Western States and National Energy Policy

The New States' Rights

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Since the 1973 Organization of Petroleum Exporting Countries' (OPEC) oil embargo, a consistent theme in national energy policy has been to achieve independence from insecure foreign sources of energy. In the short- to mid-term, the principal means for achieving this objective is to increase the production and utilization of domestic energy resources, particularly fossil fuels and uranium. Given the large quantities of these energy resources located in the western United States, the West is a prime regional candidate for contributing to this increased production. But matters of how much production, where, and what energy development technologies are used are being and will be very largely determined by national policies. Awareness of this situation has already affected federal-state relations, and some westerners have begun to argue for a larger role for the states in national policy making in energy, environmental, and related areas. That

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is, states want more freedom to permit, promote, or prohibit energy development within their own borders. In short, energy resource development in the western U.S. and national policies and programs affecting this development have contributed to demands for "new states' rights." The states are demanding a right to participate more actively in making policies which more adequately promote and protect what they perceive to be in their interest.

Following a brief review of recent interpretations of intergovernmental relations in the United States, the effects of national energy, environmental and related policies on energy resource development in the western U.S., and federal-state relations are discussed. Both the description of western energy resource development and the effects of this development on intergovernmental relations are based on *Energy From the West: Policy Analysis Report* (White et al., forthcoming-b), a report prepared for the U.S. Environmental Protection Agency (EPA) by an interdisciplinary research team in the Science and Public Policy Program at the University of Oklahoma.[1] The three-year EPA study, "A Technology Assessment of Western Energy Resource Development," considers the development of six resources (coal, oil shale, oil, natural gas, uranium, and geothermal) in eight western states (Arizona, Colorado, Montana, New Mexico, North Dakota, South Dakota, Utah and Wyoming).

RECENT INTERPRETATIONS OF AMERICAN INTERGOVERNMENTAL RELATIONS

Clearly the dominant view of how American intergovernmental relationships have functioned since the early 19th Century is "Cooperative Federalism." In contrast to "dual Federalism," which identifies separate and distinct national and state policy making functions and authority, in cooperative federalism, federal, state, and local governments work together to achieve public purposes. In this interpretation, authority and responsibility for responding to public problems are almost never

exclusively federal, state, or local.[2] Within the framework of cooperative federalism, theories of intergovernmental relations have focused on specific divisions of authority between the states and the federal government. For example, the 1960s has been called a period of "Creative Federalism," during which "Great Society" programs, in effect, invited state governments to become active participants in establishing new policy responses to major social problems. And in the 1970s "New Federalism" emerged which sought to shift the balance in intergovernmental relations back toward states' rights, primarily through federal initiatives such as revenue sharing and administrative decentralization (see Scheffer, 1975).

Most assessments of how cooperative federalism has actually worked during the past 20 years have concluded that the power of the national government has greatly expanded at the expense of state and local governments. For example, in *Making Federalism Work,* Sundquist (1969: 1) observes:

> Congress has asserted the national interest and authority in a wide range of governmental functions that had been the province exclusively or predominantly of state and local government. The new legislation not only established federal-state-local relations in entirely new fields of activity and on a vast new scale, but it established new patterns of relationships as well.

And in spite of the attempt of New Federalism to redress the balance, expanded federal authority has seemed to characterize intergovernmental relations in the 1970s, especially with regard to energy and environmental policies. Indeed, Jones (1974) has characterized federal-state-local sharing in air pollution control as "centrally-directed sharing." By this, Jones means that there has been a sharing of power directed, if not dictated, by the federal government. Jones' thesis is supported by Lieber's characterization (1975: 196) of the Federal Water Pollution Control Act of 1972 as "lip-service federalism"—i.e., Congress used the rhetoric of cooperative federalism but never carried out its promises of a federal-state partnership in water pollution control.

