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ILLINOIS ENERGY PROBLEMS: A NATIONAL PERSPECTIVE

Boyd R. Keenan

Governmental institutions wrestling with energy problems — ranging from American states to international organizations — are like elements in a gigantic mobile. They seem suspended in time and space, battered by erratic winds. The least force affecting even a minor element causes reactions in other parts of the mechanism.

More than two years after the Arab oil embargo of 1973-74 signaled the end of cheap fuel for the Western world, the U.S. Congress and President Ford are still searching for national energy management guidelines. For a time, it was felt that attention to the place of the states in national energy matters could wait until the federal government hammered out firm policies. Now, however, it has become increasingly clear that states must begin to search for their own distinctive roles in the complex energy mobile. It can only be hoped that initial plans conceived by the states will mesh well with overarching policies later devised in Washington.

The full scope of state responsibilities in energy affairs cannot be assessed yet. But leaders in each state must ask at least three basic questions: (1) How should the state organize itself to protect its citizens against the emergencies which could accompany severe fuel shortages and even another oil embargo? (2) What does the state have to offer to the nation at large in a time of long-range energy shortages? and (3) What are the environmental implications within the state of solutions to energy problems?

In the fall of 1973, when Arab nations cut the supply of crude oil being delivered to the U.S., Illinois, like other states, responded on a "crisis" basis. A "hot line" was set up in the state Department of Agriculture, and personnel there began assisting not only farmers in need of fuel, but also industries, independent gasoline dealers, and even large oil companies that turned to the state for help in coordination. When the broad dimensions of the allocation problem became apparent, Illinois Governor Dan Walker created the Office of the Illinois Energy Coordinator and moved the hot line operation there. The agency cooperated with the new Federal Energy Office — now the Federal Energy Administration — during the near chaotic period of the embargo.

Over the past two years other state agencies have also implemented specific programs related to energy. On April 1, 1975, Governor Walker centralized many of these

activities in the new Division of Energy within the state Department of Business and Economic Development (BED). Among the new division's responsibilities were those petroleum allocation tasks formerly handled by the Office of the Energy Coordinator. The division was also charged by the governor to provide leadership in such long-range matters as developing Illinois's coal reserves, creating energy conservation programs, investigating alternative energy sources, coordinating energy research within Illinois, and establishing coal research centers in the state.

Thus, the Division of Energy is presently the keystone of the executive branch's organizational response to the energy crisis, although virtually all state departments and agencies have been forced to face their own problems. In a perhaps unprecedented manner the General Assembly has sought to meet many of the same problems through legislative action. At times the distinct approaches of the two branches have resulted in collisions with strong political overtones.

Illinois Energy Resources

Illinois is mentioned increasingly as possessing both natural and human resources critical to the nation at large in energy affairs, the result of a combination of geological, historical, and political circumstances. During World War II, the city of Chicago was the site of early research and planning on the fabled Manhattan Project, which produced the first atomic bomb. In large measure the presence of federal and university nuclear laboratories near Chicago can be traced to the wartime project. It was to be expected that a Chicago public utility — Commonwealth Edison — would become the first such company to develop a civilian nuclear reactor. Today that firm possesses the greatest nuclear capability of any utility in the nation, and Illinois relies more heavily on nuclear generation of electrical power than does any other state.

Illinois's prominence in nuclear energy was an expected development. It was the recognition in 1973 of the nation's dependence on foreign oil, however, that brought sudden and renewed attention to an even older and more plentiful energy source in the state — coal. Over the past two years, Illinois citizens have been subjected to a bewildering array of proposals for exploiting the state's massive coal reserves for the benefit of its own residents and the nation.

For a long time geologists have known that Illinois possesses the largest bituminous (soft) coal reserves of any state, estimated at between 140 and 150 billion

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tons. They argue over just how much energy these reserves represent in terms of oil "equivalency." Some contend that as much potential energy is locked in Illinois coal as is contained in the oil reserves of the Middle East.

