



For Immediate Release

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U.S. Government Study Finds Variable-Speed Screw Chiller Technology More Efficient

CHARLOTTE, N.C., Feb. 14, 2018 — A U.S. government General Services Administration (GSA) Proving Ground study recently concluded that a Carrier chiller employing variable-speed screw (VSS) technology with no mechanical unloaders was 11 percent more energy efficient and had an equipment price 30 percent lower than the previously recommended variable-speed chiller technology, providing an opportunity to further raise the level of performance in federal buildings. The findings of [the study](#), conducted in the Sidney Yates Building in Washington, D.C. by scientists from the Oak Ridge National Laboratory, align with Carrier's view that chillers employing variable-speed screw technology with no mechanical unloaders, like the AquaEdge® 23XRV, are among the best selection for modern, efficient chilled water plants.¹ The study was overseen by the GSA and peer-reviewed by the National Renewable Energy Laboratory (NREL). [Carrier](#), a world leader in high-technology heating, air-conditioning and refrigeration solutions, is a part of UTC Climate, Controls & Security, a unit of United Technologies Corp. (NYSE: UTX).

¹ The GSA study referenced herein does not constitute a product endorsement, recommendation, or preference by the U.S. Government or any agency thereof, or the Pacific Northwest National Laboratory/Oak Ridge National Laboratory.

While not endorsing a specific chiller brand, the study recommends consideration of VSS chiller technology for new installations, end-of-life replacements, and energy saving retrofits in facilities across all climate zones. The study was conducted as part of the government's effort to drive down energy costs in federal buildings.

The government-funded study is part of the GSA Proving Ground (GPG) program, which evaluates next-generation building technologies in real-world operational settings. This study placed a chiller equipped with variable-speed screw technology alongside chiller technology previously evaluated by the GPG program to determine if the VSS technology with no mechanical unloaders could meet the benchmark for chiller performance.

Each newly installed chiller was connected to common chilled and condenser water systems, alternating operation in the existing machine room at the Sidney Yates Building in Washington, D.C. In addition to the improved energy efficiency and lower price, the VSS technology performed across a wide range of operating conditions and was subsequently referenced as a "universal design" system.

"Carrier has long stated our variable-speed direct-drive screw compressor technology raises the bar for performance in real buildings and the GSA Proving Ground study corroborates our research. It's another data point affirming the wide operating parameters of Carrier's AquaEdge® 23XRV," said Chris Opie, director, North America Commercial Marketing. "Our team remains focused on developing solutions that meet the growing desire for highly efficient commercial climate control."

"A more efficient, lower cost chiller makes for simple math when calculating lowest life cycle cost alternatives," adds Opie. "Carrier applauds the U.S. government

for its commitment to sustainable buildings and we were pleased to hear about the Oak Ridge National Laboratory's test results. We continue to invest in heating and cooling products that are among the most efficient and we strive to help the government and private industry in their goals to reach new levels of sustainability in their facilities. With our history of innovation and commitment to leading the industry, Carrier is well positioned to help customers meet their sustainability and energy-efficiency targets.”

To learn more about Carrier's variable-speed screw chiller offerings, visit

Carrier.com/proof.

About Carrier

Founded by the inventor of modern air conditioning, Carrier is a world leader in high-technology heating, air-conditioning and refrigeration solutions. Carrier experts provide sustainable solutions, integrating energy-efficient products, building controls and energy services for residential, commercial, retail, transport and food service customers. Carrier is a part of UTC Climate, Controls & Security, a unit of United Technologies Corp., a leading provider to the aerospace and building systems industries worldwide. For more information, visit www.carrier.com or follow [@Carrier](https://twitter.com/Carrier) on Twitter.

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Caption:

GSA Proving Ground recently found that a chiller employing variable-speed screw technology with no mechanical unloaders was 11% more energy efficient and had an equipment price 30 percent lower than the previously recommended variable-speed chiller technology - all while providing a wide operating range.