifamily Programs

» Observations

- Multifamily buildings vary widely in terms of heating, ventilation, and air-conditioning (HVAC) systems, building size, tenant incomes, finance structures and ownership structures
- Multifamily building ownership is not highly concentrated,
- Low cost of gas and mild climate of California
 - Payback periods become extended due to the low cost of natural gas prices and the fact that equipment tends to last longer in dry mild climates
- Split Incentive - Unit leases, energy costs are paid directly by tenants and building owners aren't driven to invest in efficient building systems
- Lack of capital or access to financing

» Data



Strategies

- » *Create a Targeted Program with a Split Incentive Offering*
 - Create a targeted program that involves targeted metered sub segments of the multifamily sub sector and provide a split incentive structure.
- » *Explore an AB 802 Offering*
 - Utilize the high opportunity framework to incentivize bundled and deeper energy savings.
- » *Perform Additional In Depth Marketing to Identify Effective Incentive Levels*
 - Additional marketing could be done in this sub sector to identify the correct price point for encouraging participation in SoCalGas's existing and future programs
- » *Key Partners*
 - Regulators, IOUs, Landlords, Trade Groups, Contractors

Next Steps

- » Stage 2 Sector Analysis:
 - April 15 & 18: Commercial/Residential
 - Mid-May: Industrial/Agricultural/Cross-Cutting/Public
- » Work internally to begin Stage 3 and determine more in depth strategies as well as develop sector metrics:
 - Leverage data and research where applicable and PA specific when necessary
- » Integrate Stage 2 Data and Coordinating Committee Feedback on Residential Problem Statements and Solutions to Align Business Plan Drafts
- » Anticipated Filing Date for Business Plans
 - September 1, 2016