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Noting that environmental advocates in various states have called for adoption of mineral export legislation, Professor Van Baalen analyzes the possible constitutional challenges to such legislation. The author proceeds by examining the possible preemption of state legislation by the Federal Power Act. After discussing the grounds for preemption, the author then turns to commerce clause challenges to the legislature. It is the author's thesis that neither form of challenge presents an insurmountable bar to passage of such legislation.

MINERAL EXPORT LEGISLATION--CAN IT WITHSTAND FEDERAL PREEMPTION AND COMMERCE CLAUSE CHALLENGES?

Jack L. Van Baalen*

Recent events have brought upon the United States the recognition that the country faces severe problems in producing adequate energy supplies to satisfy both present and projected demands. The current national energy crisis has produced an unprecedented search for new energy resources located within this country, where their exploitation and availability to markets will be unaffected by foreign political influences. Because the area is rich in mineral resources, the search has increasingly turned toward the western mineral states.1 Many, undoubtedly motivated by both the recognition of the region's obligation to contribute appropriately to solving the national problem and by the anticipation of hitherto unimagined economic growth, have championed the move to "develop" these resources. Others, perceiving the hitherto

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1. The shorthand term, western mineral states, will be used here to designate the mineral rich states of Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, North Dakota, South Dakota, Utah and Wyoming. See FEDERATION OF ROCKY MOUNTAIN STATES, INC., ENERGY DEVELOPMENT IN THE ROCKY MOUNTAIN REGION: GOALS AND CONCERNS 22-28 (1975).
unimagined social and environmental degradation which promises to accompany the pot of gold at the end of the development rainbow, view the prospects of burgeoning resource exploitation with apprehension. Several legislative initiatives designed to deal with various aspects of the anticipated degradation have been adopted or proposed. One of these—mineral export legislation—is the subject of this article. Mineral export legislation proceeds upon the theory that at least some aspects of this degradation can be mitigated by exportation of extracted minerals rather than their conversion into energy products within the state. One of the goals of this legislation would be to encourage or require the export of minerals from a state, thereby abetting commerce among the several states. In achieving its objectives, however, the legislation might also restrict energy conversion activities within the state, thereby impeding to some extent interstate commerce in certain energy products. This article will consider 1) whether the power of the states to adopt restrictions of this nature has been preempted by existing federal legislation and 2) whether the adoption of these restrictions would transgress limitations upon state legislative powers which are inherent in the commerce clause of the United States Constitution.

BACKGROUND

The quantity of energy required to propel a modern society is astronomical. A study published in 1972 indicates that the United States consumed 44% of the world’s coal production, 63% of its natural gas production and 33% of its petroleum production to meet the requirements of less than 6% of the global population. Perhaps even more significant

2. The superficial dichotomy here suggested between those who champion development in anticipation of resultant benefits and those who view its detrimental implications with apprehension is not intended to overlook the reality that many view the prospects with a mixture of both anticipation and apprehension.

3. Among these initiatives can be included environmental quality acts, industrial siting legislation, land use planning legislation, waste disposal, legislation, and others designed to mitigate the foreseen, adverse effects of the forthcoming development.

4. Depending upon the precise formulation of mineral export legislation and the view taken of the legislative goals, questions may also arise respecting whether the legislation exceeds substantive due process limitations. These questions will not be addressed here.

is the projected rate of future growth of energy demands. Simply as an example, projections indicate that, by the year 1990, the quantity of electric power required to be produced in this country will more than triple the 1973 production. Increasing demands upon other types of energy resources may be expected at comparable rates. Meeting these demands will necessitate dramatic increases both in mineral resource exploitation and in the construction and operation of energy conversion facilities.

The most plentiful energy-producing mineral resource in the United States is coal. Some projections indicate that the nation's coal output could triple by 1985. For several reasons, including ease of access and lower total coal costs, the strip mining of coal is a highly desirable extraction method. Ninety percent of the nation's strippable, low-sulfur coal is located in the western mineral states. As a result, many new strip mines have already been developed in the region and many more are contemplated. To take advantage of certain benefits which flow from the proximity of energy conversion facilities to the mineral resource site, energy producers have already constructed a substantial number of new conversion facilities in the area, and many more are planned for the future. While there appear to be no reliable forecasts relating to the entire western mineral states region, some studies of various sectors within the region indicate the probable magnitude of this planned development. The Department of Interior forecasts that thirty-six coal gasification plants will be in operation by 1985. Another projection concludes that the potential exists for transformation of eastern Montana into a major coal-based industrial complex. Wyoming foresees that more than sixty energy conversion

8. Id. at 2-4.
9. Id. at 3 n.9.
10. Id. at 12 n. 38.
11. Id. at 12.
facilities of various types will be in operation in the state within the next fifty years.12

Much of the region occupied by the western mineral states is rural land,13 devoted principally to agriculture, wilderness and wildlife uses. The impacts emanating from the proliferation of energy conversion facilities in this region may, therefore, be comparatively greater than those attendant upon the construction and operation of similar facilities in more populous areas. In addition to the customarily recognized adverse affects upon human health, conversion activities may adversely affect existing economic enterprises of substantial importance. For example, the agriculture and recreation industries may be adversely affected. These industries not only provide a significant contribution to the economic base of many of the western mineral states, but furnish benefits to a significant segment of the national populace as well as to other countries. Furthermore, there may inhere in energy conversion activities the potential for environmental and ecological effects of unforeseen proportions. Nor are concerns respecting anticipated impacts limited to those stemming from energy conversion facilities themslves. Adverse effects will be exacerbated by the associated development of other industrial and commercial activities. Perhaps of even greater concern are the effects accompanying the large population influx attracted by proliferating energy conversion as well as unprecedented industrial and commercial development.14 To some, the social, economic and environmental implications of these projections are matters of great concern.15

It is against this background that proposals for mineral export legislation have begun to appear. Legislation of this nature might take various forms. One possible form would simply direct state agencies in general terms to refrain from

12. Id. at 12 n. 38.
13. Id. at 12.
15. E.g., FEDERATION OF ROCKY MOUNTAIN STATES, INC., ENERGY DEVELOPMENT IN THE ROCKY MOUNTAIN REGION: GOALS AND CONCERNS (1975); NORTHERN GREAT PLAINS RESOURCES COUNCIL, EFFECTS OF COAL DEVELOPMENT IN THE NORTHERN GREAT PLAINS (1975).
encouraging the construction of new conversion facilities, but rather to encourage the export of mineral resources for conversion elsewhere. ¹⁶ A legislative directive of this sort would undoubtedly produce some desirable effects; it might tend to reduce the rate at which new conversion facilities and population influx will occur. Furthermore, being simply a statement of legislative policy which would not prohibit or restrict private economic activities, it would not appear to raise questions of possible conflict with the federal legislative or constitutional limitations considered below. The weakness of this approach, however, is self-evident. In view of the momentum already generated toward development of conversion facilities, such a general policy statement would probably prove to be a relatively ineffective measure.

A second possible formulation of mineral export legislation which would be more effective than the simple policy directive would impose blanket prohibitions. This legislation would declare a complete moratorium, either for some stated period of time or until further legislative action, upon all future construction of energy conversion facilities within the state. While this formulation would be well suited to prevention of the adverse effects associated with the proliferation of energy conversion activities, it suffers from the drawbacks of inflexibility. The authorization of additional conversion facilities, even to meet the state's own needs, would require new legislative action, a process which often proves ponderous and uncertain.

To avoid the inherent drawbacks in each of the foregoing formulations, it would seem desirable that mineral export legislation make a distinction between production of energy products to fill the needs of those residing within the state and production for purposes of transmission for consumption at points outside of the state. ¹⁷ This legislation

¹⁶. A proposed joint resolution of the Wyoming Legislature, sponsored by the Wyoming Outdoor Council and the Powder River Basin Resource Council in 1975, would have undertaken "to discourage additional conversion of coal to other forms of energy in the State of Wyoming for the benefit of energy consumers elsewhere."

¹⁷. House Bill No. 453, introduced into the Montana House of Representatives during the 44th Legislative Session, would have effected a total ban on construction of energy conversion facilities for a maximum of six years unless
would recognize both the national energy requirements and the interest of the state in avoiding the adverse effects associated with energy conversion. To this end it would require that, except as otherwise provided, all mineral resources extracted within the state for use in connection with energy conversion activities shall be exported from the state. Energy conversion would be defined to include such activities as the generation of electricity, coal gasification and liquefaction, oil refining and the like. The legislation would exempt from its operation the extraction of minerals for use in connection with production of energy products to be consumed within the state.\textsuperscript{18} Mineral export legislation of this nature would obviate the drawbacks of both of the other formulations suggested above.\textsuperscript{19} Rather than being a mere policy statement of rather doubtful force, it would effect a mandatory restriction against the construction and operation of most new energy conversion facilities. Rather than being an inflexible proscription against all future conversion facilities, it would allow for future facilities sufficient to meet the need of the state's residents. In attempting to achieve these aims, however, the contemplated legislation raises questions of possible conflicts with federal legislation and with the limitations upon state action emanating from the commerce clause of the United States Constitution. First, if there exists federal legislation governing the production of energy products, this legislation might be deemed to preempt the power of the states to impose restrictions upon this ac-

\textsuperscript{18} Conversations with officials of the Northern Plains Resources Council and the Wyoming Outdoor Council have indicated that both these organizations have supported or are considering supporting legislation which would prohibit conversion facilities unless some specified percentage of their production will be consumed within the state. Another Wyoming environmental organization evidently favors legislation limiting new facilities to those required to fill in-state needs.

\textsuperscript{19} Presumably this legislation would also exempt from its provisions minerals extracted within the state for use by conversion facilities in existence, or for which all requisite permits had been issued, prior to the effective date of the legislation.
tivity. Second, even if no such federal legislation exists, if the contemplated state legislation is deemed to impose an undue burden on interstate commerce, it will be subject to invalidation as a violation of the commerce clause.

Invalidity of State Laws by Reason of Federal Preemption

Pursuant to the powers granted to it by the commerce clause of the United States Constitution, Congress is empowered to regulate not only the interstate transportation of goods, but also all matters affecting commerce among the several states. This power clearly extends to the production of energy products in one state for transmission to and consumption in other states. Congressional legislation regulating these matters may preclude state regulation in this field by virtue of the operation of the Supremacy Clause. Whether or not Congressional legislation respecting any matter has the effect of precluding state action, however, depends upon a determination of whether that legislation has preempted all regulation of the subject matter to which the state action would apply.

Invalidation of state laws on the ground of Congressional preemption requires a conclusion that Congress clearly intended to supercede state regulation in the area. It is not necessary, however, that Congress specifically express its intention to supercede state laws; it is enough that the Congressional intent may reasonably be inferred from the

22. Id. at 825, 871.
23. U.S. CONST. art. VI.
24. Even if it is held, however, that no Congressional preemption exists, state regulation may also be prohibited by the dormant commerce power if it will result in an undue burden on interstate commerce. Since a determination that state regulation is precluded by the dormant commerce power frequently involves conceptual difficulties which do not inhere in questions of congressional preemption, courts may find preemption a preferable basis for invalidating state legislation where it is applicable. Note, Pre-emption as a Preferential Ground: A New Canon of Construction, 12 STAN. L. REV. 208 (1959).
federal statute. This inference has been drawn where 1) the federal regulation itself is so pervasive as to preclude any supplementation of that regulation by the states; 2) the federal interest in the field subjected to regulation, or the object sought to be attained and the character of the obligations imposed by that regulation, is so dominant as to require the conclusion that state legislation respecting the same subject matter is precluded; or 3) the state legislation produces results which conflict with the federal legislative objective. In view of the broad scope of the federal interest in regulating matters which may affect interstate commerce, the issue in preemption cases is generally not whether the Congress is empowered to adopt legislation occupying the field, but whether, and to what extent, it has chosen to do so.

