

# 2016 Residential Plug-load and Appliance Energy Efficiency Programs

City/County Association of Governments of San Mateo County  
Resource Management and Climate Protection Committee  
February 17, 2016



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# Agenda

- **Plug-load and Appliance use in the Residential Sector**
- **2016 Plug-load and Appliance Efficiency Programs**
- **Additional Resources**

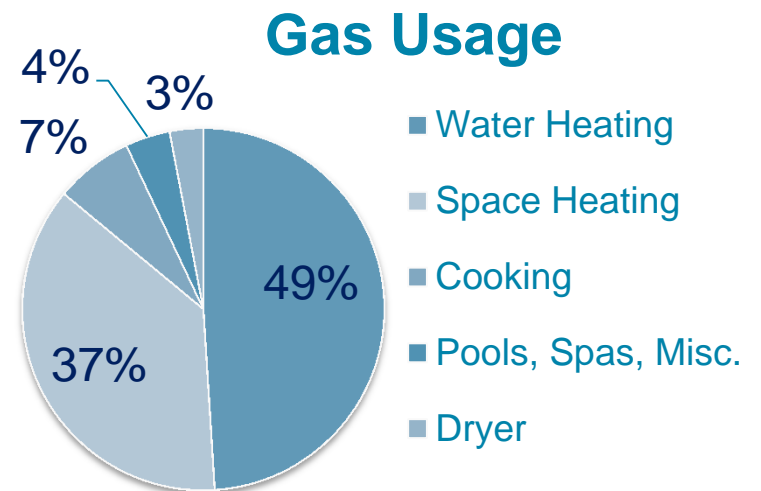
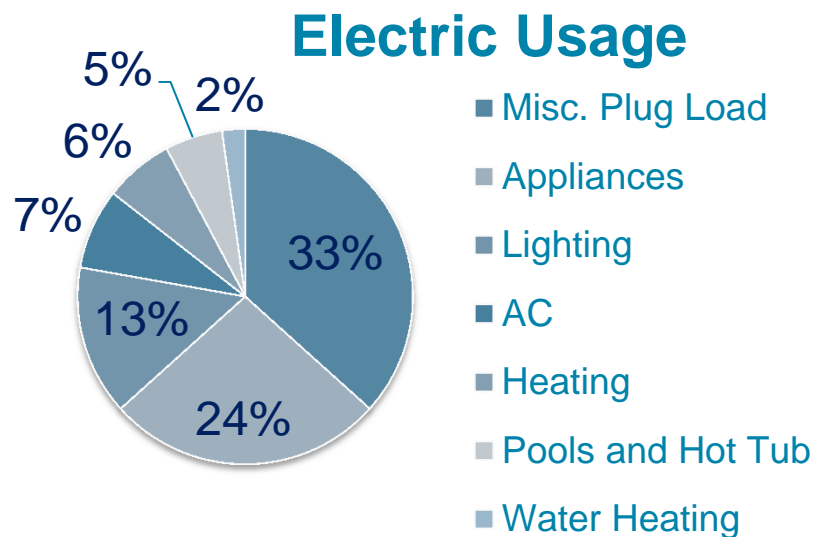
# Overview of Plug-load and Appliance Usage in the Residential Sector





# Residential Sector Overview

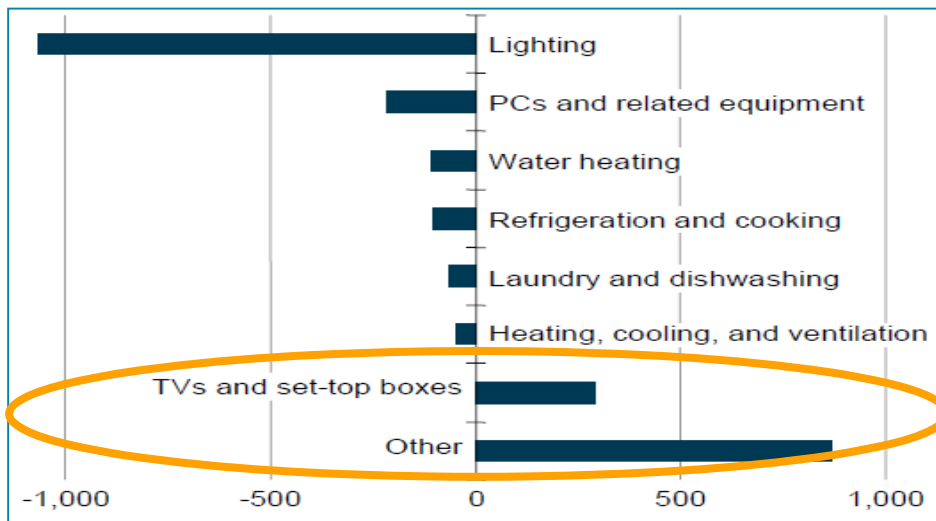
- The residential sector accounts for 32% of electric and 36% of statewide gas usage
- Need to evaluate new opportunities due to success in code advocacy and past programs – but still plenty of energy savings potential!
- Rapid growth of unregulated and “miscellaneous” loads