Based on Jones' and Lieber's studies of air and water policies "centrally directed federalism" can be characterized as follows:

(1) Federal entry into a policy area is a last resort, generally concluding a long legislative history in which states have been provided several incentives to exercise authority over a problem area;
(2) National legislators generally distrust the states' willingness and/or ability to exercise sufficient control over problems; and
(3) Federal entry into a problem area begins a process of continued and increasing federal usurpation of previously state prerogatives.
(4) States often retain some responsibility for implementation of public policies, but are effectively shut out of policy formulation functions.[3]

The remainder of this paper examines the "centrally directed federalism" thesis as it characterizes western energy resource development. Specifically, we are interested in the degree to which federal responsibility and control over energy and environmental policy has continued to preempt states' roles in policy formulation. Thus, as noted earlier, we will discuss the effect of national and state energy, environmental, and related policies on western energy resource development and federal-state relationships.

WESTERN ENERGY RESOURCES AND DEVELOPMENT ALTERNATIVES

The quantities of six energy resources being considered in the EPA study are shown in Table 1.[4] Coal and oil shale are the most abundant. In fact, approximately 40% of all U.S. coal[5] is located in the study area, and virtually all the nation's high-grade oil shale is located in the Green River Formation in western Colorado, Utah, and Wyoming. And almost all of the nation's high-grade uranium ore is also located in the eight states, primarily in New Mexico and Wyoming.

As shown in Table 2, the federal government and Indians together own almost 45% of the total land area in the eight-state study area. Although the data are incomplete, it appears that the federal government owns about half the coal, geothermal, and uranium, and about 80% of the oil shale resources in the eight states.[6]

TABLE 1
Proven Reserves of Six Energy Resources in the Eight-State Study Area

RESOURCES	RESERVES	
	RESERVES (10^{15} Btu's)[a]	PERCENT OF U.S. TOTAL
Coal	4,000	37
Oil	14	7
Natural Gas	22	8
Oil Shale	2,340	100
Uranium	170	90
Geothermal	9	10

a. 1Q (or 10^{15} Btu's) = 172 million barrels of oil or 40 million tons of bituminous coal

Adapted From: White et al., forthcoming-b, ch. 2.

When the energy resources described above are developed, the effects on the West and the rest of the nation will vary, depending upon the level, pattern, and technological alternatives chosen.[7] In general, the higher the level of development, the greater the contribution of the West to national energy supplies and the greater the costs, risks, and benefits for the West.

With regard to patterns of development and technological alternatives, coal offers the greatest range of options. It can be exported or converted at or near the minesite; and it can be burned directly or converted to electricity, synthetic gas, or a synthetic liquid. Geothermal, oil shale, and uranium—in contrast to coal—cannot be exported as a raw resource. Geothermal resources can be used as process heat (for some industrial and building heating needs) or to generate electricity. Oil shale can be retorted either on the surface or in situ; and uranium ore can be converted to yellowcake. Oil and natural gas can both be exported as raw resources, and oil can also be refined within the region.

The consequences for the West can be quite different, depending upon whether an export or within-region conversion option is chosen. For example, converting coal to electricity or a synthetic gas or liquid within the eight-state area will, almost without

TABLE 2
Federal and Indian Land Ownership in the Eight-State Study Area

LAND OWNER	AREA (thousands of acres)	PERCENT OF TOTAL[a]
Federal	179,770	35
Indian	46,074	9

a. Based on a total area of 518,585. Rounded to nearest whole percentage.
SOURCE: White et al., forthcoming-b, ch. 2.

exception, increase the costs, risks, and benefits for the area. On the other hand, exporting raw coal will usually decrease them. Just how much conversion within the area will increase and export will decrease costs, risks, and benefits will depend upon national, state, and local laws, regulations, and policies. For example, a major economic benefit produced by converting coal within the eight-state area will be a large increase in the property-tax base. In addition, a state might elect to use a severance tax to obtain the same increase in revenues from exported coal. However, if the conversion facility is not located within the area, employment opportunities will be fewer, population growth lower, and overall economic development less.

