

*Commercial/Industrial HVAC and Other  
Honorable Mention*

***Rooftop HVAC Maintenance Program  
Avista Utilities***

**PROGRAM OVERVIEW**

The Rooftop HVAC Maintenance Program is based on research that Avista had performed on this technology and market. The results of the research revealed a great opportunity for this type of program, and the 2001 energy crisis created the perfect timing for creating and implementing such a program.

The objective was to achieve kWh savings in the summer of 2001 by reducing electric usage in commercial rooftop heating and cooling units through preventative maintenance and repair as well as equipment upgrades. Both large and small commercial customers were targeted, from big box retail and manufacturing plants to fast food restaurants and small retail stores.

This program was developed quickly due to Avista's in-house engineering experts, available research data, and in-house program management resources. Due to the timing of the program launch, Avista was also able to use summer students to add program support and complement its regular staff. The program was developed and launched in less than a month with an initial rollout to local HVAC dealers in the service territory. Avista also tapped into local business organizations such as the restaurant association and building manager group, as well as individual account executive contacts.

The program's main focus was maintaining and improving rooftop units, especially ones that did not already have a maintenance program. The checklist included a 14-point service with a strong emphasis on cleaning as well as replacing and repairing parts such as economizers. The program also offered programmable thermostat installations.

The program had a management team with a strong technical element, as well as administrative and inspection teams for insuring processing and completion.

**PROGRAM PERFORMANCE**

In just over a three-month period, the program served over 2,000 commercial electric customers at more than 2,700 customer sites. Nearly 8,500 rooftop units were inspected and maintained at these sites. Avista estimates that these measures yield over 13,000,000 kWh annual savings. The company also is surveying customers to see how many of them began maintenance programs as a result of Avista's program. Customers that adopt such routine maintenance programs would provide additional ongoing energy savings, as well as potentially some incremental savings in subsequent years as upgrades and improvements are made from measures identified through routine inspection and maintenance.

One of the primary exemplary program features was the speed with which the program was developed and launched in able to get immediate energy savings as needed to address the energy crisis of 2001. The key to achieving this objective was utilizing the local HVAC dealers to contact and schedule a large amount of customers in a short time. Another key program feature was to contact building owner/operator organizations to publicize the program services. Finally, the biggest key was probably the free cost to the building owner/operator and the direct payment to the dealer for providing services. This feature of providing free services to customers through dealers allowed for rapid dissemination of program information, which was critical to achieving high participation in a short time.

## **LESSONS LEARNED**

If speed to market had not been so important, it would have been beneficial to conduct additional dealer training ahead of the program launch to customers. Avista ended up having to have some dealers return to customer sites to correct deficiencies that were identified by program staff during post-inspection. It also would have been useful to have increased contact with the customers regarding the benefits of the maintenance and how it could affect energy costs, equipment life, and occupancy comfort.

Avista has surveyed customers to determine if there has been any increase in the number of customers that now perform this type of HVAC maintenance due to the program. Avista would like to offer something similar again. However, because of present electric prices that are lower than those experienced in 2001, the program's cost-effectiveness is changed, which would require some changes in the design of the program. Because of the program's success, Avista has received inquiries and provided input to other parties interested in replicating or designing similar offerings.

## PROGRAM AT A GLANCE

**Program Name:** Rooftop HVAC Maintenance Program

**Targeted Customer Segment:** Commercial customers with rooftop package HVAC units

**Program Start Date:** May 9, 2001 (Planned as a temporary program during the 2001 energy crisis, the program ran through July 13, 2001.)

**Program Participant:** More than 2,000 commercial electric customers at more than 2,700 customer sites, inspecting and maintaining nearly 8,500 rooftop units

**Approximate Eligible Population:**  
Approximately 18,000

**Participation Rate:** 11%

**Annual Energy Savings Achieve:** Over 13,000,000 kWh annual savings

**Peak Demand (Summer) Savings Achieved:** NA

### Budget

Year	Utility Costs
2001	\$1,750,000
2002	Not available
2003 (projected)	Not available

**Funding Source:** The program was funded from Avista's DSM Tariff rider

### Best Person to Contact for Information about the Program

Chris Drake

- Phone: 509-495-8624
- Fax: 509-777-5242
- Email: [chris.drake@avistacorp.com](mailto:chris.drake@avistacorp.com)
- Postal address: Avista Utilities, P.O. Box 3727, Spokane, WA 99220-3727
- URL: not applicable as program was discontinued.