RESIDENTIAL BUDGET CONCEPTS 2014

Sector: *Residential*
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Sector Overview

Energy Trust's Residential Sector provides energy efficiency services and financial incentives to residential consumers. Primary sector activity is accomplished through two Program Management Contracts (PMC), New Homes and Products (NH&P) Program and Existing Homes (EH). In addition to PMC activity the sector delivers energy savings through pilot efforts and work with Northwest Energy Efficiency Alliance on market transformation savings.

2014 Sector Themes and Key Directions

There has been significant and steady growth in the residential sector over the past four years, with electric and gas savings increasing by 89% and 105%, respectively, during that time period. Despite this impressive growth, it is important to acknowledge that program staff expects to see savings start to level off over the next few years. In fact, it will take significant innovation in program designs, as well as the continued growth of emerging technologies, in order to maintain the current savings levels.

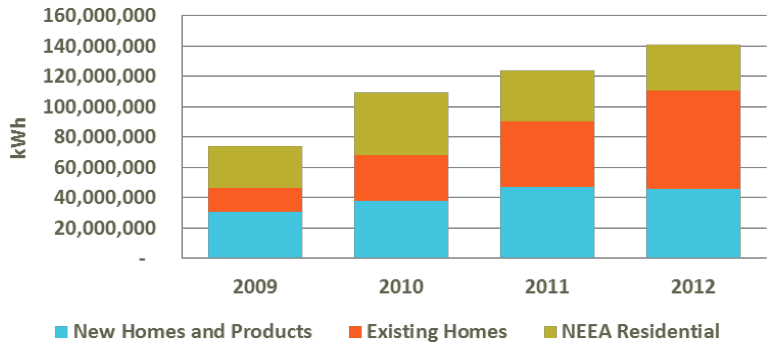
The primary objective of the Residential Sector is to make investments in program design that will deliver cost effective savings. This is accomplished through services and financial incentives that enable customer to invest in energy efficacy projects. Themes to achieve savings in 2014 and lay the foundation for 2015 will focus on:

- Making it easy for customers to participate
- Innovative program design
- Targeted communications bringing the right offer to consumers (geography, usage, past participation)
- Leveraging partnerships with third-party organizations and market participants
- Developing program and administrative efficiencies

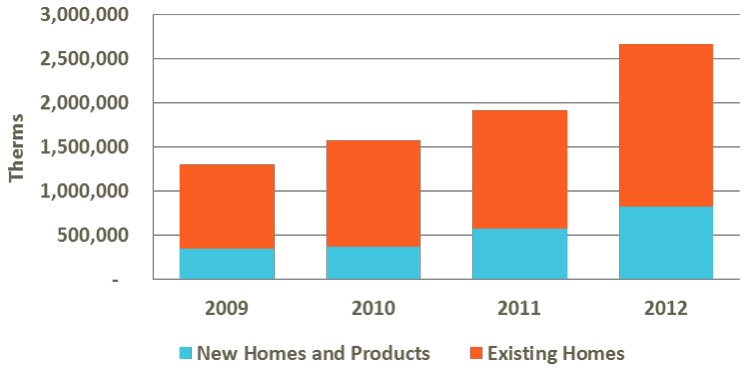
2012 Recap

Overall, the Residential Sector had a successful 2012 delivering savings from a variety of programs and offerings this mixed portfolio approach is key to continued healthy savings growth for the sector.

Sector Savings - Electric



Sector Savings – Gas



Existing Homes

2012 savings success came from three main segments for Existing Homes

- Prescriptive track measure installations, including weatherization
    - This track served more than 15,000 customers in 2012 and expects to serve around 13,000 in 2013
- Instant savings measures (lighting, aerators and showerheads)
    - Contractor install, Home Energy Review install or an Energy Saver Kit
    - 48,000 customers received instant savings measures in 2012. By design fewer kits will be delivered in 2013
- Whole home savings through Home Performance with ENERGY STAR track (includes Clean Energy Works projects).