With respect to conversion activities utilizing some types of mineral resources, such as oil and natural gas, no federal legislation appears to exist which would raise the issue of preemption. The question may arise, however, whether the provisions of the Federal Power Act preempt a state’s power to restrict the construction of certain types of electric generating facilities. In 1935, Congress enacted the Federal Power Act for the purpose of regulating various activities


31. The Atomic Energy Act, as amended, (42 U.S.C. § 2011 et seq. (1970)) may preclude the application of mineral export legislation to nuclear conversion facilities. A recent article concludes that state legislation declaring moratoriums upon nuclear power plants because of concerns respecting nuclear emissions would be preempted. Murphy and LaPierre, Nuclear “Moria-torium” Legislation in the States and the Supremacy Clause: A Case of Express Preemption, 76 Col. L. Rev. 302 (1976). In view of the various purposes of export legislation, the implications of that conclusion, as it relates to this type of legislation, are unclear.

of the electric power industry. If the provisions of this Act were found to preempt the regulation of those activities to be restricted by mineral export legislation, the states would be precluded from adopting such legislation. This Act, as revised and expanded in 1935, creates the Federal Power Commission, grants to it the authority to license the construction and operation of hydroelectric power projects, and authorizes it to regulate public utilities which transmit or sell at wholesale electric power in interstate commerce.\(^\text{33}\) No provision expressly authorizes the Commission to license construction and operation of power production projects other than hydroelectric projects. Except as otherwise provided in the Act, the Commission is specifically denied jurisdiction over generating facilities.\(^\text{34}\) Section 202\(^\text{35}\) does grant the Commission limited jurisdiction over generating facilities in the following terms:

(a) For the purpose of assuring an abundant supply of electric energy throughout the United States with the greatest possible economy and with regard to the proper utilization and conservation of natural resources, the Commission is empowered and directed to divide the country into regional districts for the voluntary interconnection and coordination of facilities for the generation, transmission, and sale of electric energy . . . . Each such district shall embrace an area which, in the judgment of the Commission, can economically be served by such interconnected and coordinated facilities.\(^\text{36}\)

The policy here expressed clearly favors regional planning and coordination of generation and delivery of electric energy without regard to state borders. Does it, however,


\(^{34}\) 16 U.S.C. § 824(b) (1970). This provision is not applicable to that portion of the Act authorizing licensing of hydroelectric projects.


\(^{36}\) Pursuant to this section, the Federal Power Commission has promulgated requirements for voluntary reporting by the electric power industry's nine regional reliability councils. These councils are private, industry organizations. The reporting requirements include projections respecting energy needs and generating capacities within each region as well as information respecting present and projected transmission facilities and coordinated regional practices respecting emergency power requirements. 18 C.F.R. § 2.11 (1976).
evidence a comprehensive and dominant federal policy which clearly manifests a Congressional intention to preempt state restrictions against generation of electric power? While no court decision in this regard has been found, both the Act and its legislative history suggest that no such intention existed. The Act’s statement of purpose declares that federal regulation is “to extend only to those matters which are not subject to regulation by the States.” Since the states have traditionally controlled the construction and operation of electric power generating facilities, this declaration would seem to express a Congressional intent not to preempt state activities in this area. Notwithstanding this statement of purpose, however, it has been held in cases involving rate and accounting regulations that, when an electric power company is found to be a public utility within the Act’s definition of that term, the Commission’s regulatory jurisdiction over its rates and accounting procedures is exclusive even though a state agency might otherwise have had jurisdiction over those matters.

One could therefore assert that, if an electric power company would be a public utility under the Act by virtue of operation of a proposed facility to produce power for transmission in interstate commerce, its generating activities would be subject to Federal Power Commission jurisdiction under Section 202 of the Act and therefore immune from state imposed restrictions. The analogy is imperfect, however, since the Act provides for direct regulation of rates and accounting procedures whereas Section 202 contemplates only encouragement of voluntary cooperation to coordinate generation facilities. That the Congress did not intend regulation of generation facilities even when their operator would be a public utility under the Act is further confirmed by legislative history and by court decision.

40. The primary purpose of the Act was the regulation of interstate electric power rates. H.R. REP. No. 1318, 74th Cong., 1st Sess., 7-8 (1935); Jersey Central Power & Light Co. v. FPC, 319 U.S. 61, 71 (1943).
41. The Bill initially reported by the Senate Committee on Interstate Commerce provided for federal control of electricity generation because, in its view, generation and transmission were so inseparable as to require control of the former in order effectively to control the latter. S. REP. No. 221, 74th Cong., 1st Sess., 48-49 (1935). The Senate Bill was revised in the
Nor should mineral export legislation be invalidated as inconsistent with the objectives sought to be attained by the Federal Power Act. Even when state regulation deals with the same subject matter as that comprehended by federal legislation, it has not been found to be preempted if directed at an objective which differs from or compliments the objective of the federal legislation. In upholding state statutes against the preemption challenge, the Supreme Court has frequently stressed that they were aimed at matters historically considered to be within the sphere of legitimate state concern. For example, state legislation providing for reimbursement of damages resulting from oil spills in coastal waters has been upheld against the attack of federal preemption. The legislation was upheld notwithstanding provisions of the Federal Water Quality Improvement Act of 1970 for reimbursement of clean-up costs incurred by the federal government and in spite of the contention that exclusive jurisdiction of maritime matters is vested in the federal government. The court relied in part upon a provision of the Water Quality Improvement Act preserving to the states the right to impose liability with respect to discharge of oil into their waters. This provision appears similar to, although perhaps not as strong as, the Federal Power Act's disclaimer of jurisdiction over matters regulated by the

House of Representatives to delete the provision for control of generation.

It might also be noted that, while the Commission is authorized in the public interest to require utilities under its jurisdiction to furnish electric energy to other persons in the industry (16 U.S.C. § 824a(b) (1970)), and also to require such utilities to furnish adequate service (16 U.S.C. § 824f (1970)), it may not compel the enlargement of generating facilities for these purposes. The absence of a right to compel enlargement of generating facilities might imply a corresponding absence of jurisdiction over construction of new facilities.

41. The Supreme Court has recently held that the Federal Power Commission does not have licensing jurisdiction over steam electric generating plants even though they will utilize large quantities of water from navigable streams in connection with the generating process. Chemehuevi Tribe of Indians v. FPC, 420 U.S. 395, 424 (1975). In reaching this decision, the Court noted that the Commission has consistently taken the position that it does not possess licensing authority over construction and operation of power generating facilities other than hydroelectric plants. Id. at 409.


43. Id.


states. Further, the Supreme Court has held valid against attack on grounds of federal preemption a city smoke ordinance which was violated by a ship's boiler found to be in compliance with the provisions of a federal boiler inspection act. The Court found that the purpose of the federal act was to protect passengers and crew in maritime navigation while that of the ordinance was to protect the health and enhance the cleanliness of the local community. Applying the test of inconsistency between state legislation and the objective of federal regulation, it does not appear that mineral export legislation is inconsistent with the objectives of the Federal Power Act. The objectives of Section 202 of the Act are the coordination of facilities to insure adequate power supplies and conservation of resources while mineral export legislation seeks to protect the health, economic and environmental interests of the states' citizens.

If it should be found that a direct conflict exists between the Act's provision respecting regional cooperation in generation and delivery of electric power and state export legislation, state enforcement of this legislation would be precluded. Such a conflict would arise if the Commission were to determine that an abundant supply of power could most economically be furnished to a region by construction of generating facilities in a state which had adopted export legis-

47. 16 U.S.C. § 824(a) (1970). This provision, disclaiming federal jurisdiction of matters subject to state regulation, would appear to negative federal preemption even more conclusively than the Water Quality Improvement Act provision according states concurrent jurisdiction over oil spill damage. It should be observed, however, that cases decided under the Federal Power Act indicate that courts will give greater weight to an express limitation of jurisdiction contained in operative statutory provisions than to a general policy statement such as the one contained in Section 824(a). See FPC v. S. California Edison Co., supra note 38; Connecticut Light & Power Co. v. FPC, supra note 38; Jersey Central Power & Light Co. v. FPC, supra note 40.


49. Id. at 44.

50. The nature of the various state interests which mineral export legislation may seek to protect is discussed infra in the text accompanying notes 110-151.

To the extent that both Section 202 of the Act and mineral export legislation seek to conserve natural resources, they would appear to be complimentary rather than inconsistent. Further, it may be assumed that the resources referred to by the Act are energy producing resources such as coal, oil and gas whereas those export legislation seeks to conserve are social and environmental.

51. City of Burbank v. Lockheed Air Terminal, Inc., supra note 26; First Iowa Hydroelectric Cooperative v. FPC, supra note 28.
tion. The possibility of this conflict arising assumes, of course, that the authority of the Commission to divide the country into districts for voluntary interconnection and coordination of generating and other facilities implies the further authority to designate or approve the placement of new generating facilities. If Congress had indeed intended to intrude into the field of power plant siting, one might have expected a much clearer statement of this purpose than appears in this section of the Act. The authority to encourage voluntary cooperation hardly seems equivalent to a grant of power to impose generating facilities upon a state which has undertaken legislatively to exclude those facilities. If it should nevertheless be concluded that Congress has delegated this authority to the Commission, compliance with the state restriction against energy conversion facilities and a federal determination favoring construction would become impossible; a holding of direct conflict between federal and state law would be inescapable. The existence of this possibility, however, is not sufficient to justify a conclusion of federal preemption until this possibility becomes a reality, or at least imminent. It is not the function of the courts to speculate about possible future conflicts the occurrence of which would render state regulation invalid as conflicting with federal law.

The Federal Power Act, while regulating various aspects of the electric power industry, should not be found to preempt the state's authority to adopt mineral export legislation. Section 202 of the Act contemplating the encouragement of cooperation and coordination of generating and other facili-

52. One court has found that no comprehensive federal legislation governing siting of fossil fuel generating plants exists. Chemehuevi Tribe of Indians v. FPC, 489 F.2d 1207, 1233 (D.C. Cir. 1973), rev'd on other grounds, supra note 41. Although several power plant siting bills have been introduced in Congress in recent years, none has been adopted. Major bills introduced are described in Journey, Power Plant Siting—A Road Map of the Problem, 48 Notre Dame Law. 273 (1972). Some support for a more expansive reading of the section might be found, however, in the Senate Committee on Interstate Commerce report observing that "[u]nder this subsection the Commission would have the authority to work out the ideal utility map of the country and supervise the development of the industry toward that ideal." S. REP. No. 621, 74th Cong. 1st Sess., 49 (1935).

53. See cases cited, supra note 29.

ties does not constitute a comprehensive federal scheme which might have the effect of ousting states from jurisdiction over generating facilities. Although this section does declare a policy favoring regional coordination, this policy should not be seen as inconsistent with the goals of state export legislation. Nor does there exist any present or imminent conflict between the Act and the restrictions which would be imposed by export legislation.

**INVALIDITY OF STATE LAWS BY REASON OF COMMERCE CLAUSE LIMITATIONS**

The conclusion that there exists no congressional legislation which might preempt state regulation of electric power generation does not assure that state restrictions will be valid. Invalidity might also result from a conflict between state legislation and the commerce clause of the United States Constitution. While that clause grants to Congress the power to regulate commerce among the states, this grant does not automatically prohibit state regulation of interstate commerce. Even in the absence of preempting congressional legislation, however, the commerce clause does limit the extent to which states may validly adopt legislation which impinges upon or restricts the conduct of commerce among states. Although many cases and commentators have considered the limitations imposed by the commerce clause upon state regulation of interstate commerce, no single formulation has emerged which can be applied with equal force to all state regulations. The ultimate question for determination in each case is whether the burden imposed upon interstate commerce by the state regulation constitutes too great an impediment to the conduct of national commerce to be permitted to stand.

