

THE LONG-RANGE ROLE OF COAL IN THE FUTURE ENERGY STRATEGY OF THE UNITED STATES JUNE 1990

PURPOSE

As part of the effort to develop a National Energy Strategy, the National Coal Council was asked by the Secretaries of Energy, John Heffington and James Watkins, to prepare a report which examined the strategic role which coal might play in the energy future of the United States. The Council was requested to extend this outlook to the year 2050.

An examination of coal's future over such a long time frame was requested to assist policy makers in understanding the issues which must be considered at this time to ensure energy supplies in the future.

FINDINGS

Three plausible future scenarios were examined for this study. Each scenario was developed according to a different set of assumptions. The first was based on a balanced response to economic and environmental tradeoffs assisted by dynamic technological development. The second assumed a more volatile world in which economic and energy tradeoffs were, in general balanced but in which technological progress was minuscule. The third scenario, the most difficult, postulated global volatility on economic and political issues, frequent and dramatic policy swings on economic and environmental questions, and only incremental technological progress. A final case, in which the use of coal was limited to 23 quads (the projected coal consumption in 2000) in each scenario, also was examined. General conclusions to all scenarios are as follows:

- Ample economic energy supplies are critical to societal stability and progress.
- Coal must be a major component of the nation's energy future because of the indigenous domestic resource base.
- Conflicts between energy and environmental priorities must be resolved in a cost-effective manner.
- Technological advances involving the utilization, production, and transportation of coal will significantly affect its future.
- Incentives for the use of indigenous energy resources must be fostered to attract investment capital for energy producers, transporters, and users.
- Single line energy forecasts for establishing energy policy constrains the ability to respond to ever-changing political, economic, energy, and environmental challenges.
- Limiting coal use to the approximate year 2000 level results in increased dependence on imported energy under all three scenarios.

RECOMMENDATIONS

- Ensure that the National Energy Strategy acknowledges the importance of coal to the nation's energy and economic future.
- Expedite the completion and deployment of selected coal technology projects, and in the future should direct the program toward new technologies which promise to yield higher energy conversion efficiencies and lower environmental impacts.
- Ensure that the National Energy Strategy calls for national and international policies which foster improved energy efficiencies.

- Develop a program by which the economic risks associated with large-scale facilities based on coal can be mitigated so that commercial deployment of clean coal based technologies can take place.
- Ensure that the National Energy Strategy promotes the development and demonstration of technologies for producing coal-derived liquids and gases.
- Ensure that the National Energy Strategy facilitates the efficient utilization of the existing coal transportation infrastructure, and recommends federal eminent domain powers to secure adequate rights-of-way for the transport of coal over the time period examined in this report
- Ensure the development and deployment of a comprehensive worldwide energy forecast modeling capability.
- Work with the Secretaries of the Interior and Labor and the Administrator of the Environmental Protection Agency to seek balanced economic solutions to future mining-related environmental issues and more flexibility in bringing innovative solutions of mine safety to the work place.
- Ensure timely availability of federally controlled coal reserves to private enterprise and promote future mining technology development.