

Retail Products Platform – Piloting an Innovative Midstream Energy Efficiency Program Design

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ABSTRACT

Plug-loads in the home, including appliances and consumer electronics, contribute an estimated 15-20% of residential energy use. Traditional program designs that target these devices are encountering cost-effectiveness barriers because of decreasing unit energy consumption (UEC), which is a consequence of successful ENERGY STAR®-focused programs and federal minimum efficiency standards. Shoppers consider accompanying small mail-in rebates to be “not worth the hassle,” increasing consumer barriers to efficient products. Many retailers, who partnered with local programs in the past when large rebates had attracted customers, are now deemphasizing these relationships as they focus on core business activities. A nationwide group of energy efficiency program sponsors is collaborating with EPA to pilot an innovative midstream incentive program to overcome these barriers and reduce energy use associated with the growing consumer products market.

This paper summarizes key activities leading up to a pilot of the midstream Retail Products Platform (RPP). The most important factors in this market transformation effort are building large-scale participation, designing consistent program processes, and establishing connections to ENERGY STAR’s specification development process. Large-scale participation relates to the market share necessary to fully engage retailers and impact their buying decisions. Program processes that can be consistently used by program sponsors include product selection, specification setting, marketing, field services and data management. The paper reviews elements of the platform as well as lessons-learned by ENERGY STAR and program sponsors during pilot planning. The 2016 pilot includes participation by eight program sponsors representing ten states and almost 15 percent of the US market. During the pilot, energy efficient models in five product categories will be promoted by program sponsor labeled signage in 691 stores.

Introduction

Over the 20 year span of ENERGY STAR’s existence, utilities and retailers have partnered with ENERGY STAR to bring improved consumers products into the marketplace, including energy efficient lighting, that use half as much energy as they once did. Correspondingly, more stringent energy consumption codes and standards are raising baselines for utility energy efficiency programs. One consequence of these successes is that the remaining, significant energy savings opportunity cannot be cost-effectively reached with efficiency program designs and evaluation techniques rooted in the 1990’s.

Traditional efficiency programs attempt to increase sales of efficient products by introducing consumer-oriented market interventions. Programs use consumer rebates to decrease the incremental cost of more efficient products and the size of the rebate is generally tied to the amount of savings. As savings shrink so do rebate levels, and now for some product

categories the rebates are not effective since shoppers consider them “not worth the hassle.” In some parts of the country, efficiency programs have stopped trying to promote efficiency in certain categories, like appliances. Similarly, traditional EM&V techniques can be barriers to new approaches such as market transformation. Without innovation, conventional elements of a program design can serve as a obstacles to solutions that look at retail sector options for delivering energy savings.

In order to continue to evolve efficiency programs into the future, new approaches are needed. The ENERGY STAR Retail Products Platform (ESRPP) is a new approach to delivering energy efficiency programs through the retail sector that can be used to continue, and even expand, energy savings trends nationally. ESRPP with uniform ENERGY STAR branding and efficiency specifications creates a foundation for cost-effective programs.

ENERGY STAR has more than 50 retailers and national retail buying groups as well as over 600 efficiency program sponsors as partners. These partnerships have been a key element in the design and implementation of efficiency programs.

There is one point of intersection for every efficiency program; one that offers the benefits of scale and potential for cost savings from a national program. This intersection is the retail industry. Each of the 350 programs in 50 states is served by less than a dozen major retailers and hundreds of millions of customers make purchases at their stores each year. The retail channel is undergoing dramatic changes with the addition of web and mobile shopping options, creating additional opportunities to bring consumers energy efficient products and to deliver information about how to save energy.

There are other organizations working to harmonize energy efficiency programs through collaboration. Nationally, the Consortium for Energy Efficiency (CEE) serves as a forum for efficiency program administrators to discover consensus needs and solutions. Regional energy efficiency organizations¹ strive for regional cooperation. There are also state-wide initiatives, such as those in California and Massachusetts, which coordinate certain program activities within the state. Efforts by national, regional, and state organizations have the potential to create shared energy efficiency strategies and program designs.