The question whether state regulations impose too much burden on interstate commerce is often said to depend upon the subject matter of the state regulation. The validity of a regulation is determined by inquiring whether the nature of the matter regulated is susceptible to diverse regulation or whether its nature requires that, if regulated at all, it must be subjected to uniform regulations prescribed by Congress. In deciding specific cases over the years, the United States Supreme Court has recognized several factors which have been accorded varying emphasis depending upon the state regulation in question. The factors most often considered may be grouped into two broad categories—in one of these, the focus is upon a regulation’s discrimination against interstate commerce; in the other, the nature of the state’s interest is balanced against the degree of burden imposed upon that commerce. Frequently the Court has invalidated state regulations on the ground that they constituted an impermissible discrimination against interstate commerce. The Court has often expressed the rationale that the entire country must be viewed as a single economic unit; economic embargoes which may invite retaliatory reactions from other states are, therefore, impermissible. State regulations have also been invalidated if the burden imposed upon interstate commerce, when balanced against the nature of the state interest served by its regulation, is too great to justify the imposition of the burden. In these cases, the Court has weighed the merits of the state objective, together with the relationship between that objective and the means legislatively chosen to achieve it, against the degree of the burden imposed upon commerce.


63. Id.
Impermissible Discrimination Against Interstate Commerce

United States Supreme Court cases are replete with statements that state regulations may not discriminate against interstate commerce.64 For purposes of this discussion, challenges to state legislation on the grounds of discrimination against commerce can be classified according to the objectives which that legislation attempts to achieve. One objective which has met the challenge of discrimination involves attempts by states or local governments to protect business enterprises against the adverse effects of competition from out of state. This goal may be achieved by the imposition of disproportionate taxes or license fees upon the out-of-state competitor’s privilege of doing business within the state, or by direct ban upon the sale of goods imported from another state.65 The same goal may be achieved by requiring that goods be processed or inspected within a relatively small radius from the market place, thus excluding goods of which local processing or inspection is impractical.66 When the Court has concluded that the principal purpose of legislation, whether overt or tacit,67 is the exclusion of out-of-state competition, it has uniformly held the legislation invalid as in conflict with the commerce clause.68

64. E.g., H.P. Hood & Sons v. Du Mond, supra note 61, at 531-39; Best & Co., Inc. v. Maxwell, supra note 60; Baldwin v. Seelig, supra note 61, at 522-23 (1935); see also South Carolina State Highway Dept. v. Barnwell Bros., Inc., supra note 56, at 184-86.

65. See e.g., Memphis Steam Laundry Cleaner, Inc. v. Stone, 342 U.S. 389 (1952) (state per truck privilege tax of $50 for out-of-state laundries compared to $8 for in-state laundries); Toomer v. Witsell, supra note 60 (state license tax of $2500 on out-of-state shrimp boats compared to $25 on in-state boats—decision based on privileges and immunities clause, U.S. CONSTR. art. IV, § 2); Best & Co., Inc. v. Maxwell, supra note 60 (state license tax of $250 on merchants displaying goods in temporary quarters compared to $1 on merchants maintaining permanent quarters); Baldwin v. Seeling, supra note 61 (prohibition against sale of milk purchased out-of-state at prices less than the legal in-state purchase price).

66. See, e.g., Dean Milk Co. v. Madison, supra note 60 (requirement that all milk sold in city be pasteurized within 5 miles from city); Minnesota v. Barber, 146 U.S. 313 (1890) (requirement that meat sold in state must be inspected within state).

67. When the effect of a regulation, as applied to an out-of-state enterprise, is found to be discriminatory, it may be held invalid even though some residents of the state are treated in the same manner as the out-of-state enterprise. For example, in Dean Milk Co. v. Madison, supra note 60, milk pasteurized beyond the 5 mile limit, but within the state, was also barred from sale within the city. Nevertheless, the ordinance was invalid as applied to the out-of-state enterprise.

68. E.g., cases cited, supra notes 65 and 66.
A second state objective often challenged on grounds of discrimination involves attempts to compel out-of-state enterprises to locate within the state for the benefit of local residents. Discriminatory taxes or license fees, as well as local processing or inspection requirements, may be viewed as attempts to compel local operation rather than to exclude competition.\(^69\) In addition, however, states have sometimes attempted to achieve this goal by prohibiting the export of raw materials, thus tacitly requiring in-state processing operations, or simply by directly ordering that an enterprise conduct processing operations within the state.\(^70\) Here again, when the Court has been convinced that a principal purpose of legislation, or of the manner in which it is administered by executive agencies, is compulsion of local operation, it has uniformly found the legislation, or its application to out-of-state enterprises, invalid by virtue of commerce clause constraints.\(^71\)

It is doubtful that mineral export legislation would be subject to challenge as discriminatory on either of the above grounds. The legislation's restriction upon energy conversion within the state for transmission to and sale in other states would neither exclude out-of-state enterprises from competing for local markets nor would it seek to compel their local operation. On the contrary, the contemplated legislation would accord equal access to markets within the state to all persons regardless of location of the competitor's residence.\(^72\) Furthermore, rather than seeking to compel processors to locate within the state, the legislation would attempt

\(^69\) Id.

\(^70\) E.g., Pike v. Bruce Church, Inc., supra note 62 (requirement that grower pack fruit in state rather than transporting to another state for packing); Toomer v. Witsell, supra note 60 (requirement that all shrimp boats fishing in state's maritime water dock and unload, pack and stamp shrimp before transporting to another state); Foster-Fountain Packing Co. v. Haydel, 278 U.S. 1 (1928) (prohibition against exportation of shrimp from state without removing heads and shells).

\(^71\) Id.

\(^72\) State statutes regulating public utilities might, of course, prohibit persons from engaging in certain types of business within the state. The regulation of public utilities to achieve orderly distribution patterns has been upheld even when the result of its application excludes an out-of-state enterprise from operation within the state. Cf. Panhandle E. Pipe Line Co. v. Michigan Public Serv. Comm., 341 U.S. 329 (1951).
to avoid in-state processing of energy products for out-of-state consumption.

A third objective of state regulation which has been challenged as impermissible discrimination involves attempts to limit or prevent the exportation of resources to other states.\textsuperscript{73} Regulations of this nature appear to occur less frequently than the other types discussed above since it is usually considered in a state’s best interests to encourage, rather than impede, the sale in other markets of goods originating within the state.\textsuperscript{74} When the available supply of a commodity has been limited, however, states have sometimes deemed it desirable to accord their residents preferential access to commodities located within the state. Under these circumstances, states have at times sought to preserve resources for their residents either by denying to out-of-state enterprises licenses to purchase goods for export or by simply adopting restrictions against such export.\textsuperscript{75} Regulations found to have been adopted for the purpose of preserving local resources to the detriment of out-of-state consumers have also been invalidated by the courts.\textsuperscript{76} It has been thought that embargoes of this nature would prompt the adoption of retaliatory measures by other states, thus resulting in economic conflicts inimical to basic national interests of free trade.\textsuperscript{77}

Mineral export legislation could be characterized as discriminatory against interstate commerce in that it would restrict energy conversion activities, thereby reducing the amount of energy products which might otherwise be exported.

\textsuperscript{73} This type of regulation might be viewed as an example of protection of a state’s residents against competition, similar to the situations considered in the discussion accompanying supra notes 65-70. Here, however, the objectionable legislative purpose is usually protection of resident consumers against competition for the resource rather than protection of resident business enterprises against competition for local markets. These situations are discussed separately because of their apparent similarity to export legislation’s restriction upon energy conversion for export to other states.

\textsuperscript{74} See H.P. Hood & Sons, Inc. v. Du Mond, supra note 61, at 535.

\textsuperscript{75} Oklahoma v. Kansas Natural Gas Co. 221 U.S. 229 (1911) (prohibition of construction of pipelines for transportation of natural gas out of state); Pennsylvania v. West Virginia, supra note 60 (requirement that natural gas be supplied to state’s residents in preference to out-of-state consumers); e.g., H.P. Hood & Sons, Inc. v. Du Mond, supra note 61 (denial of license to construct receiving plant for purchase of milk for sale in another state).

\textsuperscript{76} Id.

\textsuperscript{77} H.P. Hood & Sons, Inc. v. Du Mond, supra note 61, at 535.
from the state. There exists, however, several bases on which the Court's decisions invalidating impediments to commodity exports might be distinguished from the ban inherent in the contemplated legislation. It should be noted that all of the cited cases, in which state restrictions against exports were found to violate commerce clause constraints, concerned prohibitions upon the export of natural resources rather than restriction upon manufacturing products for export.\(^78\) The distinction merits consideration in view of the essential difference in the impact of banning export of the resources themselves and banning their use to produce commodities which would, in turn, be exported. The latter is directed at processing activities within the state,\(^76\) leaving consumers and processors in other states free to obtain the requisite resources for use in processing in the locality where they are required. The former denies to other states, which may be devoid of them, resources that might be essential to sustain their social or economic viability, or to fulfill requirements on which their public welfare is thought to depend.

A second distinction between export legislation and state restrictions upon exportation of natural resources requires an examination of legislative motive.\(^80\) Although judicial ap-

78. In obiter dictum in Hood, the majority opinion asked, rhetorically, whether Michigan could prohibit export of automobiles, or Ohio the export of tire, until all local demands were satisfied. Id. at 539. The evil implied by the query, however, seemed to be attempts to prefer local residents economically over out-of-state consumers.

79. Statutes which have directly regulated processing activities conducted within a state have sometimes been upheld by the Court on the ground that they constitute a permissible regulation of local activities which only indirectly affect interstate commerce. E.g., Parker v. Brown, 317 U.S. 341 (1943); Bayside Fish Flour Co. v. Gentry, 297 U.S. 422 (1936); Crescent Cotton Oil Co. v. Mississippi. 257 U.S. 129 (1921). Conversely, regulations imposed upon purchase of natural resources for immediate transportation to other states have been invalidated as direct regulation of interstate commerce. E.g., Shafer v. Farmers' Grain Co., 298 U.S. 189 (1936); Lemko v. Farmers' Grain Co., 258 U.S. 50 (1922). While this distinction has never been expressly repudiated, the Court has indicated that the fact that a regulation is directed at in-state processing will not, of itself, negative the possibility that its indirect effect on interstate commerce may be impermissible. Under these circumstances, the Court will inquire whether this indirect effect constitutes an undue burden on interstate commerce. See Parker v. Brown, supra, at 362-63. Questions pertaining to undue burden on interstate commerce are discussed infra in the text accompanying notes 101-202.

