

Wilson County



CUSTOMER BENEFITS

- Improved comfort levels
- Guaranteed savings
- Centralized control
- Reduced consumption
- Energy efficiency

PROJECT AT A GLANCE

Project Type:

Energy Performance Contract

Location:

Wilson County, North Carolina, USA

Number of Buildings:

10 (363,000 sq.ft.)

Guaranteed Annual Savings:

\$136,892

Energy Conservation Measures:

- New and upgraded EMS
- Water conservation measures
- Lighting upgrade

Environmental Facts:

Wilson County annually saves energy equivalent to ...

- Reducing CO₂ emissions by 183 tons
- Removing 37 automobiles from the roads
- Planting 50 acres of trees



County officials seized an opportunity to reduce their utility budget by 15 percent over 12 years and to fund building system improvements with the guaranteed savings generated by performance contracts from Schneider Electric.

The Challenge

Wilson County lies 30 miles east of the state's capital in Raleigh. With a population of 74,000 spread out over 375 square miles, this county boasts the East Coast's largest antique market and some of the best barbecue in the area, as well as other notable attractions.

Incorporated in 1849, Wilson County is considered one of the most beautiful areas in the state. With a reputation for taking great care to preserve its past, county officials faced several challenges when it came to making local government buildings more energy efficient.

By 2006 Wilson County was struggling with high utility costs to operate 10 aging buildings. The situation was compounded because the county did not have an integrated building management system, making it difficult to regulate temperatures and manage energy consumption. The county also had to contend with inefficient lighting and water consumption levels in these facilities.

“Since we are trading the money we were spending on utilities to complete the work, our citizens are not burdened with a tax increase.”

Ellis Williford
County Manager

Schneider Electric recommended a performance contract to tackle these issues head-on.

A performance contract incorporates system design, construction and commissioning; it also guarantees the energy savings typically generated by replacing or upgrading building systems. Moreover, Schneider Electric agrees to pay the difference if those savings are not realized.

Wilson County chose Schneider Electric to provide the much-needed improvements because Schneider Electric was attentive to the county's needs and priorities. Moreover, Schneider Electric educated officials about the benefits and risks of performance contracting before they signed on the dotted line.

Then, when Administration moved into a vacant office building, the county faced additional comfort and control issues. Concerned about utility costs associated with operating this facility, as well as the Detention Center, officials turned to Schneider Electric for a second performance contract.

The Solution

Schneider Electric performed utility audits and uncovered an opportunity to slash the county's energy costs by 15 percent over 12 years. County officials were pleased to learn that the guarantee of future utility bill savings (\$1,285,324) would be more than enough to cover the cost of upgrading their facilities.

The initial performance contract focused on installing or upgrading energy management systems (EMS). Schneider Electric equipped six facilities with new TAC Vista™ systems and direct digital controls (DDC) to manage indoor environments. Existing systems in other buildings were upgraded and recommissioned to deliver the desired results, enabling Wilson County to maximize existing system investments.

The county also approved implementation of other energy conservation measures (ECMs). Schneider Electric installed more energy-efficient T8 bulbs and electronic ballasts. In addition to assuring uniform light levels, high-efficiency lighting helps lower electric bills. Schneider Electric also replaced existing faucets and fixtures with low-flow equipment, yielding additional savings through water conservation.

In the Detention Center and the newly-acquired Administration building, Schneider Electric installed the TAC Vista control system to improve operational efficiency and facilitate system scheduling to conserve energy. Converting these two facilities from constant volume to variable airflow volume (VAV) also helped trim energy costs while improving indoor comfort levels.

The Bottom Line

Wilson County reduced its utility costs by \$107,000 annually after completing \$900,000 in facility upgrades to improve comfort levels and operating efficiency at 10 county buildings.

The county launched a second phase that addressed the Detention Center and a newly acquired office property for the Administration group. Schneider Electric projects that this \$330,000 project will save the county an additional \$29,000 annually.

Today, the facilities staff uses the integrated EMS to carefully control energy usage at properties throughout the county. Employees now enjoy a more comfortable, energy-efficient workplace. And the county sets an excellent example of environmental concern by reducing its energy consumption.