- The other areas of savings include manufactured homes duct sealing, savings from solar thermal installations and Opower.

New Homes

Overall, 2012 was a successful year for the New Homes Program - housing starts in Oregon were up over 35% from 2011 to 2012 and significant growth is expected in the next couple of years.

- Increase market share of EPS homes from 20% in 2011 to 25% in 2012.
    - Despite increasing energy codes, the program was able to complete more than 1,300 homes receiving an EPS score - twice the goal of 650 homes.

Products

Lighting savings fell short of goals in 2012 due to a number of factors, including the market transition of CFLs to LEDs. The result of this transition is a net reduction in lighting savings due to fewer program supported CFLs being available.

- A recent lighting shelf survey (Oregon by KEMA) shows that the number of CFLs available in stores decreased by 25% from 2011 to 2012, while the number of LEDs products available increased by 15%.

2013 Current Situation / Market Conditions

Basic program designs from 2012 continued into 2013 for the major programs. Behavioral savings efforts moved to testing persistence for the effort with NWN and PGE. A test of behavioral savings for high users in Pacific Power territory will be launched later in 2013. The challenges for lighting continued in 2013 and, unless an effort to reach the LED market is launched, this will mean a continued fall in savings in this segment.

Existing Homes

The contract rebid process of 2012 resulted in a new PMC implementing the Existing Homes program in 2013. Fluid assumed program operation in Q1 and CSG concluded PMC services after closing out the 2012 budget year in January.

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Fluid has added the following elements in 2013 to set the stage for 2014:

- Created and integrated IT systems to capture program data and establish integration with our CRM and tracing systems.
- Launched an outreach strategy specific to Pendleton, Ontario and eastern Oregon territories.

- Began designing a quality management framework for contractors to better reinforce consistent project installation standards.

New Homes

As the new construction market continues its rebound New Homes is identifying ways to streamline program participation with improved systems and processes, making the program more scalable. The program wrapped up a successful air sealing pilot with subcontractors and made this a new standalone measure part of the standard program offerings. In addition, the program continues to leverage existing infrastructure such as regional training entities and existing rating companies, as well as key stakeholders such as OHBA, NEEA, Earth Advantage, and ODOE.

Products

New refrigerators & freezers, clothes washers, lighting and refrigerator recycling continue to drive savings.

As appliance efficiency baselines continue to increase the program is seeking more cost effective ways to work with retailers other than the traditional mail in rebates. Innovative retail program designs being tested in 2013 include,

- On-line and instant rebates with Sears
- Retailer midstream pay for performance program design “Market Lift”
- Consumer electronics product category pilot
- These new and innovative retail program designs offer the benefit of improving the customer experience, reducing program administration costs, removing up front cost barriers, and strengthening retailer relationships.
- Innovative third party relationships - partnering with Oregon Food Bank for refrigerator recycling – offering consumers the opportunity to donate their $40 incentive to Oregon Food Bank.

2014 Key Actions and Initiatives

Leveraging relationships with market actors for effective collaborations to advance industry codes, transform home energy use and bring innovations in retail products are important themes that will require greater investments in delivery.

New Homes

With the rebound in new home construction the program is targeting a goal of 20-25 percent market share of EPS homes built within Energy Trust territory. New Homes activities will continue to utilize market actors for program activities.

- Leveraging NEEA’s NW Energy Star New Homes and Next Step programs as well as the network of independent verifiers.

- Continue to make it easier to enroll program homes by leveraging NEEAs verifier portal to allow automatic generation of EPS and continue to refine it so there are efficiencies in data processing and reporting.
- Based on the success of the air sealing pilot the program will continue to identify and test new ways to work with subcontractors to drive additional energy savings.
- Setting the stage for energy code improvements over the next 15-20 years - work with NEEA, OHBA, and other industry stakeholders to identify cost effective strategies to reduce the energy consumption in new homes.
    - Goal: submit a joint proposal to Building Codes Division for the 2015 energy code update.
    - Energy Trust and NEEAs will support builders with training and incentives in order to prepare for upcoming energy code changes.
- Continue to increase homebuyer awareness, understanding, and purchase of EPS homes.

