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CONSERVATION AND THE COMMISSION: THE GROWTH OF REGULATION OF THE END USE OF NATURAL GAS BY THE FEDERAL POWER COMMISSION

By William S. Stowe*

This case is another in the long-running and seemingly endless saga of "Who Gets The Gas?," starring the major oil companies, the natural gas pipelines, major industrial users of natural gas, and the Federal Power Commission.1

The current energy shortage has profoundly affected much of America's way of life. Shortages have created long lines, layoffs, curtailments of service and restrictions across the entire economy. One realization that has been forcefully brought home is that the energy crisis is not only a problem of short supply, but also of who gets what little there is. The acutely political nature of this process has been obvious throughout the recent debates on rationing and in the orders of the Federal Energy Office which shift supplies of oil and gasoline from state to state. This controversy over the allocation of energy resources has had its fullest development to date in the regulation of natural gas by the Federal Power Commission under the Natural Gas Act.2 This article will discuss that regulation in the context of the problems of conservation of natural gas and the current shortage of supply.

The shortage of natural gas is fundamentally a problem of imbalance between the forces of supply and demand in the energy market. A number of commentators have remarked recently upon the role of the FPC in the problem of inadequate supply, and there have been numerous proposals for the de-regulation of wellhead prices in an effort to stimulate additional production.3 While such prices are undoubtedly too low, there has been no convincing demonstration that, in the short run, sufficient supplies can be drawn out to meet projected demands at any price.4 In addition, there appears little political likelihood that natural gas prices will be de-regulated to the extent required to balance supply and demand in the near fu-
ture. A somewhat smaller amount of discussion has surrounded the entire question of regulatory actions affecting demand. Demand reduction and allocation seem somehow tainted in an expansionist, free-market economy, but there can be a number of possible reasons for embarking upon such a course of action. In a time of shortage, of course, there is no alternative.

I. CURRENT SHORTAGE

In the natural gas industry various individuals have warned of impending shortages for several decades. Exactly what constitutes a shortage, however, is a difficult definitional problem, especially with a resource like natural gas. As pointed out by Justice Jackson thirty years ago:

The heart of this problem is the elusive, exhaustible, and irreplaceable nature of natural gas itself. Given sufficient money, we can produce any desired amount of railroad, bus, or steamship transportation, or communications facilities, or capacity for generation of electric energy, or for the manufacture of gas of a kind. In the service of such utilities one customer has little concern with the amount taken by another, a volume of service can be created equal to demand, and today's demands will not exhaust or lessen capacity to serve tomorrow. But the wealth of Midas and the wit of man cannot produce or reproduce a natural gas field.5

As a starting point, it is certain that there must be some finite upper limit to our total natural gas supply. Two recent and widely quoted estimates by the Potential Gas Committee (PGC) and the United States Geological Survey (USGS) have been used in discussions of the domestic supply situation.6 The USGS figure estimates a total resource base within the United States of 6,560 trillion cubic feet (tcf) of natural gas. Excluding various resources classified as submarginal or unrecoverable, the USGS is left with a figure of 2100 tcf. The somewhat lower PGC estimate is 1178 tcf. Both of these latter figures are described as "undiscovered recoverable potential supplies" or "natural gas that may be found under existing exploration technology and produced under approximately current conditions of economics and technology." Given current usage of 22.5 tcf per year,7 these estimates give the United States about a 50 year supply of natural gas using the PGC figures, or a 100 year supply using the USGS figures. In terms of projected increases in consumption, and given the fact that these reserves must first be located, the lifetime is, of course, considerably less.

Another measure of natural gas supply is the reserves to production ratio (R/P). Since 1946 when the R/P ratio was 32.6, it has
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declined to 22.1 in 1955, 20.1 in 1960, 17.6 in 1965, and 12.6 in 1971.\textsuperscript{8} Despite the decline in R/P ratio, the total amount of proven reserves grew steadily as additions exceeded production in every year up until 1968. Since then, however, the production has exceeded the new discoveries and the total proven reserves have fallen by nearly 20 percent in the lower 48 states.\textsuperscript{9} Even the inclusion of Alaska leaves us with proven reserves sufficient for only 12 more years assuming no increase in consumption.

A third indication of the shortage of natural gas supply is given by the unmet demands. Within the past three years, major natural gas distributors have, for the first time, been forced to refuse requests for additional service from expanding industrial customers and from many new customers. Since then interruptible sales by numerous companies have been completely curtailed and some companies have been forced to curtail deliveries to their firm customers by as much as one-third.\textsuperscript{10} The volume of such curtailments of firm contract customers is expected to rise by another 53 percent during the year ending in August 1974.\textsuperscript{11} Describing the effects of these curtailments, the FPC has said that they will result:

\ldots in severe economic and environmental consequences, resulting in the closing of schools and factories, the denial of utility service to new customers, the utilization by industry and electric utilities of alternate fuels which impact upon ambient air quality standards, and the transfer of unfulfilled demand to other fuels in short supply with the resultant upward price pressures.\textsuperscript{12}

Trends for the future are more difficult to ascertain, but most observers agree that demand will continue to outstrip supply by larger and larger margins.\textsuperscript{13} The one thing that is certain, whether one uses the long-range potential reserves or the short-range picture of curtailments and declining R/P ratio, is that some sort of policy of conservation or demand reduction is needed. The FPC has termed this period an “historic turning point—the end of natural gas industry growth uninhibited by supply considerations.”\textsuperscript{14} This “turning point” has been reflected in a series of orders and opinions during the past three years wherein the FPC has abandoned several long standing growth policies and has gradually been developing an allocation policy to cope with the shortages.\textsuperscript{15} Although these policies are largely ones of reaction to the acute problems of the current shortages, their roots can be traced back to the inception of natural gas regulation.
II. BACKGROUND OF THE NATURAL GAS ACT

The problems which led to the enactment of the Natural Gas Act in 1938 were not problems of shortages or of conservation but were basically ones of consumer protection and anti-trust. This perspective is reflected by the limited powers and jurisdiction granted by the Act. Section 1(a) gives recognition to the source of the Natural Gas Act: "As disclosed in reports of the Federal Trade Commission . . . it is declared that the business of transporting and selling natural gas for ultimate distribution to the public is affected with a public interest." Among findings of the FTC Report were that ownership of the large utility corporations was highly concentrated, that assets and rate bases were inflated in value, that speculation in utility securities was rampant, and was fed by misleading and inaccurate accounting, and that ratepayers and the general public were suffering in the form of higher rates and unreliable service.

Although natural gas companies were regulated by the states prior to the Natural Gas Act, many of the above abuses were beyond the states' control. Previous decisions of the Supreme Court had seriously limited state efforts to regulate several of the interstate aspects of the natural gas pipelines, and the pipelines used the facades of holding companies and subsidiaries to take full advantage of these regulatory gaps. As a result, the Natural Gas Act was designed to create a comprehensive scheme of dual federal and state regulation. This concept of cooperative yet complete regulatory authority has been a dominant theme in decisions under the Natural Gas Act and has been both a limiting and an expansive factor in deriving FPC jurisdiction and powers.