One of the most striking ironies of our technological age is the fact that the bituminous coal of Illinois and several neighboring states became unacceptable for use shortly before the embargo and the accompanying quintupling of crude oil prices. In the late 1960s scientists had discovered possible health hazards from sulphur oxides. Most of Illinois's vast coal reserves have a high sulphur content. As early as 1969 environmentally conscious lawmakers in Congress and in the Illinois General Assembly began to enact legislation which discouraged or in some cases prohibited burning Illinois coal for generating electricity or other purposes. For instance, power plants in Chicago and even in cities of more moderate size were ordered to discontinue their use of Illinois coal. As a consequence, in the early 1970s many public utilities and other industries which had depended upon Illinois coal either made expensive conversions to oil and/or natural gas burners or began transporting low-sulphur coal from western states. Transportation costs in moving this coal to Illinois and other Midwest states became a burden on both public utilities and consumers. Of the coal burned by electric utilities in Illinois, western coal's share increased from 3.7 percent in 1970 to nearly 25 percent in 1974.¹

New elements were introduced into this situation, in Illinois and elsewhere, by the embargo, which led to skyrocketing oil prices. The risk to national security in relying on imported fuels became obvious. Adding to the irony was the diminishing supply of natural gas, praised by environmentalists as the "cleanest" fuel which could be used.

All these factors, particularly the realization of the country's growing dependence upon foreign oil, led Congress and federal agencies to fund dramatic research and development (R&D) programs in 1974 and 1975. Critical in these efforts is the aim of developing technologies which will permit safe utilization of high-sulphur coal such as that available in abundance in Illinois. Suddenly experimental processes for coal gasification and liquefaction, formerly known only to chemists and

¹ George Provenzano, "Coal Conversion in Illinois," *Illinois Business Review* 32 (July 1975): 6-8

ILLINOIS GOVERNMENT RESEARCH

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engineers, became familiar to government leaders and politicians.

Illinois Coal Development Program

In January 1974 the second session of the Seventy-eighth Illinois General Assembly convened and Governor Walker delivered his second annual State of the State message. The governor's sweeping proposals for energy legislation included a plan to develop ways to use Illinois's vast soft coal reserves. His eight-point energy program was acclaimed by legislative leaders of both parties. Once the legislators began studying the governor's proposals, however, the complexity of the energy area and the competing forces at work precluded substantive agreement. Understandably, legislators argued among themselves and with the governor over control of state energy programs, particularly those elements dealing with coal development.

In June 1974, during the final hours of the session, the General Assembly passed compromise legislation in the form of four specific energy bills. On August 19 Governor Walker signed these bills into law. Central to the package was Senate Bill 1659, authorizing the sale of \$70 million in state bonds to be used for coal development projects. It called for BED to administer the bonding authority. The same law also established the Illinois Energy Advisory Council on Coal Development to advise BED on the development of Illinois coal reserves. Chaired by the governor, the council includes as members the lieutenant governor and directors of state departments and agencies relevant to coal development.

A second law, House Bill 2651, established the Illinois Energy Resources Commission, composed of ten legislators and eight public members. Before BED can fund projects through its bonding authority, the commission must give its approval. The commission is also charged to develop an overall long-range plan for Illinois energy and to investigate all phases of energy use and development within the state.

Another measure, Senate Bill 1667, allows BED to utilize the right of eminent domain in acquiring or using land for coal development. This measure amends the Act to Provide for the Exercise of the Right of Eminent Domain, which dates from 1872. A final law, Senate Bill 1660, appropriated \$10 million in "operational" funds to BED from the \$70 million coal development fund authorized in Senate Bill 1659.

From the outset it was clear that the legislature's efforts to provide checks and balances in the management of Illinois would result in two major rival bodies. One — the BED's Division of Energy — would be the spokesman for the executive branch of government. The other — the Energy Resources Commission — would mainly reflect the attitudes of those in the legislative branch. The latter condition prevails because all appointments to the commission — including the eight public members — are made by the legislative leaders of both parties.

When considered together, the statutes appear to create a system whereby only BED can propose funding for coal development and only the commission can approve such funding. The law does provide, however, that a grant under the bonding authority which is recommended by BED is made automatically if the commission fails to approve or disapprove a proposal within forty-five days after it is submitted.

Even before the measures became law, it had become evident that massive new industrial consortia — powerful

energy corporations fortified with multimillion dollar federal grants — would be seeking parcels of the available \$70 million. Given the emotional character of the emerging energy politics, it was inevitable that the executive branch, principally through BED, and the legislatively oriented commission would be pitted against each other. Even in the most congenial political setting, it is probable that officials in the executive branch and representatives of the General Assembly, irrespective of party, would have vied for credit in bringing coal development projects to Illinois.

