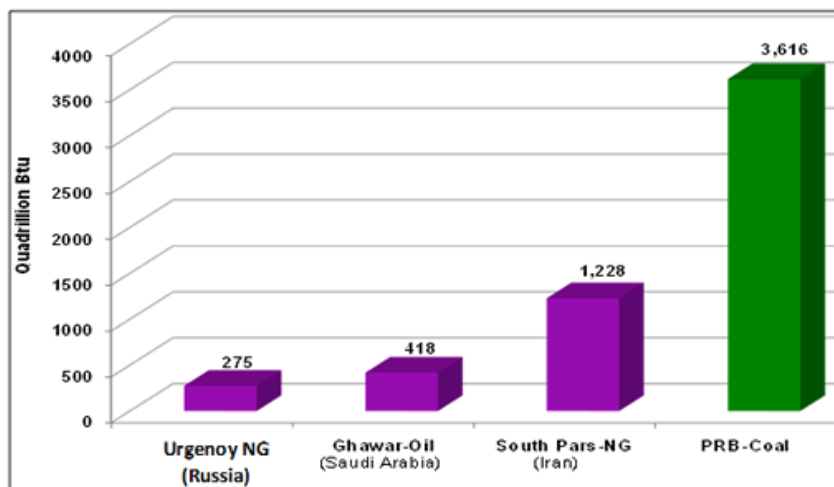


Powder River Basin Coal: The World's Greatest Energy Asset

"U.S. recoverable reserves of coal are well over 200 times the current annual production of 1 billion tonnes, and additional identified resources are much larger. Thus the coal resource base is unlikely to constrain coal use for many decades to come."

-- National Research Council, 2009 [1]

The Scale of PRB Coal

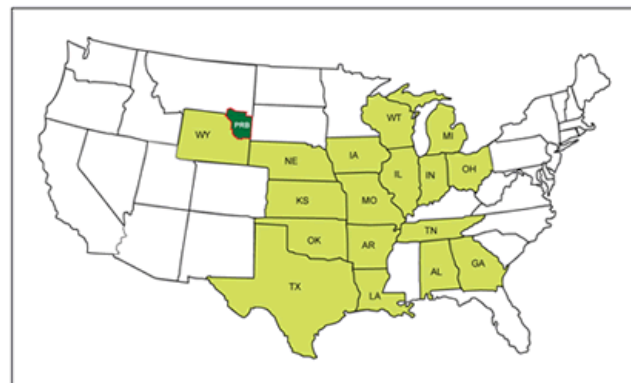


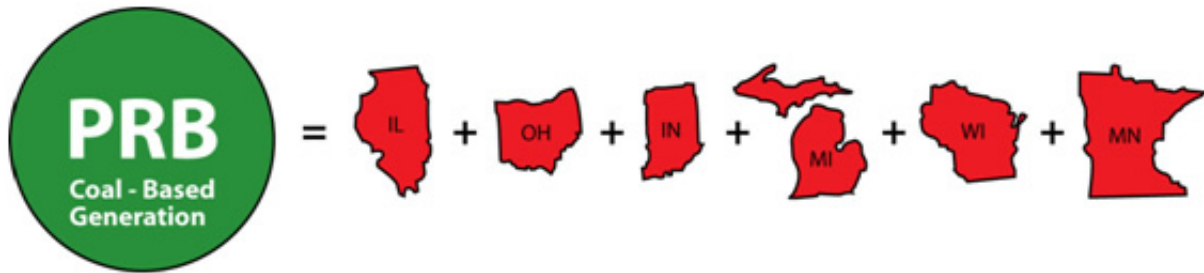
Steven Chu, U.S. Secretary of Energy, has called U.S. coal reserves "immense." Nowhere is the extent of these resources more apparent than in the potential of the Wyoming's Powder River Basin (PRB).

A relatively small area in northeast Wyoming provides upwards of 40 percent of all coal production in the United States, and accounts for almost 20 percent of power generation.

In 1980, the PRB produced less than 20 million tons of coal. By 2008,

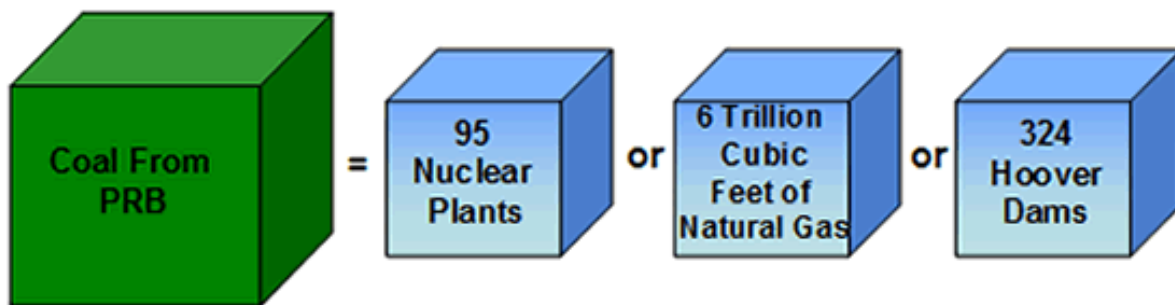
(Continued on reverse)