The role of conservation in the FTC Report and in the Natural Gas Act has been a particularly thorny issue. During the 1930's vast supplies of natural gas had only recently been discovered in the Southwestern states. This gas was often treated as a nuisance and was either flared on the spot or sold at extremely low rates for the production of carbon black or gasoline. The first enumerated conclusion of the FTC Report deplored this problem specifically:

1. Conservation is the first problem that demands attention. Vast acreage is being drained and natural gas is being subjected to profligate and wanton waste and uneconomical uses. This has been estimated to amount to as much as a billion and a quarter cubic feet per day in one field. Witnesses having expert knowledge testified that this amount of daily waste is sufficient to supply the entire present needs of the domestic and commercial users of natural gas in the United States.
The conservation which was referred to by the FTC Report was viewed generally as a matter of state concern. The sole proposal of the report regarding conservation was in the form of a recommendation that states should enter into interstate compacts on conservation, with accompanying federal legislation prohibiting interstate shipments of gas produced in violation of state conservation laws.\textsuperscript{21}

While conservation, in the sense of prevention of physical waste in production, was probably within the power of the various states to resolve, there was another aspect of the conservation problem that proved more troubling. This was the wasteful use of natural gas in various applications—principally as boiler fuel—for which a more plentiful fuel was available. Since this involved the use of the gas, quite apart from its production, it was generally outside the regulatory powers of the producing states, since its regulation would have been an interference with interstate commerce.\textsuperscript{22} In any event, producing states were not yet convinced that conservation was necessary at all, and some were still interested in spurring consumption, to get as much economic benefit as soon as possible.\textsuperscript{23}

Neither producing nor consuming states had control over the uses to which natural gas was put in another state. Even though a state may have had the power to pass conservation laws aimed at wasteful uses within its own boundaries, it could only do so by putting itself at a competitive disadvantage with other states not similarly inclined. Indicative of this dilemma was In re Cabot Gas Corp.,\textsuperscript{24} a 1936 decision of the New York Public Service Commission which granted a certificate for the construction of a pipeline to serve several large industrial concerns, notwithstanding the likely waste of the natural gas supply. Decrying the inability of the Commission to effectively deal with the dissipation of gas resources by wasteful uses and the failure of the federal government to step in to lead in conservation efforts, the chairman pointed out:

\ldots what will be gained to consumers in the state of New York if the petition is denied. \ldots If restriction is imposed on the use of it in New York, it may go to Pennsylvania; and if the petitioner is not allowed to supply the areas which it is proposed to serve, the gas will go to other areas and there is no assurance that it will be used any more beneficially from a public viewpoint than it will be if the petition is granted.\textsuperscript{25}

Although such a problem could be solved in theory by cooperation among the various states, their record in this regard has not been remarkable.\textsuperscript{26}

III. Provisions of the Natural Gas Act

The Natural Gas Act confers jurisdiction upon the FPC over three
things: (1) the transportation of natural gas in interstate commerce; (2) the interstate sale of natural gas for resale for ultimate public consumption; and (3) natural gas companies engaged in such transportation or sale. The limited nature of this jurisdiction is emphasized by the express exclusion of jurisdiction over the production of natural gas and the intrastate transportation or sale of natural gas.

Pursuant to this grant of jurisdiction the FPC was granted "broad power to protect consumers against exploitation at the hands of natural gas companies." Sections 4 and 5 give the Commission power to investigate and fix all rates and charges for any transportation or sale of natural gas subject to the jurisdiction of the Commission. Section 7 gives the Commission power to issue certificates of public convenience and necessity which are required before a company may "engage in the transportation or sale of natural gas, subject to the jurisdiction of the Commission, or undertake the construction or extension of any facilities therefor." Within the same section the FPC is given power, under certain circumstances, to permit the abandonment of natural gas facilities or to compel the extension or interconnection of such facilities. Section 11 contains the sole provision relating to conservation and, in line with the FTC Report, it is primarily an indirect function in aid of the states' primary authority. Other provisions of the Act give the FPC authority to require various forms and accounts, conduct investigations, issue reports and engage in such other housekeeping functions as are necessary to administer the Act and carry out its purposes.

The question that was left only partly answered by the Natural Gas Act was to what end should natural gas be regulated. Although the obvious answer is stated clearly at the outset—in the "public interest"—the question remains as to how the public interest is to be determined. The standards contained within the Act for the setting of rates—"just and reasonable" and "no undue preference"—together with the standards for certification proceedings—"public convenience and necessity"—are not definitive. What they suggest, however, is that the Commission should look outward to society in making its judgments, and that the Commission should have wide discretion in making those judgments.

IV. CONSERVATION POLICIES

Analysis of the Commission's conservation policies may be focused upon four related questions: Is conservation a proper consideration in formulating FPC policy? Is conservation necessary? Is its importance outweighed by other factors? How should conservation
be carried out? The question of the propriety of considering conserva-
tion at all will be deferred until discussion of specific regulatory
actions. It will be noted, however, that virtually all decisions affect-
ing the use of natural gas will inevitably affect conservation in some
manner. Although Section 11 of the Act is the only section explicitly
dealing with conservation, there is nothing in the Act to indicate
that this reference is exclusive. Certainly, since Section 11 is re-
garded as dealing with problems of physical conservation, the in-
ference is strong that economic conservation is not excluded from
the Commission's determination of the broad public interest.

The need for conservation implies the necessity of holding back
the impetus to consume because, for some reason, present consump-
tion is overvalued as compared to future consumption. This can be
distinguished from the present situation of an actual physical shor-
tage only insofar as the need for conservation is theoretical and less
immediate—reflecting only the fear of running out. Another possi-
bile reason for a policy of conservation is damage to competing
interests. Historically such interests have included coal, railroad
and labor groups. Because of the frequency with which these groups
have opposed the expansion of the natural gas industry and raised
arguments of conservation, they too have often been termed "con-
servationists."

The weight given to the different factors militating against a re-
duction in the consumption of natural gas has been the chief obsta-
cle to the implementation of a policy of conservation. The strongest
single factor has been economic—the more gas that is consumed,
the cheaper each unit of gas becomes. In addition, a reduction in
the use of natural gas may not occur evenly throughout the year.
This would result in expensive facilities lying idle with a resultant
increase in per unit costs. On the other hand, this detriment may
be mitigated through the use of storage facilities. The decision to
restrict the use of natural gas must include considerations of air
quality and economic inconvenience to those who would wish to
obtain natural gas service, but are unable to. The weight assigned
to each of these factors depends upon the local air quality and the
availability of alternate fuels. Similarly, the importance assigned to
a policy of conservation is directly related to the conditions of shor-
tage that prevail. Today's shortage of production, however, was yes-
terday's shortage of reserves and that was the day before's inade-
quate efforts to find those reserves. The Commission has been justly
criticized for its failure to perceive changes in these factors some-
what quicker than it has.
The decision to conserve natural gas implies a decision to allocate natural gas. Major elements of FPC allocation policy have focused on three competing entities—producing and non-producing states, inferior and superior uses of natural gas, and new and existing customers. Although the policy which has been adopted by the Commission is allocation based on end use, each of these alternatives has some current force. The selection of an allocation policy also answers the question of “Who Gets the Gas?”

Allocation based upon the distinction between new and existing customers reflects little more than a policy of first come—first served. It is a choice, however, which is easy to administer. It probably stirs up relatively little antagonism, and it does not harm customers' reliance interests in their equipment investments. It provides no answer to the problem, however, when the shortage is acute and even existing customers are affected. In addition, natural gas service is not amenable to devices such as waiting lists since the typical customer has to make an investment in equipment. Moreover, such a policy does not answer the ultimate question of who actually needs the gas the most—an issue which must be addressed if such a policy is to reflect the public interest.

