




ROOFTOP UNIT CONTROLS

Rooftop unit optimization

According to the US Department of Energy, 60% of commercial spaces are cooled with rooftop units (RTUs).¹ RTUs are commonly oversized and improperly maintained, which can lead to excessive energy consumption and uncomfortable conditions. Stop wasting your dollars and improve your building comfort by optimizing your RTU's operation.

Start with proven solutions

Variable Frequency Drives 	Economizers 	Demand Control Ventilation 
<p>Variable Frequency Drives (VFDs) adjust the speed of the RTU supply fan depending on the required output instead of constantly running at 100%. VFDs can also reduce equipment noise and the amount of required maintenance.</p>	<p>Economizers bring in fresh outside air to help cool your space instead of running costly air-conditioning equipment. A properly designed and operating economizer can reduce cooling loads by up to 30%.²</p>	<p>Demand Control Ventilation (DCV) utilizes carbon dioxide sensors to determine the occupancy levels of a space, allowing the RTU to provide only as much ventilation as needed. This means less energy is required to heat or cool the incoming air, reducing energy costs.</p>

Bring it all together with Advanced Rooftop Unit Controllers

Advanced Rooftop Unit Controllers (ARCs) combine the energy-saving strategies of VFDs, DCV and economizers to optimize the performance of RTUs in a single interface.



- RTU heating and cooling energy use can be reduced by up to 50%³ when units are retrofitted with ARCs.
- ARCs can offer additional capabilities, like energy monitoring, compressor control, advanced scheduling strategies and fault detection diagnostics to alert building operators of a malfunction.
- Many new rooftop units can be ordered with factory installed controls. Talk to your Trade Ally to learn about control options for new rooftop units.



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The importance of routine maintenance

Even if your RTU is already equipped with energy-saving technologies, it may need a little attention to ensure ideal operation.

- Economizers malfunction or fail completely up to 64% of the time when not properly maintained. Repairing or restoring failed economizers can save up to 40% of cooling energy.⁴
- VFDs are often bypassed, allowing the motor to run constantly at full speed. Restore VFDs so the motor can operate at optimal energy-saving speed.
- Thermostats may be left without a temperature setback schedule or have an obsolete schedule based on current building function. Program setback schedules or reduce existing setpoints during unoccupied hours to eliminate unnecessary runtime of HVAC equipment.



Get started:

1. Contact us to be connected with an Energy Advisor at **800.762.7077**
2. Find a registered Trade Ally at focusonenergy.com/findatradeally
3. Get started on your own! Work directly with your contractor or visit focusonenergy.com/applications

¹ http://www.advancedrtu.org/uploads/7/4/8/7/7487823/prsm_wp_rtu_replacement_5_crops.pdf

² <https://mge.bizenergyadvisor.com/article/economizers>

³ <https://betterbuildingsinitiative.energy.gov/alliance/advanced-rooftop-unit-campaign>

⁴ https://newbuildings.org/sites/default/files/NWPCC_SmallHVAC_Report_R3_.pdf

REDUCING ENERGY WASTE ACROSS WISCONSIN

FOCUS ON ENERGY®, Wisconsin utilities' statewide program for energy efficiency and renewable energy, helps eligible residents and businesses save energy and money while protecting the environment. Focus on Energy information, resources and financial incentives help to implement energy efficiency and renewable energy projects that otherwise would not be completed.

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