Air and water quality impacts will also generally be less in the eight-state area if raw coal is exported rather than converted on site. While there will still be air and water quality impacts from mining and transporting the coal, these will be much less than would be experienced if the coal were converted on site to electricity or a synthetic gas or liquid. Regulations and policies can be designed to lessen the adverse impacts of on-site conversion. For example, highly efficient environmental control technologies (such as "scrubbers" for coal-fired generating plants) can be required, and strict facility siting requirements imposed.

Water availability problems can be decreased in water-scarce areas if coal is exported by train. But, again, these problems can be lessened by requiring the use of water minimizing technologies such as cooling and process design changes which decrease water consumption.

Exporting coal can also export some of the costs and benefits to the demand center where the coal is burned or converted. For example, exporting the coal from the West will generally increase air quality problems in the demand centers, many of which already have serious enough air quality problems. Whereas the increased ambient concentrations of air pollutants in the West might decrease visibility and produce episodic violations of ambient air quality standards, the same incremental increase in the vicinity of the demand center may have more serious economic and human health effects. Locating the conversion facility at the demand center will also export the principal job and property tax benefits associated with the conversion plant to that area as well.[8]

As noted earlier, both national and state policies will determine which of the ranges of possible levels, patterns, and technological alternatives will actually be chosen in developing western energy resources. National policies most likely to have a significant effect on these choices—and on federal-state relations—are discussed in the following section.

NATIONAL POLICIES, WESTERN ENERGY RESOURCE DEVELOPMENT, AND FEDERAL-STATE RELATIONS

National policies will largely determine how much, where, and how western energy resources are developed. This is especially true with regard to energy, environmental, and related policies such as those affecting surface mine reclamation, energy facility siting, and water availability and quality. No problem area can be dealt with in isolation. Policies and programs intended to solve problems and issues in one policy area will almost always affect other problem areas.

Energy and the environment are two areas of public policy in which the federal government is currently very active. In each case, this high level of activity is a relatively recent phenomenon. It took the 1973 oil embargo to shock the United States into recognizing that the days of abundant, cheap energy are over

and that being dependent on foreign energy sources can constitute a significant national security threat. Since energy has historically been considered the lifeblood of our highly industrialized, technological society, this realization led to energy immediately becoming a highly visible, high-priority problem area on the agenda of government.

The environment became a highly visible, high-priority public-policy problem area somewhat earlier. In fact, the decade preceding the embargo might well be called the decade of the environment, with public responsibility for the quality of the human environment being formally acknowledge in the National Environmental Policy Act of 1969 (see also Caldwell, 1970).

ENERGY POLICIES

The states have traditionally established policy in such areas as energy facility siting and the regulation of public utilities. But the state role in energy has diminished as the federal government has become a more active participant in the energy policy area, including, for example, setting prices on new intrastate natural gas, something that had previously been left to the states.

Although states have had major mandatory responsibilities for implementing federal programs such as fuel allocations and the 55 mile per hour speed limit, they have generally had a minor role in the formulation of national energy policies. For example, the states still have a relatively minor role in making policies concerning the development of publicly owned resources such as offshore oil and gas and the large amounts of oil shale, coal, and other energy resources located in western states. Moreover, the National Energy Plan (NEP; U.S. Executive Office of the President, 1977) gives the states a limited role in energy policy making, primarily restricting this role to information gathering and fuel allocation (U.S. Congress, Office of Technology Assessment, 1977: 174-187). Although the western states are seeking a larger role in the formulation and implementation of policies for developing publicly owned energy resources, their demands have not yet been accommodated.[9]

Overall, then, the effect of energy's becoming a high-priority public-policy problem area on the federal government's agenda has been to lessen state control in concerns traditionally left to the states, to give states responsibility for implementing new national policies and programs, and to subject them to the effects of developments on publicly owned lands controlled by an absentee federal landlord.