80. Although it has been said that courts will not consider legislative motives, in commerce clause cases, such an examination frequently occurs. Note, Environmental Law—State Environmental Protection Legislation and the Commerce Clause, 37 Harv. L. Rev. 1762 (1974).
praisal of the motive upon which legislation is predicated usually constitutes only one of several factors considered in commerce clause cases, the belief that a legislature was motivated by an improper goal may contribute significantly to the Court's conclusion of invalidity. In striking down state legislation as an impermissible regulation of interstate commerce, the Court has often indicated that the state had attempted to prefer the economic interests of its residents over those of residents in other states.81 In the case of *H. P. Hood & Sons, Inc. v. Du Mond,*82 for example, the New York Commissioner of Agriculture and Markets denied a license for construction of a facility to receive milk for export. One of the bases of the denial was that the exporting of the milk purchased by the applicant would tend to deprive a local market of needed supplies. It was this attempt to accord preferential economic treatment to local consumers that the majority stressed in holding the statute, as applied, unconstitutional.83 Similarly, in the natural gas cases, state legislation limiting or prohibiting transmission out of the state was motivated by the desire to secure to the state's residents preferential access to the available supply.84 Since export legislation would preserve equal competition for available mineral resources regardless of whether they were sold for production of energy products to be consumed within the state or elsewhere, it would not entail preferential treatment of local consumers.

The distinction between impermissible regulation to achieve economic preference and permissible, noneconomic regulation has also been recognized in respect to state control of interstate transportation facilities. State denial of certificates of public convenience and necessity for interstate bus lines has been held invalid when motivated by the desire to protect operators against competition, but has been upheld

82. *Supra* note 61.
83. *Id.* at 545. Mr. Justice Black, dissenting, argued that, in spite of the Commissioner's consideration of local consumer requirements, the dominating factors motivating denial of the license pertained to matters of health and public welfare.
84. *Pennsylvania v. West Virginia,* supra note 60; *Oklahoma v. Kansas Natural Gas Co.,* supra note 75.
when motivated by safety considerations in congested areas.\footnote{When the Court has sought only to prevent states from prescribing safety regulations that `unduly burden' interstate commerce, it has acknowledged such an occurrence to be a consideration of state legislative power. See, for example, the opinion written by Chief Justice Warren in United States v. X--X, 376 U.S. 106 (1964).} It is true that mineral export legislation would preclude the production of energy products within a state for sale in competition with existing in-state producers selling those products in other states. In this respect the legislation could be seen as an attempt to protect existing producers from competition, a motive which resulted in invalidation of state denial of certification in the bus cases. In those cases, however, the denial of certification precluded all competition by the applicants. A producer denied the right to manufacture energy products in a state adopting export legislation would nevertheless remain free to export the mineral resources for production of those products in the locality in which they are to be marketed. Furthermore, in view of the gravity of the impacts associated with proliferation of energy conversion activities,\footnote{See discussion infra accompanying notes 110-151.} it is doubtful that a court would find that the true motivation of export legislation was to confer an illicit competitive advantage upon existing producers.\footnote{Cf. Note, Environmental Law—State Environmental Protection Legislation and the Commerce Clause, supra note 80, at 1775-76. Although export legislation would not preclude competition with existing interstate energy producers, it may affect production costs of new producers. The possible increase of these costs is discussed infra in the text accompanying notes 183-91.}

In appraising the existence of an improper legislative motive, the Court has also been influenced by the extent to which the burden of a challenged regulation falls upon the state's residents as well as upon nonresidents.\footnote{Southern Pacific Co. v. Arizona, supra note 57, at 767; Edwards v. California, 314 U.S. 160, 174 (1941); Southern Carolina State Highway Dept. v. Barwell Bros., Inc., supra note 56; Note, Environmental Law—State Environmental Protection Legislation and the Commerce Clause, supra note 80, at 1775.} The inquiry recognizes that, to the extent that the burden must be borne by a state's residents, the legislature adopting the regulation is subjected to the political influence of persons who will be adversely affected by its adoption. When the effect of legislation is solely, or largely, the creation of preferential treatment of state residents at the expense of nonresidents,
no such political check will be exerted upon legislative action. Regulations which have imposed no burden upon local residents, or which have overwhelmingly favored their interests by imposing burdens on interstate commerce, have been held unconstitutional. Further, when the burden imposed upon interstate commerce has been inordinate in relation to that borne by local residents, a determination of unconstitutionality has generally followed.

The restrictions upon in-state energy conversion, which are a necessary component of mineral export legislation, will be subject to significant political checks by state residents. Rather than favoring the economic interests of those residents at the expense of the nonresident, these restrictions will be seen by significant segments of the state’s residents as adversely affecting their economic interests. Exclusion of energy conversion facilities will deprive both residents and the state itself of substantial sources of income. Construction costs of conversion facilities are high; a substantial portion of these costs will undoubtedly be expended within the state where the facilities will be located. Significant expenditures will also be required to maintain and operate these

89. Dean Milk Co. v. Madison, supra note 60; Pennsylvania v. West Virginia, supra note 60; Oklahoma v. Kansas Natural Gas Co., supra note 75.

90. Compare Lemke v. Farmers’ Grain Co., supra note 79 (where 90% of wheat grown in state transported out of state for sale, price regulation unconstitutional) with Milk Control Bd. v. Eisenberg Farm Prod., 306 U.S. 346 (1939) (where only 10% of milk produced within state transported out of state for sale, price regulation constitutional). The presence or absence of the political check has not always been the determinative factor. In H.P. Hood & Sons, Inc. v. Du Mond, supra note 61, denial of a license to construct a facility for receiving milk to be sold in other states was held unconstitutional although local farmers would have presumably benefitted by issuance of the license. In Parker v. Brown, supra note 79, marketing regulations designed to support raisin prices were upheld even though 95% of the raisins grown within the state were transported out of state for sale. Although the political check was absent, the Court there found that the marketing regulations were consistent with congressional marketing policies. Id. at 362-63.

91. One study, prepared for Pacific Power & Light Co., estimated the construction cost of five different 500 megawatts generating plants and transmission lines. The least expensive project would cost approximately $248,000,000 and the most expensive approximately $324,000,000. PACIFIC POWER & LIGHT CO., WYOMING POWER PLANNING STUDY, Exhibit 7, VI-20 (1976). Another study, prepared under the supervision of Professor H. F. Silver in the University of Wyoming Chemical Engineering Department, estimated the construction cost of a 6800 megawatt generating plant, without transmission lines, to be $5,100,000,000. See in general, SILVER, OPTIMUM DISPOSITION OF WYOMING COAL FOR ELECTRIC POWER DELIVERY TO A TYPICAL INDUSTRIAL AREA (Process Outline No. 9) (1976).
facilities after completion of construction. Employment opportunities will be enhanced in communities adjacent to the location of conversion facilities. In the less populous agrarian areas, wages paid by these facilities will be substantially higher than present wage levels and dramatic population increases will occur. All of the foregoing factors will stimulate economic growth to the benefit of local business enterprises and can be expected to result in substantial increases in state and local tax revenues. From the standpoint of economic welfare of both the state and its residents, therefore, the burden of excluding energy conversion facilities will be of major significance. Accordingly, the interests of those who would benefit economically from this industrial development will provide a political check upon legislative action.

As indicated above, the rationale often stated by the Supreme Court for invalidating state embargoes against interstate commerce is that they will result in retaliatory reaction by other states, thereby creating multiple barriers to the free flow of goods. To the extent that mineral export legislation is likely to engender such results, it may be subject to commerce clause challenge. Same bases may be suggested, however, for the conclusion that this legislation is not likely to produce these feared consequences. Since the mineral resources located in states adopting export legislation will remain available for export, no other state will be precluded from obtaining these resources for the purpose of fulfilling their energy requirements. Although there are adverse effects associated with energy conversion activities, there are also substantial economic benefits to be derived by communities where conversion facilities are located. In this respect, at least, other states in which these facilities locate will be the beneficiaries of export legislation adopted by the western mineral states, a consideration which should

92. The five-plant study of Pacific Power & Light Co. estimates annual operating and maintenance expense at between approximately $6,000,000 to $6,750,000. PACIFIC POWER & LIGHT CO., WYOMING POWER PLANNING STUDY, supra note 91.
93. See BASIN ELECTRIC POWER COOPERATIVE, PROCEEDINGS BEFORE WYOMING INDUSTRIAL SITING COUNCIL FINDINGS OF FACT ¶¶ 142-49 (1976).
94. Id.
95. Id. at ¶¶ 106-107, 146.
96. See discussion supra accompanying notes 91-95.
discourage rather than encourage retaliatory embargoes. Embargoes are also likely to be discouraged by the strong economic self-interest which is normally served by encouraging manufacturing activities within the state and the export of manufactured goods to out-of-state markets.\(^97\) Even if a state were prepared to ignore these interests to achieve retaliation, the existing body of commerce clause law would severely limit its ability to do so. Selective retaliation, aimed at one, or a few, states could not be justified.\(^98\) It would be necessary to proscribe equally all or most manufacture of a product or products for export from the state and to support this proscription by a showing of compelling state need to do so.\(^99\) Clearly, retaliatory motivation would not provide an acceptable demonstration of such a need.\(^100\) Nor does it seem likely that any state would embark upon self-abnegation of these dimensions to achieve an essentially retaliatory goal.

Although the absence of impermissible discrimination against interstate commerce will not automatically validate a state regulation which in fact affects commerce, such absence is usually one requisite of validity. It appears that resource export legislation should not succumb to the challenge of impermissible discrimination even though its restriction upon energy conversion for export does not accord to this phase of interstate commerce treatment identical to intrastate commerce in energy products. Mineral export legislation would neither exclude out-of-state enterprises from access to local markets nor compel them to conduct operations within the state for the benefit of state residents. The proposed legislation would not seek to create local preferences to resources as a means of enhancing economic interests at the expense of out-of-state residents, nor would it be motivated by an attempt to protect existing producers from competition. Moreover, the loss of economic opportunities and tax revenues resulting from exclusion of conversion facilities would ensure the imposition of political checks upon the legislature's con-

\(^97\) H.P. Hood & Sons, Inc. v. Du Mond, supra note 61, at 535.
\(^99\) See discussion \textit{infra} accompanying notes 103-05.
\(^100\) Great Atlantic & Pacific Tea Co. v. Cottrell, supra note 98.
sideration of regulations of this nature. Finally, it appears unlikely that export legislation would result in the adoption of retaliatory legislation by other states.

**Balancing of State v. Federal Interests**

When it has been concluded that a state regulation affecting interstate commerce does not constitute an impermissible discrimination, a further inquiry is nevertheless required to sustain state regulatory power to adopt legislation affecting interstate commerce. This inquiry requires a balancing of the state's regulatory interest against the conflicting national interest in freedom of commerce. Initially, the Court framed the nature of the required inquiry in terms of whether the subject matter of a state regulation admitted of diverse, local control or whether that subject matter was such that it could be subjected only to uniform, national control.  

While the Court's more recent opinions have continued to utilize the subject matter dichotomy, it has been recognized that examination of the subject matter affected by state regulations does not, by itself, produce a satisfactory measure of their ability to withstand the challenge of commerce clause invalidity. Rather than merely determining whether the subject matter admits of diverse, local control or requires uniform, national regulation, the Court has attempted to balance the state interest in regulation against the national interest in freedom of interstate commerce from impediments imposed by state regulations. The balancing of state against federal interests considers the nature of the regulatory goal which the state legislation seeks to achieve, according to some goals greater weight than others. Having assessed the goal sought to be achieved, the balancing test also appraises the extent to which the means legislatively chosen to attain its objective relate to the goal to be attain-

103. E.g., Pike v. Bruce Church, Inc., supra note 62; Southern Pacific Co. v. Arizona, supra note 57; South Carolina State Highway Dept. v. Barnwell Bros., Inc., supra note 56.
ed. The objective of the state legislation and the efficacy of the legislative means chosen are then weighed against the national interest in freedom of commerce to determine whether the burden imposed upon commerce is deemed to be excessive.

