

GreenerComputing

Resources for environmentally responsible computing

Published on GreenBizSite (<http://www.greenercomputing.com>)

New Data Center from ADC to Earn LEED Platinum Certification

By GreenerComputing Staff

August 5, 2008

[Advanced Data Centers](#) announced today that its newest data center facility, on the site of the former McClellan Air Force Base, is the first to achieve LEED Platinum pre-certification from the U.S. Green Building Council for its use of green building features.

The 236,000 square foot facility was built with both economic and environmental considerations in mind, although ADC's Chief Data Center Architect, Bob Seese, explained that LEED wasn't the goal from the start.

"We tried to build green, but we weren't thinking LEED," Seese explained. "But when you're building green, LEED adds some credibility to your green story, and it caused us to think a little more broadly than you otherwise would in data center design." Seese said the company's team thought more extensively about details like what kinds of materials are used in the site, finding those materials as close to the site as possible, how those materials are shipped to the site, and other factors.

The selection of the McClellan Business Park, located on the site of the former U.S. Air Force Base, gave ADC some low-hanging fruit for LEED points, according to Seese: as a brownfield site, the company earned points for building and rehabilitating that site, but because of cool winters and often cool nights and mornings in the Sacramento area, Seese said the facility will be able to use outside air for cooling the data center for 75 percent of the year by using air-side economizers.

In addition to using outside air cooling, grey water from the site itself for landscaping, plumbing and cooling towers, ADC has also incorporated energy efficient technologies and designed the facility to reduce its power use. Company president Michael Cohen said that as a result of their cumulative efforts, the data center's Power Usage Effectiveness (PUE) -- the amount of energy needed to cool one watt of power in a data center -- is 1.12, compared to an average PUE ranging from 1.8 to 3.

ADC was able to achieve this low PUE through a range of design choices: making air and water flow as efficient as possible; pressurizing the cool aisles of the data center, and drawing the air from the hot aisles out of the facility to ventilate in the open air; using a system of rotating UPSes, which in addition to being 97 percent energy efficient, allows ADC to store the UPSes outside of the data center itself, saving on cooling costs.

Although this is the company's first LEED-certified data center, Seese says that green data centers, and green IT as a whole, is the industry's future. He said that every one of the clients he's spoken with has already begun looking at green initiatives, and more and more data center designers and contractors are learning how to build green, making these types of facilities all the more feasible for the near future.

"I can't even imagine us not doing this in the future -- it just makes sense," Seese said. "From a fiscal sense, from an environmental sense, it's just the right thing to do."

Source URL: <http://www.greenercomputing.com/news/2008/08/05/adc-data-center-lead-platinum>

Links:

[1] <http://www.adatacenters.com>