Process Evaluation of the Home Performance Program Track

Submitted To:

Energy Trust of Oregon

Prepared by:

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January 12, 2012

Executive Summary

Energy Trust of Oregon's Home Performance with ENERGY STAR® (Home Performance, or HPwES) program is a residential whole-house energy efficiency program offered for the existing homes market, delivered exclusively by contractor firms employing Building Performance Institute (BPI) certified field staff. Home Performance is founded on the "house as a system" approach to building functionality, which integrates progressive concepts of building science, and places a strong emphasis on health and safety as well as incorporating best building science practices.

Johnson Consulting Group was hired by the Energy Trust of Oregon to conduct a process evaluation of its Home Performance with ENERGY STAR® (Home Performance) program track. This process evaluation focused on documenting the current operational practices and identified areas of improvement. A specific component of this process evaluation was to examine the inter-relationship of this program with Energy Trust's Energy Efficiency and Sustainable Technology Act of 2009 (EEAST) compliant pilot demonstration of on-bill financing, Clean Energy Works Oregon. This process evaluation focused on program operations from June 1, 2009 to June 10, 2011. The findings from this process evaluation provide guidance for the Energy Trust staff and management on ways to re-position these offerings in the Oregon Home Performance market.

The key researchable issues for this process evaluation were to:

- Assess the effectiveness of current operations
- Determine customer and trade ally satisfaction and key drivers
- Document the inter-relationship between the Home Performance Program and other program offerings, specifically Clean Energy Works Oregon
- Identify the customer decision-making process, especially the drivers for customer participation and key motivators including energy and non-energy benefits.
- Recommend areas for program improvement

The process evaluation for the Home Performance program track focused on reviewing the current program design and strategy to identify areas for program improvement. The scope of this process evaluation included the following activities:

- Review of the current program database, records, and related materials
- Conduct in-depth staff interviews with key members from both the Energy Trust and Conservation Services Group (CSG) implementation staff
- Conduct in-depth interviews with participating contactors and
- Conduct customer surveys with program participants who only received a Home Performance Assessment and those who completed a Home Performance Assessment and a measure installation.

The results from each activity, as well as the methodology are provided in separate chapters of this report and are summarized in Table E-1.

Table E-1: Summary of Process Evaluation Activities Completed

Data Collection Type	Targeted Population	Sample Frame	Sample Size	Timing
Document Review	All program materials including program database records and marketing materials	CSG	Census	June 2011
In-depth Interviews	Program implementation staff and ETO staff	ETO and CSG	Census	July-August 2011
Customer Surveys	"Program Participants" defined as: "Customers who received a Home Performance assessment and applied for a rebate."	Program Database	30	September 2011
Customer Surveys	"Program Non Participants" defined as: "Customers who received an energy assessment only."	Program Database	15	September 2011

Key Findings and Recommendations

The key findings from the process evaluations are summarized next followed by recommendations for program improvement.

- **Program Results:** *The Home Performance program is operating smoothly;but there are still some areas for improvement.*

From an operations standpoint, the Home Performance program track is performing well. Table E-2 summarizes the key program metrics achieved during the period covered in this process evaluation.

Table E-2: Key Home Performance Program Metrics

Year (based on "Recognized Date", used to book savings)	Assessments (Projects with or without savings)	Projects with energy savings	Measures with energy savings	Average measures per project (energy saving measures /projects only)	kWh Savings	Therm savings	Incentives (not including CO monitors and bonuses)
2010	333	316	989	3.1	49,608	16,856	$284,811
2011 (through 6/30/2011)	249	197	630	3.2	41,292	8,969	$181,577
Total	582	513	1,619	3.2	90,900	25,826	$466,387

Source: CSG's Program Database July 2011

- **Program Tracking:** The program databases are tracking all the key metrics as required by both the Energy Trust and the national Home Performance with Energy Star program.

- **Program Marketing:** The participating contractors like the ways in which they receive information from the Energy Trust and Account Representatives about the program.

  - The most effective ways to reach participating customers is via the Energy Trust website, from the contractors directly, and through bill inserts. Moreover, the findings suggest that the decision to install energy efficient measures is viewed as a "priority" by program participants.
  - Marketing the Home Performance program remains a challenge as it is a difficult concept to explain to customers.