Nature of the State Interests To Be Protected

Prior commerce clause litigation has generally examined state or local legislation which pursues an essentially unitary goal; some statutes seek to protect residents' safety, others are aimed at health considerations, still others at economic welfare, or more recently, at some discreet environmental evil. Unlike the regulations challenged in these prior cases, resource export legislation would appear to encompass multifarious goals. One of the aims of this legislation may be the protection of the state populace against health hazards of energy conversion activities. While the hazards attendant upon some proposed types of energy conversion may still be largely speculative, at least some of those inherent in electric power generation are identifiable. Among other pollutants, the generation of electric power by coal-fired steam generating plants produces large quantities of particulates, sulfur dioxide and nitrogen oxide, all of which


105. Id. This somewhat simplistic presentation of the commerce clause balancing process is not intended to suggest that, in every case, the courts recognize and expressly discuss each of the three factors enumerated. It is believed, however, that each of these factors affects the analysis of the commerce clause cases and is discussed in the opinions to the extent which the court presented with the issue deems them controlling.


107. E.g., Huron Portland Cement Co. v. Detroit, supra note 42; Dean Milk Co. v. Madison, supra note 60, at 349; Milk Control Bd. v. Eisenberg Farm Prod., supra note 80.

108. E.g., Pike v. Bruce Church, Inc., supra note 62; Toomer v. Witsell, supra note 70; Parker v. Brown, supra note 79; Buck v. Kuykendall, supra note 81.


110. Some proposed methods of energy conversion, including coal gasification, coal liquefaction and production of oil from shale are still in the developmental stages, making exploration of their probable environmental effects difficult. It is believed, for example, that in situ coal gasification involves a recognized potential for interference with underground aquifers but little is yet known respecting the precise nature of the likely interference.
are injurious to human health.\textsuperscript{111} Temperature inversions and low precipitation rates, both common in the western mineral states where much of the newly planned energy conversion would occur,\textsuperscript{112} might exacerbate these hazards. Even though utilization of available pollution control devices will reduce the amount of these by-products discharged into the air, the discharge will still be substantial.\textsuperscript{113}

A second goal of resource export legislation may be the preservation of economic activities deemed to be vital to the state's interests. The economies of many of the western mineral states are largely dependent upon agricultural enterprises.\textsuperscript{114} In these states adequate water resources for agricultural and other purposes are frequently at a premium.\textsuperscript{115} Since steam-electric generating facilities also require large quantities of water for cooling, competition for available water supplies can be expected to affect agricultural interests adversely.\textsuperscript{116} In view of present and projected food requirements, both nationally and world-wide, the preservation of agriculture might be considered a particularly desirable objective. Moreover, the recreation industry, which has become increasingly essential to the economies of many of the western mineral states,\textsuperscript{117} may also be adversely affected by the proliferation of energy conversion facilities. The relatively clean environment, opportunities for solitude and for "getting back to nature," qualities for which this region has become

\textsuperscript{111} FABRICANT & HALLMAN, TOWARD A RATIONAL POWER POLICY: ENERGY, POLITICS AND POLLUTION 15-23 (1971); OFFICE OF SCIENCE AND TECHNOLOGY, CONSIDERATIONS AFFECTING STEAM POWER PLANT SITE SELECTION, supra note 6, 29; NORTHERN GREAT PLAINS RESOURCE COUNCIL, EFFECTS OF COAL DEVELOPMENT IN THE NORTHERN GREAT PLAINS, supra note 15, at 100.

\textsuperscript{112} DEPT. OF INTERIOR, II FINAL ENVIRONMENTAL IMPACT STATEMENT, EASTERN POWDER RIVER COAL BASIN OF WYOMING I-127-29 (1974).

\textsuperscript{113} Employing pollution controls which would remove 99.5\% of the particulate matter, 90\% of the sulfur dioxide and 32.5\% of the nitrogen oxide produced, a 3000 megawatt coal-fired generating plant would still emit between .43 and .58 ton of particulates, between 1.15 and 2.17 tons of sulfur dioxide and 10.4 tons of nitrogen oxides per hour. DEPT. OF INTERIOR, FINAL ENVIRONMENTAL IMPACT STATEMENT: PROPOSED KAIPAROWITZ PROJECT III-35 (1975).

\textsuperscript{114} E.g., DEPT. OF INTERIOR, FINAL ENVIRONMENTAL IMPACT STATEMENT, EASTERN POWDER RIVER COAL BASIN OF EASTERN WYOMING, supra note 112, at I-359; NORTHERN GREAT PLAINS RESOURCE COUNCIL, EFFECTS OF COAL DEVELOPMENT IN THE NORTHERN GREAT PLAINS, supra note 15, at 45.

\textsuperscript{115} Id. at 85.

\textsuperscript{116} Id. at 2. Similarly, disruption of aquifers by in situ coal gasification may adversely affect agricultural enterprises. See supra note 110.

\textsuperscript{117} DEPT. OF INTERIOR, FINAL ENVIRONMENTAL IMPACT STATEMENT, EASTERN POWDER RIVER COAL BASIN OF WYOMING, supra note 112, at I-347-48.
widely known, all combine to attract increasing numbers of recreationists.\textsuperscript{118} Environmental impacts of energy conversion,\textsuperscript{119} as well as dramatic population growth,\textsuperscript{120} may be expected to denigrate these attributes, thereby adversely affecting recreational enterprises.

Another goal which may be ascribed to mineral export legislation is the protection of environmental and ecological values. That the protection of these interests is a legitimate object of state regulation has received wide legislative and judicial recognition in recent years. The Congress has enacted numerous statutes dealing with environmental protection.\textsuperscript{121} State legislatures have adopted environmental quality acts, industrial plant siting statutes, land use planning statutes, waste disposal statutes and other regulations aimed at environmental protection.\textsuperscript{122} Moreover, the judiciary has shown an increasing willingness to uphold environmental legislation against both due process and commerce clause challenges.\textsuperscript{123} The construction and operation of energy conversion facilities, coupled with the secondary effects of these activities, may entail numerous adverse effects upon these values. Although a complete catalogue of these

\textsuperscript{118} Some indication of the number of persons visiting the area for recreational purposes may be derived from statistics maintained by the National Park Service. In 1974, fifteen national parks located in Idaho, Montana, Nevada and Wyoming recorded 14,503,500 visits by recreation seekers. The number of visits to the same parks in 1975 was 15,215,200. Visits for recreational purposes to all national parks in the Rocky Mountain region during 1975 totalled 22,175,600. DEPT. OF INTERIOR, PUBLIC USE OF THE NATIONAL PARK SYSTEM: CALENDAR YEAR 1975 31 (1976). These figures do not reflect visits to recreational areas other than national parks, such as national and state forests and other lands managed by national, state or local governmental agencies.

\textsuperscript{119} DEPT. OF INTERIOR, IT FINAL ENVIRONMENTAL IMPACT STATEMENT, EASTERN POWDER RIVER COAL BASIN OF WYOMING, supra note 112, at I-541; Office of Science and Technology, Considerations Affecting Steam Electric Power Plant Site Selection, supra note 6, at 55.

\textsuperscript{120} Binder, Strip Mining, The West and the Nation, supra note 7, at 12-15.


\textsuperscript{122} For compilations of the various state statutes, see BNA, ENVIRONMENT REPORTER §§ 201:0001 et. seq. and 601:000 et. seq. (1976) (environmental quality); Id. at §§ 1001:0001 et. seq. (land use and waste disposal); Van Baalen, Industrial Siting Legislation: The Wyoming Industrial Development Information and Siting Act—Advance or Retreat?, 11 LAND & WATER L. REV. 27 (1976) (industrial plant siting).

effects cannot be included here, a few examples should suffice for present purposes. First, chemical emissions which accompany energy conversion activities are believed to have harmful effects on both vegetation and animal life.\textsuperscript{124} Once released into the atmosphere these emissions may not be localized but may be borne considerable distances from their source by air currents thereby affecting large geographical areas.\textsuperscript{125} Even if conversion facilities are located in areas relatively remote from population centers, therefore, the potential exists for adverse environmental and ecological effects. Moreover, these emitted chemicals have the potential to combine with other elements present in the atmosphere to form compounds the environmental effects of which are not fully understood.\textsuperscript{126} Secondly, and possibly of more concern, particulate emissions resulting from fossil fuel combustion involve the potential to induce climatic changes. Increased cloud cover and smog associated with these emissions may cause weather changes with unpredictable effects on delicate ecological factors prevalent in the region.\textsuperscript{127} Thirdly, projections respecting construction and operation of energy conversion facilities indicate the probability that the essential rural character of portions of the western mineral states will be transformed into far reaching industrial complexes,\textsuperscript{128} again with unknown effects on ecological factors. Nor do the ecological implications of energy conversion activities and the possible associated industrial development end with the effects of these facilities themselves. All of these activities will result in large population influx into areas now sparsely settled and devoted predominantly to agriculture.\textsuperscript{129} wilder-


\textsuperscript{125} Garton, Ecology and the Police Power, supra note 123, at 273.

\textsuperscript{126} Fabricant & Hallman, supra note 111, at 17-23; Cassel, The Health Effects of Air Pollution and their Implications for Control, 33 Law & Contemp. Probl. 197 (1968).


\textsuperscript{128} See Binder, Strip Mining, The West and the Nation, supra note 7, at 12-15.

\textsuperscript{129} Id.
ness and wildlife uses. Although the full effects of this projected influx of population and commercial activities may not be accurately predictable, the discoveries of ecological science establish that every introduction of new activities into the hitherto, relatively undisturbed environment have the potential to effect significant, often unforseen, disturbance of natural ecological systems. It can reasonably be anticipated, therefore, that the disruptions generated by far reaching changes associated with energy conversion activities, and their predictable secondary effects, may impose major dislocations upon those systems.

Weight To Be Acceded to the State Interests

In balancing the state interest in regulation against the national interest in freedom of commerce, the weight to be accorded to the state interest is governed by the judiciary's appraisal of the meritorious nature of the objective sought to be attained. The protection of citizens' health and safety, being a traditional object of state regulation, will generally be accorded substantial weight in the application of the balancing process. To the extent, therefore, that mineral export legislation is characterized as a regulation of matters pertaining to individual health, the weight likely to be accorded the legislation in the balancing process will be correspondingly enhanced.

Although the protection or improvement of economic conditions has been recognized as a legitimate objective of state regulation, it does not appear to have been accorded the same degree of weight in the balancing process as health and safety. The protection of agricultural and recreational

130. For example, federal lands of essentially rural or wilderness character comprise the following percentages of certain western mineral states: Arizona—44.6%; Colorado—36.3%; Montana—29.6%; New Mexico—33.9%; Utah—66.5%; and Wyoming 48.2%. See Appendix F of PUBLIC LAND LAW REVIEW COMM., ONE THIRD OF THE NATION'S LAND 329 (1970).


133. Toomer v. Witsell, supra note 60; Pike v. Bruce Church, Inc., supra note 62; C.f. Lemke v. Farmers' Grain Co., supra note 79.
enterprises against the adverse effects flowing from energy conversion activities may, therefore, be deemed less compelling state objectives than the protection of human health. In evaluating this conclusion, however, certain factors which distinguish the effects of mineral export legislation from economic regulations which have succumbed to the commerce clause challenge merit consideration. In the past, economic regulations which have fallen before the commerce clause attack have been viewed as attempts to enhance economic conditions at the expense of out-of-state consumers. Restrictions upon export of natural resources designed to require processing within the state for the economic benefit of residents have fallen because of the unreasonable burden imposed on the out-of-state processor. Resource export legislation should not be found objectionable on either of these grounds. The protection of agricultural and recreational enterprises against the adverse effects of energy conversion activities would not increase the cost of these products or services of these enterprises to the out-of-state consumer. Nor would export legislation require in-state processing for the benefit of local residents; on the contrary, it would result in shifting to other states the location of conversion facilities together with their economic benefits.

