

Real-Time Scrambling to Improve an On-Bill Financing Pilot Program

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ABSTRACT

The evaluation literature and process evaluators' experience confirm that there are particular periods in a program's life cycle where process evaluations are most valuable: pilot programs, programs that are new or rapidly evolving, or programs that are changed substantially during their life cycle.

In June 2009, using a \$3.2 million award from the American Recovery and Reinvestment Act of 2009 (ARRA), the City of Portland, in collaboration with Multnomah County and Energy Trust of Oregon (Energy Trust), launched a pilot residential energy efficiency program called Clean Energy Works Portland (CEWP). The program launched quietly as a small pilot to engage up to 500 participants in summer 2009, guided by a steering committee that included representatives from the city, the county, the three Portland utilities, Energy Trust, a local economic development organization, advocacy groups, and labor unions.

This paper describes the efforts to evaluate the CEWP pilot project in near real-time. As the pilot launched, the evaluators were brought in to identify how the effort might be measured. Within three months, the evaluators had surveyed the initial cohort of participants, participating contractors, and program staff; and presented initial findings to the steering committee. This first wave of research was followed by four subsequent waves, each with a different cohort of interview groups and survey methods. Immediately after the conclusion of the initial wave, the evaluators communicated the results to the steering committee and the program delivery team at public meetings.

The program has continued to evolve, absorbing the results of each wave of research and improving processes—all without a gap in operations. The program secured \$20 million of additional ARRA funding and launched an expanded, statewide effort in March 2011.

Introduction

The CEWP pilot was designed to test a program approach expected to create local jobs while cutting household energy use and reducing carbon emissions. The CEWP pilot sought to provide low-interest, long-term financing to 500 homeowners for pre-approved energy efficiency improvements expected to reduce their annual household energy use by at least 10%. Options ranged from basic weatherization upgrades to more comprehensive Home Performance measures, including insulation, duct and air sealing, and efficient water heaters, furnaces, or heat pumps.

CEWP launched with a limited 50-home test pilot and built steadily upon that experience in rolling phases that allowed the program to continuously adjust terms and screening, improve outreach and marketing, and recruit additional Home Performance contractors. After a brief gap between Phase I and Phase II in October 2009 to recruit additional contractors, each of the subsequent phases overlapped.