Regional distinctions in the use of natural gas have in the past been widely urged. It makes economic sense for regions rich in indigenous reserves of gas to utilize this capacity, and it makes similar sense for other regions with supplies of coal, water power, or accessibility to imports to utilize their capacities. Beyond this inevitable comparative advantage, however, it seems a highly provincial and dangerous policy to allocate natural gas to states depending upon whether or not they produce natural gas. Certainly there is nothing to suggest that users in Louisiana or Oklahoma actually need natural gas more than users in South Dakota or Vermont. Nevertheless, as a result of the division of jurisdiction over natural gas, there has developed a pattern of regional allocation. While wellhead prices regulated by the Commission have been kept at low historical levels, new supplies of natural gas have been increasingly attracted to the non-jurisdictional intrastate market. This supply leakage has had the tendency to undercut other policies of allocation which the FPC might wish to pursue, and has tended to distort otherwise economic factors of competition between the various states.

The distinction between inferior and superior uses of natural gas, or end use control, is based upon economic efficiency. As pointed out by the FPC in its 1940 Annual Report: “General use of natural
gas under boilers for the production of steam is . . . under most circumstances of very questionable social economy.”48 Such use includes industrial processes relying on steam and the generation of electricity. For these purposes it makes very little difference whether coal, oil, or natural gas is used, as far as efficiency is concerned. Insofar as these other fuels are more plentiful, however, it makes economic sense to utilize them in preference to natural gas. At the same time there are a number of premium uses of gas for which other fuels may not be readily substituted. These uses include commercial and residential uses for space heating, water heating and cooking, chemical uses as a raw material, as well as various industrial processes which depend upon the flexibility and high heat content of natural gas.47 Insofar as there is a shortage, once again it makes economic sense to prolong supplies by restricting the use of natural gas to those purposes which cannot be satisfied by other fuels.

Historically, however, national policies have encouraged low-grade industrial, boiler fuel and electrical generating use of natural gas. Rates have been kept low for these categories by artificial cost manipulations in order to keep such users from switching to other fuels.48 Regional variations in natural gas use reveal that industrial and power plant users have congregated in producing states,49 beyond Commission jurisdiction and thus beyond Commission policies affecting end use.

End use policies have been the target of considerable skepticism and criticism. Some of this has been due to doubt that there is such a thing as an “inferior use” of natural gas,50 or that the FPC is capable of handling such a comprehensive scheme of use regulation.51 Some of this criticism can be stemmed in part, at least, by a close look at each user’s situation, including the nature of his use, the purpose of his use, the availability of other fuels and the costs of doing without. These criteria presumably are the same as those which a user himself would employ in making a decision as to whether to purchase natural gas. But with natural gas prices at an artificially low, regulated level such decisions never take place—simply because natural gas is the cheapest alternative for all users. End use controls thus will tend to simulate the market function in a situation where the price is regulated below market-clearing levels.52

FPC policy regarding conservation has come to be associated with problems of end use. The history of natural gas regulation by the Commission reveals a slow development of a policy regarding end
use. This article will examine three major areas of regulation as they have affected FPC policies towards conservation: certification, rate setting, and curtailment.

V. Certification

As originally enacted the certification power of the FPC was limited to those cases where the market was already being served by another natural gas company; if a company wished to extend service to a totally new territory, the Commission had no power to act. In *Kansas Pipeline and Gas Co.*, the Commission was asked to grant a certificate of public convenience and necessity for the construction of a pipeline. They were urged by intervenors "to weigh broad social and economic effects of the use of various fuels." The Commission declined, pointing out that the restriction on their certification power together with all of the other provisions of the Act meant that they were to confine their study to economic factors other than conservation. This restriction was roundly criticized by the Commission the following year:

The Natural Gas Act as presently drafted does not enable the Commission to treat fully the serious implications of such a problem. The question should be raised as to whether the proposed use of natural gas would not result in displacing a less valuable fuel and create hardships in the industry already supplying the market, while at the same time rapidly depleting the country's natural gas reserves . . . . The Commission is convinced that these conservation problems are of such preeminent importance especially in the present world situation, that the Natural Gas Act should be immediately broadened to give the Commission adequate power to resolve them in the public interest.

In response to the Commission's criticism, Congress amended Section 7 in 1942 to its present reading. While the most direct effect of the amendment was to extend certification power to all jurisdictional transportations or sales, implicit was acquiescence with the Commission's position that it should be able to consider all relevant portions of the public interest, including conservation, in determining the public convenience and necessity. Nevertheless, having fought the battle and seemingly won, the Commission began to proceed in a most cautious manner. In *Memphis Natural Gas Co.*, one of the first certificate cases decided after the amendment, the FPC declined to give any weight to the contention that the use of gas for particular purposes was wasteful. Shortly thereafter the Commission announced a major investigation of the whole subject of conservation and end use. In its 1944 Annual Report, the
Commission even went so far as to disclaim the existence of authority to deal with conservation problems:

It has been the unanimous view of the Commission that, inasmuch as the Congress had not given it comprehensive powers to deal with the end uses for which natural gas is consumed, and had granted the Commission no authority to regulate rates for the direct sales of natural gas to industry, it was the duty of the Commission not to seek to exercise such authority until the Congress amended the Natural Gas Act to confer on the Commission such specific powers as Congress desired it to exercise. Despite the Commission’s desire for comprehensive or specific powers to consider end use, such powers were not forthcoming from Congress. During the late 1940’s and the early 1950’s bills were introduced and legislation urged to accomplish these goals, but gradually these efforts died out. Even though the Commission felt that it lacked complete powers over all issues of conservation, it was clear that it did have, at the very least, incomplete powers. From 1945 on, references to conservation and end use began appearing in FPC certification decisions. The first cases were generally determined on the basis of economic factors such as adequacy of supply, adequacy of demand, adequacy of proposed rates and revenues, and adequacy of planning and financing to insure that the project would be a success. Since the Natural Gas Act nowhere makes conservation a specific consideration in certification proceedings, the FPC was initially reluctant to give it much weight. In Department of Conservation of the State of Louisiana v. Federal Power Commission, affirming Memphis Natural Gas Co., the Fifth Circuit Court of Appeals noted that the Commission had given “sympathetic consideration” to the fact of inferior use but that conservation was only one of the factors involved in public convenience and necessity. In Northern Natural Gas Co., the FPC refused, largely on the grounds of end use, to grant a certificate of public convenience and necessity for a pipeline to serve a power company which would use the gas as boiler fuel. This was the first time that such considerations became of sufficient importance to be cited as a reason for the denial of a certificate of public convenience and necessity. Three years later, however, the Commission reversed itself and awarded the certificate. By this time, there were intrastate, non-jurisdictional distributors serving numerous similar users in the same area, and the Commission felt it would be discriminatory to cease this particular consumer to be denied service.

In following cases, the Commission continued to refer to consider-
ations of end use and seemed to place increasing importance upon such factors in its certification decisions: "We have repeatedly held that the use of natural gas as boiler fuel is an inferior usage and that while it is not to be denied in all situations, it should be permitted only on a positive showing that it is required by public convenience and necessity."70 However certification cases rarely created black and white choices between conservation and waste, or superior and inferior end uses.

As natural gas pipelines expanded to serve new regions of the country during the 1940's and 1950's, they added large numbers of new customers. Because of the use of natural gas for space heating, the demand was highly seasonal. Serving only the residential and premium-use market would have created a situation with a very high winter peak of service and a valley during warmer periods. The pipeline, of course, would run most economically at a high load factor. Large industrial and electrical users with a multiple fuel capacity were willing to buy natural gas at a high load factor, or were willing to buy gas interruptibly to fill the pipelines' valley periods and to supplement their own fuel capacity. This improved the pipeline efficiency and in return the pipelines offered lower rates to attract such customers. This arrangement gave financial advantages to all parties, including somewhat lower rates even for the on-peak users.

