

The Detroit News

August 25, 2008

Coal must remain vital state energy source

By Gary Wolfram

The debate over global warming and how much of it is man-caused has led to a further debate about the use of coal in energy production. Suggestions that we can eliminate or even greatly reduce the use of coal in the next several decades, however, are misplaced.

Al Gore and T. Boone Pickens aside, the idea that wind and solar energy are going to replace coal are fantasy. While it is possible that alternative fuels may make some market penetration, they all have nagging problems of development that are years from solving.

The idea that Michigan and the Great Plains can be a source of vast amounts of wind energy is not practical. Even with the advances in turbine technology, there are environmental problems, such as bird hazards and requiring vast tracks of land for wind farms. Plus, wind energy cannot be called upon constantly because of intermittence. The transmission grid would have to be substantially changed at the cost of billions of dollars to accommodate wind farms of a size large enough to have any affect on coal usage.

Coal is the source of more than half of the nation's eclectic power generation, and nearly 60 percent of Michigan's. The next largest sources in Michigan are nuclear at 26.2 percent and natural gas at 11.6 percent. Renewable energy sources remain a small fraction of the market, about 2.6 percent in Michigan (wind energy is close to zero) and, other than hydroelectric, 2.8 percent nationally.

A major study by scientists at the Massachusetts Institute of Technology reported that "We believe that coal use will increase under any foreseeable scenario because it is cheap and abundant." The cost of heat energy from coal is six times less than for natural gas and oil. It is located in more secure areas of the world than oil. The United States has by far the largest coal reserves, estimated by the Energy Information Administration of the Department of Energy as enough to meet domestic demand for about 250 years.

The MIT study assumed the U.S. and other governments "should and will take actions to reduce the emissions of CO₂ and other greenhouse gas emissions." Significantly, its second premise is that "coal will continue to play a large and indispensable role in a greenhouse gas-constrained world."

There have been advances that reduce flue-gas emissions from coal-fired power plants. These include coal-cleaning, electrostatic precipitators, flue gas desulfurization and coal

gasification. The MIT study found the most promising way of reducing greenhouse gas emissions is carbon dioxide capture and sequestration.

Worldwide, far more coal is being burned today than in the past. China is building the equivalent of two 500-megawatt coal-fired power plants each week. It has the third largest reserves of coal in the world and India has the fourth. The Energy Information Administration predicts that there will be a large increase internationally in electricity demand, and that coal-fired electricity generation growth will exceed 3 percent a year.

The fact is that coal will continue to be a primary source of energy in Michigan, the United States and the world because of its economic advantages and abundance. Public policy in Michigan and nationally is best served by accepting these realities.

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