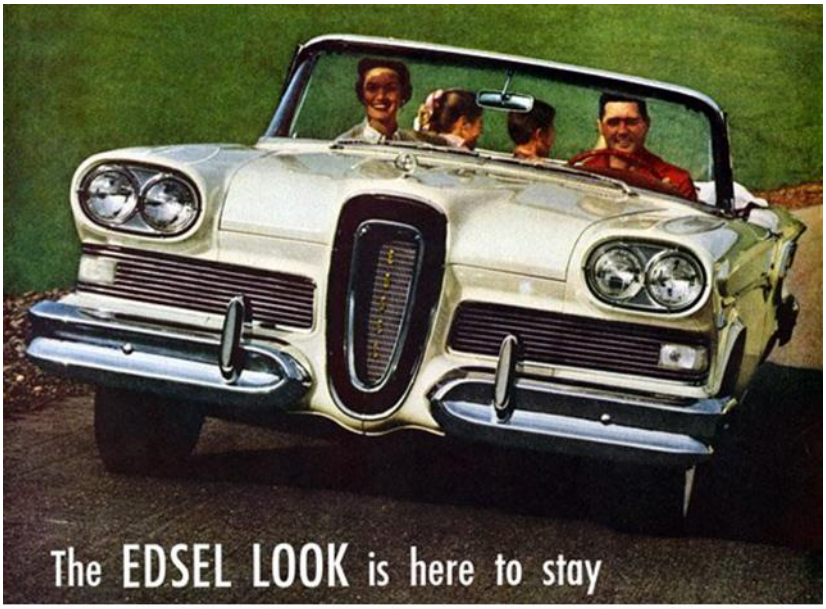

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Carbon capture and storage—the Edsel of energy policies

By Steve Goreham

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The war on climate change has produced many dubious “innovations.” Intermittent wind and solar energy sources, carbon markets that buy and sell “hot air,” and biofuels that burn food as we drive are just a few examples. But carbon capture and storage is the Edsel of energy policies.

Carbon capture and storage (CCS), also called carbon capture and sequestration, is promoted by President Obama, the Department of Energy (DOE), and the Environmental Protection Agency (EPA) for coal-fired power plants. In September, the EPA proposed a limit of 1,100 pounds of CO2 emissions per megawatt-hour of electricity produced, a regulation that would effectively ban construction of new coal plants without CCS.

Coal is the world’s fastest growing hydrocarbon fuel. Increased use of coal by developing nations boosted coal use from 24.6 percent of the world’s primary energy supply in 1973 to 28.8 percent in 2011. Wind and solar remain less than one percent of the global energy supply. Proponents of the theory of man-made warming realize that world use of coal will remain strong for decades, so they insist that coal plants use CCS to limit CO2 emissions.

CCS requires capturing of carbon dioxide, a normal waste product from the combustion of fuel, transporting CO2 by pipeline, and then storing it underground. EPA Administrator Gina McCarthy says, “CCS technology is feasible and it’s available.”

Carbon capture is feasible, but it’s very expensive. The DOE estimates that CCS increases coal-fired electricity cost by 70 percent. This does not include the additional cost of building pipelines to transport the carbon dioxide and the cost of establishing

reservoirs to store the CO2 underground.

An example is Southern Company's planned coal-fired plant with CCS in Kemper County, Mississippi, which is scheduled to begin operations in 2014. With recent cost overruns, the Southern Company now estimates a $4.7 billion price tag for the 582-megawatt plant. This exceeds the price of a comparable nuclear plant and is almost five times the price of a gas-fired plant.

The DOE pledged $270 million in funding for the Kemper County plant along with a federal tax credit of $133 million. Mississippi customers will be socked with a $2.88 billion electricity rate increase to support the plant.

Nine US plants currently capture CO2 as part of normal industrial processes, such as natural gas or chemical refining and fertilizer production. All nine facilities sell CO2 to the petroleum industry for Enhanced Oil Recovery (EOR), a process which pumps CO2 into the ground. The Kemper County plant will also provide CO2 for EOR. Another ten US projects are underway to capture CO2 and most of these projects are subsidized with federal money.

Ford spent $350 million on the Edsel, the most famous car failure in history. But CCS is a much bigger financial boondoggle. From 2008 through 2012, governments committed to spend more than $22 billion on CCS projects. The United States leads the way with a commitment of more than $5 billion.

Despite support by US and world governments, carbon capture is not headed for success. A report released by the Global CCS Institute this month shows that international investment in CCS is now in decline. During the last year, the number of large-scale CCS projects declined from 75 to 65. Five projects were cancelled and seven were put on hold, with only three new projects added. The institute reports that private organizations are not investing in CCS.

The number of CCS projects in Europe has declined from 21 to 15, where no new project has entered commercial operation since 2008. The Global CCS Institute states that an "urgent policy response is required" for success. In other words, governments must impose carbon taxes and provide big subsidies for CCS.

Would carbon capture really have a measureable effect on global warming? CO2 emissions from power plants total less than one percent of the carbon dioxide that naturally enters the atmosphere each year from the oceans, the biosphere, and other natural sources. If the world fully implements CCS, it's unlikely that we could detect a change in global temperatures.

But, worse than this, if the theory of dangerous man-made global warming is false, CCS becomes an expensive solution to a non-problem. When the dust of history settles and the ideology of Climatism fades away, failed CCS projects will be remembered as the Edsel of energy policies.

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