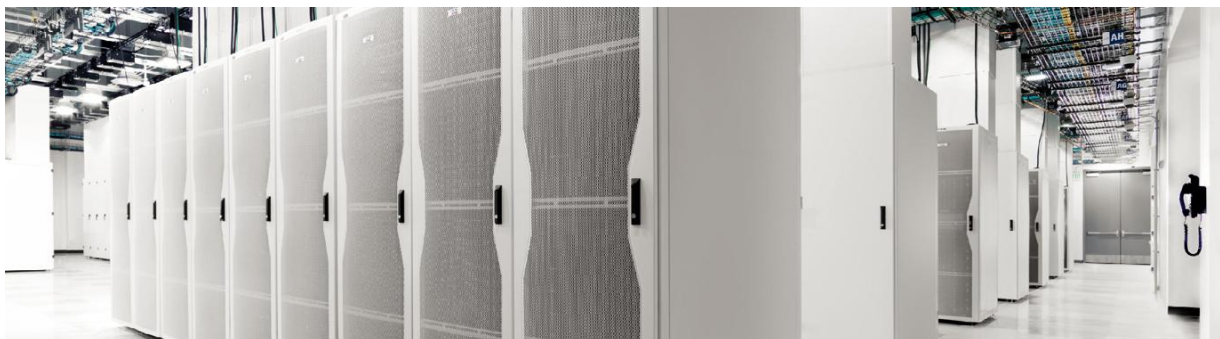# Consulting Firm Reduces Data Center Energy Usage and Costs with Cisco EnergyWise

Project Performance Corporation achieves lower energy consumption, reduced costs, and smaller carbon footprint

EXECUTIVE SUMMARY

Customer Name: Project Performance Corporation

Industry: Information Technology and Management Consulting Firm

Location: McLean, Virginia

BUSINESS CHALLENGE

- Reduce carbon emissions, energy consumption, and costs in four data centers
- Find management solution providing visibility into data center energy consumption

NETWORK SOLUTION

- Deployed Cisco EnergyWise Management for Data Center in all four data centers

BUSINESS RESULTS

- Deployed Cisco EnergyWise in under one hour
- Achieved visibility into energy consumption and utilization for all IP network devices
- Identified high consumption devices and created policies to reduce usage periods
- Anticipated savings of $320,000, 725 MWh, and 335 tons of carbon emissions over five years

Business Challenge

Project Performance Corporation (PPC) consults with commercial and federal organizations such as the U.S. Department of Energy to reduce their negative economic, environmental, and social impact. PPC needed to visualize and understand energy consumption across its four data centers to achieve cost savings and reduce carbon emissions.

PPC's data centers host business-critical applications for sensitive and classified federal customers, along with internal systems for international operations. As a result, PPC must maintain high availability to support 24-hour customer requests and productivity for international employees.

Located in the United States and United Kingdom, PPC's four data centers occupy a total of 12,200 square feet. They house 152 physical servers, 1320 devices and support approximately 9500 end users. Each data center environment contains enterprise-class servers, video teleconferencing equipment, UPSs, PDUs, network devices, CRACs, CRAHs, air handlers, chillers and other standard data center equipment.
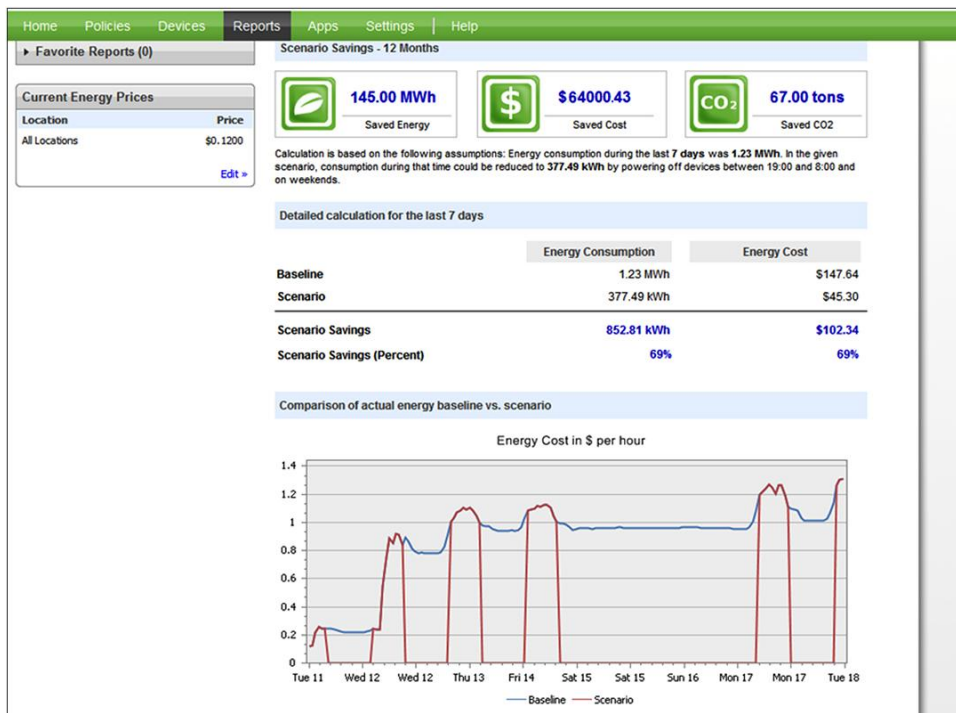
Network Solution

