

Washington Community Energy Efficiency Program

Summary Results: 2012-2013

Washington State's community energy efficiency efforts described here occurred in two phases:

- **Pilot:** performance period of 30 months – October 2009 to March 2012.
- **Community Energy Efficiency Program (CEEP):** performance period of 18 months – April 2012 to October 2013.

A third phase of CEEP is currently underway through June 2015. The Washington State Legislature authorized funding from the Washington State Capital Budget to continue to build on the infrastructure and momentum generated.

Since 2010, over 32,000 residences were assessed and 26,000 received energy efficiency upgrades through CEEP partner projects. As the program continues to evolve, CEEP grantees are focusing on:

- Refining program delivery models to achieve deeper upgrades and greater energy savings.
- Expanding service to additional counties – 29 counties are currently served by CEEP grantees.

Energy savings

CEEP upgrades are estimated to save 91,564 million Btu (MMBtu) each year.

These energy savings are distributed approximately equally among the following three groups:

- Small- and medium-sized businesses,
- Single-family homes, and
- Multi-family units and manufactured homes.

Over 66% of the energy saved by CEEP projects was electricity, about 25% was natural gas, and less than 10% was for other fuels including oil and propane.

Residential upgrade measures

Pilot and CEEP grantees each targeted specific housing types. Three utility direct installation programs (the Puget Sound Energy and Avista manufactured home programs, and Snohomish Public Utility District multi-family program) accounted for 87% of the upgraded units.

CEEP partners used a variety of delivery approaches, installed measure packages, and cost-sharing strategies:

- **Whole-house programs** were responsible for installing comprehensive and more costly efficiency measure packages. Of the CEEP grantees that offered whole-house programs:
 - Integrated loan financing was offered by SustainableWorks and the Opportunity Council's Community Energy Challenge.
 - Referrals for financing were provided by Thurston Economic Development Council's Thurston Energy and Sustainable Living Center.
- **Hybrid or targeted measure programs** offered a limited set of measure installation options and did not include financing.
- **Direct-install models** focused on delivering a limited package of lower-cost measures in high volumes.
- **Multi-family projects** were responsible for installing fewer measures, whether those measures were directly installed (Snohomish PUD's Community Power program) or offered through more conventional rebate models (Sustainable Living Center).

Measure and Cost Profiles

Seven grantees participated in both the pilot and program phases. Five of these seven reported increases in the average number of measures installed per project and average investment per project.

This increase was most pronounced for whole-house projects, where the average number of measures and invoice amount per project jumped from 2.2 measures per project at an average cost of \$6,185 to 3.3 measures per project at an average cost of \$9,184.

Results for direct-install projects varied. One direct-install project reported increased measures and costs, and two projects reported decreased measures and costs. Reasons for these declines varied:

- Clark PUD Project Energy Savings dropped a measure it no longer considered cost-effective from its targeted measure package.

- Snohomish PUD indicated that the tighter implementation window resulting from a shorter grant cycle made it difficult to complete complex measures in multi-family buildings.

Energy savings per upgrade were fairly consistent by delivery model in the residential sector:

- Whole-house approaches saved 20-25 MMBtu.
- A hybrid program with limited energy measures (typically focused on heating system upgrades) saved 11-17 MMBtu.
- Direct install programs had much higher volumes but lower unit savings of 2-5 MMBtu.

Heating fuels

Most (87%) of upgraded units were electrically heated. This reflects the utility focus on high-volume direct installations in the multi-family and manufactured homes sector, where space heat fuel is predominantly electric. The share of electric space heat did not change between the CEEP pilot and program stages.

The fuel mix for whole-house upgrades was more diverse. About 10% of those upgrades occurred in homes that use oil, wood, or propane for heating, which are not supported with utility incentives.

Commercial upgrade measures

During the pilot stage, 402 assessments and 241 upgrades were reported. During the program stage through 2013, CEEP grantees report that more than 1,500 businesses received an assessment and 1,000 businesses had at least one measure installed. Much of this increase resulted from the Snohomish PUD Small Business Direct Install Lighting program ramping up from 144 to 913 upgrades.

Investments in energy efficiency upgrades

The total program investment – including direct investments in measures and systems to deliver and administer these programs – increased from \$27 million in the pilot to over \$30 million in 2012-2013. While the level of public investment in CEEP grants was similar in the pilot and program phases, the amount of direct investment in energy efficiency installations increased, largely due to more comprehensive upgrades.

Overall, 44% of total program investments were made by CEEP, 36% by customers, and 20% by utilities, yielding a cost-sharing ratio of \$1.27 for every \$1.00 of CEEP investment. Actual cost-sharing

rates are likely higher because these calculations do not include in-kind and other support from local governments and community organizations.

Workforce

Pilot and CEEP grantees reported that:

- 96 people (69 average FTE per quarter) were paid directly from CEEP grants.
- 154 firms with 1,296 employees were contracted to provide services or to complete projects that were referred from CEEP assessments or included CEEP incentives.

Pilot and CEEP grantees had different approaches to staff and contract for services:

- **Larger utilities** (PSE, AVISTA, Snohomish PUD, and Clark PUD) were less likely to use CEEP funding for direct hires and for administrative functions. Utilities usually contracted out service delivery to a single vendor. These utilities did incur administrative costs, but administrative functions for managing contracts were absorbed by the utility, and costs for outreach and delivery of upgrade services were included in match or in contracted services.
- **Smaller utilities** used some CEEP funds to hire staff to deliver program services.
- **Community-based organizations** were much more likely to use grant funds to hire staff for outreach, service delivery, and administrative functions because they have less infrastructure that can be leveraged to administer and deliver these programs than do utilities. These greater staffing levels are partly driven by community-based organizations focusing on whole-house upgrades, which are more costly, complex, and staff-intensive to deliver.

Looking Ahead

The CEEP effort will continue with funding from the Capital Budget through June 2015 with emphasis in the following areas:

- workforce support and job retention
- target moderate income households
- focus on high-carbon fuel reduction
- address underserved markets
- continue utility collaboration
- maximize funding leverage
- identify and test methods for delivering cost-efficient energy upgrades