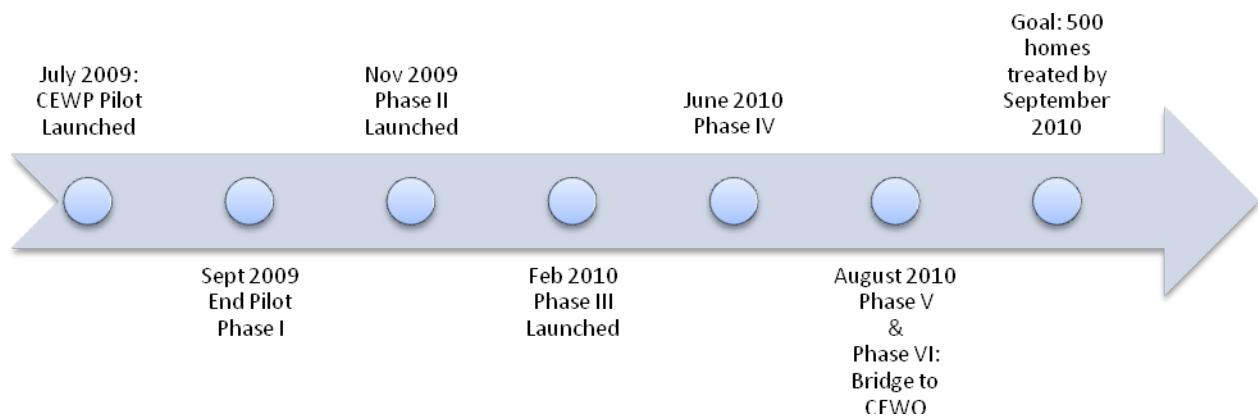


Figure 1. CEWP Pilot Phases

As a sponsor of this new pilot project supported by diverse stakeholders and operating in a high-profile environment with high expectations for success, Energy Trust supported the effort by providing rapid feedback through multiple waves of process evaluation surveys and near-real-time information for program staff and contractors. Research Into Action was originally contracted to develop an evaluation plan and prepare the program for evaluability. The presence of stimulus money created pressure to launch the program quickly and obtain information to support program improvement even as the program processes themselves were in development. The Research Into Action evaluation team was retained to conduct a survey of the program’s initial participants right away. The evaluation team contacted all participants with a brief email survey, interviewed staff and contractors, and prepared a presentation of initial results within two months of program launch. This initial “wave” of research was followed by three additional waves, each with slightly different activities and scope and guided by different key questions (Table 1).

Table 1: Scope and Timeframe of Research

Wave	Time Frame	Activities	Scope
Wave 1	August - September 2009	Review background materials Develop process flow diagram Interview Energy Advocates, contractors, and staff Survey initial participant cohort Present report to Steering Committee	Provide rapid feedback about initial CEWP pilot program launch Document experiences Summarize lessons learned
Wave 2	February - March 2010	Re-contact Energy Advocates, Contractors Interview Stakeholders to identify themes and summarize lessons learned Exit Survey of Participants with completed projects: those that had a successful test-out	Document project status Identify themes and summarize lessons learned Document participant experience and satisfaction with CEWP

Wave	Time Frame	Activities	Scope
Wave 3	June - August 2010	Launch third wave of participant surveys Telephone survey of program dropouts	Document Project Status Create report document with detailed results
Wave 4	September 2010 – March 2011	Launch fourth wave of participant surveys Conduct second wave of telephone surveys of program dropouts Survey screened out applicants Interview utility contacts to identify lessons learned with on-bill payments	Document project status Document participant experience and satisfaction Explore motivations for applying and identify potential among applicants

The CEWP Process

CEWP was a somewhat complicated program in that each participant navigated several key participation phases as his or her project progressed.

- ***Application and Screening:*** Applicants navigated to the CEWP website and completed a program application. Applicants were required to enter their utility account numbers, provide some demographic data, and authorize a credit check. Utility account numbers were used to access historical usage data to calculate an energy intensity score and verify utility bill payment history. Applicant's utility bill payment history was reviewed, and a credit check was completed. Applicants with sufficient energy use¹ that met the minimum credit standards were accepted, and their contact information was forwarded to the program coordinator.
- ***Assignment of Energy Advocate and Contractor:*** Program staff assigned each applicant an Energy Advocate and a CEWP-approved contractor. Energy Advocates were paired with specific contractors, and (after the initial test pilot) jobs were allocated to contractors based on the score they earned on their CEWP participation application.
- ***Home Performance Assessment and Project Scoping:*** Once an Energy Advocate and contractor were assigned, the homeowner was contacted to perform a Home Performance Assessment. The Assessment provided the Energy Advocate and contractor an opportunity to view the existing conditions in the applicant's home and define the likely scope of the retrofit.
- ***Bid Development and Acceptance:*** The existing conditions and measurements obtained during the Assessment were forwarded to the Energy Advocate so they could be uploaded into the modeling software to prepare a bid. The bid was then presented to the applicant. If the applicant accepted the bid, the project details were sent to the bank for underwriting and loan documents.
- ***Financing and Fees:*** The estimated project details (cost, fees, and estimated energy savings) were sent to the fund manager for underwriting and loan documents. CEWP

¹ The program launched with an "energy intensity" screening designed to include only applicants with above median energy use, relative to the square footage of their home. This score was dropped to exclude only the bottom 25% in mid 2010 and eliminated altogether by fall 2010.

allocated \$900 in fees to each completed project (\$300 for the Assessment, \$300 for the services of the Energy Advocate, and \$300 for loan underwriting). These fees were included in the total cost of the project, minus any expected Energy Trust incentives.

