

2009 Rooftop Unit Service Pilot

Frequently Asked Questions

Background

Bonneville Power Administration (BPA) Energy Efficiency is seeking a limited number of utility partners to participate in a commercial Rooftop Unit (RTU) service pilot program during the summer and fall of 2009. The RTU service pilot will launch in mid 2009, with up to 20 participating utilities. The pilot program will improve the efficiency of RTUs in small- and medium-sized commercial businesses at no cost to your end-use customers!

Why a RTU service pilot program?

Effectively correcting inefficiencies in existing HVAC packaged rooftop units (RTUs) is widely recognized as a potential source of significant energy savings.

- The Northwest Power and Conservation Council estimates 75 aMW of region-wide cost-effective savings, most of it in reduced cooling energy.
- There has been considerable technical research and field testing in this area in recent years, with a number of regional and national utility programs offering similar diagnostic and service protocols.
- Reliable field studies verifying savings estimates with measured energy savings are lacking. Therefore this pilot will verify the savings estimates of a statistically representative sample of units, by measuring energy use before and after RTU service, with the intent of creating deemed measures for a region-wide offering.

What's planned for the RTU service pilot program?

BPA would like to partner with up to 20 selected utilities over the summer and fall of 2009 to develop RTU service pilots. Distinct delivery areas will be needed for up to four unique pilots. Delivery areas could consist of up to five adjacent utility territories in order to provide sufficient commercial RTUs for each pilot. Program delivery contractors will recruit and train commercial RTU service providers, provide marketing support and conduct quality control in order to service 600 commercial RTUs by Nov. 1, 2009. BPA will evaluate the services provided by each program delivery contractor.

How do I participate in the RTU service pilot?

Utilities interested in participating in the program are asked to complete a brief online survey by Feb. 15, 2009. The responses are for information-gathering purposes only and are considered non-binding. The survey can be found at:

http://www.surveymonkey.com/s.aspx?sm=W7yuj5yqNH2S0GKy1SoLsg_3d_3d

Selected utilities will be expected to execute a "consent" agreement by May 1, 2009, in order to receive a 75% high water-mark (HWM) adjustment, as well as customer recognition for the service. It is anticipated that the Load Decrement requirement will be waived for Slice/Block utility acquisitions under this pilot. No financial contribution from participating utilities or their end-use

customers will be required; BPA will pay the program delivery contractors the entire RTU service cost.

What size HWM credit can I expect from the RTU service pilot?

While exact savings are impossible to predict, a participating utility could receive HWM credits ranging between 0.01 and 0.05 aMW. HWM credits for RTU tune-ups performed as part of this pilot will be received by Sept. 30, 2010.

How will the RTU service pilot program work?

- Program delivery contractors, under contract with BPA, will recruit and train HVAC service providers to optimize the efficiency of rooftop HVAC systems for small- and medium-sized, commercial businesses.
- The service providers will market the no-cost tune-up services, as provided through the serving utility.
- After the end-use customer agrees to the tune-up, the service provider will document the existing condition of the RTU. RTUs selected for measurement and verification will be instrumented for monitoring energy use before and after RTU service.
- Some HVAC service providers will use a handheld device to pre-check, service and re-check after service is completed, for reporting and quality-control purposes. Pre-approved service could include adjusting the refrigerant charge, economizer commissioning, coil cleaning, airflow adjustments and programmable thermostats. For any additional services, the service provider will negotiate with the building owner for payment. Additional services may be eligible for incentives, depending on the associated costs and savings.

Utility staff will not be responsible for measurement and verification, documentation or PTR entry.

How do the RTU service payments flow?

Service providers will be paid for pre-approved services by the program delivery contractor; the program delivery contractor will then invoice BPA for payment. The service provider will give the building owner an invoice for pre-approved services, stating that they were funded through their serving utility. The building owner will pay for any additional services that are negotiated between them and the service provider. As a direct-acquisition pilot, this pilot program requires no funding from participating utilities.

Why would a building owner agree to this?

The building owner gets their rooftop unit serviced (funded through their serving utility) and all of the resulting energy savings.

What types of RTUs are eligible for service under this pilot?

Existing packaged rooftop HVAC units (RTUs) serving commercial businesses, between three and 20 tons, are eligible for service under this pilot. New RTUs and RTUs over 20 tons may also be eligible for service. Because most of the savings are in reduced cooling energy, this pilot is fuel-blind, and gas-heat RTUs will be eligible for service. Only one service per RTU will be paid.

What kind of savings can a building owner expect from RTU service?

Based on a review of hundreds of estimates, the two most common services were adjusting the refrigerant charge and commissioning economizers, with average cooling savings of 6,000 kWh

for a ten-ton unit. Some heating savings may be expected, especially for heat pumps, but these savings will not be verified during this pilot. Savings are expected to persist four years.

How will customers be approached for RTU service?

Trained HVAC service providers will offer services to their existing customers, offering this new service funded through their serving utility. The utility could contact their commercial customers about this new service, giving them the program delivery contractor's contact information. The commercial customers could then contact the program delivery contractor for RTU service.

How can utilities be involved with the RTU service pilot?

Utilities can discuss participation options and roll-out options at a kick-off meeting with the program delivery contractor. It is desirable to have similar levels of participation in each of the utilities located within each delivery territory. Utilities are encouraged to comment on the proposal, contact customers about this new service, follow-up with your commercial customers to discuss the service and other energy efficiency opportunities, participate in conference calls and participate in a process evaluation.

What businesses can receive RTU Service?

Any commercial business served by a participating utility with a rooftop unit between three and 20 tons can receive RTU Services.

Will local HVAC contractors be trained to be service providers?

Program delivery contractors will be encouraged to recruit and train local HVAC contractors to provide these services. In addition, NEEA will be developing a region-wide training program for HVAC contractors.