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Coal Power Boon

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The United States will need more electric power in the coming years -- lots more -- and coal will be critical to meeting those power needs.

While coal is the lowest-cost source of reliable power, it is also a secure energy source. The U.S. contains more than a quarter of the world's recoverable reserves, equaling a 250-year supply at current consumption. As a result, coal-fired power plants generate 52 percent of U.S. electricity. Coal power's low cost, reliability and security are why more than 150 new coal-fired power plants are being built or proposed across the U.S.

Fortunately for air quality, modern coal-fired power plants emit 90 percent less air pollution than previous generations and less carbon dioxide (CO₂) per kilowatt produced.

Despite these improvements, proposed air quality standards and proposals to reduce greenhouse gas emissions would force utilities to shift electricity

production from coal to other sources of generation. Two recent studies estimated the consequences of such a shift.

Researchers at Pennsylvania State University estimated the economic benefits of coal and the potential impact of replacing it with energy sources such as natural gas and a 10 percent mix of renewables. By 2015, they estimated coal would produce more than \$1 trillion annually in gross domestic product (GDP), \$360 billion in additional household income and nearly 7 million jobs. By comparison, cutting coal-fired electric power generation by 33 percent would reduce GDP by \$166 billion, household income by \$64 billion and would cut 1.2 million jobs. Larger cuts would result in greater economic losses.

Surprisingly, eliminating coal would also, although indirectly, harm peoples' health. Research for Congress' Joint Economic Committee in 1979 and 1984 by Dr. Harvey Brenner of Johns Hopkins University showed the impacts of unemployment

on public health. In his 1984 study, Dr. Brenner found a 1 percent increase in the unemployment rate was associated with a 2 percent increase in premature deaths.

In 2004, Dr. Brenner used his models to estimate the public health results from reducing coal-generated electricity. The U.S. Energy Information Agency has estimated proposed climate change policies could potentially displace 78 percent of U.S. coal generation. Applying his model to the EIA estimates, Dr. Brenner found reducing coal power would decrease income and increase unemployment. The results for public health would be devastating -- more than 150,000 premature deaths annually.

If true, this means the human cost to reducing coal generation would be far greater than the number of lives the U.S. Environmental Protection Agency has estimated will be saved by new air-quality standards. For example, the EPA has estimated its new eight-hour ozone standard would reduce premature mortality by 1,000 to 3,000 lives annually, while the new PM_{2.5} standard for fine particulates would result in 15,000 fewer premature deaths annually.

Legislation commonly fails to provide the benefits its sponsors promise while producing harmful unintended consequences. This is true for legislation forcing a shift

from coal-fired electric power generation to other forms of energy. It would have almost no impact on future climate change, but it would impose costs on the economy and thereby harm the health of Americans.

Undoubtedly, many of the proposed coal-fired power plants will never be built. Some proposals will be scrapped by power companies that determine current capacity will be able to supply future demand or that other opportunities provide a better return on their investment. In other cases, however, coal-fired power plants won't be built not for lack of demand or because they are uneconomic but rather because regulators block power companies' plans to build them.

Before making such decisions, regulators should undertake a sound analysis of the present and future need for more energy when weighed against the pros and cons of other possible energy sources. In other words, where new power generation is needed, regulators should have to answer: "If not coal, what, and at what cost to the public?"

The Penn State and Brenner studies show this decision has substantial economic and health consequences. When the incremental benefits from reduced air pollution and CO2 emissions are weighed against the

benefits of low-cost coal-generated electricity and the substantial costs of eliminating coal as a power source, coal remains in the black.

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