- **Construction:** Once the loan documents were finalized and signed, construction could occur. Since the program operated with a “no money down” approach, the loan documents were signed before construction could begin. A contractor could begin construction before that if they desired, but they would have no recourse for nonpayment—the program assumed the payments for retrofit projects would only occur via the program.
- **Test-Out:** After construction was completed, each project was inspected, and a test-out occurred to ensure that the project was installed according to the bid and any numeric targets (for air sealing or envelope measures, for example) were met.
- **Repayment:** The total loan amount (including interest) was sent to the heating utility to begin billing the applicant for loan repayment over 20 years (239 equal payments on the utility bill; the final payment to the fund manager).

Program Components

As noted above, in the pilot program, each participant was assigned an Energy Advocate and a CEWP-approved contractor. Energy Advocates provide information to homeowners and support to contractors. Contractors are responsible for conducting the Assessment, preparing a bid for the improvements identified in the assessment, and installing the approved measures. Homeowners must finance the projects through a loan from the pilot program’s sole lender, Enterprise Cascadia. Homeowners then repay the loans over 20 years on their heating utility bill.

Evaluators had to identify – again, almost in real-time – the relative attractiveness of this assortment of program features. Program sponsors wanted to know what was most important to potential participants. Was it access to Building Performance Institute (BPI)-certified contractors, the presence of an Energy Advocate, rebates and tax credits, or the Assessment? As new ideas emerged, they were added to the survey to test. For example, in the third wave of research, we asked successful participants and dropouts about several of these aspects (Table 2). Since we assumed the information contained in the Assessment was sufficient to encourage participants to move forward with their CEWP project, only the dropouts were asked to rate the value of the information in the Assessment in the third wave of surveys.

Table 2: Wave 3 Question Set: Value of Program Components

How valuable is each aspect?	Portion Agreeing*	
Aspect	Participants	Dropouts
Information from the Home Performance Assessment	--	73%
Services Provided by Energy Advocate	92%	70%
Financing Provided/Financing Features	85%	32%
Services Provided by Contractor Assigned to Participant	84%	54%
On-Bill Repayment Option	80%	71%

* Those that gave a “4” or a “5” on a five-point scale. Not shown are the percentages of respondents rating each aspect a “1”, “2”, or “3.”

By the fourth wave, the evaluation team had identified the set of program components expected to drive participation, and separated these components from the potential financial products or benefits (Table 3). Substantial interest remains in identifying the key participation drivers for this program, including if, or how, these drivers might change as the program expands.

Table 3: Wave 4 Question Set: Value of Program Components

How valuable is each aspect?	Portion Agreeing*		
Aspect	Participants	Applicants	Dropouts
Access to information obtained from the Home Performance Assessment	88%	62%	82%
Access to a contractor with specific training in energy efficiency or building science	87%	67%	68%
Services provided by Energy Advocate	77%	59%	63%
A program-assigned contractor	53%	43%	37%

* Those that gave a “4” or a “5” on a five-point scale. Not shown are the percentages of respondents rating each aspect a “1”, “2”, or “3.”

Confusion and comments over the term “Energy Advocate” emerged in the first wave of research and continued to emerge in survey after survey through the end of the pilot program. While the concept of an Energy Advocate was appealing, both to participants and program designers, the term “advocate” carried with it connotations of consumer advocacy or representation. In actuality, the Energy Advocate was there as a representative of the program, ensuring that processes were followed and facilitating conversations between contractors, participants, and program management. They were not equipped to argue for or against specific measures or project costs on behalf of the participant. As CEWP transitioned to the larger statewide program, Clean Energy Works Oregon (CEWO), the term Energy Advocate was changed to “Energy Advisor.”

Financing and Bill Payment

Perhaps one of the most complicating aspects of the CEWP pilot involved defining the importance and role of the financial institution, the securitization process, and the utility efforts to establish the on-bill payment process. Financing was perceived to be a key component of the program and a lever to overcome the barrier associated with up-front costs. Consequently, the financing product must be attractive to homeowners, offer competitive interest rates, be simple, provide fixed payments, and be supported by a utility payment process.

The financing component and discussions about developing a secondary market for CEWP loans emerged as an area of concern in the second wave of research. Key contacts wondered about the importance of the interest rate, whether CEWP participants would continue to make their loan payments month after month on their utility bills, and how the program would balance the low risk tolerance in the secondary loan market with the program’s mission to provide financing to those without access to attractive credit options.

