



President Obama's Energy Independence Plan Misses the Point

By Christianne Carin
July 30, 2009

During the recent Earth Day festivities around the nation, President Barack Obama visited Newton, Iowa where the site of a shuttered Maytag Corp. appliance factory has been replaced by a wind energy plant. In a town of 16,000 people, 30 miles east of Des Moines, some 4,000 people previously had worked building washers, dryers and refrigerators. Now, Trinity Structural Towers has about 90 people working at the closed Maytag site with about 50 more jobs expected.

Obama used the occasion to highlight his energy initiatives which are stalled on Capitol Hill. The president would like to see more domestic production of oil and natural gas, but he also said that the lion's share of our efforts should go towards moving the nation towards more renewable energy sources such as solar and wind. His goal, a worthy one to be sure, is energy independence.



While I applaud the President's interest in renewable resources, he may be missing a more crucial and immediate contributor to energy independence: implementing energy efficiency.

I'm not talking about replacing incandescent bulbs with compact fluorescents. That's fine, and if it makes consumers more energy aware, I am all for it. A much greater impact, however, is offered by using the country's existing energy sources more efficiently during industrial processes.

America needs to take advantage of this "fifth fuel," (after coal, nuclear, gas and oil) a vast pool of readily available and useful energy obtainable through implementing energy efficiency. In industry each year, nearly 60 percent of all energy in America is lost, leaving tremendous room for energy efficiency improvements using technologies available today. If we focus on efficiently and effectively utilizing our own domestic energy sources, we can consume less energy, reduce stress on our existing power grid, and America would take a giant step towards energy independence.

For example, the U.S. is blessed with a plentiful supply of clean burning natural gas. It's clean, cheap and domestic, but wasted through inefficient usage. Annually, the U.S. consumes nearly 8 quadrillion Btu of natural gas to generate electricity. On average, 68 percent of the consumed energy is lost, primarily through dissipated heat. At the same time, approximately 4 quadrillion Btu of natural gas are used by our manufacturing industries, specifically to produce heat for making everyday products. America can be far more energy efficient by bringing these two industries together.

Integrating decentralized electrical generation together with heat processing can reduce our total annual consumption of natural gas by approximately 3 quadrillion Btu. This saves enough natural gas to be used as an alternative fuel for vehicles, like buses, and slash our foreign oil imports by 10 percent. We can do this with technologies available today.

There are other advantages. A decentralized energy grid that brings power generation and manufacturing together reduces stress on our transmission and distribution systems. Electrical load and generation will be much more balanced, thus increasing system reliability and reducing power outages. This also can reduce the need to replace current infrastructure. For years, electrical utilities have asked Americans to use less electricity so they can delay new power grid projects that are expensive and disruptive ('New electrical towers? not in my

backyard')—and would be unnecessary if we use the electricity we have more efficiently.

Energy efficiency ultimately lowers energy costs for all Americans and our industries will be more competitive in the global landscape. This, in turn, would produce even more jobs as it increases demand for North American exports. Furthermore, less energy consumption through energy efficiency creates long-term environmental and public health benefits from cleaner air and water.

Vast amounts of money are spent each year on renewable energy resources. However, implementing energy efficient technologies now are the least expensive and most rapidly deployable solutions available today. The Department of Energy estimates that achieving a 20 percent generation from combined heat and power technologies by 2030, could save an estimated 5.3 quadrillion Btu of energy and reduce CO2 emissions by 848 million metric tons. About half of these savings can be achieved today by implementing commercially-available technologies that bring electricity generation and manufacturing together. This can generate \$111 billion in capital investments and create approximately 450,000 highly skilled technical jobs. Energy efficiency is the ultimate fuel and should be added to the renewable programs to support early and easier adoption.

It's uncertain exactly how America's future energy economy will develop over the next century; whether based on solar, wind, hydrogen or other technologies. What is certain, is that energy efficiency should be the cornerstone of any short and long term solution. This is something America can and must do today while we allow alternative technologies to mature.

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