As for the affect on energy development, the elements of national energy policy which will affect western energy resource development most directly are those which emphasize domestic energy development, promote the production and utilization of certain energy resources, particularly coal, oil shale, and uranium, and support the development and encourage the deployment of certain technologies such as coal gasification and liquefaction. Otherwise, it is likely to be either the economic or environmental elements of national energy policies that will most significantly affect how much and where western energy resources will be developed and which technologies will be used to develop them.

Until the President's National Energy Plan was proposed and the Clean Air Act Amendments (1977) enacted, the national goal to achieve independence from insecure foreign sources of energy had the effect of promoting western energy production, particularly of coal. But the NEP proposes, and the Amendments require, all new coal-burning facilities to be equipped with the "best available control technology" (BACT) to reduce the emission of air pollutants. Since the principal advantage western coal has had over coal from other regions is primarily its low sulfur content, the BACT requirement will be, at least in the short term, a significant factor in determining how much western coal is produced.

The NEP assumes that, in the short term, most coal will be burned directly (including coal-fired electric power generation). In fact, the NEP, which promotes coal production and utilization, includes several provisions which encourage the direct burning of coal, including pricing policies which would raise oil and natural gas prices, fuel switching requirements which would

switch industrial and utility users from oil and natural gas to other fuels (primarily coal), a prohibition against the use of oil and natural gas in new industrial and utility boilers, and taxes on the use of oil and natural gas.

Although the NEP does call for government support of commercial-size demonstrations of both solvent refined coal and low-Btu gasification technologies and an active high-Btu gasification research and development program, it does not propose either to subsidize coal gasification or liquefaction or to insure private developers against the large financial risks currently associated with these technologies. This policy does not encourage and, in fact, probably has the effect of discouraging the development and deployment of coal gasification and liquefaction technologies.

Oil shale is also downplayed by the NEP. While noting that oil shale is the potential source of billions of barrels of oil, the NEP states that environmental and economic problems will have to be overcome for this potential to be realized. The sole contribution the NEP makes toward resolving these problems is to call for shale oil to be entitled to the world price of oil, a policy that has already been put into effect. This policy could speed up and increase the development of oil shale, although the recent trend has been for developers to back out of proposed oil shale ventures rather than to propose them.

The NEP deemphasizes advanced nuclear technologies largely because of safeguards problems, but it does call for more light-water reactors, and, therefore, increased uranium production. As for the other resources being considered in the western states, geothermal is to receive the same tax deduction for intangible drilling costs that oil and natural gas now receive, streamlined leasing procedures are to be developed, and additional research and development funding is proposed. With regard to oil and natural gas, the Plan calls for prices intended to provide new incentives. The intended effect is to increase the identification and production of oil and natural gas resources, including those located in the western United States.

In summary, the NEP, to the extent it is accepted by the Congress and implemented by the Administration, will signifi-

cantly affect the West (and other energy-producing regions). But the western states did not participate in its formulation.[10] That a policy which affects them so directly was formulated without their involvement is one of the things that the states are objecting to when they make demands on the federal government for a more active role in energy policy making.

ENVIRONMENTAL POLICIES

As noted earlier, both national and state environmental policies can have significant effects on western energy-resource development. For example, energy development in the West will have to meet federal air quality standards (or more stringent state standards in Colorado, Montana, North Dakota, and Wyoming), including new source performance standards (NSPS), national ambient air quality standards (NAAQS), preventon of significant deterioration (PSD) increments and the BACT requirements mentioned above. Energy development in the eight states will be especially affected by PSD regulations which are intended to protect air quality in areas where air quality is now better than that required by NAAQS. This is because there are so many Class I PSD areas (such as national parks, recreation areas, forests, and wilderness areas) in the West. The likely effect of PSD requirements will be to limit the size and probably the number of energy conversion facilities (such as coal-fired steam-electric power and synfuels plants) that can be sited in the West.