Resolving conflicts between the desires of secondary market investors and the financial options of homeowners will be an ongoing task of the program in the future. For example, low interest rates make the program attractive to homeowners, but not to secondary market investors. Securitizing all loans makes the portfolio attractive to the secondary market, but adds costs to the loans and places property liens on participants for loans of all sizes. Similarly, standardized underwriting ensures that the loan portfolio can be

sold to investors, but may invariably exclude those without access to other financing who could have qualified based on their utility payment history – reducing the overall equity of the program.

To explore the importance of a variety of financial products or opportunities that might be available to CEWP applicants and participants, the fourth wave of research included a ranking exercise for all three of the surveyed populations: 1) successful participants that had completed their projects, 2) applicants that had been screened out or opted out, and 3) applicants who had dropped out of the program after having a test-in. As visible in Table 4, those that dropped out of the program were less interested in avoiding upfront costs and uninterested in a 20-year loan term.

Table 4: Influence of Financing Aspects

How important were each of the following in your decision to participate:	Portion Agreeing*		
	Participants	Applicants	Dropouts
No money down; avoiding the upfront costs associated with your project	91%	75%	55%
Getting an attractive interest rate	90%	83%	79%
Qualifying for the \$1,500 federal tax credit	85%	92%	73%
Qualifying for an Oregon tax credit	84%	90%	67%
Obtaining an incentive from Energy Trust of Oregon	83%	79%	73%
Having the option to repay the loan amount on your utility bill	82%	72%	61%
Having the loan spread out over 20 years	79%	56%	39%

* Those that gave a “4” or a “5” on a five-point scale. Not shown are the percentages of respondents rating each aspect a “1”, “2”, or “3.”

The On-Bill Payment Experience

Understanding the experience of the three participating utilities emerged as an important task in the fourth wave of pilot surveys. The evaluation team interviewed representatives from each of the utilities and the fund manager at Enterprise Cascadia to find out how the collection and on-bill payment processes were working. As of January 31, 2011, there were 23 participants that had made payments for 11 months or more, and an additional 8 that had closed their loans. Loans are closed when they are paid off. None of the loans had defaulted as of January 31, 2011.

The on-bill repayment process is guided by rules of payment that have been agreed to by the Enterprise Cascadia, the City of Portland, the participating utilities, and the Oregon Public Utilities Commission. Partial payments are applied first to the energy charges. Any amount over that is applied to the loan. If the loan is not paid for 90 days, Enterprise Cascadia can request that the utility remove the loan from the bill. Contacts at Enterprise Cascadia noted that the first loan had been removed in early February 2011. Enterprise Cascadia can arrange for the participant to make other payment arrangements so removal from the utility bill does not necessarily lead to default; however, Enterprise Cascadia may charge the loan off after 180 days.

Tracking payments and communicating loan status falls to Enterprise Cascadia and the participating utilities, not CEWP. These organizations worked through the requirements of the reporting process, privacy considerations, and the needs of the program to establish a tracking process. Utility contacts report adjusted customer information systems to set up a process for collecting the loan payment and transferring it to

Enterprise Cascadia. The utilities act as a payment portal, not the financier, and are thus dependent on Enterprise Cascadia to inform them of pre-payment, early termination, or default.

By spring, 2011, all three utilities had worked through the idiosyncrasies of their billing systems and were billing loan payment collections. All three had to consider how the loan payment would work for equal pay customers and resolve conflicts in how this was calculated. In one case, equal pay customers looked like they were in arrears until the utility revised the payment allocation assumptions. Equal pay customers do not experience seasonal variation in their energy bills because their energy use is averaged over the year to create a flat, predictable charge. Adding a loan payment to equal pay customers should theoretically be simple, but all three utility contacts reported having to work with the billing system staff to add the loan payment without affecting the equal pay algorithm.