In its search for an enterprise energy management solution, PPC prioritized a fast, efficient deployment and quick time-to-benefit. The company selected Cisco EnergyWise™ Management for Data Center, a network-based solution that sees, measures, and manages data center energy usage at a granular level.

Cisco® EnergyWise Management immediately provided PPC with unprecedented visibility into energy utilization. Because it is agentless, EnergyWise Management was installed in each of PPC's data centers and collecting energy information within one hour, as opposed to weeks or months for other solutions. With EnergyWise Management, PPC did not have to spend productive time on installation and management of software agents for each of its data center devices. And EnergyWise Management's network-based advantage eliminates disruptive quality assurance cycles for patches or new operating system changes.

PPC initially used EnergyWise Management to monitor IT equipment such as servers, desktops, monitors, and printers. Then the company expanded EnergyWise Management's scope to include all data center devices and facilities systems, including the elevator system and the plug load of an entire five-story building.

Business Results

Cisco EnergyWise Management for Data Center helped PPC save energy costs within one day of installation. EnergyWise Management provides unprecedented visibility into real-time energy consumption and utilization of PPC's IT environment. The company is harnessing this information for more efficient data center capacity planning, and projects energy savings of more than US$320,000, a reduction of energy consumption by 725 MWh, and a reduction in carbon emissions of 335 tons of CO_2 over five years. PPC recently discovered some IT security benefits of using EnergyWise Management as well. With the ability to power down devices not in use, PPC can reduce their vulnerability. And when energy usage spikes on a particular device, EnergyWise Management sends an alert that PPC can use to investigate and mitigate potential attacks and service failures.

Benefits

Unprecedented visibility

For the first time, PPC has visibility into the actual energy consumption and utilization of each of its IP-connected devices. Armed with real energy consumption data, PPC can perform capacity planning more accurately and extend the life of its data centers from an energy capacity standpoint.

Quick time-to-benefit

PPC deployed EnergyWise Management in under one hour and was able to identify savings opportunities almost immediately, by analyzing energy consumption against utilization. After the first day of using EnergyWise, PPC learned that a video teleconferencing system running overnight (during non-business hours) consumed an entire floor's worth of energy. In response, PPC used EnergyWise Management to create a time-based policy that automatically powers this system down when not in use. EnergyWise Management also identified a rack-and-a-half of physical servers to be retired, since they were not being utilized, but still consuming energy 24 hours a day. Energy visibility and utilization data from EnergyWise Management also enabled PPC to renegotiate its data center housing contract for increased power savings (the company was contracted for much more power than needed).

Cost savings and carbon reduction

PPC projects savings of $320,000, a reduction of energy consumption by 725 MWh, and a reduction of carbon emissions by 335 tons over five years.

Added security

Even idle machines are potential security targets. EnergyWise Management's automated policies power down devices when they are not in use, helping to reduce vulnerabilities across the enterprise. EnergyWise Management also helps PPC identify attacks on its infrastructure. If EnergyWise Management sees a device that normally uses 100 watts suddenly spike to 500 watts, it generates an alert. PPC can then investigate the issue, which could signify an attack. In one example, PPC started receiving alerts from EnergyWise Management about energy spikes of 14 to 60 percent for a number of devices PPC managed for its customer. Instant notification from EnergyWise Management about the increased energy usage enabled PPC to immediately investigate and address what turned out to be a security incident before it caused a service failure.

For More Information

Cisco EnergyWise Suite: http://www.cisco.com/go/energywise.

Printed in USA

C36-729945-00   10/13