BACKGROUND

Cologix Columbus (formerly known as DataCenter.BZ) hosts one of Ohio's largest collections of carrier, municipal and private fiber networks, serving as a critical point of interconnection among the networks, carriers and last mile providers in the state. Cologix is able to provide premium solutions to a variety of regional, national and international customers including major telecommunications carriers, government agencies, healthcare and education systems, and Fortune 1000 enterprises.

As their business expands, Cologix has sought to install high-efficiency power and cooling equipment to support incoming IT load. With support from AEP Ohio's new Data Center Program, Cologix implemented numerous energy-efficient practices, including variable speed drive (VFD) retrofits on existing Computer Room Air Handling (CRAH) units, new high-efficiency CRAH units with variable speed electronically commutated (EC) fans, and new Uninterruptible Power Supplies (UPS) for total savings of over 1 million kWh in 2013 alone.

Cologix Columbus (formerly known as DataCenter.BZ) provides high-density colocation and network-neutral interconnection from wholly-owned, carrier-neutral and purpose-built data centers.

CASE SUMMARY

Industry
Telecommunications

Building Type
Data Center

Program Type
Data Center Efficiency Program

Measures Implemented
Variable Frequency Drives
New, High-Efficiency HVAC Equipment New, High-Efficiency UPS Equipment

Total Project Cost
$190,942

Project Annual Energy Savings
1,057,746kWh

Payback Period without AEP Ohio Incentive
Approximately 2.2 years

Payback Period with AEP Ohio Incentive
Approximately 1.3 years

AEP OHIO®

The Situation

Cologix Columbus operates a highly-efficient data center. However, in their continued resolve for reducing their energy use in power and cooling equipment, their staff identified opportunities to improve their building's performance even further. Cologix Columbus utilizes a chiller system with CRAHs to provide streamlined cooling to its IT racks. A number of existing CRAH units and air handling units (AHUs) had constant speed fan motors that delivered a continuous amount of air regardless of the cooling load in the space. These units provided an ideal opportunity for energy improvements to more accurately match the cooling supply with the IT load requirements.

The Solution

To maintain the flow of cooling but cut excess energy use, Cologix has installed a combination of VFDs and EC plug fans. These installations have allowed Cologix to cut fan motor speeds and improve their efficiency. Under the AEP Ohio Data Center Program, Cologix has installed VFDs on nine existing units and installed seven new units with variable speed fans. The improvements created large energy savings and provided efficient planning for the growth of Cologix through the purchase of additional new high-efficiency equipment.

Cologix has also chosen efficient UPS equipment, keeping energy losses low and avoiding additional cooling use from excessive waste heat. Cologix plans to continue expanding the utilization of efficient practices and equipment, including additional efficient UPS systems to accommodate new IT load and new high-efficiency chillers as demand grows within their facility.

"By working with the AEP Ohio Data Center team, we were able to reduce our project costs and provide even greater benefits to our customers."
Gordon Scherer
Vice President

About AEP Ohio's energy efficiency programs for businesses
AEP Ohio's Business Incentives program provides cash incentives to help business customers purchase and install energy efficient equipment. Prescriptive incentives are available for common commercial and industrial measures including lighting, HVAC, motors and drives, refrigeration, and food preparation and storage equipment. Custom incentives are available for process improvements and other measures not covered through prescriptive incentives.

AEPOhio.com/Solutions
877-607-0739

Disclaimer: AEP Ohio does not guarantee the energy savings and does not make any warranties associated with the measures eligible for incentives under this program.

AEP OHIO®

Supporting Energy-Efficient Tenant Choices

Cologix is also encouraging tenants to make energy efficient choices for their colocated IT equipment. Through AEP Ohio's Data Center Program, tenants in colocation facilities can take advantage of incentives for a variety of energy-efficient improvements to their hosted IT equipment – including server and storage refresh and virtualization.

Additionally, customers within the AEP Ohio territory can take advantage of the efficiency gains from the efficient power and cooling infrastructure at colocation facilities such as Cologix Columbus compared to their existing legacy facility. For example, when a recent corporation in AEP Ohio territory chose to relocate their existing server room to Cologix Columbus instead of building a new facility, they saved over 206,000 kWh. This resulted in over $16,000 in AEP Ohio incentives provided to the customer.

Looking forward, Cologix is proud to announce their plans for a new data center in Central Ohio and they are working with AEP Ohio's Data Center Program to help maximize the facility's energy-efficiency.

For more information on AEP Ohio's Data Center program contact:

AEPOhiodatacenters@willdan.com or call 614-934-1527.

AEP OHIO®