



Michelle Mogavero/Staff

BRAVE NEW WORLD: Greenville County Council Chairman H.G. "Butch" Kirven speaks at the opening of the county's new methane-powered electric plant at the Enoree Landfill near the Spartanburg County line.

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Green garbage

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Green is the new red, white and blue so far as America's survival is concerned, and South Carolina could play a pivotal role in the ongoing battle for energy independence, experts say.

Greenville County's government has installed generators that turn methane into electricity at the Enoree Landfill. The two 20-cylinder methane-fired generators will provide enough electricity for 2,000 homes or perhaps at some future date an undetermined number of flex-fuel, plug-in electric hybrids with a high ratio of miles to gallon of petroleum product used.

The project puts methane to a beneficial use while taking the extremely potent greenhouse gas out of circulation.

It is but one example of what has become a national preoccupation with fuel, begun with high prices at the pump, greenhouse gases and America's dependence on oil. Not just foreign oil, but all oil as it relates to transportation.

The United States has 3 percent of the world's oil reserves but uses 25 percent of the world's total production. The Arab

world of OPEC holds 70 percent of all the oil that exists.

"So long as oil is the currency, America loses and OPEC wins," said Anne Korin, co-director of the Institute for the Analysis of Global Security, a Washington D.C.-based conservative think tank that directs attention to the strong link between energy and security.

James R. Frederick, a professor at the Pee Dee Research and Education Center who specializes in switchgrass research, says the plant has the potential of yielding eight units of energy for every one unit of energy put in to producing and processing the crop.

"Switchgrass is a plus, plus, plus with

the potential of saving drivers in South Carolina 250 million gallons of gasoline a year if just 10 percent of the total petroleum use in the state is replaced with switchgrass alcohol," he said.

Using existing technology and for about \$100 per new vehicle, every new car in America could be an ecologically green flex-fuel car in about 17 years, Korin told an audience at Greenville's ICAR recently.

That would effectively gut the Arab world's stranglehold on the West's transportation sector.

The United States has the technology to do it. There is alcohol in commercially viable amounts, and it would require no costly spate of converting to natural gas engines or waiting for hydrogen years down the road - if at all. What's missing is political will, she said.

Korin urged Upstate residents to push their senators and congressmen to support an open fuel standard for new vehicles in the United States when it comes up in Congress next year. An open fuel standard would start the nation down the road to a flex-fuel fleet of cars and trucks.

Conversion to flex fuel would also open the door for autos that operate at upwards of 500 miles per gallon of petroleum product used. A plug-in, flex-fuel, hybrid vehicle could approach that number by reducing petroleum's slice of the transportation pie to a sliver, Korin said. The rest would come from a variety of alcohols, the electric grid and a hybrid's use of kinetic energy to generate electricity.

And there are other factors that will be important to the state and nation's long-term energy future, Korin said.

Upstate Forever, the League of Women Voters of the Clemson Area and Clemson University's Strom Thurmond >

> Institute of Government and Public Affairs have teamed up to introduce the Upstate to concepts on land use and planning.

Those groups brought Dr. Reid Ewing of the National Center for Smart Growth to the Upstate. He told his audience that trends toward more concentrated urban growth emphasize the area's need to change its sprawling ways because it is ecologically sensible, will contribute to energy independence and also because the market will demand it.

Simple things such as mixed-use neighborhoods linked by sidewalks to shopping and schools make it possible to trade huge lots far distant from shopping and school for smaller living spaces and lots within walking distance.

The market will rule, he said and survey data he compiled for the Urban Land Institute shows the cost of fuel will be a driving factor.

It is a sentiment echoed by Korin. The one good thing to come out of the 1970s Arab oil embargo was that the nation's electricity companies weaned themselves from petroleum.

"Today about 2 percent of our electricity is generated by burning oil," she said. "So, despite all you hear about energy independence through more nuclear, more solar, and more coal generated

electricity, there is actually very little to be gained there.

"You have to remember that we're dealing with a cartel here, in the worst sense of the word," she said of OPEC. "If we drill more, they drill less. If we use less, OPEC drills less."

In 1973 OPEC produced 30 million barrels a day of crude oil. Today the figure is 32 million barrels per day while the non-OPEC world has more than doubled their output.

"So the people who could, theoretically, increase their production have not," she said.

Producers pour oil into the supply pool and consumers take oil out. OPEC controls so much of the supply that they hold a tremendous hammer over the collective heads of everyone outside the Arab world.

On the day of the terrorist attacks in New York and Washington, D.C., oil was trading at about \$25 a barrel, Korin said. Today we consider it a blessing the price has fallen below \$120 a barrel.

"At no other time in history, with the exception of the Civil War, has the United States paid for both sides in a war," she said. "We can't keep doing that and hope to win."

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