State's role in worldwide network of supply, demand depends on complex factors

Wyo looks to global energy markets

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CODY -- Planning for Wyoming's future requires an understanding of likely global supply and demand trends for fossil fuels and other energy resources, yet a number of complex factors make it difficult to make such projections with any certainty.

But worldwide energy demand will grow substantially in the next two decades, says a group of industry experts, and Cowboy State policy makers and business leaders would be wise to watch well-known developing markets like China, as well as more obscure new suppliers like Turkmenistan.

Wyoming's role as a supplier in the global energy picture was the topic of a discussion Monday evening sponsored by the University of Wyoming. About 40 people, including oil and gas workers, local elected officials and students, attended the discussion at the Park County Library.

It was one of several such talks held around the state in recent weeks aimed at helping residents understand the international forces that hold sway over the state's resources and economy.

While some analysts predict that rapid and unexpected advances in alternative and renewable energy technologies may bring sweeping industry changes in coming years, Monday's panelists mainly discussed the future of fossil fuels -- particularly the coal, natural gas and oil resources that are abundant in Wyoming.

"This is a very interesting and complicated game with a lot of players and a lot of potential resources. None of the outcomes are very simple or easy to predict," said Marianne Kamp, a UW women's studies professor who specializes in Central Asia, Russia and the Middle East.

One of four panelists, Kamp explained how Russia, as the world's leading natural gas supplier, seeks to dominate the Eurasian market.

Many Central Asian pipelines are in the works, as former Soviet Union satellites such as Kazakhstan and Turkmenistan look to develop their rich oil and gas reserves to compete with Russia.

Kamp described Turkmenistan as the "holy grail" of natural gas reserves in the region, adding that the country is negotiating with numerous development partners and potential buyers, including China.

"China is also very interested as well in getting a hold of Caspian Sea oil," she said.

"There's an exploding demand for motor vehicles within China, and crude oil prices are likely to take off rapidly" as a result, said Charles Mason, a UW economics professor specializing in oil and gas markets.

While the recession has lingered in the U.S., China's car market in January became the world's largest, as a rising middle class there is driving demand for durable goods and energy, said Jean Garrison, a professor of political science and director of international studies at UW.

"The U.S. has done a great job of selling this American way of life, and a lot of Chinese have caught onto that notion," Garrison said.

"In 1993, China was a net exporter of oil. Not too many years later, it's one of the world's leading importers of oil," she said, adding that a skyrocketing boom in power plants there will drive a similar rise in Chinese demand for coal, which it must import to meet current demand.

Garrison said that the typical American view of China's rising energy demands puts the two countries at odds, competing for increasingly scarce resources.

But there may also be "a common dependence reality between China and the U.S., as leading energy consumers and oil importers," she said.

Any global agreement on climate change will require consensus between China and the U.S., she said.

Regardless of debate in the U.S. over climate change, "carbon is a tax that's coming in the context of energy production," Garrison said, adding that fossil fuels will remain a large part of the global energy supply for the next few decades.

Growing Wyoming's role as an energy supplier means developing the state's infrastructure and pursuing new technologies, said Jim Nielson, head of Nielson & Associates, a Cody-based oil and gas exploration and production company.

Wyoming is a leading supplier of coal and natural gas, but limited rail and pipeline infrastructure "is the cause for why a lot of these natural resources have not been developed and utilized," he said.

Development of new pipelines from Wyoming is already helping the state see better prices for natural gas, Nielson said, adding that new technologies will play a key role in recovering additional oil from many of the state's older wells.

"I'm a great believer in technology, but with that also comes higher [energy] prices," he said.

Finding new ways to develop the state's dominant coal resources is key to extending the use of that fossil fuel, he said, adding that Wyoming coal sells for $11 per short ton when it leaves the state, and fetches $32 per short ton upon delivery to East Coast markets.

A joint project between UW and General Electric to build a coal gasification plant is one way to try to make coal cleaner and more valuable, said Mark Northam, director of the School of Energy Resources at UW.

"When you gasify coal, you can climb the value chain right here in Wyoming," he said, adding that the syn-gas created by the process can be used to produce gasoline, diesel or other fuels.

But like many of the other factors driving the energy market, the future of coal gasification depends on market and technological uncertainties, he said.