CLARK ENERGY GROUP

THE GREENING OF IT: ENERGY-EFFICIENT DATA CENTERS

The Next Frontier

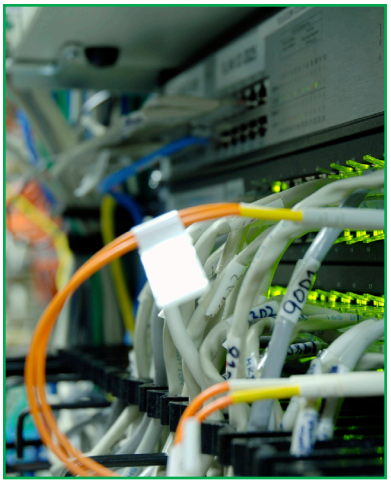
Data centers—whether individual rooms in an office building or stand-alone full-building facilities—can consume as much as one thousand times more energy per square foot than a typical office building. Currently, data centers account for approximately 3% of the electricity consumed in the United States each year, and this figure is rapidly rising. To put it in perspective, in 2006 the estimated electric bill from data centers nationwide amounted to $4.5 billion. If things remain unchanged, by 2011 the bill will nearly double to approximately $7.4 billion. This explosion of data center development would require ten new nuclear power plants to meet the generated demand growth.

Technology Neutral

The Clark team has significant experience building data centers and understands the complex energy needs of these facilities. Over the past two decades, we have constructed roughly a dozen data centers across the country. We also understand the ever-evolving technology continuously being developed to control these energy needs. High-efficiency HVAC systems, greater rack efficiency, virtualization, free cooling, hot aisle/cold aisle, DC power, on-site cogeneration using fuel cells or microturbines, database tuning, and energy management control system integration are just a few of the measures we can utilize to produce immediate energy savings. We have the solutions both for traditional centralized data centers and for consolidating distributed, inefficient "server closets" into highly efficient centrally managed data centers. We can deliver these solutions using our Super ESPC contract so they won't cost you money. Our technology-neutral approach allows us to implement the most efficient methods and equipment regardless of the solution.

Leading the Charge

The EPA and DOE are both strong supporters of the movement towards more energy-efficient data centers. Our team is primed to lead this push for energy efficiency in data center construction and operations. We can work with building management to identify the different energy conservation opportunities available for your facility and recommend the most cost-effective and proven technology. Our construction group can implement both retrofits of existing space or new construction solutions if land is available. These comprehensive solutions advance your data center capabilities while reducing energy consumption and ongoing maintenance costs.



OUR SERVICES

Clark Energy Group's Data Center services include:

- Retrofits, new construction and consolidation
- Comprehensive energy audits
- Identification of available incentives
- Complete project financing
- Ongoing operations and maintenance

Data centers consume more energy per square foot than any other type of federal building. The Clark team can significantly impact your energy efficiency goals by reducing energy consumption of your secure data centers by 25 to 50%.