The aborted effort to develop a large coal-fired steam-electric complex on the Kaiparowits Plateau in southern Utah illustrates how frustrated states can become because of federal environmental regulations and requirements, including those which deal with air quality. Numerous state and local officials were clearly in favor of and promoted this project.[11] But the utility consortium proposing the project gave up after spending four and one-half years and 5 million dollars, primarily because of air quality problems—eight national parks would potentially have been affected by the complex. And at the time the consortium abandoned the project, it would still have had to obtain 220 permits

from 42 federal, state, and local agencies prior to construction (Hill, 1976).

The point here has nothing to do with whether the Kaiparowits complex should have been built. It is that many state and local officials were outraged that federal regulations with which they disagreed caused the project to be canceled. It is our impression that Utah is the most pro-energy development state and that its officials and citizens are among the most outspoken critics of federal intervention in state development related issues.

The newly legislated BACT requirement mentioned above will also affect coal development in the West since it effectively eliminates the advantages previously enjoyed by low sulfur coal. A recently published report on the effects of the BACT requirement indicates that western coal production will be substantially lower than it would have been in the absence of this requirement (Krohm, Dux, and Van Kuiken, 1977). This study found that the reduction could be almost 60% by 1985 and more than 170% by 1990. The decrease would occur mainly in the Northern Great Plains. Production in the rest of the West would increase by slightly less than 1% by 1985 and 15% by 1990, primarily by replacing Northern Great Plains' coal in certain markets (Krohm, Dux, and Van Kuiken, 1977: 47).

The National Environmental Policy Act of 1969 (NEPA) has also had and can be expected to continue to have a significant impact on western energy resource development, both on a site-specific and regionwide basis. Among the provisions intended to achieve the overall objectives of the Act is a requirement that an environmental impact statement (EIS) be prepared by federal agencies for any proposed action which would significantly affect the quality of the human environment (NEPA, 1969: Sec. 102 [2] [C]). An agency's draft EIS is widely reviewed both within government and externally before a final EIS is issued. And the adequacy of the final EIS subsequently issued may be challenged. For example, the Department of the Interior's (DOI) Final Coal Programmatic EIS was challenged by the Natural Resource Defense Council (NRDC) on the grounds that the statement failed to demonstrate the need for more federal coal leasing and did not adequately describe the proposed leasing system. The U.S.

Court of Appeals for the District of Colombia sustained NRDC's challenge (Sierra Club versus Morton [1975]; see also Magida, 1975). It found the EIS to be inadequate, and enjoined DOI "from taking any steps, whatsoever, directly or indirectly, to implement the new coal leasing program" (Turcott, 1978: 12). This injunction has the effect of continuing a moratorium on coal leasing which was officially in effect while DOI reviewed its procedures and issued the final coal programmatic EIS. Although the official moratorium was not announced by Secretary of the Interior Morton until February 1973, coal leasing has actually been stalled since May 1971. This has obviously affected coal development in the West since the federal government controls such a large percentage of the coal located there. And the injunction perpetuating the moratorium will continue to have the same effect.[12]

Thus, western energy resource development can be significantly affected both by environmental elements of national energy policies and by broader national environmental policies. In both cases, the state role has been limited, primarily to implementation. One reaction has been to argue for more flexibility in national standards, a flexibility which better takes into account regional differences. Another demand has been for more state and local control over the development of energy resources.

To press these demands, western states have been active in creating new institutional arrangements to influence energy development. In fact, the western states have a long history of interstate agreements to further mutual interests regarding economic development, distribution of water resources, environmental protection, and energy resource development. In part as a response to the proliferation of these organizations, but also because of increased concern about energy resource development, the Western Governors' Policy Office (WESTPO) was formed in 1977. All eight states of the study area are members of WESTPO, which consolidates several previous state-initiated regional organizations. The organization is directly involved in regional energy policy problems and serves as well as the region's major overall policy representative to the federal government. Acting in its representative capacity, WESTPO recently

submitted a regional position paper to the White House Conference on Balanced National Growth and Economic Development which reviewed the major land, water, and energy issues dominating discussion in the West (Western Governors' Policy Office, 1978).