Saving Energy in the Residential Sector

There still remains great potential to decrease energy consumption in U.S. homes. Recent American Council for an Energy-Efficient Economy’s (ACEEE) models suggest a potential to decrease energy use in the residential sector by 40 to 50 percent by the year 2050 (Laitner, 2012). McKinsey estimates that a combination of behavioral and technology interventions could lead to a 20 percent decrease in residential energy use (Franckel 2013). Each of these savings potential analyses presents feasible reductions from the US Energy Information Administration (EIA) Annual Energy Outlook long-term, “business as usual” scenario. Actions to advance energy efficiency beyond business as usual are critical components of solutions that address the recognized threat of climate change to global environmental and economic sustainability.

In 2012, the residential sector consumed 21 percent of all energy usage in the United States, more than 20 quadrillion BTUs of energy. Efforts by policy makers and utilities over the

¹ Northwest Energy Efficiency Alliance (NEEA), Midwest Energy Efficiency Alliance (MEEA), Northwest Energy Efficiency Alliance (NEEA), Southeast Energy Efficiency Alliance (SEEA), Southwest Energy Efficiency Project (SWEET), South-Central Partnership for Energy Efficiency as a Resource (SPEER)

last 30 years have contributed to significant progress to improve residential energy efficiency. The average energy use per household has declined by more than 20 percent over this three decade timeframe. Because of efficiency gains, EIA has lowered its forecast for long term growth for energy use to 0.5 percent, which is half of its long term forecast from a decade ago. ACEEE's analysis of the changes in energy consumption concludes that energy efficiency is now one of the most important determinants of long-term electricity growth in the U.S.

There are many interrelated factors influencing growth in residential energy consumption, including population, home size, economy, and technology. Energy efficiency improvements for lighting, refrigerators, space heating, air conditioning, and home design have certainly mitigated growth rates in energy savings consumption. However, these reductions in energy consumption have been partially offset by increases in the number and average size of homes plus the rapidly expanding use of electronics. (U.S. EIA 2015)

Retailers' Role in Promoting Energy Efficient Products

The retail industry has always been the ideal channel for delivering energy efficient products and services because of its significant scale. At almost \$4 trillion in annual sales (U.S. Census 2012), retailer activity encompasses thousands of product and service categories and millions of different items. These items include the over 15,000 ENERGY STAR certified products spanning more than 60 product categories. The top ten retailers, who are sales leaders in energy-related products, have almost 19,000 stores in the US, welcome 8 billion visitors each year and generate 11 billion web impressions annually..

An important role of the efficiency program sponsor is to make sure these products are available to consumers and to encourage their purchase. Of the \$8.6 billion budgeted by sponsors in energy savings programs in 2015 (CEE 2015; 28), an estimated 20 percent of this budget has been connected to retail activities.

Retailers play a central role in successful energy efficiency programs. They select, stock, and promote energy efficient products. With appropriate incentives and program designs that align with their business goals and objectives, retailers have shown a willingness to participate in utility energy efficiency programs. ENERGY STAR's Retail Action Council --, a group of three, large, national retailers -- advises program sponsors on how to work closely with retailers on program design and the standardization of practices in order to support profitable sales, drive shopper foot traffic, and increase customer satisfaction.

Considerations for Working with Retailers

Successful efficiency programs build on program sponsor-retailer relationships that foster clear understandings of each other's business strategy. Many opportunities for efficiency programs are missed simply because the program sponsor does not understand retail business concerns and objectives. This problem is compounded by the variety and volume of retail programs that program sponsors would like to implement.

A common objective among retailers is to create unique customer experiences that drive profits and build shareholder value. Retailers structure their organizations and processes to work collaboratively with their partners to deliver products and services to their customers. Organizational roles and responsibilities are defined to best meet retailer's business objectives:

- The merchant role is in charge of the category, products and strategy.

- Marketing establishes the customer experience, messaging, and promotions.
- Visual merchandising sets the planograms, displays, fixtures, and signage.
- Store operations manage the store, supply chain, and store associates.

The merchant organization adheres to a well-defined merchandising calendar to engage suppliers, select products, negotiate pricing and program incentives, and forecast inventory requirements. Retailers generally have a sustainability-focused, single point of contact to connect the merchant organization with program sponsors. When program sponsors communicate program details through this key contact, merchants can make well-timed decisions to enhance the value of a product offering. The most appropriate time for program discussions is when merchants are engaging manufacturing partners and selecting products.

In order to best utilize the retail channel for effective efficiency programs, stakeholders in these programs need to understand the structure of today's retail business. In the past, efficiency programs had significant size rebates and incentive budgets available. Today, decreasing rebates and budgets may not justify retailer's time, effort and expense to participate in efficiency programs. Some retailers are targeting their limited resources on only one product category, for example lighting. Future energy efficiency programs will need to align with the business interests of the retailer, addressing a wide range of energy efficient product opportunities.

