

Carbon Cap and Trade & Data Centers

By now you have heard of carbon cap and trade programs, but most likely it was in reference to activity in Japan or Europe. This is notice to you that it will be coming to the United States soon and you should understand what it means to you.

Greenhouse Effect and Carbon Cap

The "Greenhouse Effect" refers to the change in steady state temperature of our planet due to greenhouse gases – water vapor, carbon dioxide, methane, nitrous oxide, ozone, CFCs. These gases trap more of the Sun's energy in the Earth's atmosphere and cause the average surface temperature to rise. The Earth would be extremely cold without these gases but a steady increase in the level of greenhouse gas will cause an increase in the temperature. An increase in the Earth's average surface temperature can cause dramatic changes such as melting of the polar ice caps, a rise in sea level and changing weather patterns. Such changes to the Earth's delicate balance will be harmful and have many possible negative secondary effects.

Carbon Cap and Trade is an administrative approach to reducing the level of carbon production into the Earth's atmosphere. It is seen as a more economically practical approach than just taxing carbon admissions. In a carbon cap and trade program, a government body sets a total carbon production limit. This limit is allocated to producers by an auction. This auction establishes a market price for carbon credits and generates funds for carbon reduction programs. Individual producers buy and sell carbon credits to cover their production needs. Government each year reduces the total supply of credits forcing a total production reduction.

What It Will Mean to You

Producers that cannot reduce production inline with cap reductions need to buy more credits - this has the deterrent effect of a tax. While more energy-efficient companies have an opportunity to sell carbon credits – this represents an opportunity to innovate and make money. In both cases there will be a need to track the amount of carbon generated and to document changes. In the United States, companies are already trading "voluntary" allowances on the Chicago Climate Exchange. And, last month, U.S. President Barack Obama stated his support for a "market-based cap on carbon pollution" in his first address to Congress.

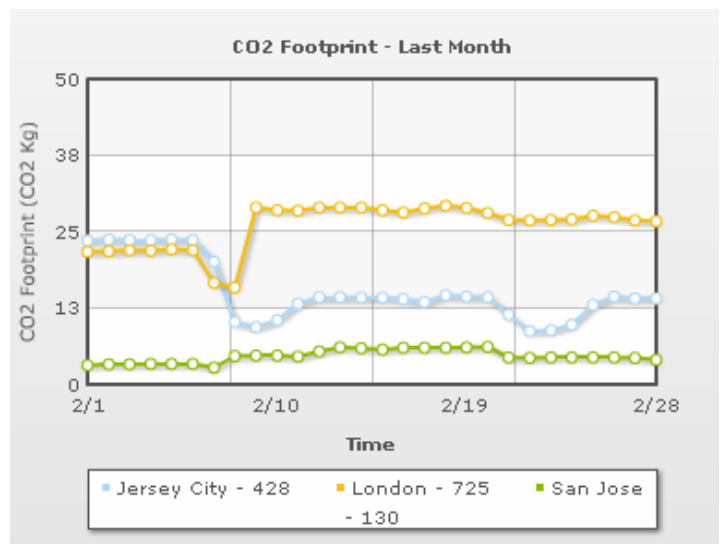
How Raritan Can Help

As a global company, Raritan has seen the effect of carbon cap and trade on our data center customers in Japan.

"Increasing demand for energy is becoming a big issue," said Koji Hamano, Manager-Network Solutions Group at TID Limited – a Raritan authorized partner in Japan. "The challenge for the data center

is to use energy more efficiently. Various reporting functions of Raritan's Power IQ solution, such as tracking and reporting carbon footprint information, and the changes over time, are crucial for managing energy usage in data centers. The combination of Raritan's Power IQ and Dominion PX intelligent power distribution units is the ideal solution for taking steps towards Green IT."

According to Macnica Networks Corp.'s Daisuke Kaneko, there is a real need for tracking energy usage over time. "In accelerating Green IT initiatives in Japan, companies not only need to measure power consumption, but they need visibility of power-usage statistical data over a certain period," said Mr. Kaneko, Macnica's Director-Business Promotion Dept. in Japan. "We see Power IQ as the IT manager's 'must have' tool in order to have a full grasp of their data center's carbon footprint and power bill."



Raritan's Power IQ tracks and generates energy usage reports based on all types of granular power information gathered at the IT device level to help IT and operations managers analyze power-related issues ranging from IT energy costs to carbon emissions resulting from energy consumed by IT devices. Power IQ collects device-level power consumption information from servers and other IT devices plugged into intelligent power distribution units (PDUs), including Raritan's Dominion® PX and a wide range of third-party rack PDUs including APC, Geist, HP and Sever Technology. The software also tracks data center temperature and humidity information collected by Raritan's environmental sensors.

With an effective Data Center Energy management system such as Power IQ you will be able to report energy usage and changes, become more energy efficient and lower your carbon footprint.



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