The loan payments are set up manually and, in some cases, the payments are reviewed manually—at least in the first few months. CEWP loans are tied to a customer name rather than a meter location, which requires the utility ensures that the loan payment be charged to a specific name. All three contacts expressed concern about the idea of tying the payment to a meter, something they believe would require the utility to become more involved in loan collection—particularly considering that the loans are structured to be repaid over 20 years.

Since the utilities do not reconcile the loan, and the last payment is billed directly to the customer by the bank, contacts urged CEWO to establish some regular review of the role of the bank and establish a process for reconciling payments with utility records to make sure there are no surprises for customers as they approach the end of the loan repayment period. According to utility contacts, bill payment records are occasionally purged, making it difficult for the utility to substantiate 20 years of loan payments. The utilities are assuming the fund manager will be responsible for this.

As the Clean Energy Works model expands into new Oregon cities, includes additional utilities, and increases the number of households treated, it will be important for the program sponsors to monitor the experience of the utilities involved and identify opportunities to streamline and simplify the process.

Early Engagement and Staff Commitment

Early engagement of the evaluators allowed the program to obtain survey data and feedback from participants almost immediately. Since each wave included a slightly different survey cohort every few months, the evaluation activities required a substantial commitment of time and effort on the part of program staff who were asked to provide access to contact information and program data, even as they were developing their tracking processes. Additionally, as the survey research was made available, staff and program leadership were expected to absorb the results of the research and adjust the program appropriately without alienating the enrolled contractors or the hundreds of applicants in queue for program services. The constant flow of evaluation findings helped shape program changes by identifying specific issues and supporting decisions around program redesign.

Navigating Collaboration

Energy efficiency pilot programs are typically launched by utilities or government entities with a requirement or mission to provide support for energy efficiency projects within specific geographic areas or among specific populations. In this context, evaluators work closely with program staff to conduct initial surveys and support pilot program learning. In the CEWP pilot, clarifying processes and communicating lessons learned required the cooperation of multiple organizations and presentation of findings to a committee of stakeholders representing different roles in the pilot and different aspects of public interest.

CEWP involved multiple organizations and thus required extensive collaboration. The CEWP pilot was managed jointly by Energy Trust and the City of Portland. Energy Trust residential efficiency staff and City of Portland Bureau of Planning and Sustainability staff provided technical and program administration support. The pilot was supported by extensive collaboration and received input from a Steering Committee that included representatives from:

- the three primary program partners: City of Portland, Multnomah County, and Energy Trust;
- Enterprise Cascadia, a local Community Development Financial Institution that underwrites and services the loans;
- Portland General Electric, Pacific Power, and NW Natural - the three Portland area utilities that agreed to allow CEWP participants to repay their loan via their utility bill;
- the Portland Development Commission, a local economic development agency;
- several advocacy organizations, including Green For All, Worksystems, Inc., Efficiency First; and
- The Home Performance Contractor's Guild.

This Steering Committee met regularly to assess the pilot program's progress and identify opportunities for improvement. Throughout the CEWP pilot, the Steering Committee and other stakeholders successfully navigated the requirements of this collaborative effort and in 2011, continued to work together toward meeting existing and expanded goals for a larger statewide CEWO effort.

While the Steering Committee is likely an important component of CEWP's success and evolution, for the evaluation team, the presence of the Steering Committee meant a bigger, more public audience for some of the early recommendations and findings. Communication with a variety of program representatives and the need for multiple presentations revealed that while the energy efficiency community performs regular and rigorous evaluations, program evaluation is not a common practice for City and County programs, advocacy organizations, or even economic development groups. This meant additional explanations of context and role for the evaluation team, but also led to excitement from many on the steering committee who realized the value that an independent evaluation would provide to improve the CEWP pilot experience.

High Expectations

A central point that emerged in early interviews with program staff and contractors was contacts' awareness of stakeholder expectations for CEWP. Program contacts described working hard to establish program processes and launch program activities while navigating the numerous, and occasionally competing, goals of program stakeholders. Contacts also described the high expectations of applicants and participants. In late summer and early fall of 2009, CEWP experienced a flood of applicants in response to media coverage and promotion by City of Portland officials.