Five Keys to Successful Mid-Stream Retail Programs

1. **Retailers are profit driven.** Small, local programs cannot move the needle on the retailer's income statement. Programs that can meaningfully increase sales and/or decrease costs get the attention of high level decision makers.
2. **Retailers do not want to introduce additional risk into their business..** Stop-and-start efficiency programs and administratively complex programs create uncertainty. Standard program designs with local customization are more predictable.
3. **Retailers have key personnel at headquarters who make product-related decisions.** Programs that only go to the local store manager will not work. Going to the key point of contact at retailer's headquarters gives a program the best chance of success.
4. **Retailers develop merchandising plans according to well-defined calendars.** Good timing is key to program success. Programs must be planned well in advance with merchant coordination.
5. **Retailers are reluctant to release sales data.** Retailer's customer data, such as customer name and address, are not available to verify efficiency program effects without explicit customer permission. Retailers can be open to data sharing if customer privacy and competitive information are protected.

Next-Generation Efficiency Programs: Mid-Stream Model

Program models for incentivizing energy efficient products are characterized as down-stream, up-stream or mid-stream depending on who in the value chain receives the incentives. Residential consumer products programs have traditionally followed a down-stream model, which provides rebates to consumers, encouraging them to purchase more efficient products. Mail-in rebates have been widely-used in these down-stream energy efficiency programs.

Because the rebate application contains important information for energy efficiency program measurement and verification, organizations that run such programs want a high number of rebate-driven purchases with the lowest “breakage” possible. Breakage occurs when a customer does not redeem a rebate after a purchase. The frequency of breakage tends to increase as the value of the rebate decreases.

The large down-stream rebates of the past are disappearing. During the State Energy Efficient Appliance Rebate Program under American Recovery and Reinvestment Act (ARRA) in 2010, the average refrigerator rebate approached \$150. Today, a \$50 rebate is high. As new federal refrigerator standards become effective in the near future, cost-effective down-stream incentives may be cut in half again, increasing the chances that shoppers will find the rebates not valuable enough to justify filling out the program paperwork. Additionally, the cost of processing a rebate is becoming a higher percentage of program costs than in the past. Mail-in rebates have become too costly and ineffective to be part of the next generation of energy efficiency programs.

In a mid-stream model, program sponsors provide incentives to retailers to encourage stock, promote, and sell a higher percentage of energy efficient products than they otherwise would have. Small per-unit incentives, which may be trivial to a consumer in a downstream program, may be significant for a retailer when compared to a profit margin on a product. High volume of sales of incentivized consumer products create a compelling financial value proposition. In the near-term, incentives influence a retailer’s product stocking behavior. Resulting increases in demand for high efficiency models can prompt manufacturers to permanently shift to production of these models.

Next-generation plug-load and appliances energy efficiency programs will be based on a mid-stream model. By aggregating influence at the retailer level, program sponsors can reduce costs while extending the reach of their programs to more customers. Customers benefit from a wider choice of energy efficient products (it is difficult to buy an ENERGY STAR product if it is not on the shelf). Retailers benefit by not having to interact with thousands of utilities with hundreds of different programs, enabling them to focus on core retail activities and their customers. Choosing the right products to sell to their customers is only one of the marketing tactics of a retailer. When the program design and incentive levels align with the retailer’s business objectives, retailers will apply all their marketing tools to selling efficient products. Marketing tools include placing products in a highly visible location in the store, targeted price reductions, and communicating the product benefits with partner-labeled, in-store signage and trained store associates. In the mid-stream model, retailers are the channel for delivering efficient products to residential customers and a communication channel for presenting program sponsor’s energy efficiency messages.

Market Transformation with Retail Programs

Market transformation programs, which encourage marketplace adoption of energy-saving technologies and services, are beginning to be incorporated in energy efficiency program implementation plans. “Targeted intervention strategies aimed at long term transformation of narrowly defined technology markets – ‘targeted market transformation initiatives’ – are a valuable component of a balanced and cost effective energy efficiency portfolio.” (Pahl 2014; 5) Accelerated adoption of market transformation approaches requires participation of market share leaders, well-designed demonstration programs, formulation of

qualitative and quantitative measures of performance, and refinement of EM&V methods.