Therefore, despite excellent rhetoric regarding the wastefulness of boiler fuel usage, the Commission rarely did anything about it. Between 1938 and 1960 there were only four applications for a certificate of public convenience and necessity which were refused on the grounds of inferior end use.71 In three of those cases the particular user eventually ended up with natural gas service notwithstanding the previous certification denial.72

The only major challenges to the FPC certification procedure during this time came from conservationists, who alleged the failure of the Commission to give proper weight to factors of end use and competitive injury. On each occasion the Commission's judgment was upheld.73 The general rules that emerged were that intervenors would be freely allowed in certificate proceedings, but that the FPC was not bound to consider end use nor did it need to give end use any special weight when it was considered. Because the Commission's mandate was broad and since no statutory obligation was violated in the grant of a certificate, judicial review was largely fruitless. Typical was the view of the D.C. Circuit Court of Appeals: "In the end the petitioners' case, though strong, cannot prevail in the courts after having failed before the Commission."74
It was not until 1961 in *Federal Power Commission v. Transcontinental Gas Pipe Line Corp.* (hereinafter referred to as *Transcontinental*), that the Supreme Court considered the denial of a certificate for reasons relating to conservation. In dispute was the certification of the transportation of a large quantity of gas from Texas to New York City where it would be used as boiler fuel to generate electricity. The FPC conceded that the application met all of the traditional economic tests but that the public interest nevertheless required that the certificate be denied. Three reasons were advanced for the denial including the inflationary price level of the proposed transaction, the inferior use of the gas, and the preemption of pipeline space from gas for higher priority uses. Proponents of the certificate argued that the use was actually a beneficial one since it would replace coal and result in cleaner air. The Third Circuit Court of Appeals had reversed the Commission’s denial of the certificate holding, *inter alia*, that the Commission had exceeded its authority in examining the factor of end use and exercising what amounted to “a general allocation and conservation authority.”

The Supreme Court, in reversing the Court of Appeals and upholding the certificate denial, first acknowledged that the term “public convenience and necessity” gave the FPC ample authority “to evaluate all factors bearing on the public interest.” However, due to the jurisdictional limitations imposed upon the Commission by the Natural Gas Act, the Court went on to examine whether the Commission had “trod on forbidden ground in making its decision.” Noting the distinction between physical waste in the production of natural gas and economic waste in the consumption of natural gas, the Court pointed out that the states had the ability to control physical waste, but were inherently unable to control the economic waste of gas committed to interstate commerce. Since, by the Natural Gas Act, Congress “meant to create a comprehensive and effective scheme” and meant to leave no “attractive gap” between the spheres of federal and state regulatory authority, considerations of economic waste and end use were properly of concern to the Commission.

While *Transcontinental* was an affirmation of the Commission’s decision to deny a certificate of public convenience and necessity for this project; more importantly, it was an affirmation of the Commission’s discretion to determine what what was in the public interest. Both proponents and opponents of conservation have had to meet the same hurdle—to convince the Commission of what is the public interest.
Since 1961 the Commission has continued faithfully to consider factors of end use, but the jurisdictional limitations of the Commission have effectively prevented it from asserting any comprehensive allocation policy through its certification procedure. The vast majority of gas transported in interstate commerce is in the form of sales to intrastate distributors for resale. These intrastate distributors subsequently make boiler fuel sales, but the question of end use is never squarely presented to the FPC. Further, there is a growing trend for industrial boiler fuel use to be concentrated in the producing states where it is beyond the FPC jurisdiction. Where the Commission has faced the issue, however—usually in the context of new direct sales for industrial use, or new sales for resale, where the increase is earmarked for a particular industrial user—it has refused to adopt an absolute rule regarding end use.

Within the past several years, Commission decisions regarding certification have begun to be overshadowed by larger considerations of supply inadequacy and price. In *El Paso Natural Gas Co.* the Commission denied a certificate for the transportation of natural gas from Texas to an Arizona utility for the generation of electrical power. The major basis for the Commission's decision was the high price proposed to be paid for the gas which would have had the effect of encouraging large users to "tie up ever-dwindling gas reserves in the field" to the detriment of smaller customers. The Commission dutifully noted that the proposed use was an inferior one and therefore created an additional "demerit" for the proposed transaction. The absence of a suggestion of possible superior uses of the gas, however, meant that "we are left only with the general proposition" and the demerit created was only "slight." Presumably this was "slight" in relation to the larger factor of price; but, although the certificate was denied, the characterization of end use as a problem to be seriously considered only when urged by a private party, seems to be a serious mis-allocation of the responsibility of protecting the public interest.

In *Public Service Commission of the State of New York v. Federal Power Commission*, involving the transportation of natural gas from offshore Louisiana to a Mississippi refinery, the Commission conceded that a certain proportion of the gas might be used in an inferior manner, but noted that allowing the certificate might also act as an incentive for increased exploration. Considering also the fact that the FPC could only exercise a veto power over this particular project and could not be assured that the gas would ever find its way to superior uses, the Commission concluded that, on balance,
the certificate should be allowed. A prior Commission grant of the same certificate had previously been remanded for a fuller explanation of these factors, and, although the reviewing court remained skeptical of any "incentives" to be found in such a transaction, they felt they had no choice but to affirm the Commission's judgment:

In this difficult time of critical gas shortage, a reviewing court must be particularly careful to ensure that the Commission is permitted to carry out its policy-making functions which Congress gave it in the Natural Gas Act, and we may not substitute our policy judgments for those of the Commission.

Exercise of certification power by the Commission can be an effective method to control growth and therefore to implement policies of conservation. However, in a period of shortage, when the dominant mode is reductions rather than extensions of service, the power to award certificates of public convenience and necessity is less than effective. The failure to grant a certificate may only result in the natural gas being diverted to another even less desirable use outside of the Commission's jurisdiction—the parallel here with In re Cabot Gas Corp., discussed above, is striking.

More recently the shortage of natural gas has forced a number of pipelines to curtail deliveries to their customers. Not surprisingly, the FPC has adopted a priority system based upon end use and availability of alternate fuels to achieve the most equitable method of curtailment. In the face of such a system, there is little sense in awarding a certificate of public convenience and necessity for sales that will be immediately subject to curtailment.

VI. RATE SETTING

Traditional utility rate setting operates on the theory that a public utility should receive a total revenue equal to its cost of doing business plus a return on its capital investment. The total revenue or rate level is recovered from the various users by the application of individual rates for particular products and services. FPC rate making procedures thus encompass two separate steps—the determination of rate level, which focuses on the pipelines and the producers; and the determination of rate design, which focuses on the users. Both rate level and rate design can have a beneficial effect upon the efficient utilization of our gas resources and upon conservation. Rate levels can be set at an overall high level to insure maximum exploration and exploitation of indigenous reserves while, at the same time, dampening demand. This would produce
a situation with relatively high rates for consumers, but with a long term assured supply of natural gas. Rate structures can be designed to allow the burdens of higher rates to fall selectively upon particular users, and thus discourage or encourage conservation, high load factors or any other policy deemed worthwhile.

Theoretically, at least, the FPC could completely accomplish nearly any policy regarding the allocation of natural gas through the setting of rates. The statutory standards of “just and reasonable,” no “undue preference” and no “unreasonable differences” in rates between classes of users are sufficiently broad to encompass just about any theory of rate making designed to protect or enhance the public interest. However, the concept of creative rate making to advance policies of conservation has been slow in being adopted by the FPC.