PRB coal generation is the equivalent of the combined power supply of these states

The Impossibility of Replacing PRB Coal

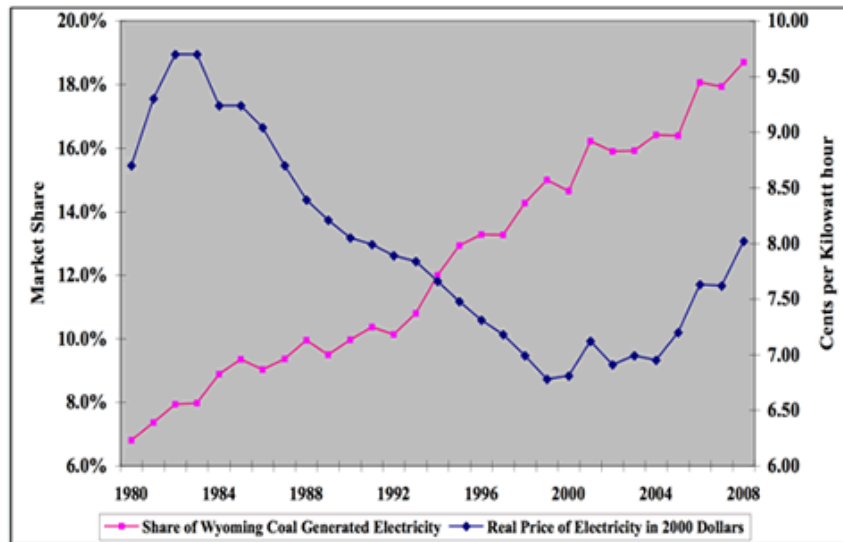


(Continued from front)

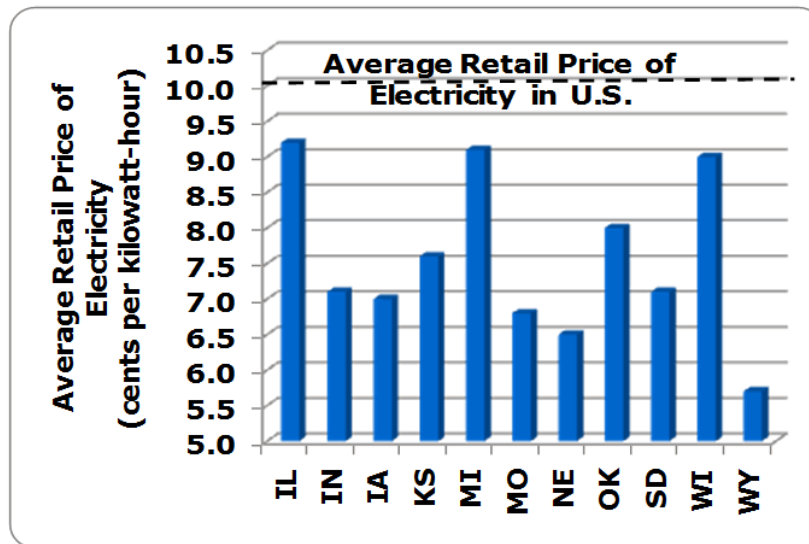
production approached 450 million tons. The availability of PRB coal steadily drove real electricity prices down for 20 years. However, the surge in natural gas generation over the past decade raised prices again. Natural gas prices average four times higher than coal prices and are far more volatile.

As seen in the chart on the following page, the increasing availability of surface coal has been the prime mover in allowing electricity consumption in the United States to grow from 1,535 billion kWh in 1970 to over 4,100 billion kWh in 2008.

PRB Coal has Moderated Electric Rates [2]



States Which Obtain at Least 25% Electricity from Surface Coal Consistently Have Lower Electric Rates



Data source: <http://www.eia.doe.gov/>

1. NRC, <http://sites.nationalacademies.org/energy/index.htm>

2. "Powder River Basin Coal," T. Considine, School of Energy Resources, University of Wyoming, 2009

About Frank Clemente, Ph.D.

Dr. Clemente is a Professor at Penn State University where he specializes in research on the socioeconomic aspects of energy policy. His work has appeared in *World Oil*, *Public Utilities Fortnightly*, *Oil and Gas Journal* and a variety of other energy related media. *The materials presented here are solely the responsibility of the author and do not represent Pennsylvania State University in any manner.*