To promote development and implementation of innovative programs, EM&V guidelines need to consider:

- Non-energy benefits
- Long-term market effects from market transformation
- Adaptable regulations that reduce costs, enable continuous evaluation, and are flexible enough to respond to changing retail and consumer product markets.

Customer education and awareness are important elements in market transformation. Customer education programs complement ESRPP and other energy efficiency incentive programs by communicating the benefits of and opportunities for energy efficiency. Education efforts are designed to lower common barriers to adoption of energy efficiency measures which include lack of knowledge. Consumer education is also one underlying goal of a retailer's marketing communication. When energy efficiency programs are large enough, retailers may be motivated to synchronize their product marketing with utility customer education programs.

ENERGY STAR Retail Products Platform

The ESRPP provides a national-level structure for the design of program delivery and retailer engagement. It gives program sponsors new access to a low-cost retail-based programs through national coordination. The goal of the ESRPP is to transform markets by streamlining and harmonizing energy efficiency programs with retailers, making them less complex and more cost-effective. Increasing availability of ENERGY STAR products will generate energy savings as utility customers buy and install these more efficient models in their homes.

ESRPP Origins

One of the first large-scale, retail-focused energy efficiency programs has been designed and implemented by Pacific Gas & Electric (PG&E). Based on an energy savings potential study of the electronics market in 2006, PG&E concluded that there was a significant energy savings opportunity for their customers. Given the falling price points of these units, the size of rebates that utilities could offer consumers was unlikely to be successful in shifting purchases to more efficient units. Meetings between PG&E, other regional utilities, major retailers of televisions and computers, and ENERGY STAR in 2007 led to the development of a mid-stream Business and Consumer Electronics (BCE) program that was launched in 2008. This consortium represented a large market for energy-efficient products to participating retailers. As a result, major retailers became engaged to stock and sell televisions that were more efficient than ENERGY STAR standards. The BCE program successfully evolved into a collaboration, which included four program sponsors that together represented more than 10 percent of the national market. At the peak of the program, eight national retailers, who sell more than 70 percent of consumer electronics products, were participating.

The efficiency of TVs being sold in the U.S. improved dramatically over the three year program period as a result of these market transformation efforts. Results of the BCE program have led ENERGY STAR Program to increase efficiency specification levels for qualified televisions. The BCE program has also uncovered issues related to evaluating a program that

has resource acquisition and market transformation elements. PG&E has contributed these lessons-learned to the design of the mid-stream Retail Products Program.

Elements of ESRPP Design

The ESRPP design has six components: EM&V, data, legal, marketing and field services, products, and outreach. These components are the platform for a program sponsor's retail products program. A key EPA role is to facilitate task groups that focus on each ESRPP design element.

EPA hosted an ESRPP kickoff meeting in September 2014, during which charter program sponsors formed task groups. Program sponsors who had committed to participating in the ESRPP pilot also volunteered to contribute to these task groups. Task group members share best practices, prepare guidance documents, and develop tools and templates that not only help reduce design and implementation costs, but encourage other programs sponsors to join the collaboration.

EM&V. In order for the next generation of retail based energy efficiency programs to succeed, changes to current EM&V practices are necessary. Future EM&V practices to support next generation program designs, including ESRPP and other market transformation programs, have to take into consideration today's dynamic market for energy-using consumer products. In order to measure a smaller savings level over a larger and more fluid set of product categories than in the past, new EM&V techniques need to be developed that would:

- Allow for a significantly increased role for qualitative indicators
- Use EM&V methods which are flexible and timely enough to capture rapidly-changing market conditions
- Allow for cost-effective measurement of a diverse range of products
- Be implemented more quickly to match the speed of changes in the retail market
- Be capable of measuring market effects

The EM&V community has recently shown its ability to develop different methods in response to new program approaches, such as Home Energy Report behavioral programs. The same type of innovation is needed for ESRPP and one goal of the ESRPP EM&V Task group is to recommend options for evaluating retail-based, market transformation programs.

ESRPP's EM&V Task Group acknowledges regional variations in EM&V policies and the infancy of market transformation related regulatory guidance. The group has, therefore, focused on sharing best practices that program sponsors can adopt – logic models, market transformation indicators, baselines, data requirements, etc. EPA and the task group have developed an EM&V guidance document to help program sponsors create evaluation plans for an ESRPP pilot and to provide educational materials to inform regulators and evaluators about the ESRPP concept. The group has also made available sample filing language for prospective program participants, which serves as a resource/template for program sponsors wishing to secure approval for ESRPP programs.