RELATED POLICIES

Policies in areas related to energy and environmental concerns, for example, land-use management, siting, and water policies, are also affecting federal-state relationships. Some westerners believe that the policies which will affect western energy development most directly will be land management and siting decisions which determine which resources will be developed, where the resources will be developed, and which rules and regulations will apply to their development. In addition, water availability policies and programs rank with air quality as factors that significantly affect western energy development, particularly in the Upper Colorado River Basin. State, regional, and local officials argue that the lack of an adequate opportunity to participate in making these policies and the regulations to implement them can effectively compromise the states' meeting their responsibility to protect the health, welfare, and safety of their citizens.[13]

Federal land-management decisions and regulations often have adverse environmental, economic, and political effects on adjacent and surrounding state, local government, and private lands (see Council of State Governments, 1977). The potential for such side effects is great in the West given the fact that, as noted above, many of the land and mineral rights are owned by the federal government and Indian tribes.

Reclamation of surface mined lands is one aspect of land use that clearly illustrates the growing conflicts in federal-state relations. There has been considerable controversy concerning the extent of state authority over reclamation on federal lands and whether states should be involved in decisions to develop specific federal lands. Questions about state authority over reclamation on federal lands arose largely because there was

no federal reclamation legislation before enactment of the Surface Mining Control and Reclamation Act (1977). Because of the ambiguity of existing laws and regulations, most western states enforced their own laws on federal lands. In fact, all reclamation statues passed by the western states either expressly or implicitly stipulate that they apply to all mining activity within their boundaries, regardless of who owns the land (Barry, 1976). Reclamation regulations proposed by the Department of the Interior (DOI) in January 1975 provided that federal reclamation provisions would prevail over state law on federal lands, and that DOI has the sole authority for designating federal lands suitable for mining (U.S. Department of the Interior, Geological Survey, 1975). In part, because of substantial opposition to these regulations by western states (see Federation of Rocky Mountain States, 1976: 4), DOI changed the regulations to provide that states would be permitted as much control as constitutionally possible and that the states and DOI would enter into an agreement providing for joint administration and enforcement (U.S. Department of the Interior, Bureau of Land Management and Geological Survey, 1976).

This failed to satisfy Wyoming, which brought suit against DOI seeking recognition of Wyoming jurisdiction over mined land reclamation under its police powers (Herschler versus Kleppe, C-76-108). DOI subsequently entered into an agreement with Wyoming which allowed Wyoming's reclamation standards to take precedence over conflicting federal standards (*Denver Post,* 1976). Utah has also reached a similar agreement with Interior. Further, DOI indicated a willingness to negotiate settlements with other states whose reclamation laws were more stringent than federal regulations (Strabula, 1977).

However, two reclamation problems remain unresolved: first, the question of who should have control over the final decision whether energy development should occur on specific lands; and, second, the effects of the 1977 Surface Mining Act regulations (see *Federal Register,* 1977) on federal-state agreements negotiated with DOI. The critical point about the 1977 Act is that it represents a strong federal role in a policy area in which the trend had been toward increased federal-state co-

operative agreement, granting states a larger and more active role in developing energy and environmental policy.

This tension from reversal of trends is perhaps even more evident in water policy. The states of the region have always had considerable responsibility in allocating water resources through state appropriation systems and interstate compacts, and this responsibility had been increased in recent years by federal-state agreements. For example, Interior Secretary Andrus and Governor Lamm of Colorado have agreed to give Colorado veto power over the sale of irrigation water from the Savory-Pot Hook water project (see Strabula, 1976), and Andrus agreed to allow Montana to resell water from the Fort Peck Reservoir (Gill, 1976). Further, states in the region have taken several recent initiatives in water policy, largely designed to increase state government control. These include Montana's three-year moratorium on allocations from the Yellowstone River and Utah's development of the "Utah Plan"—a state water-allocation system which substantially modified the appropriation system.

