



ARC Joint Utility Rebate

Advanced Rooftop Unit Controls

An Advanced Rooftop Unit Control (ARC) is an energy-saving retrofit solution for constant volume, single-zone packaged rooftop unit (RTU) equipment. These controls work with various RTU manufacturers, have the ability to control and monitor RTUs via the Internet, and reduce utility expenses.

ARCs vs standard RTUs

With a standard RTU, a thermostat controls the compressor or gas furnace to maintain a consistent temperature, while the supply fan continuously operates (during occupancy of the building). When outdoor air falls below a certain temperature and the thermostat calls for cooling, the outdoor-air damper fully opens. If the outdoor air temperature rises above a certain point, the damper closes, enabling mechanical cooling. Fan speed cannot be controlled and supplies constant air volume whether the damper is opened or closed. An ARC offers the following advanced features:

- Integrated air-side economizers: Controls the flow of air with differential dry-bulb temperature control
- Variable fan speeds: Customizes fan speeds for different modes of operation, such as ventilation, first or second stage heating or cooling
- Demand-controlled ventilation: Uses return-air CO₂ to regulate outdoor-air damper and fan speed controls, to ensure maximum CO₂ levels are not exceeded

Did you know? >>>

Rooftop units are responsible for more than 1,000 trillion BTUs per year of energy use nationwide. An ARC can reduce energy use by more than 50 percent. Adding an ARC to half of existing RTUs would reduce energy use by about 285 trillion BTUs. That's equivalent to removing ten nuclear power plants or more than 70 coal power plants.*

Utility rebates pay up to 70 percent toward ARCs

To incent installation of an ARC, Puget Sound Energy, Seattle City Light, Snohomish County PUD and Tacoma Power now offer a \$225 per ton rebate for electric and a \$50 per ton rebate for gas, up to 70 percent of qualifying project cost.

Rebates apply to the installation of qualifying ARCs on existing single-zone packaged RTUs with constant speed supply fans, nominal cooling capacity of five tons or greater, and to those less than 15 years old. Projects not meeting requirements may be eligible for a custom incentive. For more details about the rebates and qualifications, please refer to the program workbook on your utility's website.