The first wave of research found that staff and contractors believed:

- The organizations involved in launching CEWP had demonstrated impressive flexibility and willingness to move forward with the program concept regardless of uncertainties regarding the process.
- CEWP represented an opportunity for Portland to demonstrate leadership to other cities.
- The contractors engaged in the program brought substantial expertise and were committed to Home Performance.

Expectations of Stakeholders

Key contacts involved in developing the procedures and implementing the program in August and September 2009 reported being aware of the high expectations for CEWP, in particular by the many organizations represented on the Steering Committee. Contacts reported “lots of eyes” on CEWP and described the challenges associated with having multiple people involved in making decisions about the project. In addition to the organizational goals of the City of Portland, Multnomah County, Energy Trust, Conservation Services Group (CSG), Enterprise Cascadia, and the three investor-owned utilities operating in Portland, numerous long-term outcomes were expected to flow from the program’s full-scale deployment, including:

- reduced carbon emissions
- equity in service delivery and job creation
- cost-effective energy savings
- leveraged program dollars
- business opportunities
- regulatory compliance and demonstration of the concept for Oregon’s Energy Efficiency and Sustainable Technology (EEAST) pilot requirements, expected by the Oregon Public Utility Commission

Applicant Expectations

Early applicants heard about the program through word-of-mouth, email communication, and newspaper articles. These early applicants were expected to be committed to efficiency and knowledgeable about energy efficiency projects because they typically had some connection to the energy efficiency organizations that launched the initial recruitment effort. The pilot program wanted informed and motivated applicants to be first in line so that staff and stakeholders would have a chance to test the model and adjust processes as needed while interacting with a group of applicants expected to be more patient than typical homeowners.

This early population of engaged, even activist, participants translated into high response rates for initial survey efforts (Table 5) and extensive comments to open-ended questions. While the program may find that the response rate drops and participant characteristics change as the program expands into other areas in the state and recruits participants less predisposed to energy upgrades, the enthusiasm of the early participants was invaluable for early pilot program research.

Table 5: Response Rates: Four Waves of Participant Surveys

Wave	Responses	Response Rate	Survey open for
Wave 1	18	46%	7 days
Wave 2	21	66%	10 days
Wave 3	80	85%	14 days
Wave 4	120	70%	15 days

The volume of applicants in the early months created communication challenges for the program staff working through policy choices and establishing processes while reviewing applications and managing multiple expectations. Applicants in the queue had to be screened and those who qualified alerted that they might not be able to have their home assessed for several months.

Contractor Expectations

Program contractors reported that other Portland-area residential contractors sought involvement in CEWP. Energy Trust and program representatives worked to communicate the benefits of CEWP involvement broadly and initially selected contractors that had previous experience with Home Performance assessments and success using the home analysis software, *HomeCheck* (subsequently changed to *Real Home Analyzer*).

Contractors engaged in CEWP expected that:

- they would have an opportunity to build their Home Performance business.
- they would add employees as a result of their CEWP-assigned work.
- their participation in CEWP would result in bigger jobs.
- financing would provide a tool to leverage homeowner interest and lead to a higher close rate.
- their selection for CEWP would provide them an opportunity to communicate status and quality to potential customers.
- they would be allocated a certain number of prospective projects.

Expectations Associated with ARRA Funding

The ARRA funding and the involvement of the City and County have focused expectations on goals associated with job creation, workforce development, social equity, and carbon reduction. Investments in energy efficiency projects and programs often are expected to enhance these outcomes, but these non-energy outcomes may not be measured directly. It is rare for an energy efficiency program to be held to objectives other than cost-effective energy savings or increasing the awareness of energy-saving options. Most of the job creation effects are expected to occur in participating Home Performance contractor firms.

In September 2009, a committee of stakeholders developed a Community Workforce Agreement (CWA) that outlined expectations for workforce outcomes associated with equity goals for the CEWP. According to language in the Agreement, the CWA is designed to “help ensure equity for women, people of color, and other historically disadvantaged or underrepresented groups in the implementation of CEWP.” The CWA was signed by almost 30 organizations prior to the launch of Phase II of CEWP.