An additional basis may exist for according mineral export legislation more favorable treatment than other regulations seeking to achieve economic benefits. In the case of Parker v. Brown, the Supreme Court upheld a California regulation of the quantity and price of raisins marketed by the state’s growers. Recognizing that they imposed a substantial burden on interstate commerce, the Court never-

136. One of the methods used by energy conversion facilities to acquire needed water supplies is the acquisition of agricultural lands to obtain the associated water rights. The resultant withdrawal of this land from use for agricultural purposes tends to reduce the quantity of agricultural products available thereby decreasing the supply of these products necessary to meet the demand. Further, the necessity of paying higher wages to compete with conversion facilities in the labor market will also tend to increase the price of agricultural products.
137. *Supra* note 79.
138. The Court accepted the findings of the district court that almost all raisins consumed in the United States were produced in California and
theless sustained the regulations because it found them to be in accord with the current national policy to support agricultural prices.\textsuperscript{139} Presumably this factor entitled these regulations to greater weight in the balance against the national interest in freedom of commerce. In view of the present and future national interest in adequate food supplies and in the availability of unsullied recreational resources, similar considerations might pertain to a state regulation which seeks, among other things, to protect agricultural and recreational enterprises.

The weight likely to be accorded by the judiciary to environmental protection aims of legislation, as distinguished from protecting the health and safety of individuals,\textsuperscript{140} is somewhat more difficult to assess. State environmental regulations heretofore reviewed by the Supreme Court in the context of the commerce clause challenge have been directly related to traditionally recognized matters of state concern.\textsuperscript{141} The Court upheld these regulations in spite of their resulting burdens on commerce. It has not yet been faced with the necessity of balancing less traditional aims of environmental legislation against the national interest in free commerce. Other sources, however, provide support for according these aims substantial weight in the balancing process. Several state and lower federal court cases have considered attacks on environmental legislation based upon the burden imposed on interstate commerce. The state regulations reviewed have been aimed at water pollution control,\textsuperscript{142} solid waste

\textsuperscript{139} Parker v. Brown, supra note 79, at 367-68.

\textsuperscript{140} In cases involving environmental regulations, it may be difficult to make this distinction. In some of these cases, the courts may be predating their decisions both upon the existence of health or safety considerations and upon the state's interest in protecting the environment itself. \textit{E.g.}, Huron Portland Cement Co. v. Detroit, \textit{supra} note 42; American Can Co. v. Oregon Liquor Control Comm'n, \textit{supra} note 109; Hackensack Meadows Dev. Comm'n. v. Municipal Sanitary Landfill Authority, 348 A.2d 505 (N.J. 1975).

\textsuperscript{141} Cities Service Gas Co. v. Peerless Oil & Gas Co., supra note 109 (resource conservation); Huron Portland Cement Co. v. Detroit, \textit{supra} note 42 (health).

\textsuperscript{142} Proctor & Gamble Co. v. Chicago, \textit{supra} note 109; Soap & Detergent Ass'n. v. Clark, 330 F. Supp. 1218 (S.D. Fla. 1971).
problems and wildlife preservation. In spite of the claim in each case that commerce was unduly burdened, the challenged regulations were upheld. The Congress itself has declared that it is the national policy "to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man . . ." and to provide for the enhancement of environmental quality. Indeed, the importance of preserving the natural environment has become so widely recognized that citation of authority in support of the proposition seems superfluous; judicial notice of what has become almost a social axiom would seem appropriate if not required. The preservation of a healthy environment is viewed by many as a precondition of the continued existence of man. Perhaps it is the appreciation of this axiom which has led to the proposal that the law accord express recognition to the right of continued existence of natural objects themselves. In one case, involving the standing of an environmental organization to challenge the action of the United States Forest Service, this proposal was favorably received by three Supreme Court justices. In view of the substantial deference so far accorded state environmental regulation by both the state and federal judiciary, statements of Congressional policy and extensive public acceptance of the importance of environmental values, it would not appear overly optimistic to conclude that state environmental legislation will enjoy the benefit of substantial weight in the commerce clause balancing process.


147. See Garton, Ecology and the Police Power, supra note 123, at 294.


149. See STONE, SHOULD TREES HAVE STANDING? (1974).


151. Id. at 741, 755 (dissenting opinions).
Relationship of Means Legislatively Chosen to Goal

The judicial determination of the appropriate weight to be accorded state regulations in the balancing process will also be affected by the court's appraisal of the extent to which legislation is reasonably related to the goal sought to be achieved. Opinions of the Supreme Court appear less than entirely lucid respecting the extent to which the judiciary should independently evaluate the effectiveness of legislation in achieving its intended goals. In *South Carolina State Highway Dept. v. Barnwell Bros., Inc.* the Court found improper the trial Court's independent analysis of evidence bearing on the relationship of a state regulation and the goal to be achieved. In the absence of proof that there exists no reasonable relation between means legislatively chosen and the end sought, the choice of method of regulation was held to be for the legislature. Several years later, however, the Court held a state safety regulation invalid after concluding that its relationship to the goal of safety was slight and dubious. More recently the Court has again concluded that a legislative determination that a regulation is reasonably related to achieving a legitimate state goal is conclusive unless wholly without basis. The conservative conclusion which would seem to emerge from the Court's pronouncements is that the judiciary's appraisal of the relationship between the means legislatively chosen and the objective sought to be attained will affect to some degree the weight to be accorded state regulations in the balancing process.

It seems apparent that there exists a reasonable relationship between resource export legislation and the legislative goals enumerated above. The effects of pollution associated with energy conversion activities are generally acknowledged to present hazards to human health. Unavailability of adequate water supplies which may result from power production has the potential to affect adversely agricultural enterprises

152. *Supra* note 56.
153. *Id.* at 190-92.
and adverse effects upon the natural environment, as well as
the disappearance of open space, can be seen as threats to
those attributes which encourage recreational activity within
the region. Moreover, the existence of a relationship be-
tween restriction of energy conversion activities and the pro-
tection of environmental and ecological values appears to be
demonstrable. It must be acknowledged that much re-
mains unknown about the precise environmental and eco-

cological effects of energy conversion and associated industrial and
commercial development. This dearth of reliable knowledge
would appear to support judicial deference to the legislative
choice of means to accomplish its objective rather than en-
couraging judicial interference with that choice. In the ab-


sence of convincing proof that the method adopted is ine-


flective to accomplish the legislative objective, or that the
relationship of means to end is slight and dubious, the de-
cision whether the regulation is reasonably adapted to the
end sought is a matter within the legislative province.


The question may be asked, however, whether there are
not other means available to achieve the legislative goals
which would entail less burden upon interstate commerce
than the contemplated restrictions of export legislation. Here
again, the pronouncements of the Supreme Court respecting
the extent to which the judiciary will, or should, speculate
upon the existence of less burdensome regulatory alterna-
tives are not entirely clear. The view which appears to
have been most frequently expressed is that the choice of
method best suited to achieving valid state objectives is a

156. In the case of environmental regulations, the degree of proof which must
be adduced to establish the relationship of the regulation to the goal sought
to be achieved will be affected by the extent to which this relationship has
become generally recognized as a matter of common knowledge. In some
earlier cases in which regulations were challenged as violating due process
requirements, direct proof of the relationship was required. As the existence
of the relationship between environmental regulations and generally ac-
cepted police power objectives of health, safety and public welfare become
widely acknowledged, however, the willingness of the judiciary to take

cognizance of this relationship without demanding direct proof in each
case has increased. See Corsa v. Tawes, supra note 144; Adams v.
Shannon, supra note 144; Garton, Ecology and the Police Power, supra note
123.


158. Brotherhood of Locomotive Firemen & Enginemen v. Chicago, R.I. & P. R.R.
Co., supra note 104; South Carolina State Highway Dept. v. Barnwell Bros.,
Inc., supra note 56.
legislative one not to be second-guessed by the courts.\textsuperscript{159} However, in \textit{Dean Milk Co. v. Madison},\textsuperscript{160} the Court invalidated a city ordinance in reliance upon its conclusion that the city's health protection goal could have been achieved just as effectively by regulations which would have imposed less burden on commerce than those legislatively chosen. In a dissenting opinion,\textsuperscript{161} Justice Black chided the majority for substituting their own concepts of reasonableness for those of the legislative body. Perhaps this dissenting view had its impact later in the same Court term when, in \textit{Breard v. Alexandria},\textsuperscript{162} the majority upheld against the commerce clause challenge a restriction upon door-to-door solicitation of magazine subscriptions. The Court there reiterated the view that the legislative choice between reasonable regulatory alternatives will not be reevaluated by the judiciary even though a less burdensome means might have been available to achieve the legislative objective.\textsuperscript{163} In a recent opinion, however, the Court has again invalidated state legislation prohibiting the importation of goods on the ground that less burdensome means were available to achieve the state's objective.\textsuperscript{164} It has been suggested that the Court's consideration of less burdensome alternatives in \textit{Dean Milk} is justifiable on the basis that there the state regulation discriminated against interstate commerce.\textsuperscript{165} While it is believed that mineral export legislation does not create an impermissible discrimination against commerce,\textsuperscript{166} its lack of identical treatment of energy conversion for in-state consumption and for export might impel a court to speculate upon less burdensome alternative means of regulation. Regardless of whether

\textsuperscript{159} \textit{Id.} at 190-91 and cases there cited; Brotherhood of Locomotive Firemen & v. Chicago R.I. & P. R.R. Co., \textit{supra} note 104.

\textsuperscript{160} \textit{Supra} note 60.

\textsuperscript{161} \textit{Id.} at 358.

\textsuperscript{162} 341 U.S. 622 (1951).

\textsuperscript{163} \textit{Id.} at 640.

\textsuperscript{164} Great Atlantic & Pacific Tea Co. v. Cottrell, \textit{supra} note 98. The Court was extremely dubious as to whether any legitimate state objective was served by Mississippi's regulation which embargoed milk produced in Louisiana because that state had prohibited importation of milk produced in Mississippi.

\textsuperscript{165} Stern, \textit{Problems of Yesteryear—Commerce and Due Process}, \textit{supra} note 56, at 458. The author also suggests that a regulation having as its sole purpose discrimination against interstate commerce would be automatically void. The Mississippi statute invalidated in the \textit{Great Atlantic} case would seem to be an example of such a regulation.

\textsuperscript{166} See discussion \textit{supra} in text accompanying notes 64-90.
export legislation is challenged as discriminatory, however, it seems likely that its opponents may assert that other available means of regulation which might have imposed less burden on interstate commerce should have been chosen.\textsuperscript{167} Assuming that the inquiry is appropriate, the burden may properly be allocated to those challenging the regulation to establish that proffered alternatives would be as effective in achieving the legislative objective as those which have been adopted by the legislature.\textsuperscript{168}

Alternative methods of achieving the goals of export legislation may be available. The health protection goal might be achievable by imposition of more stringent emission standards,\textsuperscript{169} or perhaps by classifying the state under the Federal Clean Air Act in a manner which would preclude any significant air quality deterioration.\textsuperscript{170} The adoption of either of these alternatives would result in as much or even greater burden on commerce, however, since, under the present state of the emission control art, the zero emission goal is impracticable.\textsuperscript{171} The utilization of industrial plant siting and land use planning legislation to examine and minimize the impact of energy conversion facility placement upon agricultural and recreational enterprises may alleviate at least some of the adverse effects upon these activities. In view of the far reaching implications of construction and operation of conversion facilities,\textsuperscript{172} however, it appears at least debat-

\textsuperscript{167} In one recent case, the court upheld legislation prohibiting the use of pop-top beverage cans and encouraging use of returnable bottles despite the plaintiff's argument that alternative methods of achieving the legislative goals should have been adopted. American Can Co. v. Oregon Liquor Control Comm'n., supra note 109, at 699-700.