# Challenge of Residential Plug Loads

“Plug loads account for virtually all of the 2013-2026 residential energy consumption growth, caused by an increasing growth forecast for ‘miscellaneous’.”  
*Tom Gorin, California Energy Commission, June 2015 Presentation*



**Forecasted Change in Residential Electric Consumption, 2012-2040  
(kWh per household)**

Source: U.S. Energy Information Administration Annual Energy Outlook 2014

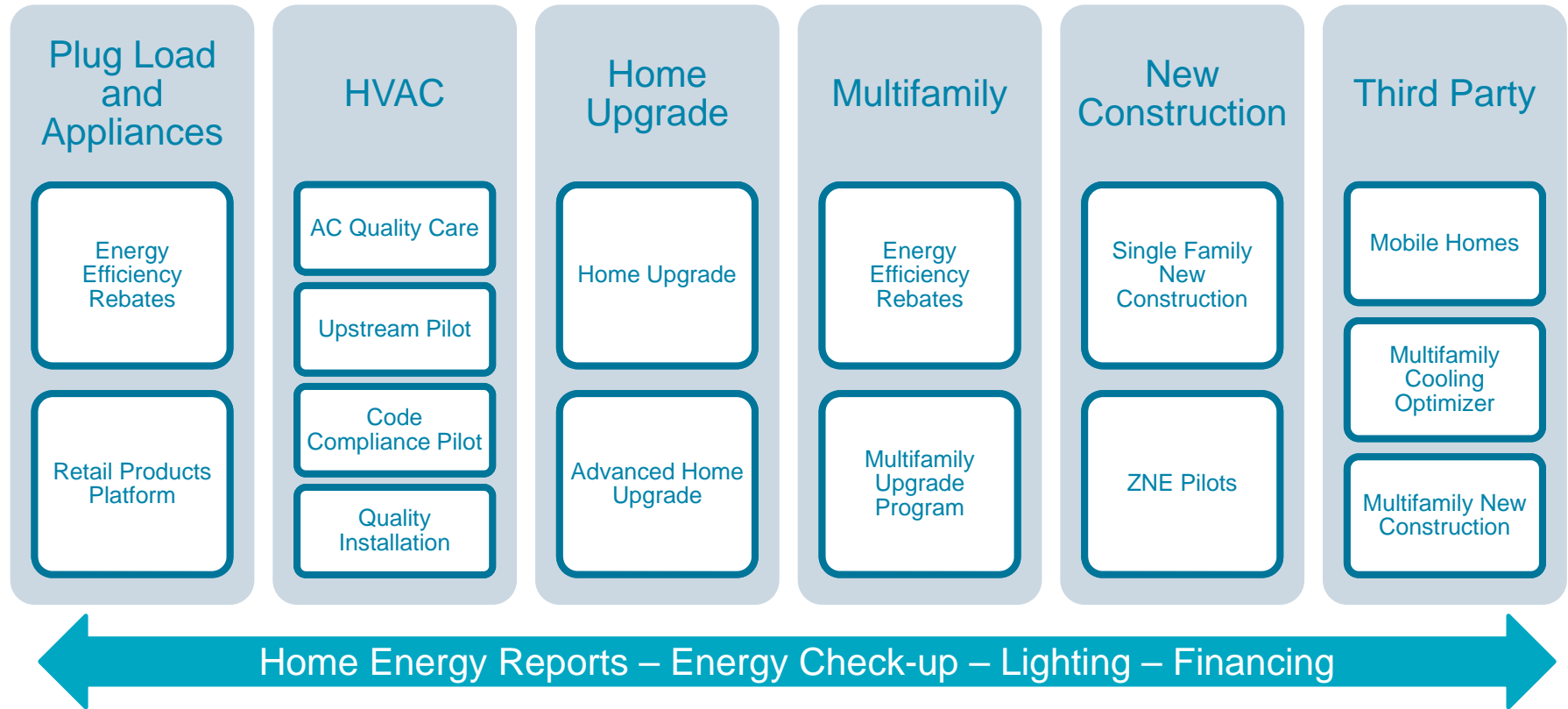
**Meet State Goals:  
Reduce Plug Loads  
by 40% by 2020**

