

**Partnering with AVISTA and UCONS, LLC for Manufactured Home Duct Sealing:
Doing Together What We Can't Do Alone**

The partners

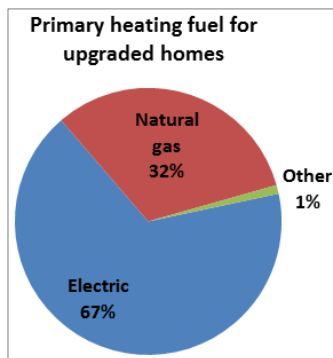
Avista Utilities provides electric service to 368,000 customers and natural gas to 325,000 customers. Its service territory covers 30,000 square miles in eastern Washington, northern Idaho, and parts of southern and eastern Oregon.

Utility Conservation Services, LLC (UCONS) is an energy services company, established in 1993 and headquartered in Kirkland, Wash., that provides direct install efficiency services for hard-to-reach populations.

The **Washington State University Energy Program (WSU)** manages the Community Energy Efficiency Program (CEEP), which was created by the Washington State Legislature in 2009.

The need

- Four out of five manufactured homes (MHs) in the Pacific Northwest have ducted heating systems. A 2011 survey found that as many as two-thirds of these ducted systems leak heated air, which wastes energy, increases bills, and decreases comfort. One in ten MHs had ducts that were partially or completely disconnected.
- Occupants of MHs are more likely to have moderate incomes and/or be elderly.
- Repairing ducts with a typical rebate or incentive approach can be challenging due to a combination of customer cost and AVISTA's tariff guidelines.
- Prescriptive approaches attempt to cover a portion of the cost with Avista Demand Side Management tariff funding and customers pay the other portion. The measure is better suited to a direct-install approach with outside funding to cover the customer component.



Building on a successful model

In 2010, UCONS developed and delivered a MH duct sealing program jointly funded by Puget Sound Energy (PSE) and CEEP. This effort served over 7,200 customers. The project also installed efficient lighting and showerheads. PSE and CEEP split costs 60/40. During the pilot, UCONS refined marketing, outreach, and installation strategies to increase uptake and keep costs low.

A key innovation was moving outreach from a customer-initiated application to a park-by-park sweep. This involved enlisting the park manager and informal leaders, door-to-door canvassing, and neighbor-to neighbor marketing to sign up customers and to enable efficient scheduling.

In 2012, UCONS brought the MH duct sealing model to Avista. Avista and UCONS jointly proposed the project for the 2012-2013 CEEP funding cycle. The Avista/UCONS project was awarded \$400,000, which was later increased to \$490,000 to meet customer demand.

Cost sharing expands reach

Avista matched CEEP's initial \$400,000 award with \$600,000. The 40/60 split allowed AVISTA to offer the program at no cost to customers, serve MHs with electric or gas space heating, and provide direct-install lighting and efficient showerheads for MHs that did not qualify for duct sealing.

In the 2013-2015 funding cycle, CEEP awarded Avista/UCONS a second grant of \$515,000 to continue the work. CEEP's match share was increased from 40% to 50%, in part to cover increased marketing and outreach costs associated with reaching MHs in more remote areas and out-of-park locations.

Results

UCONS provided services to 4,275 homes: 2,293 homes were served from October 2012 to June 2013 and an additional 1,982 homes were served from January to November 2014. Of these, 96% received duct sealing services and 89% received efficient lighting or showerheads.

In the second round, the focus shifted from larger parks in larger communities to smaller parks in outlying areas.

In the 2013-2015 grant period, half of the treated units were located out of parks.

Number of homes that received upgrades

County	Oct 2012- June 2013	Jan- Nov 2014
Spokane	1,581	1,094
Stevens	275	241
Whitman	241	113
Lincoln	142	47
Adams	51	158
Asotin	3	319
Ferry	0	10

In November 2014, Avista and UCONS ended the project due to diminishing returns and high levels of market saturation.

Innovations

The UCONS MH duct sealing program used several strategies to drive completions and keep costs low. These strategies allowed an installer to increase production from one or two installations a day to four or five installations.

Duct sealing offered as a prescriptive service

Duct sealing is completed prescriptively for most MH configurations, not as a measure completed after doing extensive diagnostic testing and assessment. This change was made because reductions in duct leakage rates in homes that were not tested were comparable to reductions in homes that were tested prior to sealing, but this work took twice as long to complete due to the time invested in testing.

Proactive and park-by-park marketing

UCONS went to the customer directly and offered the services instead of sending marketing information and waiting for customers to initiate

the work. This increased up-take and enabled denser scheduling of projects.

Park-by-park and area scheduling

Consolidated project locations increased productivity and lowered costs. Less travel time is involved for the installers when they are scheduled in dense home location clusters.

No-cost service

Cost-efficient delivery coupled with CEEP incentives enabled Avista and UCONS to offer duct sealing service at no cost to the customer. This further increased up-take and supported more efficient scheduling and delivery. For some customers, the no-cost model appeared to be “too good to be true.” Manager-to-resident and neighbor-to-neighbor marketing helped address this challenge.

For more information, please see:

- AVISTA – avistautilities.com/residential/Pages/default.aspx
- UCONS L.L.C. – ucons.com/
- WSU Energy Program – energy.wsu.edu

CEEP partnerships are the key to success

CEEP partners with community-based organizations, utilities, and governments to support energy efficiency upgrades in households and buildings in harder-to-serve markets, including:

- Moderate-income households
- Rental housing
- Manufactured housing
- Rural communities
- Homes heated with oil, propane, and wood
- Small businesses

CEEP improves the quality and affordability of homes and businesses by:

- Helping households and business qualify for existing utility energy efficiency programs
- Providing additional CEEP incentives for upgrades
- Encouraging the use of specially trained contractor workforce and quality standards