Although it is clear that the FPC has the authority to fix rates and charges and although it is generally conceded that such factors as end use are of proper concern to the Commission within the context of its certification proceedings, the Commission has until very recently followed the rule laid down by the Supreme Court in Federal Power Commission v. Hope Natural Gas Co. (hereinafter referred to as Hope) that considerations of conservation and end use were not material to the rate setting process. Hope involved a dispute between the State of West Virginia and the FPC over the rates set for the sale of natural gas which was produced in West Virginia and subsequently sold by the Hope Natural Gas Co. in other states. West Virginia’s objections focused on several interrelated aspects of the need for conservation. First, the value of the natural gas, the discovery value of the leaseholds and the value of the other company property were alleged to have been understated by the FPC. The claimed result was that State tax revenues were depressed and the value of competing fuels such as coal, also a product of West Virginia, was cheapened. Additionally, state conservation policies were significantly harmed in that exploratory development would be discouraged, abandonment of marginal wells would be hastened, and the secondary recovery of oil would be discouraged. Second it was claimed “that the Commission placed too Iowa rate on gas for industrial purposes as compared with gas for domestic purposes” and that the difference in those rates was “discriminatory as against domestic users and in favor of industrial users.”

The Court pointed out in response to the first argument that the primary purpose of the Natural Gas Act was “to protect consumers against exploitation at the hands of natural gas companies,” and
that the major evil against which the Act was directed was the maintenance of high rates based upon inflated rate bases by the private utility companies. Although the Court recognized West Virginia's valid interest in conservation, such interests were not proper subjects of FPC consideration in the exercise of its rate making powers. In language reminiscent of current debates over windfall profits and price rollbacks:

Thus Congress was quite aware of the interests of the producing states in their natural gas supplies. But it left the protection of those interests to measures other than the maintenance of high rates to private companies. If the Commission is to be compelled to let the stockholders of natural gas companies have a feast so that the producing states may receive crumbs from that table, the present Act must be redesigned.

To West Virginia's argument regarding end use, the Court responded that there was nothing within the Act to indicate that rates should be fixed to discourage particular uses. The Act contained only "conventional" standards of rate-making and such theories were held to be "novel" and without express statutory sanction. The Court avoided the claim of discrimination in favor of industrial users, as a result of the failure to properly present the issue before the Court, but indicated that the Commission itself had ample authority to cure any such unreasonable differences in rates, if properly brought before them.

Justice Jackson delivered a strong dissent in which he decried the narrowness of the public interest recognized by the majority opinion. Justice Frankfurter in a separate dissent argued that the "very foundation" of the Act was the public interest and that this consists of more than "contemporary investors and contemporary consumers" and includes social as well as economic costs. Both urged the use of rates as a tool to draw out additional supplies and to prevent waste. Although contemporary users might enjoy a savings of a few cents per mcf, such considerations "will not be very satisfying to a coming generation that will look back and judge our present regulatory method in the light of an exhausted and largely wasted gas supply."

*Hope* has been widely cited for the proposition that matters of conservation and end use may not be considered by the FPC in the exercise of its rate setting jurisdiction. This holding was certainly not required by the facts of *Hope*. Since the FPC had refused to accept West Virginia's contentions regarding conservation, the Court need only have upheld the FPC's discretion to consider those factors which it deemed relevant to the public interest, rather than
indicating that certain factors may not be considered. Since the rest of the opinion dealt at length with the proposition that the Court will not examine the rate-making process, only the end result; it was ironic that the Court went to such lengths to announce that considerations of conservation could not be part of that process. Superficially it would seem that if the reviewing court examined only the end result and found it not unreasonable, then the court would never know whether the Commission had engaged in forbidden contemplations, and certainly there would be no harm done.

Perhaps in a broader sense, however, what Hope was really saying was that the factor of price to the consumer was the ultimate concern of the Natural Gas Act. Since conservation means higher prices in the short run and since the fears of shortages were somewhat speculative, the preferred course was to opt for the lowered prices. This was buttressed somewhat by the legislative history of the Act regarding the role of conservation. But again, it must be remembered that conservation in the FTC Report was conceived of in a limited sense—as the prevention of physical waste in production. The whole area of the prevention of economic waste through inferior use, coupled as it is with concerns of resource depletion and adequacy of future service, is another type of conservation and is one that seems inevitably to be a part of the rate setting process. This is evident from a brief analysis of the Commission’s cost allocation process.

Costs are generally of two forms—separable or joint. Separable costs may be simply defined as those costs which are incurred solely in the service of one particular customer or class of customers. Joint costs are those which are incurred in the service of more than one customer. Theoretically each user should pay his own separable cost plus some portion of the joint costs. Each user, however, would obviously like the other to pay as much of the joint costs as possible. If one user has greater bargaining power, he can generally pay a smaller share of the joint costs and thus have lower rates. Within the natural gas industry this greater bargaining power is possessed by those users who have the capability of using alternate fuels, and is reflected in the much lower rates paid per mcf by those users.

Colorado Interstate Gas Co. v. Federal Power Commission (hereinafter referred to as Colorado Interstate) involved exactly such a cost allocation between two customers. One, the city of Denver, was a jurisdictional customer serving a mixed group of residential, commercial and industrial customers. The other, Colorado Fuel and Iron, was a non-jurisdictional direct sale customer using the
great part of its gas for boiler fuel. Both shared the same pipeline (except that Denver used 300 miles while the industry used only 200 miles) and both used similar quantities of gas. The Commission decided that the bulk of the costs of the pipeline would be allocated to the jurisdictional customer with the result that the non-jurisdictional customer was able to purchase gas (for boiler fuel use) at less than one fourth of the rate charged to the jurisdictional customer. The Supreme Court in upholding this cost allocation pointed out:

When Congress, as here, fails to provide a formula for the Commission to follow, courts are not warranted in rejecting the one which the Commission employs unless it plainly contravenes the statutory scheme of regulation. . . Allocation of costs is not a matter for the slide rule. It involves judgment of a myriad of facts.

If the costs had been divided on even a slightly different basis, the cost to the industry for boiler fuel would have been increased substantially, which might have then caused the company to use other fuels for its boiler. The result would have deprived the jurisdictional customers of the boiler fuel user's small contribution to joint costs, and therefore they would have to pay slightly higher rates. The further result, however, would have been that a wasteful use of natural gas as boiler fuel was discontinued and natural gas supplies correspondingly preserved for future use.

Justice Jackson in a concurring opinion pointed out that there was no indication that the price discrepancy between the two users was anything other than the result of the better bargaining position of the industrial user. However, the very essence of the regulation of an industry is that the public interest must sometimes call for the alteration of bargained-for transactions that do not completely take into account all of the elements of that public interest. Even though there may be economic justification in the form of lower rates, Justice Jackson went on to denounce the principle that costs should be borne most heavily by the higher priority, premium use customers:

I do not think it can be accepted as a principle of public regulation that industrial gas may have a free ride because the pipeline and compressor have to operate anyway. . . If this makes low price industrial business less desirable, it will be in the long-range public interest. . .

The thorniest problems of cost allocation have arisen with respect to the design of rate structures. While there are dozens of different theories of rate design the most common, and that currently employed, is the two-part or commodity and demand rate. Quite sim-
ply, the two-part rate is a combination of two separate charges. The commodity component is a charge for each separate unit of gas sold. The demand component is a charge to each user based upon that user's responsibility for the system peak, or in other words, to pay for the fixed capital and pipeline costs that must be paid, whether or not any natural gas is sold. The commodity component is generally the same for all users; however, the demand component varies widely depending almost entirely on how the system costs are allocated among the various users. The effect of this type of rate is that users of natural gas who take only during the system peak pay a much higher charge per mcf than do users who take at a 100 percent load factor, and both of these users pay more per mcf than do users who take entirely during off-peak periods or who buy on an interruptible basis.

