

Organization Accepts DOE Challenge, Adopts and Exceeds Strategic Energy Plan Targets for Efficiency

To anticipate and address changing client needs, effective energy management often means providing leadership, not just support. To complement its relentless pursuit of energy innovation for its clients, Schneider Electric's equally strong commitment to energy efficiency leadership among the Fortune 500 led to the implementation of an aggressive strategic energy plan and the pursuit of ISO 50001 certification.



Schneider Electric's Smyrna solar farm is the third in Tennessee at 1MW and will generate approximately 1.3 million kWh of electricity annually, 25% of the facility's total use.

Situation

In partnership with the U.S. Department of Energy and nine other industrial partners, Schneider Electric helped pilot the Better Buildings Better Plants Challenge. To achieve its goal of a 25% reduction in energy intensity at 26 plants representing 9 million sq. ft. by 2018, Schneider Electric began pursuing ISO 50001 certification to serve as the framework for implementing the energy efficiency projects necessary to meet its reduction targets.

Leadership

Using ISO 50001 guidelines, Schneider Electric engineers identified a number of critical efficiency projects. Engineers first installed VFDs on paintline washer pumps to allow throttling valves to operate more efficiently. Next, engineers reduced an infrared oven's heat intensity to equalize the paintline's productivity speed resulting in a 10% reduction in natural gas use. Additionally, timers were set to turn off drying ovens on nights and weekends, and LED bulbs were installed in exit lights and parking lot lamps.

Schneider Electric also installed 22 new HVAC units during the process. After discovering they were improperly controlled, engineers recommissioned the units to ensure delivery of the predicted savings. (Schneider Electric now mandates all new equipment must be energy efficient.)

Finally, Schneider Electric's 1-MW dual-voltage solar farm is the first in the U.S. with the ability to operate at 1000- and 600-VDC.

Results

Schneider Electric's Smyrna, Tenn. facility obtained ISO 50001 in June 2012 – one of just 15 certifications in the U.S. The facility was also part of a pilot program for Superior Energy Performance. At 18%, its Superior Energy Performance Indicator qualifies for Platinum certification. Last year, Schneider Electric achieved 28% energy savings over 2011, a full 5% over its 23% target.