\textsuperscript{168} See Note, \textit{Environmental Law-State Environmental Protection Legislation and the Commerce Clause}, supra note 80, at 1781.

\textsuperscript{169} Presumably the legislature or a state environmental agency could prescribe "zero emission" standards for stationary pollution sources.

\textsuperscript{170} 40 C.F.R. \textsection 52.21 (c) (3). This classification would, however, require the approval of the Administrator of the Federal Environmental Protection Agency. \textit{Id.}

\textsuperscript{171} Pollution control efficiency for the Kaiparowits power project in Utah was projected to achieve 99.5\% particulate removal, 32.5\% nitrogen oxide removal and 90\% sulfur dioxide removal. In spite of this efficiency, the plant was expected to emit substantial quantities of pollutants. \textit{DEPT. OF INTERIOR, DRAFT ENVIRONMENTAL IMPACT STATEMENT: FINAL KAIPAROWITS PROJECT, supra} note 113, at III-35. The Environmental Protection Agency has pronounced the Kaiparowits project environmentally unsatisfactory, finding that its emissions would reduce significantly the air quality in nearby national parks. BNA, \textit{4 ENVIRONMENT REPORTER CURRENT DEVELOPMENTS} 832 (June 25, 1976).

\textsuperscript{172} See discussion \textit{supra} accompanying notes 110-151.
able whether these alleviation methods would be as effective as the restrictions imposed by export legislation.\textsuperscript{173} Some of the environmental protection goals could be attained by legislation requiring extensive scientific studies to determine effects of proposed conversion activities as a precondition of issuing construction permits. While such studies may well be desirable,\textsuperscript{174} it can hardly be contended with any degree of assurance that they would necessarily identify all potential adverse effects associated with proposed projects or accurately predict the full extent of those effects.\textsuperscript{175} The possible inadequacy of this approach seems particularly evident in regions characterized by their peculiarly delicate ecological nature.\textsuperscript{176} It is undoubtedly true that there exists no unanimity of opinion respecting whether the goals of resource export legislation could be achieved as well, or better, by alternative regulatory methods which might impose a lesser burden on interstate commerce. When a regulation is reasonably related to the goals sought to be achieved, however, the judiciary should refrain from substituting its regulatory preference for the method legislatively adopted. Even if it were concluded that judicial inquiry into less burdensome alternatives is appropriate, therefore, a state's preference for export legislation should prevail unless it can be established

\textsuperscript{173} In a recent siting permit proceeding, while recognizing that the proposed facility may entail adverse impacts upon the agricultural community, the Siting Council saw no reason to require an independent investigation of the possible adverse effects of the facility. \textit{See} In the Matter of Basin Electric Power Cooperative, \textsc{Wyoming Industrial Siting Council, Findings of Facts and Conclusions of Law} \textsc{supra} \textit{note} \textsc{229b} (9) (April 26, 1976). Furthermore, although the Council evidently considered the effects of the proposed facility upon adjacent recreational facilities, it did not consider probable effects upon state's recreation industry. \textit{Id.} at \textsc{note} \textsc{31}. Prediction of water availability is an uncertain endeavor in the western mineral states. Water quantity may fluctuate seasonally and normally adequate water supplies may become deficient during recurring drought years. \textit{See} Binder, \textit{Strip Mining, The West and The Nation, supra} \textsc{note} \textsc{7}, at 18-19.

\textsuperscript{174} Given the immediacy of the need for conversion facilities claimed by developers, it would seem the delay associated with the studies of this magnitude would be unacceptable.

\textsuperscript{175} In recent years, many observers have recognized that the complexities of the ecological system make difficult, if not impossible, accurate scientific prediction of the effects which will result from the introduction of large quantities of chemical substances into the environment. \textit{See}, Cassell, \textit{The Health Effects of Air Pollution and Their Implications for Control, supra} \textsc{note} \textsc{126}, (1968); Commoner, The Closing Circle, \textit{Nature: Man and Technology, supra} \textsc{note} \textsc{151}.

\textsuperscript{176} Binder, \textit{Strip Mining, The West and The Nation, supra} \textsc{note} \textsc{7}, at 7; \textsc{Dept. of Interior, Final Environmental Impact Statement, Eastern Powder River Coal Basin of Wyoming, supra} \textsc{note} \textsc{112}, 1-127-29 (1974).
that alternative, less burdensome means would be equally effective to achieve the same objectives. 177

Weighing State's Interest Against Burden on Interstate Commerce

The final phase of the commerce clause balancing process focuses on the degree of burden imposed upon interstate commerce. The state interest in regulating activities occurring within its borders, appropriately weighted in view of the nature of the legislative objective and the efficacy of the means chosen to achieve that objective, must be balanced against the burden to determine whether the legislation unduly impedes the freedom of commerce among the states. 178 It appears likely that export legislation would be subjected to the scrutiny of this traditional balancing analysis, requiring the weighing of state interests in protecting its residents, its environment and its ecological systems against the impediment to free commerce in energy products. In addition to this traditional inquiry, it also appears necessary to consider the extent to which export legislation would impede the interstate movement of those people who would have been attracted into the state by employment opportunities associated with burgeoning energy conversion facilities. Moreover, a practical consequence of this legislation may be to shift to other states not only the economic benefits but also the adverse effects associated with energy conversion. While the shifting of adverse effects which state legislation seeks to avoid either has not entered into, or has not been explicitly considered in, prior commerce clause decisions, adequate evaluation of export legislation appears to require consideration of this factor.

177. E.g., Pike v. Bruce Church, Inc., supra note 62; Procter & Gamble Company v. Chicago, supra note 109; Hackensack Meadowland Development Commn. v. Municipal Sanitary Landfill Authority, supra note 140.

178. It has been suggested that the burden analysis, if appropriate at all, should be conducted as part of the determination of whether the object of state regulation is proper rather than as an independent inquiry. One commentator believes that this approach would alleviate the temptation of the judiciary to act as a super-legislature in determining commerce clause challenges to state regulations. Engdahl, CONSTITUTIONAL POWER: FEDERAL AND STATE IN A NUTSHELL 206-22 (1974). Nevertheless, it appears likely that Courts will continue to employ the balancing analysis. See Hackensack Meadowlands Development Comm'n. v. Municipal Sanitary Landfill Authority, supra note 140.
In restricting the production of energy products for transmission in interstate commerce, export legislation would impede to some significant degree commerce in products which might otherwise be transmitted out of the state. Evaluation of the degree to which this impediment burdens commerce, however, should take into consideration the existence of alternative methods to achieve the ultimate commercial objective. Some commerce clause cases which have not involved regulation of manufacture of commodities for export179 have taken cognizance of this factor in upholding state legislation. In Breard v. Alexandria for instance, the Supreme Court dismissed out-of-state magazine salesman's challenge of an ordinance restricting door-to-door solicitation of subscriptions; the Court noted that other methods of solicitation could be developed by the out-of-state competitor.180 In a recent case involving waste disposal,181 the Supreme Court of New Jersey upheld statutes prohibiting the importation of waste materials from neighboring states for dumping in New Jersey landfills. The court's conclusion that the statutes imposed no undue burden on interstate commerce was predicated on the availability of alternative methods of disposal to the states in which the waste materials originated.182 Since mineral export legislation would not restrict the extraction and export from the state of the mineral resources, alternative methods of accomplishing the ultimate commercial objective (production and sale of energy products) remain available to energy producers. In this instance, the necessary mineral resources may be mined within the state and exported for utilization at or near the point of

179. With the possible exception of Parker v. Brown, supra note 79, no commerce clause has been found which reviewed state legislation restricting the manufacture of commodities for export. Perhaps the dearth of such cases lies in the fact that the states have generally considered it in their interest to encourage the manufacture of goods for sale both within and outside the state. C.f. H.P. Hood & Sons v. Du Mond, supra note 61.

180. Supra note 162, at 631-32. In Dean Milk Co. v. Madison, supra note 60, however, though Mr. Justice Black's dissent pointed out that alternative methods were available to the out-of-state producer to market its milk in the city, the Court nevertheless found the ordinance invalid. Id. at 387. The majority opinion in Dean appears to predicate the invalidity of the challenged ordinance primarily upon the Court's objection to state attempts to coerce processors into conducting their operations within the state.

181. Hackensack Meadowlands Development Comm'n. v. Municipal Sanitary Landfill Authority, supra note 140.

182. Id. at 517-18.
consumption. The absence of any restriction upon the export of mineral resources significantly reduces the burden imposed by export legislation upon interstate commerce. 183

Even though it does preserve the ability of energy producers to achieve their commercial objective, export legislation would restrict interstate distribution methods otherwise available to those producers. This restriction of preferred distribution methods may result in increased operating costs. When the objective of state legislation has been seen as the attainment of economic advantages at the expense of out-of-state producers, resulting increases in expense and interference with traditional ways of doing business have constituted persuasive elements leading to invalidation of state regulations affecting commerce. Typically, regulations with respect to which these elements have been considered objectionable have attempted to compel in-state processing of raw materials to generate economic activity 184 or enhance product reputation 185 for the benefit of the state's residents. When the object of state regulation has been the protection or enhancement of social interests, however, resultant increase in operating expenses of interstate business has been accorded less significance. 186 Some courts have rejected challenges to state environmental regulations based on the ground that they resulted in greater operating expenses, or required restructuring of distribution methods. 187 Others have sustained environmental or ecological legislation against commerce clause attacks even though the practical result has been to render the conduct of certain economic enterprises impossible. 188

183. The availability of alternative methods by which neighboring states could dispose of waste materials led the New Jersey Supreme Court in the Hackensack Meadowlands case to the conclusion that "The burden [on interstate commerce] is slight indeed." Id. at 518.

184. E.g., Toomer v. Witsell, supra note 60; Foster-Fountain Packing Co. v. Haydel, supra note 70.


188. Adams v. Shannon, supra note 144; Corsa v. Tawes, supra note 144. See also American Can Company v. Oregon Liquor Control Commn., supra note 109, at 709, in which the state regulation was upheld even though plaintiffs argued that it would destroy and eliminate interstate commerce.
Admittedly, mineral export legislation would preclude the utilization of distribution methods which the energy industry may consider desirable. For example, this legislation would restrict the future construction of steam electric power plants at the site of coal strip mines for generation of electricity to be transmitted to distant load centers. It may also develop, although it does not yet appear to have been clearly established, that the cost of generating electric power at the mine site and transmitting that power to load centers will be less than the cost of transporting coal to the load centers for power generation there. Some projections apparently indicate that mine-site generation and the resultant power transmission will result in lower ultimate costs to the consumer. Others, however, appear to support the opposite conclusion. One might also speculate that, whatever the correct conclusion today, technological developments may result in the reversal of these cost comparisons in the future. While strictures upon distribution methods and possible cost increases are legitimate matters for consideration, they must be evaluated in relation to the nature of the interests which state legislation seeks to protect. As described above, the objectives of export legislation are the protection of social interests rather than the attainment of economic advantages at the expense of residents in other states. Resulting restrictions on distribution methods and possible cost increases experienced by affected industries, though substantial in amount, should not therefore be considered to impose undue burdens on commerce.

It must be recognized that, in large measure, the adverse effects of proliferating energy conversion activities will flow from the associated, dramatic influx of people into sparsely populated areas. The question therefore arises whether export legislation, motivated to some extent by the desire

189. Comparative cost analyses respecting other types of energy conversion activities do not appear to be available at this time.

