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Will Your Next Data Center Be Solar Powered?

Think that solar power can't power data centers? Think again. i/o Data Centers, an IT infrastructure provider in Phoenix is in the process of deploying a massive array of solar panels that will generate up to 4.5 megawatts of electricity to help power its giant data center.

Data Center Knowledge reports that the solar installation:

> will dwarf all previous efforts to integrate solar power into a working data center. Its output will be nearly three times the 1.6 megawatts produced by the solar panels covering the roof of the Googleplex.

By January 2010, the first phase of deployment will be complete --- 5,000 solar panels that will will generate 500 kilowatt-peak (kWp). The array will be expanded over time to reach its full capacity of 4.5 megawatts some time in 2010.

The 4.5 megawatts will only power a fraction of the entire data center, which will consume a massive 80 megawatts.

Even though solar will power only a fraction of the data center, it may still save the company 50% of its energy bill because of the unique way the company has come up with using on-site thermal storage to time-shift when it is charged for the use of electricity. There's no room for details here, but check out the article for how it's going to be done.

What does this mean for your data center? Most likely, you don't have a massive one like i/o Data Centers, and so there's a theoretical possibility you could power your data center by solar power --- if you live in a state like Arizona, at least. More likely, though, is that you may end up using solar for at least part of your data center. Using the energy of the sun to power your IT resources may not be a pipe dream, after all.