To support higher standards beyond ENERGY STAR for manufactured homes, the program is collaborating with Bonneville Power Administration, NEEA and other regional stakeholders to work with manufacturers to incorporate the High Performance Manufactured Homes specification[1] into their manufacturing processes. Energy Trust is planning on providing retailer incentives for inclusion of ductless heat pumps and heat pump water heaters as a way to support the adoption of these measures.

Products

Even though savings for major appliances are decreasing and new Federal lighting manufacturing minimum efficiency standards (EISA) are reducing deemed savings for lighting measures there are still significant opportunities to increase savings acquired through retail channels by changing the way we work with retailers. The products program will continue to build upon the innovative retail program designs being tested in 2013. Where proven effective, these strategies will continue to be rolled out to more retailers for an increasing variety of products, including online sales.

- Increase retail field services and general retail support in order to better leverage this opportunity - Evaluation results consistently point towards the sales associate being one of the most influential aspects of their decision to purchase energy efficient options.
- Market lift concepts piloted in 2013 are expanding to consumer electronics and the program is exploring the “whole store” as part of NEEA’s retail collaborative
- Expand online and instant incentives to additional retailers

[1] This specification is similar to Energy Star with an improved shell, a ductless heat pump, and heat pump water heater.

- LED lighting offerings will expand as equipment performance improves, with a focus on consumer education. Specialty CFLs will continue by targeting appropriate channels for distribution

- Coordination with community action programs to provide energy saving products for distribution of their clients (food pantries and PGE Community offices)

A key component of retail offerings is coordination with retailers, reducing the need for a retailer to work with hundreds of energy efficiency programs to offer incentive qualifying products to their shoppers. To this extent Energy Trust is actively working with the North West Regional Retail Collaborative and the Western Regional Utility Network[2] (WRUN) to leverage the collective strengths of NW and CA utilities.

- In 2014 Energy Trust will continue to work with these groups to align on efficiency standards, develop a framework to work with Amazon, leverage retailer's contractor networks, develop consistent consumer messages, and continue to explore opportunities to pilot a "whole store" approach.

Existing Homes

A number of proposed program design innovations will continue to be rolled out

- Equip Trade Allies with tools to aid them in quality management practices

- Easier project data submission through electronic forms - reduces program administration and faster incentive payment

- Improved customer engagement strategies through strategic customer targeting based on usage and demographic information.

- Continued transition from savings reliance on kits while maintaining cost effective program savings

- Expand savings penetration of key product categories

- Reaching underserved populations through market based collaborations. (Reach communities / areas where Energy Trust gas territories overlap with public owned utilities).

For gas weatherization projects, the focus will be on approaches to increase savings and reduce costs, given the decrease in gas avoided costs.

- Energy Trust is developing a consumer facing tool to aid customers in better understanding the kind of savings related to specific weatherization measures.

[2] WRUN is a collection of CA and NW utilities working together to leverage retail partnership in order to increase savings and reduce costs of retail programs.

    - Customers will be able to enter variables from a contractor's bid, like square feet of insulation, and see associated energy savings based on Energy Trust's evaluated results.

- Expansion of trade ally installed instant savings measures will aid in achieving cost effectiveness by maximizing the savings potential for this measure class.

Ductless heat pumps will be a driver of savings with steady growth. The program will continue to

- Leverage NEEAs field support services
- Targeted outreach focusing on upgrading inefficient electric heating systems (housing characterization, promotions with electric utilities and existing mobile homes).

Savings Within Reach (moderate income track), will undergo a redesign to serve these customers while maintaining program cost effectiveness goals.