190. Interview with Mr. Thomas Lockhart, regional manager for Pacific Power and Light Co.

191. NORTHERN GREAT PLAINS RESOURCE COUNCIL, EFFECTS OF COAL DEVELOPMENT IN THE NORTHERN GREAT PLAINS, supra note 15, at 33; SILVER, OPTIMUM DISPOSITION OF WYOMING COAL FOR ELECTRIC POWER DELIVERY TO A TYPICAL INDUSTRIAL AREA, supra note 91, Table 1, at iii, V.
to avoid impacts arising from population growth, will be invalidated as an improper restriction upon the right of people to travel and to live where they choose. In *Edwards v. California*, 192 the Supreme Court held invalid under the commerce clause a state statute making it a misdemeanor to bring or assist in bringing any indigent nonresident into the state. The Court found the purpose of the law to be avoidance of the financial burden of supporting indigents by prohibiting their transportation across the state’s borders. Noting that the phenomenon of large-scale interstate migration was a subject of national concern, the Court identified the matter as one which did not admit of diverse local treatment but which required uniform, national regulation. 193 The state could not shield itself from this national problem by prohibiting interstate commerce in indigent persons.

To the extent that export legislation is seen as an attempt to exclude people from the state for the purpose of avoiding the burdens of migration, it might be subject to invalidation on the same rationale as that employed in *Edwards*. The decision in *Edwards* seems predicated on the Court’s conclusion that the objective sought to be achieved by the legislation was an improper one. Like the embargoes against transmission of goods into the state, or of raw materials out of it, the misdemeanor statute was viewed as an attempt to protect the state against the economic incidence of statehood. The legislative objective, insulation of the state’s residents from the economic burdens associated with interstate migration of indigent persons, was impermissible. Unlike the objective of the statute found in *Edwards*, however, export legislation would attempt to achieve goals which have been recognized as proper objects of state concern—protection of health, economic welfare and environment. 194 Nor could it be persuasively contended that mineral export legislation shields the state from making its appropriate contribution to solution of the national problem of obtaining adequate energy supplies. On the contrary, the legislation

192. Supra note 88.
193. Id. at 175-76.
194. See discussion supra accompanying notes 106-31.
would recognize and fulfill the state's obligation to make that
collection by encouraging the extraction and export of
mineral resources, thereby making those resources available
to all persons regardless of geographical boundaries.¹⁹⁵

Since the objective of the statute challenged in the Edwards case was itself an improper one, it did not become necessary for the court to balance that objective against the national interest in the free flow of interstate commerce. The balancing process will be appropriate, however, with respect to the burden which export legislation, in achieving proper state objectives, may impose upon the interstate movement of people. Yet the nature and extent of the burden may be seen as essentially different from the one imposed by the statute held to be invalid in Edwards. Even though the problems which the contemplated legislation seeks to avert are in part traceable to population influx, the restrictions are directed at industrial activity. Unlike that statute, export legislation would not directly prohibit movement into the state by any person or class of persons. The fact that one result of restriction of industrial development will be the moderation of population influx should not be fatal. It can readily be recognized that any regulation which tends to restrict growth of commercial or industrial enterprises will also prevent the expansion of employment opportunities, thereby attracting fewer new residents into the state adopting that regulation. The restriction on development reduces economic activity which, had it occurred, would have encouraged more people to move into the state; it does not prohibit that movement. Viewed in this light the burden imposed by export legislation on the interstate movement of people may be judged to be a modest one. In view of the recognized propriety of objectives which the legislation seeks to attain, its indirect and unavoidable discouragement of interstate migration should not be found to impose excessive burdens on interstate commerce.

¹⁹⁵ Furthermore, in view of the substantial burdens which the western mineral states will shoulder in connection with the development of mineral extraction activities, a conclusion that a state adopting export legislation is attempting to shield itself from the burden associated with the national energy problem would seem inappropriate. See Binder, Strip Mining, The West and The Nation, supra note 7, at 12-13.
One additional burden, which might be seen as emanating from mineral export legislation, is the resulting shift of energy conversion activities from the state in which the minerals are located to other areas at or closer to the point of consumption. While this shift would not seem to constitute a burden on commerce itself, it will transfer to other states not only the economic benefits of energy conversion but also certain of its adverse effects which the legislation seeks to avoid. In the New Jersey waste disposal case, where the prohibition of importing waste material into the state appears to have shifted the disposal burdens to neighboring states, the court did not expressly discuss this issue. The opinion implies, however, that adverse effects of waste disposal upon the other states were small by comparison to those upon New Jersey. It seems probable, although not readily demonstrable, that the adverse effects of energy conversion upon states in which load centers are located will be comparatively less than those effects upon the western mineral states. States in which substantial industrial development has already occurred are likely to undergo comparatively less change in character as a result of additional energy conversion activities. More populous states, having a much larger labor force, will not face comparable problems associated with extraordinary population influx. The impact of additional energy conversion facilities upon other industrial and commercial enterprises existing in those states is likely to be less severe than their impact upon the rural, western mineral states. Nor are most populous states hampered by the delicate ecological structure which exists throughout much of the western mineral states. On the other hand, it may be that chemical emissions resulting from energy conversion will create greater health problems in highly populated regions than in these more sparsely populated areas.

196. Hackensack Meadowlands Development Comm'n. v. Municipal Sanitary Landfill Authority, supra note 140.
197. Id. at 517-18.
198. A 1969 federal air pollution report found that adverse health effects result when the level of sulfur oxides exceeds .03 parts per million on the annual average and when the twenty-four hour average exceeds .11 parts per million more than three days per year. The potential for exceeding these limits may be greater in areas of high industrial concentration than in sparsely populated areas. Fabricant & Hallman, Toward a Rational Power Policy: Energy, Politics and Pollution, supra note 111, at 17.
In view of the nature of the goals sought to be achieved by mineral export legislation, the attendant shift of burdens of energy conversion from mineral producing states to energy consuming ones is supported by some practical results of this shift. The restriction of energy conversion resulting from this legislation would encourage responsible energy use decisions by those segments of the population whose decisions will have the maximum impact upon energy supply problems. While some allusions have been made by public officials to the function of energy conservation in connection with supply problems, few concrete changes in consumption patterns seem forthcoming.\(^{199}\) The invalidation of mineral export legislation as unduly burdensome upon commerce would accord to large population centers the luxury of demanding unlimited energy supplies regardless of the adverse effects of energy conversion upon far-distant states where the conversion occurs. Conversely, upholding export legislation will tend to shift a greater portion of the necessary conversion activities to states in which load centers are located. The adverse effects of energy conversion would, therefore, impact more immediately upon those who are in the best position to adopt measures necessary to control use and conserve energy resources.

This shift of burden would borrow from, and expand upon, the economists' proposals for the internalization of externalities. Since many of the values which export legislation seeks to protect do not appear to be quantifiable in monetary terms,\(^{200}\) it is not possible to internalize all of the "costs" by imposing them upon energy producers.\(^{201}\) Permitting the shift of energy conversion activities to consumer

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199. Changes in building codes to conserve energy consumed in heating and cooling and revisions of rate schedules which now favor maximum electric power consumption are among many conservation techniques which have been proposed.

200. Some courts have recognized that such values as safety and environmental protection cannot be monetarily quantified. See Brotherhood of Locomotive Firemen & Enginemen v. Chicago, R.I. & P. R.R. Co., supra note 104, at 139-40; American Can Company v. Oregon Liquor Control Commn., supra note 109, at 697.

201. To the extent that transmission costs of mineral resources may exceed those of energy products, this difference may result in the internalization of certain externalities which would otherwise fall upon the western mineral states in the form of adverse impacts of energy conversion.
states would, however, more effectively allocate these "cost" considerations. This allocation would enable both states which are net energy resource producers and those which are net energy consumers to reach their own determinations respecting the desirable level of energy product consumption. In arriving at these determinations, each state could weigh for itself the benefits of expanded energy consumption against the adverse effects upon it of related energy conversion activities. This approach to regulation of energy conversion activities finds support in some of the commerce clause cases. In applying the balancing process to state legislation, the Supreme Court has recognized the propriety of regulations dealing with diverse matters of substantial local concern which may never receive adequate Congressional attention. Since local conditions vary widely among states, it is deemed desirable that each state exercise judgment respecting matters of local concern based upon its more intimate knowledge of the requirements of its own local conditions. Export legislation would achieve this goal by permitting each state to regulate to some extent industrial development within its borders with a view to its own peculiar social, economic and environmental conditions. The result would encourage the continued existence of diverse characteristics among states, enabling each state to foster those unique conditions which it values most highly.

CONCLUSION

Concern respecting probable adverse effects of proliferating energy conversion activities in the western mineral states has given rise to recommendations for mineral export legislation. This legislation would require exportation of energy producing minerals and would restrict the construction of energy conversion facilities to manufacture energy products for transmission in interstate commerce. The val-

202. It is, of course, recognized that the correlation will not be perfect since all conversion facilities will not be located in the states in which their energy products are consumed.

203. E.g., California v. Thompson, supra note 56, at 113; Parker v. Brown, supra note 79, at 362-63.

idity of this legislation may be challenged on the grounds of federal preemption and federal constitutional limitations upon state regulations affecting that commerce.

Certain provisions of the Federal Power Act express a policy favoring regional coordination of electric power generation. These provisions do not appear to be sufficiently comprehensive to establish Congressional intention to occupy this field to the exclusion of state regulation, nor are the goals of export legislation inconsistent with those expressed by that Act. Moreover, there exists no apparent conflict between these provisions and the contemplated provisions of export legislation.

Even in the absence of Congressional legislation pre-empting state regulation, the commerce clause limits the states' power to adopt regulations affecting interstate commerce. State statutes affecting commerce among the states have been invalidated on the ground that they constitute impermissible discrimination against, or that they impose undue burdens upon, interstate commerce. State regulations motivated by the desire to enhance economic welfare at the expense of other states have been found to violate commerce clause limitations. Although export legislation would restrict the manufacture of energy products for transmission in interstate commerce, while permitting manufacture for intrastate consumption, the legislation would be motivated by essentially social objectives rather than the desire to create economic embargoes at the expense of other states. This legislation should not, therefore, be invalidated as impermissible discrimination against interstate commerce.

In determining whether state legislation imposes an undue burden on interstate commerce, the nature of the objectives sought to be achieved, and the relationship between that objective and the legislative means chosen, must be balanced against the degree of the burden imposed. The objectives of export legislation may be identified as avoidance of the probable adverse impacts of energy conversion upon human health, essential economic enterprises and environmental
and ecological values, all matters properly within the states' legislative province. Although other regulatory means may also tend to achieve these objectives, a state legislature may reasonably determine that other available regulations would be less effective in this regard than export legislation. Assessment of the burden upon commerce should recognize that mineral resources remain freely available for export in interstate commerce to fulfill the energy requirements of non-residents, thus substantially reducing the burden imposed. In view of the objectives of export legislation, possible increases in operating expenses of interstate energy producers should not be found to burden commerce unduly. Moreover, although this legislation would restrict economic activities which might have attracted additional people into the state, it should not be viewed as an excessive burden on interstate movement of people.

Finally, the practical result of mineral export legislation would be the shifting of the burdens of the impacts associated with energy conversion to heavily populated, consuming states which are best able to adopt policies to control energy consumption. Sustaining export legislation will, therefore, encourage continued diversity among the states by permitting each to foster or restrict industrial development depending upon its appraisal of the requirements emanating from its own peculiar local conditions.