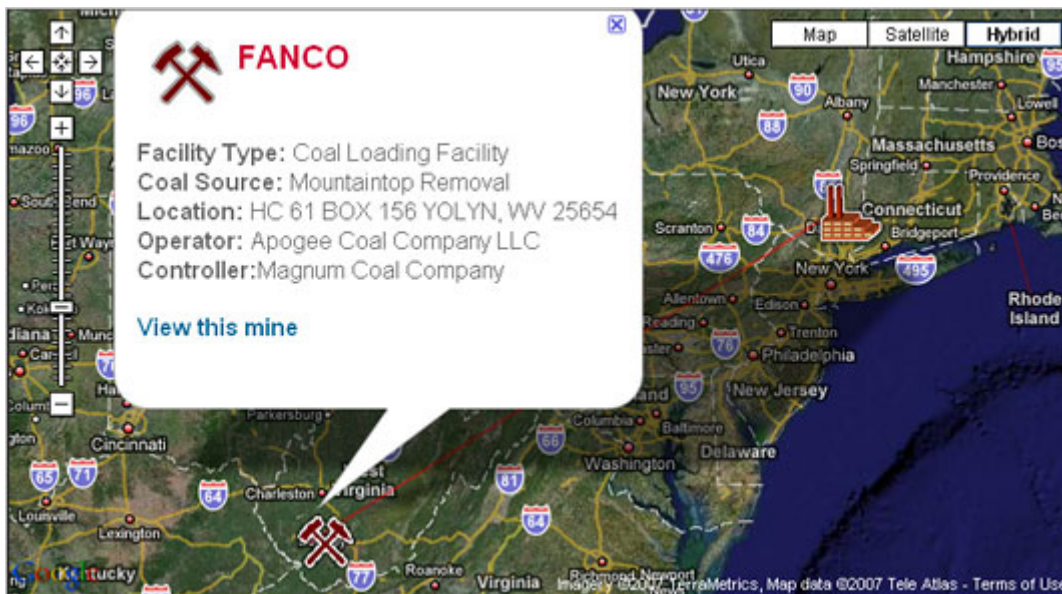# The New York Times

Connecting the Energy Dots

By Andrew C. Revkin, 11/16/07

Andrew C. Revkin's search for his mountaintop coal sources. (Credit: Appalachian Voices)

One of the biggest challenges for anyone seeking to change energy habits is the invisibility of power sources. Just plug something in and it works, whether the electricity comes from an antiquated boiler heated with coal stripped from a mountaintop, or from a nuclear reactor, or a windmill or a dam.

Now some environmental campaigners are trying to reveal hidden connections using the Web, with the hope that awareness will change consumer's habits or prompt them to press power providers to clean up. In the last few days, three online tools have been launched, showing links between utilities and Appalachian mountaintop coal mines, a list of proposed coal-burning plants and the amount of carbon dioxide emissions from thousands of power plants and utilities around the world.

The global database, charting emissions from 50,000 plants owned by 4,000 companies, is called Carbon Monitoring for Action, with maps and search tools at carma.org. The site, created by the nonprofit Center for Global Development, is billed as "the world's best place for power-plant voyeurism."

Plants are color coded (red is bad) based on the amount carbon dioxide emissions created per unit of electricity. On the map, China is nearly hidden by a cluster of red balloons.

The Sierra Club has created a New Coal Plant Tracker, a state-by-state guide to where new coal-burning power plants are planned, indicating the efficiency of the design, the anticipated amount of electricity and carbon dioxide emissions, and other information.

Finally, the nonprofit group Appalachian Voices has created ilovemountains.org/myconnection, which allows visitors to type in a ZIP code and find out if their utility sells electricity produced with coal mined from mountaintops in that region. On Google Maps, lines connect the dots from your utility to coal-burning power plants (which are usually owned by another company) and then on to the coalfields from which the fuel was extracted.

In my case, I punched in my ZIP, 10524, and up came the Danskammer Generating Station, a coal-burning plant down the Hudson River, owned by Dynergy Power, which sells electricity to Central Hudson, my utility. A red line on a Google map runs southwest to a surface mine in Yolyn, West Virginia.

Power providers are likely to echo John Maserjian, a spokesman for Central Hudson, who said he couldn't see how the group could justify drawing such lines given that the utility buys its power from the grid through the New York Independent System Operator, not from individual plants.

But Mary Anne Hitt, the executive director of the anti-mining group, which is based in Boone, N.C., was unmoved.

She did acknowledge that there was no way to quantify just how much of the electricity I was buying came from mountaintop coal. But she said the lines connecting utilities to mines are derived using four government databases: one that connects ZIP codes to power grids, one that shows which power plants are on each power grid, one that tracks coal transactions to power plants (every power plant that has transactions with a coal mine appears in that table), and a fourth that identifies the operators of the mines.

"While Central Hudson may not technically buy power from specific power plants, they are buying it from a grid that is fed by coal plants using mountaintop removal coal," she said.

Where does your electricity come from?