**“Minimizing plug  
loads will be critical to  
meeting ZNE goals”\***

\*2012 Zero Net Energy (ZNE) Technical Feasibility Report



# Residential Energy Efficiency Programs



# 2016 Residential Plug Load and Appliance Energy Efficiency Programs





# 2016 Residential PLA Portfolio

Pool Pumps and Motors	Clothes Washers	Water Heaters (heat pump and gas)	RPP* – Freezers, Air Cleaners, Soundbars, Dryers, Room AC	Water-Energy Kits
Home Energy Management	Smart Thermostats	Set Top Boxes	Advanced Power Strip Tier 2	Appliance Recycling Program (eval pending**)

\*Regulatory approval for RPP is pending. PG&E anticipates CPUC approval prior to national program launch on March 1, 2016.

\*\*The ARP program is currently on hold; evaluation is underway to determine if PG&E will sunset the program in 2016..

Current

New

Evaluate

Sunset





# 2016 Continuing Residential Rebates

Product	Rebate
ENERGY STAR® Most Efficient 2016 Clothes Washer	\$50/unit
ENERGY STAR High-Efficiency Gas Storage Water Heater	\$200/unit
ENERGY STAR Electric Heat Pump Water Heater	\$500/unit
Variable-Speed Pool Filtration Pump or Motor	\$100/unit (customer) \$200/unit (contractor)



For information on product and customer qualification information go to <http://www.pge.com/homemoneysaver>



# What is the RPP Pilot?

- RPP offers participating retailers per-product incentives for qualified ENERGY STAR products, influencing manufacturers to produce more efficient models.
- Set of 6 products to start – based on breadth, potential, retailer interest
- Updates based on model share in the competitive market



Air Cleaners



Soundbars



Room AC



Freezers



Electric Clothes Dryers



Gas Clothes Dryers



sears



Walmart



(Nationwide is a buying group for smaller retailers.)

2016 Qualified  
RPP Products

2016  
2017  
Retailers Planned



# What are Water-Energy Kits?

- Simple to self-install
- \$70 value for \$10
- Online / pop-up sales
- Engagement tool

Welcome to your PG&E

## SIMPLE SAVINGS KIT

This kit will help you save water and energy for years—all through simple products that you can incorporate into your home in minutes. This sheet will give you a snapshot of the contents in your kit and how they work.



**HIGH EFFICIENCY SHOWER HEAD WITH SHOWERSTART TECHNOLOGY**

**What it does:** Conserves water before, during and after your shower.

**How it works:** ShowerStart reduces water flow to a trickle once water temperature hits 95 degrees. When you're ready to get in, simply pull the cord to resume full water flow.

**Installation time:** Five minutes.



**BATH FAUCET AERATORS (TWO INCLUDED)**

**What they do:** Lower water flow in standard faucets.

**How they work:** Aerators introduce air into the spray, providing additional flow through added pressure.

**Installation time:** Two minutes per aerator.



**TOILET TUMMY**

**What it does:** Reduces the amount of water used during each toilet flushing.

**How it works:** Toilet Tummy displaces water in the bowl, causing the water level to rise to a "refilled" state using less water than it would with an empty bowl.

**Installation time:** Less than one minute.



**LEAK DETECTION DYE TABLETS**

**What they do:** Identify water leaks.

**How they work:** When dropped into the toilet's tank, leak detection tablets release coloring into the bowl if the toilet has a leak.

**Installation time:** Less than one minute.



**LED BULBS (TWO INCLUDED)**

**What they do:** Using far less energy, and lasting far longer than traditional bulbs.

**How they work:** LED bulbs use the latest lighting technology and come in new tones to brighten your home.

**Installation time:** Less than two minutes per bulb.



# Emerging Plug-load Programs

## Home Energy Management System (HEMS)

- In Phase 2 Evaluation through mid-2016: customer preference, use cases
- HEMS Roadmap developed at end of evaluation

## Advanced Power Strips (APS): Tier 2

- Mid-stream channel development for mid-2016
- Potential to distribute/direct install in combination with other measures



## Set Top Boxes

- Distribute in combination with other measures (Ex: APS Tier 2)

## Smart Thermostats

- Downstream with retailers and through HVAC network, mid-2017

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