Energy Trust New Buildings Program

Process Evaluation Report

FINAL

Prepared by

PWP, Inc.

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Executive Summary

This report presents the findings of the process evaluation of the Energy Trust of Oregon's New Buildings (NB) program for 2009, focusing on program goals and achievements since a new program management contractor (PMC) took over in at the beginning of that year. The NB program provides financial incentives and technical assistance to owners who install energy efficiency measures in new commercial construction and major renovation projects. During the 2009 program year, incentives were paid for about 1,350 different measures installed at 211 sites.

The goals of the 2009 NB Program process evaluation activities were to obtain feedback on program design and implementation that can be used to improve the implementation of the current program to help it more effectively and efficiently deliver energy efficient new buildings and improve customer satisfaction. Evaluation activities included a combination of secondary data and program document review; on-site and telephone interviews with two Energy Trust and seven NB program staff; and interviews with 49 program participants and 30 non-participants.

Key findings reported in this report are summarized below.

- Program application forms and instructions are comprehensive and clear, while the application process appears to capture needed participant and measure data. However, the need for data creates a perception among a few participants and somewhat more potential participants that the process is difficult, especially among smaller architecture firms and owners working with them.

- The Energy Trust website plays a key role in providing information about the NB program, and more than half of participants downloaded their program application, but it is perceived as somewhat difficult to use to find specific information, particularly on covered measures and incentive levels.

- The organization of program Outreach Managers by market sector seems to be very effective in reaching almost all large and even medium sized players, but small owners/architects and some projects in other segments may be missed, based upon the results of the non-participant survey.

- The overwhelming majority of participants use the Standard track because this path is most appropriate for a majority of projects; respondents who were aware that there were different tracks were all satisfied with their choice of track.

- Market penetration of the NB program is high, although the 90% market share calculated may reflect projects started in earlier years and finalized in 2009. Accounting for the larger 2008 and 2007 markets yields an estimated market penetration of 65%.

- Sources of information about the NB program for participant and non-participants reflect the influence of design professionals and highlight the need to continue outreach and education to this group, particularly "second-tier" and one-person firms that may find it more difficult to attend AIA or other sessions where they could learn about the program.

- Among participants, there were generally high levels of program satisfaction across the board, including the ease of applying, required efficiency level, and amount of the rebate as well as program communications and responsiveness of staff.

- Some participants expressed concern about the length of time to get applications approved and the difficulty of tracking the status of the application; someone suggested an online application and tracking process. Some participants also expressed concern about amount of data required to support the application (e.g., entire model runs). Most respondents were satisfied with the length of time required to receive their incentive.

- Overall participant satisfaction with the program was 4.4 on a 5 point scale. Other than "higher incentives," the only suggested changes included online application linked to the Oregon Business Energy Tax Credit (BETC), online application tracking, more assistance for applicants who lack technical resources, continued outreach to architects as well as public agencies.

- Most participants who were familiar with earlier incarnations of the NB program commented favorably on the program as currently implemented, citing easier application, more streamlined process, more measures covered and the very responsive staff.

- The free ridership rate calculated using the Energy Trust algorithm based upon survey responses was 35.2% based on results from 43 respondents.

- About three-fourths of participants said they typically strive to exceed code on their new construction projects, with several citing a commitment to move toward net-zero buildings and others stating their goal is to exceed code by 20-30%.

- About half of non-participants said their standard practice is to exceed code, although fewer had the specific aggressive goals mentioned above.

- For both groups, first cost and payback continue to be significant barriers; conversely, the NB program could encourage adoption of efficient design by demonstrating the cost-effectiveness of targeted measures – with or without an incentive. For example, non-participants rated information on payback more useful even than incentives in encouraging efficient design.

- Among non-participants, more than one-third were not at all aware of the NB program, while several others were only slightly familiar with it. Among those who were familiar,

program paperwork is perceived as a barrier, and assistance with program or tax paperwork is seen as a valuable program feature.

- Most architects and owners are aware of the new Oregon Energy Code, but most do not have a clear understanding of its requirements other than knowing they will need to make changes to everything from the envelope to lighting to mechanical systems.

Recommendations

While the NB program is running smoothly and effectively working with many owners, design professionals and trade allies, there are opportunities to extend its coverage to the segments of the market that have limited exposure to the program, and to address concerns expressed by some participants. Recommendations include:

- Conduct outreach to small design firms with just one to three architects, particularly those who work with design-build contractors, to inform them about the NB program and the BETC.

- In explaining the program, emphasize ease of participation, and offer help with program application forms for organizations that lack internal resources to handle the process.

- Consider an online application process, including tracking the progress of applications and potentially using online communications to address problems with the application.