But relationships have been far from congenial as the BED's Division of Energy and the commission have wrestled with requests from energy consortia to tap the bond fund for the development of coal conversion facilities in Illinois. The Illinois Energy Advisory Council, also established by the 1974 energy package, does not seem to have been active. The council's purpose, as defined by statute, is to advise BED and generally give counsel in state energy affairs. Critics of the governor, chairman of the council, contend that he has failed to convene the body regularly because of an unwillingness to share the energy "spotlight" with the lieutenant governor, vice-chairman of the council. Like the governor, the latter is a Democrat, but the two high state officials represent different factions of the party. The governor's defenders maintain that heavy reliance on the council would obstruct energy planning.

Inadvertently or by intent, the General Assembly appears to have harnessed, by statute, three new energy units which have similar mandates and objectives but which relate to totally different constituencies. Despite the rivalries among BED, the commission, and the council, Illinois appears to be one of the more successful coal-producing states seeking to create lucrative coal utilization industries within their borders. The state's most important boost came on November 17, 1975, when the federal Energy Research and Development Administration (ERDA) announced that an Illinois site was its choice for the location of the nation's first major demonstration coal conversion plant. The proposed \$237 million facility would convert sulphur-tainted coal into synthetic gas and fuel oil. The plant would be constructed by Coalcon Corporation of New York City on a 2,000-acre site just east of New Athens, twenty-five miles southeast of East St. Louis.

After ERDA announced its selection, Governor Walker stated that the willingness of the state executive branch to contribute \$25 million in coal development bond funds to the Coalcon project was the key to the choice of the New Athens site. At this writing (December 1975), the Illinois Energy Resources Commission is awaiting BED's formal request — with technical supporting data — for approval of the \$25 million.

The commission has already committed funds to the one formal proposal submitted by BED. On November 5, 1975, the commission approved BED's recommendation that \$10 million be awarded a consortium headed by the General Electric Corporation to develop an experimental coal-burning system. The R&D effort will utilize existing facilities of the Illinois Power Company near East St. Louis.

Strain on Federal System

The scope of the nation's broad energy dilemma is illustrated well by complexities attached to the state's plight in wrestling with the coal development problem. When the

Illinois legislative energy package was enacted in the final hours of the 1974 session, the state and the nation were still in a state of shock following the Arab embargo.

Among the new complexities which this situation has led to is competition among coal-producing states for the initial coal conversion plants. Rivalry in obtaining these facilities is understandable — their location may very well determine where huge new technological industries will be centered. Such rivalry could exert an almost unprecedented strain on our federal system. At a time when all agree that our national needs match those felt in a full-scale war, intrastate and interstate conflicts could affect the national interest adversely. It is hoped that these tensions will lead to a healthy reality, not a bitterness among the actors involved.

In Illinois, leaders in both the executive and legislative branches of state government are likely to become more realistic in their quest for the new industry. When the package of energy bills was passed in 1974, leaders felt that the state could rather easily strengthen the nation's energy posture while financially benefitting itself and its citizens through development of coal reserves. The months have shown, however, that even though Illinois does boast the largest reserves of bituminous coal in the nation, it is not unique among the states. Other coal-producing states are proclaiming their own uniqueness in coal opportunities.

It is inevitable that unpredictable social and political factors will be in play when sites for coal conversion facilities are selected. This reality is only one facet of the incredibly complex set of problems faced by Illinois and other states in constructing state energy policies which both protect the interests of their citizens and are consistent with broader national interests.

Relevance of World Economics

There is a striking difference between the plight of states now seeking R&D installations and of states which in the 1960s competed for scientific plums like nuclear accelerators and space laboratories. Today, the state of the world economy is hauntingly relevant. Shifts in international oil pricing could upset the most carefully conceived state plans dramatically. For perhaps the first time, state governments must devise long-range technological policies which could be disrupted by sudden changes in the behavior of international organizations over which the states have no control. Most critical of these groups, of course, is the Organization of Petroleum Exporting Countries (OPEC), the price-fixing cartel whose success in late 1973 stimulated the Western world's search for alternative energy sources.

Since the emergence of OPEC as a major force in world politics, rumors have persisted that the cartel was at the point of disintegration. For a time the U.S. federal government seemed to encourage such speculation. At present, however, State Department officials and other governmental spokesmen leave the impression that coexistence with OPEC over many years is inevitable. Yet, states attempting to create new coal conversion industries know that any breakup of the cartel would result in a sharp decrease in world oil prices. If this should happen, industry in the U.S. and other Western countries — unless strongly encouraged by governmental policies to do otherwise — would rely once again on cheap oil and would ignore the expensive oil substitutes derived from coal gasification and liquification.