- **Program Changes:** The Home Performance program has shifted away from trade ally development-focused to trade ally maintenance.

- **Role of Home Performance Contractors:** Home Performance contractor participation is dominated by a few large contractors who specialize in air sealing and subcontract out most other services.

  - Home Performance contractors play an important role in encouraging customer participation.

- **Home Performance Contractors Guild:** The guild is viewed as giving the contractors a voice in the Home Performance community; however it is dominated by contractors in the Metro-Portland area.

- **Participation in Other ETO Programs:** Home Performance contractors are actively participating in additional energy efficiency programs, including some sponsored by the Energy Trust as well as some utility specific programs.

- **Inter-Relationship with Clean Energy Works Oregon:** The Clean Energy Works Oregon track is viewed as a "mixed blessing" by the participating contractors.
    - There is some concern by both contractors and programs staff that Clean Energy Works Oregon is siphoning off potential projects from the Home Performance track.
    - Clean Energy Works Oregon fills the financing void not addressed in the Home Performance program.
- **Role of Account Representatives:** The participating contractors view the Account Representatives as essential to their success in the program and rely on them for support, especially with the new software tool.
- **Home Performance Assessment Software:** The Home Performance software assessment tool is viewed as unusable by the majority of participating trade allies.
- **Measures Installed:** The majority of installed measures are for air and duct sealing.
- **Spillover:** Spillover is limited to installing additional low cost/no cost measures rather than purchasing additional equipment.
- **Non-Energy Benefits:** The initial driver for customer participation is energy savings. However, as customers become more educated about the Home Performance program track, their interest in non-energy benefits increases.
    - The three top non-energy benefits are comfort, ability to pay the bill, and reducing the environmental impact.
- **Program Satisfaction:** Overall, customers are happy with the Home Performance program offering.
    - The features customers seem to like best are receiving the incentive, receiving an assessment, and seeing actual energy savings.
    - Non-participants reported slightly higher levels of satisfaction with the Energy Trust compared to program participants.
- **Non-Participants:** There is currently no follow-up mechanism in place to encourage non participants to move forward with even modest energy efficiency improvements after completing the initial Home Performance assessment.

Recommendations for Program Improvement

The findings have also led to some recommendations for program improvement, which are summarized here. A more thorough discussion is provided in Chapter 7 of this report.

- **Program Marketing**: A key difference between participants and non participants is the motivation to make energy efficiency a "priority." Therefore, the Energy Trust should consider ways to encourage customers to make energy efficiency a priority for their households, even encouraging saving for major improvements through a "Christmas Club" account.

- **Reallocating Program Resources:** While the program has shifted its focus, it still needs to provide contractors with support in order to maintain or sustain program participation. This support may include ongoing sales training, marketing materials, or other professional development classes.

- **Provide Online Applications**: This feature could streamline the customer application process and enhance overall program operations.

- **Pay Incentives Directly to Contractors Rather Than Customers:** This would lower the barrier to the cost of the Home Performance Assessment and also provide a way for smaller contractors to remain competitive.

- **Provide Program Information in a webinar or podcast:** This will allow better access for contractors outside of the Metro-Portland area especially for those who cannot attend Home Performance Contractor Guild meetings.

- **Consider Restructuring the Contractor Rating System:** Currently, the smaller contractors believe that the rating system is biased towards larger contractors, so the metrics for receiving a "Star" should be reviewed to ensure smaller contractors are not treated unfairly. This may include looking beyond the total number of jobs completed in a year, to the total number of jobs completed during the course of a contractor's participation in the program.

- **Provide a Better Differentiation of the Home Performance Track:** The program's features and benefits should be more clearly delineated against the other Energy Trust programs.

- **Consider Offering Advanced Training Classes:** The contractors are most interested in advanced topics taught by experienced instructors in Advance Building Performance.

- **Home Performance Assessment Software Must Improve:** Nearly all the contractors reported serious problems with the new CSG software. Until it improves, there will be an ongoing need for software training and support.

