

Energy 'Sprawl' and the Green Economy

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Is the federal government showing any concern about this massive intrusion into the natural landscape? Not at all. I fear we are going to destroy the environment in the name of saving the environment.

The House of Representatives has passed climate legislation that started out as an attempt to reduce carbon emissions. It has morphed into an engine for raising revenues by selling carbon dioxide emission allowances and promoting "renewable" energy.

The bill requires electric utilities to get 20% of their power mostly from wind and solar by 2020. These renewable energy sources are receiving huge subsidies all to supposedly create jobs and hurry us down the road to an America running on wind and sunshine described in President Barack Obama's Inaugural Address.

Yet all this assumes renewable energy is a free lunch a benign, "sustainable" way of running the country with minimal impact on the environment. That assumption experienced a rude awakening on Aug. 26, when The Nature Conservancy published a paper titled "**Energy Sprawl or Energy Efficiency**: Climate Policy Impacts on Natural Habitat for the United States of America." The report by this venerable environmental organization posed a simple question: How much land is required for the different energy sources that power the country? The answers deserve far greater public attention.

By far nuclear energy is the least land-intensive; it requires only one square mile to produce one million megawatt-hours per year, enough electricity for about 90,000 homes. Geothermal energy, which taps the natural heat of the earth, requires three square miles. The most landscape-consuming are biofuels ethanol and biodiesel which require up to 500 square miles to produce the same amount of energy.

Coal, on the other hand, requires four square miles, mainly for mining and extraction. Solar thermal heating a fluid with large arrays of mirrors and using it to power a turbine takes six. Natural gas needs eight and petroleum needs 18. Wind farms require over 30 square miles.

This "sprawl" has been missing from our energy discussions. In my home state of Tennessee, we just celebrated the 75th Anniversary of the Great Smoky Mountains National Park. Yet there are serious proposals by energy developers to cover mountains all along the Appalachian chain, from Maine to Georgia, with 50-story wind turbines because the wind blows strongest across mountaintops.

Let's put this into perspective: We could line 300 miles of mountaintops from Chattanooga, Tenn., to Bristol, Va., with wind turbines and still produce only one-quarter the electricity we get from one reactor on one square mile at the Tennessee Valley Authority's Watts Bar Nuclear Plant.

The 1,000 square-mile solar project proposed by Mr. Salazar would generate, on a continuous basis, 35,000 megawatts of electricity. You could get the same output from 30 new nuclear reactors that would fit comfortably onto existing nuclear sites. And this doesn't count the thousands of miles of transmission lines that will be needed to carry the newly generated solar power to population centers.

There's one more consideration. Solar collectors must be washed down once a month or they collect too much dirt to be effective. They also need to be cooled by water. Where amid the desert and scrub land will we find all that water? No wonder the Wildlife Conservancy and other environmentalists are already opposing solar projects on Western lands.

Renewable energy is not a free lunch. It is an unprecedented assault on the American landscape. Before we find ourselves engulfed in energy sprawl, it's imperative we take a closer look at nuclear power.

Mr. Alexander is a Republican senator from Tennessee and a member of the Senate Environment and Public Works Committee.

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