Data. For ESRPP to work well on a regional or national scale, program sponsors require a uniform data management approach to accurately and consistently report energy savings and

to minimize the impact of the data collection costs on the cost-effectiveness of the ESRPP concept. Data management is a required ESRPP process to calculate energy savings attributable to program activities, to document market effects of the program, and to facilitate incentive payment transactions with retail partners. Category sales data and reliable energy data sources, in combination with modern data analytics and automated business processes, are the ingredients for producing relevant and actionable information for ESRPP program design, implementation and evaluation.

Historically, program information has been limited to data associated with sales of rebated products as most legacy data management systems have been designed to satisfy requirements of mail-in rebate programs. ESRPP requires an increase in the quantity and quality of data than in the past because its design encompasses a broad range of products and utilizes market share as an important measure of performance. Data costs for conventional residential programs have ranged from 2 percent to 10 percent of total program costs, which may impact the cost effectiveness of ESRPP.²

PG&E, NEEA, and Sacramento Municipal Utilities District (SMUD) have taken the lead in establishing a third party data services option. A third party data services provider is important to retailers for protection of sensitive sales data. NEEA, PG&E, and SMUD participate in the Data Task Group and update the ESRPP program sponsors regularly on the status of the data management system for the ESRPP pilot. System design objectives include lower costs, high data security, accurate reporting, and ease of use. The Task Group has prepared a guidance document for program participants, which outlines the scope of work for ESRPP data management services.

Legal. Contractual agreements are required to formalize business relationships and various types of agreements establish the retailer-program sponsor relationship in an energy efficiency program. There are hundreds of program sponsors offering energy saving programs in the U.S. Negotiating unique and separate program agreements for potentially hundreds of programs is a significant challenge for large, national retailers, particularly when a program only relates to a small portion of a retailer's store footprint. Large volumes of unique program agreements limit the number of programs in which a retailer may participate and may prevent certain program sponsors from using the retail channel to reach target customers.

ESRPP's Legal Task Group has worked with retailers and program sponsors participating in the pilot to gain consensus on a universal legal document that is applicable to all retailers and all program sponsors. The universal agreement spells out definitions, eligibility, general terms, confidentiality, data policy and procedures, and EM&V requirements. Unique to this agreement is a retailer's requirement to supply total category sales data and to deliver an Implementation Plan, which outlines specific activities a retailer will implement to increase sales of qualifying products and ultimately achieve the goals of a program. Exhibits attached to the universal agreement are specific to a program sponsor and identify the sponsor's service territory and other program specifications such as incentive rates.

Marketing and Field Services. In-store displays and signage are one part of the customer experience that provides unique character to a retailer's store and connects consumers with products and the brand. Retailer messaging, special pricing, vendor messaging, and utility messaging all compete for space in the store, which needs to be managed with specific

² Private communications with Program Sponsors.

guidance to maintain consistent brand identity in all of the retailer’s stores. Marketing elements in energy efficiency program design and implementation have to be mindful of the retail brand, adapting utility materials and messages to fit the prescribed store environment.

The ESRPP Marketing and Field Services task group has supplied signage templates and a tool kit to successfully support ESRPP design and implementation. The goal is for each utility/program sponsor to utilize templates and tools to meet their marketing and attribution objectives while reducing implementation time and costs. Participating retailers and program sponsors have collaborated with EPA to design pre-approved in-store marketing templates. These templates comply with a retailer’s style guidelines, meet their requirements for sign size and configuration and include space for program sponsor’s logo and the ENERGY STAR label.

Program sponsors who use these templates in accordance with this guidance are pre-approved by the participation agreement to produce and place in-store material in stores for the 2016 ESRPP pilot. If program sponsors wish to create other marketing designs, they must follow the participating retailer’s review process outlined, which the task group has outlined with the retailers. This exception process may take an additional six to eight weeks.

Products. Billions of energy-using products are sold every year by retailers. These new products consume a lot of electricity, more than 80 million mega-watt-hours annually. If the electricity used by these products could be reduced by just five percent, enough energy would be saved to power all the homes in the state of New Hampshire. There are energy efficient options for all products, most of them displaying the ENERGY STAR label.