- **Encourage non-participants to follow through by offering low cost/no cost energy efficiency measures as part of the initial Home Performance assessment**. Bundling in a group of measures that will lead to small energy savings, such as energy efficient lighting or water conservation measures, will help reinforce to customers the benefits of energy efficiency installations. Following up by encouraging all customers to start saving a little each month for energy efficiency improvements, such as a "Christmas Club" account could also help to move customers to investing in larger projects over time, while also addressing the perceived "financing gap" associated with this program.

MEMO

Date: April 20, 2012
To: Board of Directors
From: Sarah Castor, Evaluation Sr. Project Manager
Marshall Johnson, Residential Sector Manager
Subject: Staff Response to the Process Evaluation of the Home Performance Program Track

This process evaluation marks the first time the Home Performance track has been evaluated independently from the Existing Homes program. In past Existing Homes process evaluations, we felt Home Performance was not given the attention it needed and the growth in this program track in the last two years indicated the time was right for a thorough review.

Findings from the evaluation confirm that customer satisfaction with Home Performance contractors and their work is quite high, matching satisfaction figures from Fast Feedback surveys. Customers are most motivated to take on Home Performance projects by the potential for energy savings and reducing their utility bills, although they also expect an increase in the comfort of their home. Likewise, trade allies are steadfast in their commitment to energy efficiency and occupant health and safety in home renovations.

While we believe many of the report's findings and recommendations to be sound, we especially want to address the following:

- **Allocating program resources:** Program staff has shifted focus from recruiting and training Home Performance trade allies to maintaining an infrastructure to leverage and support market-driven development and growth of the performance contracting industry. The primary goal of the program track is to develop market awareness around the value of Home Performance and process incentives for completed work and deliver quality control of installed measures. Program resources which had previously been allocated to the development of this program track will transition to other tracks and measures in greater need of attention and growth.

  The alliances the program has built with the Home Performance Contractors Guild and Clean Energy Works Oregon (CEWO) should enable this transition. The Guild is a resource for contractor training and best practices and is expanding its geographic reach outside the Portland area. At the same time, CEWO is providing a large number of projects for CEWO-participating contractors and creating significant general interest in Home Performance and comprehensive energy efficiency retrofits.

- **Streamlining the participation process:** A number of improvements to the incentive application process are already underway, including the development of a web form for all Existing Homes (and Home Performance track) measures, which may ease the forms experience for both customers and contractors.

The evaluator also suggested paying the incentive directly to the contractor. The change has been considered internally over the years and the Evaluation Committee expressed a desire to explore the option further with the goal being improved (or at least not decreased) customer satisfaction and lower payment processing costs for Energy Trust.

With regard to the Home Performance modeling software, the evaluation interviews coincided with the launch of CSG's EMHome modeling tool and improvements have been made to the tool since that time. The program has been facilitating a group of Home Performance stakeholders, including representatives of the Home Performance Contractors Guild and CEWO to provide feedback on user experience and recommending changes. The program plans to modify the requirement for energy modeling, as an effort to focus the contractors' role on implementing improvements.

- **Measures installed in Home Performance projects:** Analysis of the program database showed that primarily weatherization projects, including air sealing and some type of insulation measure installed, and very few included heating or water heating equipment. While most contractors report that they subcontract equipment replacement, projects completed through CEWO include equipment upgrades more frequently. We have already seen many CEWO contractors bring other trades, such as electrical work, in-house and we're seeing more traditional HVAC contractors begin to align their business models with the Home Performance approach.

  In addition, air sealing (especially in gas heated homes) is marginally cost effective for existing homes. The program is looking at options for altering the air sealing offering for both the standard and Home Performance tracks.

- **Energy savings and non-energy benefits:** The report findings help to shed light on the issue of non-energy benefits from Home Performance projects. While these benefits are often cited by market actors as important drivers of projects, and results verify that most customers anticipate them, it is also clear from customer surveys that energy savings are a bigger motivation for undertaking weatherization projects than comfort, resale value or other non-energy factors.

- **Star rating system for Home Performance contractors:** Some contractors felt that the star rating system used on the Energy Trust website, and now in the contractor referral process, put smaller trade allies at a disadvantage because of their lower project volume. The program has already adjusted the number of projects required for the three star (highest) rating from 15 to five for Home Performance contractors. This change should put smaller contractors on more equal footing.