



ADC lands Platinum LEED pre-certification for new Sacramento facility

## Sustainable techniques and technologies such as "free cooling" bring the facility's PUE down to just 1.1

By Ted Samson

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ADC (Advanced Data Centers) has raised the bar for datacenter greenness and efficiency, laying claimed to the industry's first LEED (Leadership in Energy and Environmental Design) Platinum pre-certified datacenter at the McClellan Park facility in Sacramento, Calif. On top of that unprecedented metallic hue, ADC -- a developer and operator of datacenters -- claims the facility will boast a PUE (Power Usage Effectiveness) of 1.1, indicative of remarkably high power efficiency.

LEED? PUE? What do these acronyms mean? LEED is a nationally accepted benchmark for the design, construction, and operation of high-performance green buildings, developed by the U.S. Green Building Council. It recognizes sustainability performance in key areas, including sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality.

[ For more on LEED-certified datacenters, please read [Digital Realty mines energy savings from LEED Gold.](#) ]

[PUE](#), meanwhile, is a metric devised by the Green Grid. It's determined by dividing the amount of power entering a data center by the power used to run the computer infrastructure within it. The closer to one, the better, and the industry average ranges from 3 to 1.8, according to ADC. Thus, the 1.1 rating of the facility will set high efficiency bar for datacenters.

[ For more on PUE and its counterpart, DCE, please read ["Green Grid's metrics sow seeds for IT sustainability."](#) ]

According to ADC, the 1.1 PUE reduces the energy required to operate the datacenter by over 50 percent and lowers the total cost of datacenter ownership to the customer. "The energy use of the ADC data center meets a recently considered impossible to achieve PUE of 1.1. With an energy savings of \$1 million to \$2 million per year this project stands to be the largest energy savings achieved ever in Sacramento and indeed the rest of California," said Peter Rumsey, President of Rumsey Engineers, in a prepared statement.

The achievement also means lower carbon emissions associated with the facility, which will yield 8MW of power on 40,000 square foot of floor space.

ADC execs readily admit that they embraced LEED standards as a baseline, not for the sake of simply helping the planet but because of the cost-savings they'd reap from the efficiency of a green design. "We were trying to find a green datacenter design that focused on efficiency. We're using LEED as a baseline for what we're doing. The real savings and the real green datacenter, we believe, is in finding efficiency," said Michael Cohen, CEO of ADC.

ADC also sought the lowest energy rates it could in choosing the Sacramento area for its datacenter. "SMUD [Sacramento Municipal Utility District] has the lowest priced utilities in California," said Cohen. "It's 50 percent less than PG&E."

Following are some of the characteristics of the McClellan Park datacenter that helped it achieve its Platinum pre-certification:

- The facility draws on outside air to cool the datacenter 75 percent of year, which means the ADC can turn off the pumps and chillers, a technique known as "free cooling" that can result in substantial savings;
- the facility captures 100 percent of rainwater runoff from building. It then uses that water, as well as recycled water, for landscaping, restrooms, and cooling tower backup;
- it uses shade and reflective materials to reduce a "heat island" effect;
- and the building employs natural daylight to illuminate the building for occupants.

Despite earning the LEED Platinum pre-certification, there's much more work to be done on the building. ADC expects the datacenter to open at the end of next year.