

## Go Green

*According to reports from the USA Environmental Protection Agency*

### **The Bad News:**

*In the past five years hardware heat load density has more than quadrupled.*

*At that rate of growth, between 2010 and 2015 the five year power costs for a data center will be greater than the procurement costs of the equipment.*

### **The Good News:**

*Existing technologies and strategies can reduce typical server energy use by an estimated 25 percent, with even greater energy savings possible with advanced technologies.*

**Let WES help you put together a plan to save energy, save money and save the environment.**

## **Reducing the carbon footprint in your data center is ecologically responsible and can significantly reduce your data center energy costs.**

Worldwide Environmental Services - WES - is a global provider of high availability environmental assessment, design and remediation services for mission critical computer facilities. WES has performed more than 5000 engagements in over 30 countries over the past 25 years, and has partnered with leading computer hardware manufacturers and services companies to provide integrated solutions at customer sites spanning all markets. As an industry leader with a unique knowledge-base, WES is committed to raising industry awareness regarding the impact of the environment on mission critical computer equipment and providing services and solutions to help customers avoid unplanned downtime.

The WES Eco Assessment Service is designed to establish a baseline of existing environmental conditions, identify design or implementation areas in need of improvement and provide a plan for optimizing energy usage, cooling and general environmental conditions at the facility.

### **General Site Data & Future Planning**

- Data center best practices assessed and compared to industry-recognized standards
- Evaluation of existing monitoring capabilities identifies areas where stability and efficiency can be improved
- Future planning and current conditions evaluated to optimize existing infrastructure

### **Cooling & Air Distribution**

- Temperature and relative humidity profiles used for evaluation of existing conditions and as a baseline for trending and optimization
- Multipoint synchronic and diachronic T & RH profiles to evaluate cooling and infrastructure improvements
- Conditioned air distribution efficiency assessed and airflow balanced
- Environmental support equipment design & installation assessed in relation to site conditions and computer hardware requirements

### **Energy Distribution, Usage & Quality**

- Electrical & cooling loads evaluated to improve efficiency and plan for eco-savings
- Electrical infrastructure & grounding reviewed to identify vulnerabilities
- Real-time, multi-point power measurements compare actual equipment power consumption to nameplate data

### **Space & Rack Utilization**

- Arrangement of hardware, distribution of the equipment heat load within racks evaluated and improved
- Arrangement of racks, in relation to each other (intake & exhaust aisles), evaluated
- Orientation of racks in relation to air conditioning and supplemental cabinet-level cooling evaluated
- Identification of high density areas for correction and heat density calculations for future planning

WES can also provide more targeted assessment services focused on a particular issue or group of hardware.