In ESRPP, all program sponsors agree on one set of products and energy efficiency specifications. The pool of program funds, which creates significant budgets in a full-scale program, is what motivates retailer participation. To increase leverage with retailers, each sponsors offers all products in the portfolio. Program sponsors have the flexibility to adjust the incentive rates for each product based on local energy prices and regulatory guidance.

A key role of the ESRPP Products Task Force is building consensus around a set of products. The task force also facilitates the sharing of market information to estimate the size of the energy savings opportunity, formulates guidelines and time tables for transitioning products and specifications, and oversees recommendations for adding new products to the portfolio. Using input from all participating sponsors, the ESRPP Products Task Force formalized a portfolio of five product categories for the 2016 ESRPP pilot. Each category has active ENERGY STAR specifications.

Table 1: Product Portfolio, 2016 ESRPP Pilot

2016 Pilot Portfolio	Rationale for Product Selection
ENERGY STAR Certified Dryers	New category
ENERGY STAR Certified Air Cleaners	Small unit sales, high per unit energy savings
ENERGY STAR Certified Freezers	Difficult to administer cost effective downstream rebates
ENERGY STAR Certified Sound Bars (ENERGY STAR levels+15%)	High growth category, limited per unit savings
ENERGY STAR Certified Room Air Conditioners	New specification effective 2016, low market share expected

These measure categories have been a challenge for traditional downstream programs

due to low per unit energy savings, and program sponsors do not typically include these as measures in residential sector programs today. The initial ESRPP portfolio of products will complement legacy programs of the participating program sponsors.

Collaboration: Retailer and Program Sponsor Outreach. Retailer outreach currently occurs through the ENERGY STAR Retail Action Council (RAC). RAC was formed in 2012 with Best Buy, The Home Depot, Lowe’s, and Sears as charter members. The strategic intent of the RAC is to streamline, simplify and optimize retailers’ relationship to the Utility Industry as it relates to energy efficiency program design and execution. The mission of the RAC is to utilize the energy efficiency program knowledge, retailing experience, and business capabilities of team members to create best practices tools allowing dynamic and productive partnerships with energy efficiency program sponsors. Resulting guidance documents have been incorporated into the ESRPP design. Best Buy, The Home Depot and Sears are participants in the national, 2016 ESRPP pilot program.

Collaboration among program sponsors builds the scale necessary to transform the market for energy efficient products. From the retailer perspective, a market size representing at least 30 percent of the U.S. households would be significant enough to attract the attention of key decision makers at their companies. An ESRPP pilot goal is to achieve program sponsor participation that encompasses at least 15 percent of the market.

ESRPP’s Outreach Task Group has developed and delivered presentations directly to potential program sponsors and at industry conferences such as the ENERGY STAR Partners Meeting, the Association of Energy Service Providers (AESP) annual meeting and at ESource meetings. Program sponsors from 10 states, representing nearly 15 percent of U.S. households, have executed participation agreements with retailers for the 2016 ESRPP pilot.

Table 2: Program Sponsors, 2016 ESRPP Pilot

State	Program Sponsors	% of US Households	Participating Store Count
California	Pacific Gas & Electric, Sacramento Municipal Utility District	4.4%	224
Colorado	Xcel Energy	1.0%	74
Idaho, Montana, Oregon, Washington	Northwest Energy Efficiency Alliance	4.7%	199
Minnesota	Xcel Energy	0.9%	60
New York	Consolidated Energy	1.8%	53
Vermont	Efficiency Vermont	0.3%	7
Wisconsin	Focus on Energy	1.8%	74
Total		14.9%	691

The ESRPP collaboration could expand to 38 percent of U.S. households in the near future. Eleven program sponsors are working with their regulators, evaluators, and implementation teams to prepare for ESRPP participation in 2017 or the next program cycle. These sponsors, Table 3, account for 7.3 percent of U.S. households. The ESRPP Outreach Task Group has distributed program information to an additional sixteen program sponsors in nine states. ENERGY STAR has provided unit energy savings, market penetration, market size and other data to help these prospective sponsors calculate costs and benefits of participation.