In this context of recent trends, federal-state tensions and increased demands for states' rights have increased during the past year because of federal proposals which have repeatedly threatened the western states. These threats began in Spring 1977 with the Carter Administration's "hit list"—a proposal to limit or stop the funding of several water development projects because of questions about their economic and environmental costs. Although these recommendations met with little success in Congress,[14] they were followed by a proposal to enforce a 1902 law which would limit the amount of land a farmer can irrigate with water from federal reclamation projects to 160 acres. Even more threatening to the western states has been the Administration's proposal for a new national water policy, which considered reforms in irrigation technologies, water pricing strategies, resource management and environmental protection strategies, and state water laws (see Kirschten, 1977).

Although the Carter Administration has retreated on many aspects of these proposals,[15] they almost certainly have increased

tensions over environmental policy and also have increased the tendency of western states to press for an active role in decision making. For example, Wyoming Governor Herschler has said that these federal proposals would "upset the entire western agriculture," and called for equivalency standards which would allow ranchers in arid regions to irrigate more land than those in humid areas (*Denver Post,* 1977). Western groups who have met with President Carter and Vice President Mondale have strongly argued for state control over water management (Strain and Cook, 1977), and Governor Lamm of Colorado has suggested that "most or all western governors are upset at the way the West has been treated in water policy" (Parsons, 1977).

CONCLUSION

This review of national and western state policies affecting western energy development suggests that, in general, "centrally directed federalism" accurately characterizes intergovernmental relations during the past seven years. With regard to both energy and environmental policies, the federal government has preempted or dominates many policy areas previously left to the states. In energy policies, states clearly have a secondary role in *formulating* policies about development of publicly owned resources. The strongest federal action in energy policy making, the National Energy Plan, was formulated without direct participation of the western states, in spite of the critical importance of western state resources in meeting the Plan's goals. In environmental policy, recent federal activity has continued many of the trends established in the Clean Air Act of 1970 and the Federal Water Pollution Control Act of 1972. Probably the best example is the Clean Air Act Amendments of 1977 which mandate strong environmental controls on all new power plants. This negates many of the advantages western coal has had because of its low sulfur content, and, by establishing mandatory Class I PSD areas, the 1977 Amendments reduce the states' discretion in determining which clean-air areas should be most protected.

In both energy and environmental policies, state responsibility is largely limited to implementing federal standards or guidelines.

However, the "centrally directed federalism" thesis should not be overextended to the conclusion that federal dominance is likely to be the future nature of U.S. intergovernmental relations. This paper suggests that federal-state conflict over the appropriate roles and responsibilities of various levels of government has been steadily increasing. Increased intergovernmental tensions have been traced to three basic interrelated factors: (1) the physical and resource characteristics of the West—i.e., abundant, accessible deposits of energy resources located in a region of water scarcity, scenic beauty, and generally pristine environmental quality, (2) pressures for a large federal role, particularly due to the high percentage of western resources owned by the federal government, national energy needs, and the need for a national energy plan; and (3) individual attitudes and governmental responses in the West, particularly a rugged individualism and an ideological predisposition against federal intervention.

Tensions among these factors have fostered new efforts on the part of western states in the pursuit of common goals, particularly in gaining control over resource development and growth management. While it is clear that there continues to be considerable diversity among the western states, it is also clear that they are demanding a significant separate and collective role in formulating and implementing decisions which directly affect them. While the federal government continues to exercise strong control and dominates several policy areas, consistent with "centrally directed federalism," it is no longer uniformly the case that the federal government forces all states to comply with federal regulations within the context of nationally defined goals. We have noted that western states have developed air quality standards stronger than EPA's, created policies such as severance taxes which could make national goals more difficult to achieve, attempted to control where and how energy resource development will proceed through siting and land use and reclamation policies, and refused to accept increased federal control over water allocation. The trend of increasing state participation

in energy and environmental policy formulation within the context of centrally directed federalism, suggests that future policies which rely on western energy resources to meet national needs will probably include more rather than less state participation in the early stages of policy making. As far as the citizens of the West are concerned, national energy policies must be developed within this reemerging context of states' rights if the policies are to meet regional as well as national needs effectively.