Such an eventuality — and the accompanying risks — lurk in the minds of American investors who are studying the wisdom of placing capital in coal conversion ventures. It is recognition of the risks and the related issue of national security which have led to the host of proposals from Washington and other Western capitals to help meet uncertainties. Among the projects being planned in this country, of course, are those based on the notion that both the federal government and coal-producing states should share the risk in these new ventures. The possible scale of federal involvement in such efforts is suggested by President Ford's proposal, made public on September 22, 1975, for the creation of a new national corporation — the Energy Independence Authority (EIA). Under this plan, EIA would channel \$100 billion into energy projects over the next decade.

International economists are divided on such ambitious plans for coal conversion facilities. Some feel there is no alternative but to develop them. Others fear that an unexpected decline in world oil prices could leave the U.S. landscape strewn with white elephants in the form of unfinished gasification and liquification plants.

It is too early to speculate on the success of President Ford's efforts to convince Congress of the necessity of the EIA or similar plans. It is not too early, however, for states to begin preparing for the new federal-state relationships, as well as intrastate tensions which are likely to evolve.

Energy-Environment Debate in Illinois

In Illinois, tensions will be produced by long-standing conflicts between "no-growth" environmentalists, on the one hand, and coal developers and public utilities, on the other. The latter believe the interests of the state and the nation at large would be served by creating a new coal conversion industry in Illinois. The movement toward such a new industry has been mounted so quickly that many environmentalists have been caught off guard. When they begin to study in depth the total environmental impacts of large conversion plants, they will probably introduce new factors into the energy-environmental debate. Among their concerns will be water, an abundant supply of which is needed by any conversion plant, and possible encroachment upon highly valued agricultural land. Interaction among social, economic, and political forces in Illinois on the coal conversion issue will be a microcosm of broader, deeply felt ideological conflicts which are beginning to rage across the country — indeed around the world. Proponents of no-growth conservation approaches to our energy problems will probably oppose those who favor technological solutions.

More than most states, Illinois is like a laboratory where efforts to resolve energy-environmental conflicts may be viewed by the entire country. In 1970 the General Assembly won the attention of ecologists around the nation with

a set of laws acclaimed as the most environmentally advanced efforts in the country. When in 1974 the energy measures described above were passed, many legislators were beginning to feel that their earlier environmental package was destructive to the state and national economic health.

Concrete evidence of a change in legislative attitudes came several months ago, when the General Assembly approved a bill which environmentalists construe as reversing the Illinois direction set by the 1970 actions. In the face of opposition from environmentalists, Governor Walker signed Senate Bill 805, which requires "economic impact statements" for environmental regulations established by the Illinois Pollution Control Board. Evidence that the entire country will be watching Illinois comes from a variety of technical and scientific journals which have given the matter attention. An illustration of the level of national interest is the following item from *Chemical Week*:

Before promulgating any environmental regulation, the Illinois Pollution Control Board must now prepare an economic impact statement under an amendment to the state's Environmental Protection Act, believed to be the first such provision in the nation. Statement preparation is expected to cost the Pollution Control Board over \$500,000/year.²

The dynamics of energy-environmental politics in Illinois over the coming years are likely to challenge the ingenuity of state executives and lawmakers as never before. It is hoped that their responses not only will meet the state's needs, but also will provide helpful models for other states in struggles to find their own niches in both energy and environmental management within the broader national system.

Conclusion

The need for state leaders to strike out on their own in understanding their states' distinct energy roles can hardly be overstated. Although it is indeed true that society is analogous to a fragile mobile composed of interrelated energy components, each unit in the system has unique characteristics. For example, Illinois — with its abundance of coal and highly advanced nuclear reactors — will require knowledge and expertise different from that needed in states which seek to exploit offshore oil and gas reserves. The geography of the country is such that natural clusterings of states may encourage regional cooperation in attacking some energy issues. But as long as states remain integral parts of our federal system, day-to-day management of energy problems will rest heavily upon individual states. In the remaining years of this century there can be no substitute for state-oriented leadership in managing energy in Illinois and elsewhere.

² "Illinois Requires Economic Impact Statement for Environmental Regulations," *Chemical Week* 117 (October 18, 1975): 38. The estimate of \$500,000 cannot be verified.



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