Table 3: Potential Program Sponsors for 2017

State	Program Sponsors	% of US Households
California	San Diego Gas & Electric, Southern California Edison, Southern California Gas	4.8%
Colorado	Platte River Power Authority	0.2%
Connecticut	Eversource, UIL Holdings	0.7%
District of Columbia	DC Sustainable Energy Utility	0.2%
Maryland	Baltimore Gas & Electric, Potomac Electric Power, Southern Maryland Electric Cooperative	1.3%
New Mexico	Xcel Energy	0.1%

Next Steps

As the pilot begins to demonstrate the feasibility of the ESRPP concept, EPA’s role will shift from facilitator to participating stakeholder, task groups will formalize processes and procedures, planning will begin for the 2017 program, and outreach will continue in order to expand the scale of the program. A stretch goal for 2017 is to bring an ESRPP program to retailers that collectively represents 30 percent of U.S. households. EPA plans to take feedback from program sponsors and retailers, and to use information aggregated from ESRPP data to refine ENERGY STAR tools, processes and energy efficiency specifications.

Summary

Significant energy savings potential remains in the residential sector, but program sponsors will not be able to cost-effectively achieve this potential without innovation in program design. EPA is working with program sponsors and retailers throughout the U.S. to facilitate a solution to this dilemma. ESRPP is a retail-focused, mid-stream program design. It requires significant program scale and consistent coordination of program implementation with retailers to positively transform markets for energy efficient consumer products.

A pilot program, which brings together program sponsors representing nearly 15 percent of the U.S. market for consumer products, is underway to show the feasibility of the concept and pave the way for larger market transformation efforts. Participating program sponsors have agreed to adopt a common set of retail-based products for promotion. Retailers are providing unprecedented access to critical sales data. Retailers and program sponsors are tailoring local go-to-market promotions to increase market share of energy efficient products. EPA, NRDC, retailers, leading regulatory experts and program sponsors are collaborating to develop and promote supportive policy and innovative EM&V approaches.

Five Keys to Innovative Energy Efficiency Program Success

1. Think big – large scale efforts transform markets
2. Use the retail channel to reach customers and influence manufacturers
3. Collaborate with stakeholders, including regulators, to design and continuously improve programs
4. Let retailers be retailers and follow their guidance to market efficient products

5. Obtain total category sales data from participating retailers for performance measurement

References

Consortium for Energy Efficiency, “2015 State of the Efficiency Program Industry, CEE Annual Industry Report,” March 18, 2016.

Discussion of Consumer Perspectives on Regulation of Energy Efficiency Investments: A Resource of the National Action Plan for Energy Efficiency, USEPA, September 2009.

ENERGY STAR Overview of 2011 Achievements, page 2:
http://www.energystar.gov/ia/partners/publications/pubdocs/2011_4-Pager_508c_060812.pdf.

ENERGY STAR Partner List, www.energystar.gov.

ENERGY STAR Products: 20 Years of Helping America Save Energy, Save Money, and Protect the Environment.

ENERGY STAR, “Partnerships in Energy Efficiency with Retailers (PEER) Guidance: Retailer Guidance for Streamlining ENERGY STAR® Partner Collaborations on Energy Efficiency Programs,” http://www.energystar.gov/ia/partners/downloads/5_ENERGY_STAR_RAC_2013_PEER_Guidance.pdf, November 2013.

Franckel, Heck, and Tai, “Sizing the Potential of Behavioral Energy-Efficiency Initiatives in the Residential Market,” McKinsey, November 2013.

Laitner, J., Nadel, S., Elliott, R., Sachs, H., and Siddiq Khan, A., “The Long-Term Energy Efficiency Potential: What the Evidence Suggests,” ACEEE Report #E121, January 2012.

Nadel, S., Young, R., “Why Is Electricity Use No Longer Growing?” ACEEE White Paper, Feb. 2014.

Prahl, R., Keating, K., “Building a Policy Framework to Support Energy Efficiency Market Transformation in California,” California Public Utilities Commission, December 9, 2014.

Todd, A., Stuart, E., and Goldman, C., “Evaluation, Measurement, and Verification (EM&V) for Behavior-Based Energy Efficiency Programs: Issues and Recommendations,” ACEEE Summer Study, 2012.

U.S. Census Bureau, “2012 Annual Retail Trade Report,” <http://www.census.gov/retail/>, Sales (1992-2012): Excel File, excludes motor vehicle and parts dealers.

U.S. Department of Energy, Residential Energy Consumption Survey (RECS), <http://www.eia.gov/consumption/residential/reports/2009/consumption-down.cfm>.

U.S. Energy Information Administration (EIA), 2015 Annual Energy Outlook, <http://www.eia.gov/forecasts/AEO/>.