

Google Invests in Wind Energy for Data Center Power

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It is no secret that it takes a massive amount of energy to run a large data center, and service providers are looking into cleaner and more energy efficient ways of running them. This not only gives companies good PR, but can alleviate future costs associated with renewable energy. Google is among the companies investing in these clean energy sources and it is particularly taking a keen interest in wind farms.

Google has recently invested \$200 million in its Spinning Spur wind farm that is located in West Texas. The search giant has also announced a plan to use 48 megawatts of wind energy from the Grand River Dam Authority (GRDA), in order to power its Oklahoma data center.

These latest trends show how serious Google is about wind energy and how large the company's investment is in this direction. According to [VentureBeat](#), these projects and other acquisitions have brought Google's investments into renewable energy at 2 gigawatts by January, 2013. This is enough to power 500,000 U.S. Homes.

Canadian Hills Wind Farm

According to [Power-Technology.com](#), Google deal with Grand River Dam Authority took place late September 2012. Google has purchased the rights to use 48 megawatts of wind energy from the GRDA's Canadian Hills wind farm located in El Reno, Oklahoma.

The wind farm is capable of outputting 298 megawatts of wind energy at full capacity. Access to its power is controlled by Atlantic Power and shared among Grand River Dam Authority, Southwestern Electric Power Authority, and the Oklahoma Municipal Power Authority. Google is only investing in GRDA's position in the larger deal with Atlantic Power.

Google has agreed to use this for its Oklahoma datacenter in Mayes County. According to an Apex Wind Energy [press release](#), the wind farm was already operational since December 22, 2012 but completion on the project took place January 21, 2013. Apex was the developer and construction manager of the project.

You can check out more information about Google's Oklahoma datacenter directly from Google [here](#).

Spinning Spur Wind Farm

Google's 48-megawatt deal with GRDA in Oklahoma is a nice project showing Google's wind energy push for the datacenter. However, Google has recently made a larger deal in Texas.

On January 9, 2013 Google [announced](#) that it has put invested \$200 in the Spinning Spur wind farm that is located in Oldham county, Texas. The wind farm offers 161 megawatts of power and Google will be able to use enough energy from this location to power an average of 60,000 U.S. Homes.

The wind farm was constructed by EDF Renewable Energy. According to the company's [website](#), the wind farm comprises of 28, 426 acres and it became operational in December of 2012 (like Canadian Hills if you recall). Besides Google, the power generated at the wind farm has been utilized by Southwestern Service Company – this was part of a 15-year power purchase agreement.

Although Google has not mention how exactly it will be using this energy, there is a datacenter located in Houston, Texas, according to [DatacenterKnowledge.com](#). The company is also very secretive about its data center operations in general. However, the distance between this datacenter and the wind farm is probably too far for it to be used effectively since the two [locations](#) are literally on opposite parts of the state. On the other hand, wind farms convert energy directly into electricity grid so it can still benefit.

These two projects or energy acquisitions show Google's interest in wind energy, but the Search giant has also been investing in other green solutions. Other notable projects from Google include [Atlanta Wind Connection](#) – which is an offshore wind project in process of being constructed -- and a [partnership](#) with SolarCity in order to fund solar projects.

It will be interesting how many of these projects will deal directly with datacenters as compared to other energy initiatives. Although the wind energy from Canadian Hills has been specifically mentioned for the Oklahoma datacenter, Spinning Spur and some of the other projects haven't been specified. Datacenter power would seem to be at the forefront of these initiatives however as many industry professionals feel they have not been powered as efficiently as possible.

Sources:

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Also try to contact Google directly via: press@Google.com and Google Director of Global

Infrastructure Gary Demasi (haven't found his contact yet). I will ask how far the Canadian Wind Project in Oklahoma has gone, if the Oklahoma data center is already operating using the wind energy and the aim of the Spinning Spur wind farm project.