NOTES

1. The authors of this paper are the political scientist members of the team. Other members are: Michael A. Chartock (zoologist), R. Leon Leonard (aeronautical engineer), Edward J. Malecki, Frank J. Calzonetti, and Mark S. Eckert (geographers), Edward B. Rappaport (economist), and Gary D. Miller (environmental scientist).

2. Morton Grodzins (1963) coined the phrase "marble cake of government" to emphasize the sharing functions which characterize the American federal system.

3. Policy "formation" or "formulation" has been used in several ways. Bauer (1968) uses it to denote the perception, choice, analysis, implementation, and revision of public policies. Jones (1977) uses "formulation" to reference a more select series of activities by which government acts on a perceived problem—selection of a specific policy proposal, legitimation of that proposal, and appropriation. In Jones' framework, formulation is a distinct and prior step to implementation, evaluation, and revision of a policy. This conceptualization of policy formation comes closest to our own.

4. The EPA study will be referred to as the Western Energy Study in this paper.

5. Western coal has been especially attractive as a fuel, since it is generally low in sulfur content. Until recently, this has meant that it could be burned without the use of environmental controls such as flue gas desulfurization units.

6. Data on Indian-owned resources in the area are not available. However, the 271 Indian reservations in the United States are estimated to contain up to one-tenth of the nation's coal reserves and one-sixth of all uranium recoverable at $8.00 per pound. Most of these resources are located on a few of the approximtely 50 Indian reservations in the western states. See U.S. Federal Trade Commission (1975).

7. The energy technologies considered in the Western Energy Study are described in White et al. (forthcoming-a). The preliminary results of an analysis of the impacts of deploying these technologies in the West are reported in White et al. (1977).

8. As noted above, the on-site effects of developing goethermal, oil shale, oil, natural gas, and uranium generally cannot be exported. However, effects can vary, depending upon which development alternative is chosen. These differences are reported in White et al. (1977).

9. Energy conservation is one of the few policy areas in which states have been given a chance to assume an active role. For example, states have been encouraged to develop and implement energy-conservation plans for reducing energy consumption (Energy Policy and Conservation Act, 1975). And under the "Weatherization for Low-Income

Groups" provisions of the Energy Conservation and Production Act (1976), local governments or community action agencies may carry out weatherization (primarily insulation) projects. State and local government participation in federal conservation programs is voluntary.

10. It is often said that the NEP was put together in the backroom. For example, Robert Fri, who was the Acting Administrator of the Energy Research and Development Administration in the transition from the Ford to Carter Administrations, describes it this way.

11. Based on personal communications with state and local officials in Southern Utah, June 13-16, 1977. Rural communities that stood to gain the greatest benefits from the Kaiparowits project have been economically stagnant for years. Local and county officials often expressed the desire to see their towns grow again, thereby creating incentives for younger residents to remain and for the upgrading of public services and facilities.

12. Secretary of the Interior Kleppe terminated the moratorium in January 1976, but no coal leases were made prior to the current injunction being granted. Secretary Andrus recently announced an agreement which would allow Interior to resume limited leasing of coal deposits on federal lands in the West to allow operators to fulfill existing contracts. However, the plan still must be accepted by the District Court which issued the injunction. See *Denver Post* (1978).

13. James Monaghan, Assistant to the Governor of Colorado, has made this general argument with regard to land-management issues in several public forums, most recently on February 15, 1978 at the annual meeting of the American Association for the Advancement of Science in Washington, D.C. (1978). See also the Statement of "Issue 14: Region Impacts" and "Issue 15: Energy Resource Development on Federal Lands" in U.S. Congress, Office of Technology Assessment (1977: 182-188). Monaghan was one of the representatives of states participating in OTA's review of the NEP.

14. Of the 320 projects reviewed to see if they would receive federal funding, only eight western projects were cut back by Congress.

15. For example, in his recent tour of western states, Vice President Mondale promised that the national water policy study would not make recommendations interfering with state water rights. See Canon (1978).

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