The CWA includes a clause that establishes a Stakeholder Evaluation and Implementation Committee (SEIC) responsible for monitoring the implementation and accomplishment of the goals outlined in the CWA. The CWA required that Energy Trust “ensure that the CEWP contractor selection processes reflect and implement the minimum requirements and best value contracting selection processes identified” in the CWA, including goals and targets for: 1) local hiring, 2) living wages, 3) health insurance, 4) workforce/business diversity, and 5) access to training or continuing education necessary to develop a highly skilled workforce.

The contractor application was revised to reflect many of the CWA’s objectives. To evaluate each contractor applicant, each item was given a maximum number of points (Table 6). Contractors were ranked according to the number of points they received; the portion of jobs allocated to each contractor reflects the total score earned by each firm.

Table 6: Phase III CEWP Contractor Application Point Allocation

Item	Maximum Points
Experience and Service Quality	
Demonstrated experience in the Home Performance with ENERGY STAR® Program	7
Quality control compliance in Home Performance installation work	7
Record of exceptional service	7
Subtotal	21
Characteristics of Business	
Successful track record in hiring and retaining historically disadvantaged or underrepresented people	7
Plan for establishing mentor-sub relationship with business owned by historically disadvantaged or underrepresented people	7
Demonstrated history of subcontracting with DBE/MBE/WBE*	5
Track record of hiring from registered apprenticeship and other credential granting programs	7
Hire record at least 80% Portland metro residents	4
Provide health insurance	7
Oregon-based contractors	3
Demonstrate efforts to strive to provide employment to formerly incarcerated individuals	2
Subtotal	42
Total	63

* Disadvantaged Business Enterprise (DBE); Minority Business Enterprise (MBE); Women Business Enterprise (WBE)

Expectations for job growth were attached to the outcomes of CEWP from the outset, as federal stimulus funds were awarded with the expectation that the program would create jobs. Estimates of the costs of job creation range from 10.5 jobs per \$1,000,000 (Green for All 2010) to eight jobs per \$1,000,000. (Goldman et. al. 2010). In a 2009 jobs creation program, the City of Portland estimated 14 jobs created per \$1,000,000 spent (Griffin-Valade et. al. 2010). Participating contractors expect their involvement will generate enough work to justify hiring additional staff, but quantifying this was a challenge. The SEIC estimated the job creation effects at the 15 prime contractors and 51 subcontracting firms in a separate analysis and reporting effort. This report documented 29 new construction hires and 381 construction workers employed on pilot projects (Green for All 2011).

Participating contractors track their program-related employees and any program-driven hiring, and report their progress on each of the CWA goals to the SEIC. For example, each contractor is expected to report the portion of their employees who are paid the defined prevailing wages and have access to healthcare, the opportunities they provide for formerly incarcerated individuals, and the dollars paid to historically disadvantaged or underrepresented businesses.

Conclusions

CEWP launched with high expectations and numerous program components. Those involved in designing and managing the program were eager to learn from early participant experiences and expected to adjust the program. Testing the program concepts involved four waves of rapid surveys and reporting. The

survey approach and content was adjusted after each wave to further explore emerging themes or to separate program components into key elements. For the evaluation team, this required ongoing flexibility and willingness to investigate a variety of specific, but rapidly changing, program aspects. The results of each wave of surveys were fed directly to program staff without extensive reporting or review.

CEWP also benefited from an engaged stakeholder group and commitment from members of the stakeholder committee expecting that lessons would be learned and the program would evolve accordingly. This gave program staff and sponsors permission to change course and evolve the program as new information became available.

The pilot evaluation activities benefited from the presence of the active, responsive participants that initially learned about the program. Their overall engagement became apparent in the high response rates to our survey requests, their extensive comments, and in some cases, willingness to respond to two or three survey requests. Leveraging the interest of this early cohort is important; however, they may not be representative of Oregon households in general. Ongoing, periodic surveys of CEWO participants will confirm that existing program processes continue to work for participants as the program evolves from a niche pilot program to a standard, statewide offer. Energy Trust will soon plan the next evaluation step: an impact evaluation study to determine the savings obtained from deep retrofit programs like CEWP.

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