# GREEN DATA CENTER USES DIRECT CURRENT TO SAVE ENERGY

Some data centers use natural underground reservoirs to cool their servers and cut their power usage effectiveness (PUE), or the relationship between energy used for the computing and energy used by the building.

This week, Green data center announced another potential solution to save energy: the world's most powerful direct current (DC) data center. Since transforming energy between alternating current and direct current creates heat, Green has opted to run a portion of their servers purely on DC, reducing the transformation steps from around five to just two.

With DC-capable servers from HP and DC technology from ABB, Green data center hopes to save 10-20% on energy costs. For a 10 MW fully DC data center, that's equivalent to saving the energy generated by this wind turbine.

"To many people, the cloud is in a way a very esoteric concept. People think that because they're carrying these little objects around that it doesn't affect the environment," said Dr. Anne Wiggins of EcoCloud. "The fact that all this information is streaming down to me personally and to hundreds of millions of people around the world… It uses a lot of energy."

People will likely never carry signs reading "Use paper! Save an electron!" but greening data centers with natural reservoirs, renewable energy and DC technology saves energy. Whether more data centers will follow suite with DC servers remains to be seen.

Source: http://earthandindustry.com/2012/06/green-data-center-uses-direct-current-to-save-energy/