Once a decision is reached to adopt two-part rates, the question becomes one of allocating specific items of pipeline expenses to either the demand or commodity component. This question was addressed by the Commission in 1952 in *Atlantic Seaboard Corp.* If the premise were adopted that pipelines were built to serve the peak demand periods then the demand charge should bear all of the fixed pipeline costs. The commodity charge would then reflect only those separable costs specifically attributable to the delivery or sale of each unit of natural gas. In the extreme this would mean that off-peak gas would get essentially a "free ride." Concluding, however, that no pipeline would ever be built to serve exclusively a narrow peak period, the Commission held that the fixed costs of the pipeline must be borne not only by the demand charge, but also by the commodity charge. Exercising the wisdom of King Solomon, the Commission decided to split the difference and allocated 50% of fixed costs to the demand component and 50% to the commodity component, the so-called *Seaboard* method. Recognizing the ad hoc nature of such allocation, the Commission indicated that it intended to be flexible in making such cost allocations in future cases, but would continue to use *Seaboard* as a starting point.

The *Seaboard* method of cost allocation subsequently was challenged in *State Corporation Commission of Kansas v. Federal Power Commission* where the Eighth Circuit Court of Appeals affirmed the FPC judgment:

> We feel it is peculiarly within the Commission's discretion to so alter their application of the demand-commodity approach to the problem of allocation as to reflect what appears to be the Commission to be important factors not previously considered.
The Commission took a completely different approach in *Alabama-Tennessee Natural Gas Co.*\textsuperscript{120} issued only one week after the *Seaboard* decision was announced. There, due to the fact that the fixed pipeline costs bore no close relationship to the system demand, the Commission rejected the two-part rate entirely and determined that a one-part or volumetric rate was appropriate. In *Alabama-Tennessee Natural Gas Co. v. Federal Power Commission*,\textsuperscript{121} the Third Circuit Court of Appeals affirmed, once again emphasizing the broad discretion granted to the Commission.

The power to allocate costs, together with the discretion in exercising that power, results in a great amount of influence in determining patterns of natural gas use. However, throughout the remainder of the 1950's and 1960's the Commission has used that discretion to allocate gas to industrial and boiler fuel markets rather than away from them. This has occurred through the process of "tilting" the *Seaboard* cost allocation in order to lower the commodity charge so that competition from other fuels could be met.\textsuperscript{122} As pipelines extended to the large cities of the North and East, it was apparent that the load factors would be very low as a result of the seasonal demand unless the pipelines generated a significant amount of non-seasonal (i.e. industrial boiler fuel) demand. Since a high commodity rate would not attract such off-peak usage, the demand charge was raised and the commodity charge lowered, by the simple expedient of altering the *Seaboard* 50-50 cost allocation. In making such an allocation the Commission completely ignored the rationale of end use conservation and relied entirely on the economic advantages of lower rates.

In *Fuels Research Council, Inc. v. Federal Power Commission*\textsuperscript{123} it was urged that such a policy amounted to "backward" rate making in that the commodity charge necessary to allocate gas to industrial customers was taken as a starting point, and then the cost allocation was computed to justify the commodity charge. The Seventh Circuit Court of Appeals nevertheless upheld the Commission's decision as "peculiarly within the Commission's competence."\textsuperscript{124} To charges that such rates were preferential and discriminatory against the coal industry, the court replied that competitive injury may not be considered in rate proceedings. The court recognized the situation as "anomalous" since the Commission was free to consider competitive fuel prices in designing natural gas rates, but the matter was "not open to question," citing *Hope*.\textsuperscript{125} It was further urged that such rates were inimical to the public interest in that inferior uses of natural gas were thereby encouraged. Once
again the court recognized the "irony" of the Commission's discouraging inferior end use under its certification jurisdiction while trying to encourage the same end use under its powers of rate design; but the matter was deemed not open to dispute, once again citing Hope.\textsuperscript{126}

The reliance on Hope continued the basic rationale that the ultimate goal of the Natural Gas Act was to obtain rates which were as low as possible to as many as possible. The interpretation of the Natural Gas Act so as to afford protection only to that part of the public interest which is served by lower rates is a serious misreading of the Act. Unfortunately, it has taken the arrival of actual shortages of supply to force that error into the open.

In 1971, in recognition of the existing shortage of natural gas and the expected worsening of the supply situation, the FPC issued Order No. 431,\textsuperscript{127} wherein it proposed to "reexamine existing commodity rate levels and, to the extent necessary, . . . redesign existing commodity demand rate relationships in present and future pipeline rate cases."\textsuperscript{128} In 1972, in \textit{El Paso Natural Gas Co.},\textsuperscript{129} the Commission un-tilted its cost allocations and reaffirmed its intention to conduct a "searching reappraisal" of the entire question of rate design:\textsuperscript{130}

Our purpose will be to arrive at a method of cost classification and allocation and rate design which will produce a strong economic pressure towards a more efficient allocation of our fuel reserves. This will be directed particularly to conserving gas for residential, commercial, and other uses for which this clean fuel is greatly needed and discouraging the use of gas for large volume industrial and boiler fuel purposes.\textsuperscript{131}

In 1973, in \textit{United Gas Pipe Line Co.},\textsuperscript{132} the Commission continued its reexamination of demand and commodity relationships. Despite urging by its staff to adopt a volumetric rate, which would essentially represent the limiting case of 100% of fixed costs assigned to the commodity component and reducing the demand charge to zero, the Commission opted once again to split the difference—this time between the Seaboard method and the volumetric method.\textsuperscript{133} The expected result will shift a further share of costs upon the "low priority direct and interruptible customers who are able to use competitive fuels" and thereby hasten their switch to those competitive fuels.\textsuperscript{134}

\textit{United Gas Pipe Line Co.} represents a complete acceptance, at least under the exigent circumstances of the energy crisis, of the authority to consider factors of conservation and end use in rate proceedings. As such it raises at least two important questions: will
it actually have any effect upon the conservation of natural gas, and will it be upheld upon review? The answer to the first question is impossible to determine, given the tremendous fluctuation of prices in the energy market during the past year and the shortages of alternate fuels. Certainly there have been times during the past several decades when an industry in need of boiler fuel has had an option to choose either natural gas or coal. Because that industry was able to purchase off-peak and because of two-part rates, they chose to use natural gas. The absence of two-part rates or a greater share of pipeline costs allocated to the commodity component would have caused them to use coal and correspondingly preserved a significant proportion of our natural gas supply.

The major obstacle to affirmance of United Gas Pipe Line Co. would appear to be the lingering authority of Hope. But certainly, insofar as Hope represents the view that the FPC may not consider factors of conservation in its rate setting process, it is due for an overhaul. Permian Basin Area Rate Cases stands as ample authority for the proposition that the FPC may not artifically restrict its view of what factors may be considered; "it is instead obliged at each step of its regulatory process to assess the requirements of the broad public interests entrusted to its protection by Congress."

As a reasoned attempt to allocate costs, seeking thereby to dampen wasteful demand and more equitably distribute the hardships of the energy shortage, it would seem that the Commission's order will probably be affirmed.

VII. CURTAILMENT

When a pipeline has agreed to deliver a certain quantity of natural gas to its various customers and then is unable to obtain that amount of gas, there is obviously going to be trouble somewhere. Within the arena of private contracting and in the courts are ample means of resolving situations of this nature—when the product involved is radios, bicycles or briefcases. When the product is natural gas, it is not at all clear that economic power alone or traditional breach of contract remedies are sufficient. Since the Federal Power Commission has jurisdiction over all interstate transportation of natural gas and is charged with enforcing "a comprehensive and effective regulatory scheme ... to afford consumers a complete, permanent and effective bond of protection," the Commission has attempted to establish equitable criteria for the reduction of demand and the apportionment of available supplies.

