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Greenpeace issues warning about data centre power



Greenpeace on a previous protest outside a power station in Beijing.

Greenpeace is calling on technology giants like Apple, Microsoft, Yahoo and Facebook to power their data centres with renewable energy sources.

Their electricity often comes from utility companies which generate power from burning coal, says the group.

Greenpeace estimates that data centres will use 1,963 billion kilowatt hours of electricity by 2020.

That is more than the power currently consumed by France, Germany, Canada and Brazil combined, says the campaigner.

"Growth in the IT industry is leading to a fast growing carbon footprint," Tom Dowdall, greener electronics campaign coordinator at Greenpeace, told BBC News.

With the launch of portable online devices such as smartphones, netbooks and the imminent release of Apple's iPad, cloud computing is becoming mainstream, said Mr Dowdall.

It means more data is being stored remotely on servers owned by the technology companies, so that it can be accessed from wherever the user has an internet connection.

So firms are investing in building massive data centres to cope with the demand, and focusing on energy efficiency rather than tackling the original source of power, claims Greenpeace.

Facebook under fire

In January 2010 Facebook announced the development of its first custom-built data centre in Prineville, Oregon.

The building will contain various energy-efficient technologies, but Facebook admits that Pacific Power, the utility company that will provide it with electricity, uses more coal than the US average as a source.

To keep energy consumption to a minimum, Facebook's servers will be kept cool using fresh

air rather than traditional air conditioning, with an evaporative cooling system kicking in when the climate is too warm.

It is a similar system to the "free air" cooling system installed by Microsoft in its Dublin-based data centre which opened in 2009.

The centre earned praise from the European Commission's Sustainability Energy Europe Campaign for its environmental practices.

Facebook also says it is using a new system that will cut its electricity consumption by up to 12%.

However, 365,000 people have joined a group set up by Greenpeace on the Facebook website calling on the social networking giant to drop energy suppliers who use coal.

Facebook denied that it was "choosing" to use coal, and argued that all data centres must rely on power supplied by the local grid.

However Microsoft has a data centre in Quincy, Washington which it claims operates on "100% hydropower" from the Columbia River Basin.

Mr Dowdall also praised Yahoo for using hydro power in its new data centre in Buffalo, New York.

"We would like to see more examples of companies using purchasing power to drive an increase in renewable capacity," he said.

"Our ultimate goal is for them to advocate for better renewable energy policy locally."

Greenpeace plans to issue a full report later in the year.

Both Apple and Yahoo did not respond to request for comment.