- Supplement incentives and design assistance with information on costs and returns on the most popular measures; this may seem self-evident for more sophisticated users, but many of the smaller firms simply do not know where to find this data.

- Based on the high importance participants in the Small Commercial Pilot attach to Earth Advantage Certification, consider some kind of public recognition device for new buildings that participate in the program – something less than certification but more than just the incentive, along the lines of a sticker or plaque that can be placed on the building saying “this building participated in the Energy Trust New Buildings program.”

- While the new Code will make it more difficult to achieve incremental efficiency gains through the NB program, the program should emphasize its new (2011) requirements in the context of the new Code, explaining, for example, what specific measures or technologies can be used to meet the new code and what specific measures or technologies can be used to exceed it and qualify for an incentive.

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MEMO

Date: October 7, 2010
To: Board of Directors
From: Sarah Castor, Evaluation Project Manager
Jessica Rose, Business Sector Manager, New Buildings Program
Subject: Staff Response to the 2009-2010 New Buildings Program Process Evaluation

PECI became the New Buildings Program Management Contractor (PMC) in 2009, inheriting the existing program design. They have since brought the program to a new level of maturity and recognized changing customer and market delivery needs. Based on the 2009-2010 Process Evaluation, the New Buildings program is working well. Overall participant satisfaction is high, and many commented that the program has become easier to work with in recent years. Providing customers with close communication with outreach managers was also helpful. Both participants and nonparticipants emphasized a need for an even more streamlined process, paperwork that is less time-consuming and more information on measure costs and savings.

The program has responded to many needs identified in the evaluation through a program-level redesign. The overall goal of the redesign is to lift barriers customers face and provide strategic focus to support customer decision making that will drive widespread adoption of high-performance buildings. For customers who enter the program in the design and development stages, a rewarding comprehensive approach will be available, while customers who are moving quickly will have a fast track approach. Feedback from past evaluations was incorporated into the new design. We expect these changes to address some of the recommendations made by the evaluator and recognize that some have been incorporated into the redesign.

Evaluation recommendations:

- *Streamline requirements and paperwork by reducing iteration over the lifecycle of the project*
  Project enrollment will take place over the phone with an email to the project owner confirming enrollment, rather than as a paper form submitted by the customer who then awaits confirmation. Incentives will be gradually built into the project file as the project undergoes the development cycle.

To address a need for reduced iteration on technical reviews of calculated savings, the program recently introduced two tools – HVAC and Lighting calculators - into the market to streamline and standardize various calculation methods across the industry. This is expected to expedite the technical review process and in particular help customers taking a fast track approach. These changes also improve the program's technical analysis and verification of savings. Outreach Managers will be trained on the calculators to better assist participants in the application process.

- *Consider an online application process and tracking system*
  Energy Trust will be converting to a new program tracking and customer relationship management system. During this time, we will explore options for communicating and sharing status with participants via the web. Online incentive tracking is currently available for residential customers and we hope to expand this to commercial customers, though information needs may be more complex and extensive for this group.

- *Conduct outreach to small design firms*
  PECI will conduct outreach to small architectural firms and design-build firms, while continuing to work with established market players. One of the anticipated outcomes of the Small Commercial Efficiency pilot is the adoption of a simplified whole-building approach that will be broadly accepted among small firms making it easier to work within this market sector.

- *Supplement incentives and design assistance with information on costs and payback time*
  Energy Trust developed a tool called *"Pencil It Out"*™ to help participants with the financial aspects of decision making. This tool can help participants project energy cost savings and evaluate the overall investment in energy efficiency using four values: Total Building Area, Cost, Financial Incentive and Estimated Energy Savings. Pencil It Out automatically displays the Building Owner Total Investment and Annual Net Present Value of future cash flows, including the Business Energy Tax Credit. This tool will be incorporated into projects more frequently to help inform decision-making.

- *Consider a form of public recognition for participants*
  Public recognition has been identified in the 2011 Marketing Plan as a key area of focus to push market demand for high-performance buildings as

we work to grow the supply. Specific initiatives include big check presentations for small businesses; leveraging the well-recognized labels that participants earn such as LEED, Earth Advantage, and ENERGY STAR; and nominating participants and firms for a variety of energy champion awards and green building awards.

- *Emphasize new (2011) program requirements in the context of the new Code explaining, for example, what specific measures or technologies can be used to meet the new code and what specific measures or technologies can be used to exceed it and qualify for an incentive*
  Rather than focusing on incentives for individual measures, incentives for new projects required to meet the 2010 Oregon Energy Efficiency Specialty Code have been tiered to encourage increased efficiency above the new code and support savings that are much more difficult to achieve, especially on the electric side. Modeled projects taking the comprehensive path will be eligible for a tiered incentive that increase for every percent beyond code achieved and kicks in at 15% beyond code.