The first official recognition of the need for such a policy occurred
in April, 1971 in Order No. 431. In recognition of the shortage of supply the Commission ordered all jurisdictional pipelines to report whether they were going to find it necessary to curtail deliveries. All pipelines so reporting were required to file proposed schedules, or tariffs, with the Commission setting forth a curtailment plan to effectuate the policies stated in the order. These policies were necessarily very general:

... jurisdictional pipeline companies shall take all steps necessary for the protection of as reliable and adequate service as present supplies and capacities will permit. ... Consideration should be given to the curtailment of volumes equivalent to all interruptible sales and to the curtailment of large boiler fuel sales where alternate fuels are available.

Underlying these policies was the concept that the most equitable manner of curtailment was on the basis of end use. These tariffs were then ordered to be applied to all natural gas transported in interstate commerce including both direct sales and sales for resale.

The major challenge to these policies has been jurisdictional rather than substantive. In *Louisiana Power and Light Co. v. Federal Power Commission* (hereinafter referred to as *Louisiana Power*) the Supreme Court affirmed an order by the Commission which implemented a curtailment plan filed by United Gas Pipeline Co. Louisiana Power and Light Co., a large, direct sale, boiler fuel customer of United, had challenged the order and the Fifth Circuit Court of Appeals had held that the FPC was without jurisdiction to order curtailments of direct sales customers. Not seriously challenged was the proposition that the FPC could order curtailments at all, or for jurisdictional customers. The Supreme Court indicated that curtailment of service was a part of the "transportation" jurisdiction of Section 1(b) and as such did not depend on any distinction based upon the application of the "sales" jurisdiction. The rationale for this holding was simply that the curtailment of interstate direct sales was beyond the power of the states and therefore Congress must have intended it to be regulated by the FPC under the "no attractive gap" doctrine.

The substantive standards to be employed in the formulation of curtailment plans are derived from Section 4(b) of the Natural Gas Act, in which the Commission exercises a form of equitable judgment to determine who needs natural gas the most and who can afford to do without. This would supercede the system of private contracting which in many cases would have resulted in those with
a greater need for natural gas going without, while those with an alternate fuel supply continued to receive natural gas. The step from "no discrimination" to "curtailment based upon end use" was not seriously commented upon. This was somewhat surprising for it is certainly unusual that the application of a "no discrimination" standard should lead to a systematic classification of one particular group of users (industry) in the lowest priority. Although the classification may make sense on the basis of the general public interest, or conservation, or the protection of users who are least able to take care of themselves, it is clearly the granting of a preference to domestic users and is not neutral or non-discriminatory. Nevertheless the Court broadly upheld the Commission:

We conclude therefore that the FPC has the jurisdiction asserted here and that the Natural Gas Act fully authorizes the method chosen by the FPC for its exercise.\[144\]

While it seems clear that the word "method" in the above quote was referring to the manner of implementing curtailment plans (through Section 4 filings rather than the lengthier Section 5 hearings), the breadth of the Supreme Court endorsement of the FPC actions certainly seems to encompass the decision to curtail on the basis of end use.\[145\]

In January, 1973 the Commission significantly altered its approach to curtailment plans.\[146\] At the heart of the new system was a series of eight priorities. Essentially this priority system, which placed domestic and small commercial requirements in the highest priority and boiler fuel use in the lowest, was designed to make it clear that "end-use considerations" should be given controlling effect.\[147\] This order was slightly modified to a nine priority system in later orders and also modified to include the proviso: "where alternate fuels can meet such requirements" after each of the low priority groups.\[148\] The Commission also indicated that despite the set of priorities, deviations would be allowed upon a showing of special merit.

Throughout the past year the FPC has been besieged with various requests for exceptions from various customers who would otherwise find their natural gas supply reduced.\[149\] It is not possible to draw any general rule from the present state of affairs, but it does seem that most industrial or electrical generation users can present plausible claims of hardship merely because alternate fuels are also scarce. Shutdowns of plants, layoffs of workers and similar threats have been successful in having curtailment orders mitigated.\[150\]
this writing there has been no final disposition of any curtailment case and claims for damages or for exemptions may linger on for several years.

VIII. Environmental Policies

Despite the major advances made by the FPC in considering goals of resource conservation in areas of certification, rate design and curtailment, the Commission has steadfastly avoided the procedural obligations of the National Environmental Policy Act (NEPA). Section 102(2)(c) requires that an environmental impact statement be prepared for all "major federal actions significantly affecting the quality of the human environment." Significant environmental effects of FPC actions in the allocation and conservation of natural gas include not only "irreversible and irretrievable commitments of resources," but also significant effects upon the quality of the air, plus indirect effects upon the demand for coal, oil and nuclear fuels, resulting in increased strip mining, radiation hazards, etc. Present FPC regulations provide for the filing of environmental impact statements under the Natural Gas Act only in applications for certificates of public convenience and necessity involving the physical construction of pipeline facilities. Such a narrow reading of NEPA must inevitably lead to an inadequate consideration of the environmental effects of policies which either encourage greater use of natural gas, thereby depleting our reserves, or which discourage such use, thereby polluting our air. No one claims to know the answers to such a choice, and what is needed is greater study, not less.

In a number of recent cases the FPC has fought a running battle with both sides of the environmental issue over their procedural obligations under NEPA. In Alabama-Tennessee Natural Gas Co., concerning the certification of a sale of gas for electrical generation to the Tennessee Valley Authority, the FPC obviously considered a number of environmental factors. Concluding that the forced use of oil instead of natural gas might cause some additional air pollution, but that the conservation of natural gas would "bring about environmental benefits in the more critical areas in which the gas is eventually consumed in lieu of more polluting fuels;" the FPC denied the certificate. The Commission went on to hold that NEPA did not apply to these considerations. The only explanation—that the FPC had no control over the actual burning of oil since their decision was only a denial of the sale of natural gas—was not only lame, but inaccurate.
It would seem clear that this type of case should fall under the mandates of NEPA. The FPC is obviously weighing two essentially environmental alternatives—additional air pollution or greater resource conservation. The Commission closed its consideration of the problem of air pollution with the statement: “There is nothing in the record, however, to suggest” that any air pollution would occur. What does such a statement mean, however, when *that very record* has been intentionally limited by the failure to prepare an impact statement, concerning factors that would have been suggested by such a study? It may well be that the FPC reached precisely the correct decisions, but their failure to follow NEPA procedures only serves to call their decision into question.

In *Arizona Public Service Co. v. Federal Power Commission,* the D.C. Circuit Court of Appeals remanded a Commission denial of a certificate of public convenience and necessity on the grounds of the Commission’s failure to comply with NEPA. Once again the environmental issue was the potential air pollution which might result from the use of a dirtier fuel instead of natural gas. On remand the Commission addressed the issue of an impact statement and concluded once again that one was not necessary since there was no “significant effect on the quality of the human environment.” The significance of the effect on the environment, of course, is a threshold determination to be made by the responsible agency, but the FPC has consistently failed to recognize that *any* of its allocation decisions might have this type of effect. Even though the Commission may be technically correct as to any particular usage or non-usage (i.e. it may not make much difference whether A uses oil and B uses gas, or vice versa, given the fact that there is not enough gas for both); still the pattern of certification decisions regarding the allocation of gas resources across the country must have a significant cumulative effect.

