

# EARTH TALK

Questions & Answers About Our Environment

**Dear EarthTalk:** Why is Greenpeace upset with some leading tech companies for so-called "dirty cloud computing"? Can you explain?

— Jeremy Wilkins, Waco, TX

Leading tech companies like Google, Apple and Microsoft are now offering unprecedented amounts of data storage and access to "apps" on huge Internet-connected servers, saving consumers and businesses the hassle of installing and running programs and storing information on their own local computers.

This emerging trend, dubbed "cloud computing," means that these providers have had to scale up their power consumption considerably, as they are increasingly responsible for providing more and more of the computing horsepower required by the world's two billion Internet users.

No doubt, sharing such resources on centralized servers is more efficient than every individual and business running their own versions separately.

In fact, the research firm Verdantix estimates that companies off-loading data and services to cloud servers could save \$12 billion off their energy bills and reduce greenhouse gas emissions by 85 million metric tons within the next decade.

But for the greenhouse gas savings to be realized, the companies offering cloud computing services

need to make the right energy choices.

Greenpeace has been tracking sustainability among tech companies for over a decade, and recently released a report, "How Green is Your Cloud?" assessing the green footprint of the move to cloud computing.

According to the analysis, some of the major players (Google, Facebook and Yahoo) have gone to great lengths to ensure that significant amounts of the power they need come from clean, green sources like wind and solar.

But Greenpeace chastises others (Apple, Amazon and Microsoft) for relying on so-called "dirtier" sources of power, such as coal and nuclear, to run their huge data centers.

"When people around the world share their music or photos on the cloud, they want to know that the cloud is powered by clean, safe energy," says Gary Cook, a Senior Policy Analyst with Greenpeace.

"Yet highly innovative and profitable companies like Apple, Amazon and Microsoft are building data centers powered by coal and acting like their customers won't know or won't care. They're wrong."

Greenpeace's report evaluates 14 major tech firms and the electricity supply chains in use across more than 80 different data centers that power cloud-based services.

Some of the largest data centers are in buildings so big they are visible from space and use as much power as 250,000 European homes. If the cloud were its own country, says Greenpeace, it would rank 5th in the world in electricity consumption.

"Companies like Google, Yahoo and Facebook are beginning to lead the sector down a clean energy pathway through innovations in



**Earth Summit in Rio de Janeiro, Brazil:** The United Nations Conference on Sustainable Development is a new attempt in a new millennium to "lay the foundations of a world of prosperity, peace and sustainability." It's scheduled for June 20-22. (Photo courtesy of Artyom Sharbatam)

energy efficiency, prioritizing renewable energy access when siting their data centers, and demanding better energy options from utilities and government decision-makers," reports Greenpeace.

But unfortunately the majority of the industry is not marching in step.

As such, Greenpeace is calling on all tech companies with cloud services to develop siting policies based on access to clean energy sources.

Those policies include: invest in or directly purchase renewable energy,

be transparent about their energy usage, share innovative solutions so the sector as a whole can improve, and demand that governments and utilities increase the percentage of clean, green power available on the grid.

Contacts: Verdantix, [www.verdantix.com](http://www.verdantix.com); Greenpeace, [www.greenpeace.org](http://www.greenpeace.org).

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## Dining Out Guide!

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