



A Natural-Gas High

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Thanks to the Warner-Lieberman bill's ambitious greenhouse gas reduction targets and the lack of low-carbon energy sources in the short term, the U.S. can anticipate a massive switch from coal to natural gas by the power industry. Senate debate on the bill started Monday, and calls for 2005-level carbon emissions starting in 2012.

Switching from coal to natural gas will drive up both the demand and the price of natural gas (the only low-carbon alternative) to unprecedented levels, which will in turn further erode the number of U.S. manufacturing jobs.

Limited natural gas supply capacity will pit power-sector purchases in direct competition with demand from the residential, commercial, farm and manufacturing sectors. There is nothing in the bill that will stop a potential national crisis, one that is already underway in anticipation of these carbon constraints.

Simply setting a cap on carbon emissions does nothing to remove the barriers to greater natural gas supply. The lack of low-carbon energy alternatives for power generation (at least until new nuclear and coal-fired power plants with carbon capture to reduce emissions become more commonplace) means that natural gas is the default low-carbon energy option. In fact, none of the potential low-carbon energy alternatives will be available by 2012 except natural gas, the year the bill first imposes these stringent limits.

Energy efficiency, conservation and renewable energy will be helpful, but those options will not prevent the crisis that will ensue when companies are forced to decrease their emissions.

Because natural-gas-fired power generation is setting the marginal price for electricity in a growing portion of the country, as natural gas prices go up, so will the price of electricity. Homeowners, farmers and manufacturers could pay exorbitant prices, multiples higher than government forecasts.

It will make little difference, though, to most electric utilities if the price of natural gas goes up. Most state public-service commissions readily approve an automatic pass-through for energy costs to the rate payer. That means utility companies won't be adversely affected--but residential, commercial and industrial consumers will.

Most U.S. manufacturers compete on a global basis, and will thus be acutely affected by further increases in natural gas prices. Natural gas prices are about 50% higher than a year ago. These elevated prices have already contributed to the loss of 3.3 million manufacturing jobs; that's 19.2% of all manufacturing jobs since 2000.

The bill actually provides financial incentives for an electric utility to switch from coal to natural gas. If a power generator does make the switch, it could avoid having to purchase carbon allowances, or it could make a profit by selling the carbon reduction to other companies.

These perverse incentives will significantly *increase* electric power production from existing natural gas power plants that are currently only being used for peaking power.

None of this would be a problem if we had plenty of natural gas production capacity, but U.S. production of the commodity is fragile, despite record well completions. According to Energy Information Administration data, U.S. dry production from 2000 to 2007 is flat, while total demand rose 9.8%. It's surprising but true: Today's domestic natural gas production isn't much different now than it was in the 1970s.

The lack of globally competitive natural gas prices is already causing our country to import larger quantities of our products and displace domestic production. Products like chemicals, plastics, fertilizer, steel, aluminum and paper can be made here--and open up well-paid jobs to workers in those industries--or we can continue to increase our import dependency on other countries. Imports from 2003 to 2007 rose a staggering 78.3%, according to an analysis of 16 U.S. Census Bureau industry product categories.

In the end, the Warner-Lieberman bill could mark the final demise of the energy-intensive manufacturing industries that rely upon globally competitive energy to survive.

That is unfortunate, because these are the same industries that provide the enabling product solutions our country will need to meet the climate challenge in the long term: fiberglass insulation, lightweight materials for vehicles, plastic composites for wind turbines, silica for solar panels, fertilizer to expand crop supply and double-pane windows. Demand for these products will continue to increase; it's only a question of whether they will be produced domestically or imported.

Because the emission-reduction timetable of the bill does not coincide with alternative low-carbon options for the power sector, natural gas and electricity prices will rise substantially above government forecasts and emission-reduction targets may be achieved at the expense of manufacturers who will send their jobs offshore--along with their carbon emissions--to be another country's problem.

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