

COAL

A Secure U.S. Energy Source

As a public advisory committee to the Secretary of Energy initially chartered in 1985, The National Coal Council has compiled over 30 reports at the Secretary's request on numerous issues affecting coal and U.S. energy policy. The factual information in this paper, and the conclusions based thereon, are drawn from these studies and the documents used to compile them, all of which have been submitted to the Secretary of Energy.

Coal is Essential to the U.S.

Coal-based electricity is strategically critical to the U.S., providing economic stability and security to our citizens. Today over 50% of the country's electricity comes from the use of domestic coal. No energy source is currently available that can provide a viable, low-cost alternative for electricity production.

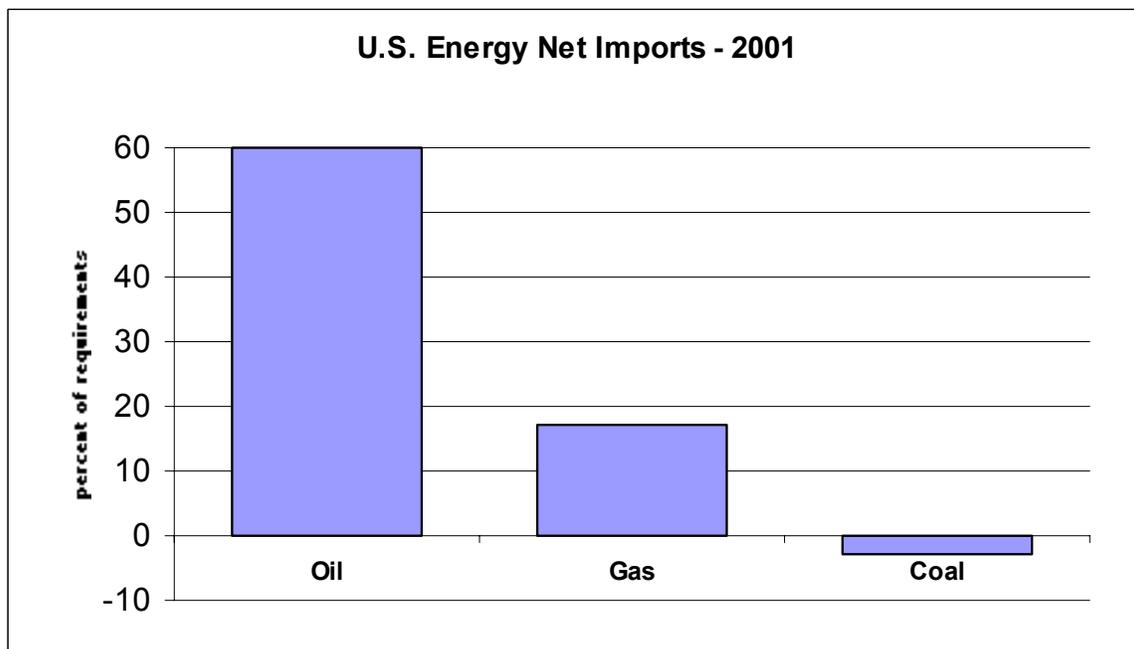
U.S. coal production and use has doubled since 1970, increasing from 520 million tons in 1970 to over 1 billion tons in 2001. The use of coal to generate electricity has increased nearly threefold in this period. The continued use of coal in a clean and environmentally acceptable manner supports the stated national energy strategy of maintaining fuel diversity to secure economic and security objectives.

Coal is a Secure and Safe U.S. Domestic Energy Source

Virtually all of the coal used in this country is produced in the U.S.

The U.S. currently imports a nominal amount of coal and consistently has had a net export balance for over 30 years. The U.S. now imports 60 percent of its oil and 17 percent of its natural gas but exports 5 percent of its coal. Plus, domestic extraction and production of oil and natural gas face challenges far greater than coal.

The U.S. has control over the extraction and use of this resource; pricing and availability are not subject to embargo or cartel-driven pricing by



international suppliers. Furthermore, the security, stability and availability of U.S. coal reserves provide a mitigating effect against price swings of other fuels.

Through continued development of technologies, the U.S. will be able to continue utilization of its vast coal resources for clean electric power generation compatible with the environment, while maintaining fuel diversity and promoting energy security. Coal thus is an important element of a portfolio of power generating options, that also includes natural gas, nuclear power, and renewable energy. It is important that we not only continue developing new technologies for coal utilization, but also promote a tax and regulatory climate that will encourage the application of these technologies. Support is particularly important for the application of advanced technologies that improve the efficiency of coal-fired generation. Higher efficiency will reduce all emissions. However, government support is required to address the risk associated with these first-of-a-kind deployments or economic constraints will keep them from being built.

Coal Strengthens U.S. Energy Security

Coal is a dependable element of homeland security. Electricity is very difficult to store in significant quantities and so the system depends on generation being on call to meet the demand. Coal is normally stored at power plants and provides an inherent "buffer" in case of supply interruption. In recent years, virtually all new generation has been fueled by natural gas. While gas can be stored, it is typically not stored at the power plant and can be interrupted more easily by infrastructure problems or terrorist acts. Increasingly, our natural gas use is becoming more dependent on imports both through pipelines and LNG tankers to the U.S., while almost all coal is domestic. Therefore, continued use of coal supports the goal of reducing our nation's dependence on imported energy.

The U.S. is in no danger of running out of coal: at current consumption rates U.S. recoverable coal reserves are estimated to last for over 250 years. The U.S. currently has over one-quarter of the world's recoverable coal, more than Russia and over twice that of China. This compares to the U.S.'s oil reserves that are 2% of the world's total and natural gas which are 3%. Our nation's recoverable coal has the energy content equivalent of one trillion barrels of oil, a figure comparable to all the world's known oil reserves.

Coal reserves are found in 38 states. Electricity generated from coal is consumed in 50 states, including the District of Columbia.

In the wake of the terrorist attacks of September 11, 2001, at the request of the President, the National Academy of Sciences formed a Committee on Science and Technology for Countering Terrorism to assess the vulnerability of the major U.S. infrastructure systems to terrorist attacks. As part of this effort, the Committee conducted an exhaustive analysis of the vulnerability of U.S. energy systems, including nuclear power, oil, natural gas, coal, and the electric power system. In its report ^{1/}, the Committee found that all aspects of the energy system have various degrees of vulnerability. However, it found that coal was the least vulnerable to terrorism and that this vulnerability was so small that it did not even require further assessment or remedy.

Coal is abundant, decentralized, and presents less of a target to accidental or purposeful destruction. Its sources and uses are decentralized, and it poses less catastrophic potential compared to alternative sources of energy. Neither accidental nor purposeful "spills" of coal are catastrophic to the environment, nor are they potentially explosive.

Thus, unique among the components of the U.S. energy system, coal is the most secure from the threat of terrorism.

^{1/} National Academy of Sciences, National Research Council. Making the Nation Safer: The Role of Science and Technology in Countering Terrorism. Washington, D.C.: National Academy Press 2002.

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