- A loan product in collaboration with Craft3, which includes on-bill repayment, no participant fees, and no upfront costs to the participant, is on track to launch in the fall of 2013 for PAC, PGE and NWN customers. The program will be closely monitoring the uptake and success of this tool in enabling greater participation.

EPS will continue to be evaluated as an Existing Homes tool for home owner education and efficiency in leading to project installation action.

- We will be coordinating with ODOE as they write the administrative rules related to the recent signing of House Bill 2801.

Energy Trust will continue to support real estate professionals through the Real Estate Ally network, with the goal of leveraging their interactions with home buyers and sellers to drive energy efficiency improvement.

- Look to Real Estate Allies to raise awareness and understanding of EPS in the marketplace –leverage appraisers and home inspectors.
    - Provide seminars for Real Estate Allies - tying energy efficiency and renewable home improvements to increasing home value.

A Lending Ally initiative will better incorporate lending products into options consumers have when making energy efficient improved to their homes.

- Support Trade Ally groups utilizing lending products to increase customer follow through.
- Lending products will also be integrated into customer engagement processes.

Home Performance project volumes have grown significantly over the past four years, with much of that attributed to ARRA funded Clean Energy Works, however, total volumes in this area is about 1,750 projects in 2012 representing 3% of electric and 11% of gas of savings. Existing Homes will continue to depend on the market support and savings generated by the

Home Performance Guild and CEWO to drive growth in this segment. We look forward to continuing collaboration that fosters a marketplace that supports successful, highly trained contractors.

Water heating savings continue to be an important part of long term savings goals and will be a focused area of expansion.

- Increase Energy Star gas tank water heaters installation through trade allies who increase penetration into the emergency replacement market.
- Leverage NEEA's efforts with manufacturers and installers to foster expanded growth in heat pump water heaters.

Pilots and Tests

Programs will continue to conduct pilots to test delivery strategies, investigate new technologies and better understand the best way to incorporate innovations into programs.

- Continue to test prescriptive air and duct sealing approaches to determine results in energy savings.
    - Integrating initial impact results into program design enhancements, as information becomes available.
- Energy Trust is continuing to work with Opower to deliver Personal Energy Reports to customers of PGE, NWN and Pacific Power.
    - The PGE/NWN effort launched in 2011 to 60,000 dual-fuel customers. The final reports to this group will be sent in January 2014, with no current intentions to continue reports to this group past this date.
    - The Pacific Power effort launched in 2013 to with reports to15,000 Pacific Power customers with higher-usage and electrically heated homes - first reports August 2013.
- NEST pilot currently in planning stages may lead to a follow-up NEST test on gas heated homes, and/or a second-stage evaluation to test NEST on heat pumps.

2014 Anticipated Challenges

- Clean Energy Works is transitioning from federal grant funding which may impact the number of sites served under the Home Performance track of the existing home program – impacting therm savings.
- Balancing the development of new savings levers for the Existing Homes portfolio while transitioning away from energy saver kits savings requires discipline and strategy incorporating near and long term criteria.
- Gas weatherization avoided costs have required the program to reduce incentives, eliminate measures, and change measure level requirements to the

point that fewer projects qualify. The program's current goals to reduce project level costs and increase savings per measure will impact future decisions.

- Heat pump water heater selection and availability on incentive qualifying units are limited. Existing Homes may need to explore other strategies to increase electric water heat savings.
- Ductless heat pump average installed costs are close to the maximum to support TRC cost effectiveness test requirements.
- We have limited experience using consumption data to target customer homes for priority measures.
- Retailers are slow to move away from the traditional buy down incentive model. As savings from major appliances using the buy down model continues to decline new program design will need to be implemented at retail to continue to capture these savings.
- With EISA coming into full effect and the LED market rapidly expanding the lighting market is in a period of transition and savings from CFLs are uncertain.
- During 2014 there will be a re-compete of the New Homes and Products contract.