A slightly different issue has arisen with respect to curtailment orders. In *Atlanta Gas Light Co. v. Federal Power Commission,* several large users suffered curtailment of their natural gas supply which necessitated a switch to dirtier fuels and consequently increased air pollution. The Commission once again failed to file an environmental impact statement, but because of the “emergency” nature of a curtailment situation, the Fifth Circuit Court of Appeals upheld the omission, citing *Louisiana Power* for authority that “the Natural Gas Act authorizes the Commission to follow summary procedures in exercising its curtailment powers.” Although the court went on to characterize curtailment plans as “interim” activ-
it was never pointed out at what stage curtailment plans might become final or become such a major portion of FPC policy as to be regarded as more than emergency action which cannot be delayed. Certainly at some point a succession of interim actions becomes effectively a course of policy of major significance. Although an impact statement may not be appropriate for every user of natural gas who is curtailed, or even for every pipeline that has a curtailment plan, clearly such announcements of overall policy as the decision to curtail gas on the basis of end use does meet the criterion of being major federal action having significant environmental impact.

One further factor regarding NEPA should not be overlooked. NEPA is more than a law requiring impact statements; it is a statutory command to actually implement environmental policies and to give greater weight to environmental factors where that is possible given an agency's statutory duties. As the Natural Gas Act tells the Federal Power Commission to regulate natural gas in the public interest; NEPA tells the Commission that the public interest includes the preservation of the environment. Public interest thus includes both the problem of air pollution, and also the problem of preserving our exhaustible and irreplaceable reserves of natural gas.

The FPC has not been a willing adherent of the policies of NEPA. Although in some cases the same solution might be arrived at in any event, the continued disregard of NEPA cannot be regarded as in the public interest. The conflict between the public interest standard of the Natural Gas Act and the public interest standard of NEPA must be resolved if there is to be any effective resolution of the natural gas shortage or, ultimately, any resolution of the energy crisis.

IX. Conclusion

This article has examined the development of a policy of conservation of natural gas by the Federal Power Commission. There is very little dispute over the necessity of conservation—the only dispute is over how to do it. Historically the Natural Gas Act has been read to command the FPC to balance the interest of the investor and the consumer and to keep natural gas rates as low as possible. It can be regarded as unfortunate that policies of conservation, in particular in the area of rate design, were not implemented long before an actual shortage was upon us. Insofar as the current shortage may be only a transient phenomenon, it is to be hoped that the policies of conservation do not prove transient also.
The particular conservation policy that has been selected by the FPC has been one of discouraging those uses of natural gas which are either inefficient or which can be eliminated and replaced with a fuel in greater supply. During a period of severe shortage of all fuels such a policy may only exacerbate the shortages of oil and coal, but for the long run, it can hardly be doubted that those uses of natural gas which can be switched to coal, should be switched.

The major problem that the FPC faces in the implementation of a program of end use conservation is a jurisdictional one. An increasing proportion of our natural gas is consumed intrastate and a large portion of this gas is consumed as boiler fuel. As long as the FPC has no jurisdiction over intrastate natural gas, a dual set of standards for natural gas users will exist. There may be strong reasons for local control over exclusively local activities, but the intrastate sale of natural gas is not a matter of purely local concern. Natural gas is a national resource and there is a strong national interest in preserving our limited supplies for users in all states. Strong consideration should be given by Congress to the extension of FPC jurisdiction to apply similar policies of rate design, certification and curtailment to all of the states.

The recent increased awareness of conservation through various types of end use policies represents an important step in establishing a national energy policy. As the history of FPC activities under the Natural Gas Act has shown, it has been an uphill battle for the FPC to gain the right to even consider factors of end use, especially in the area of rate design. Where the FPC has had the authority to consider end use, as in its certification jurisdiction, it has been reluctant to give such considerations great weight. The impetus of the energy crisis, however, has given a tremendous spur to policies of demand reduction. A policy of end use conservation, especially one implemented through the use of rate design, can be a useful and beneficial tool in the advancement of the public interest, and the initial FPC steps in this direction are to be applauded.

Footnotes

*Staff Member, ENVIRONMENTAL AFFAIRS.
3See, e.g., Breyer and MacAvoy, The Natural Gas Shortage and the Regulation of Natural Gas Producers, 86 HARV. L. REV. 941
(1973); *Hearings on Natural Gas Policy Issues Before the Senate Committee on Interior and Insular Affairs, 92d Cong., 2d Sess., at 47-48, 63-64, 511 (1972) (hereinafter referred to as 1972 Hearings).

*See, 1972 Hearings, at 300, 409.


*1972 FPC ANN. REP. 38; 1970 FPC ANN. REP. 51.

*American Petroleum Institute, supra n. 7, at 114, 124.

*Interruptible service is that in which the “seller is not expressly obligated to deliver specific volumes within a given time period and which anticipates and permits interruptions on short notice.” Firm service does not normally permit interruptions. See, 18 C.F.R. §§2.78(c)(4)-(5) (1974).


131972 FPC ANN. REP. 37.


20FTC Report at 608.

21Id. at 612-13.
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216 P.U.R. (n.s.) 443 (1936).
2Id. at 446.
2See, e.g., Breyer and MacAvoy, supra n. 3, at 965-67.
2A number of state regulatory commissions have placed restrictions on the attachment of any new gas customers. See, e.g., 1972 Hearings at 281. In some communities this has meant that new housing has been forced to use less efficient electric heat rather than the planned natural gas. Id. at 149.
2After all this is one country. See exchange between Senator Bellmon and Joseph Swidler, 1972 Hearings at 293; see also Zimmermann, WORLD RESOURCES AND INDUSTRIES 564 (1951): "The argument that Texas gas should be reserved for a Texas chemical industry yet to be built . . . is a return to mercantilism and to a particularly primitive mercantilism at that."
2See Breyer and MacAvoy, supra n. 3, at 977-79; 1972 Hearings
at 298-99.

45See, e.g., Breyer and MacAvoy, supra n. 3, at 983-84.

4620 FPC ANN. REP. 79 (1940).

471972 Hearings at 364.

48See text at n. 122.

491972 FPC ANN. REP. 41-42.


51See, e.g., Breyer and MacAvoy, supra n. 3, at 984.

52See 1972 Hearings at 405, 409-18.


542 F.P.C. 29 (1939).

55Id. at 57.

5620 FPC ANN. REP. 79-80 (1940).


58This was explicit in the Senate Report: “Provisions of the Natural Gas Act empower the Commission to prevent uneconomic extensions and waste, but it can so regulate such powers only when the extension is to ‘a market in which natural gas is already being served by another natural gas company.’ Thus the possibilities of waste, uneconomic and uncontrolled extensions are multiple and tremendous. The present bill would correct this glaring inadequacy of the Act. It would also authorize the Commission to examine costs, finances, necessity, feasibility, and adequacy of proposed services. The characteristics of their rate structure could be studied. Obviously these are powers that the Federal Power Commission should have and should exercise in the public interest.” S. REP. No. 948, 77th Cong., 2d Sess. (1942).

594 F.P.C. 197 (1944).

60Natural Gas Investigation, 4 F.P.C. 725 (1944).


63See, e.g., Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591, 612 (1944): “We may assume that, apart from the express exemption contained in §7, considerations of conservation are material to the issuance of certificates of public convenience and necessity.”

64See, e.g., Northern Natural Gas Co., 4 F.P.C. 1099 (1945); East

63 See, e.g., Kansas Pipeline and Gas Co., 2 F.P.C. 29, 40-58 (1939).
64 148 F.2d 746 (5th Cir. 1945), cert. denied, 326 U.S. 717 (1945).
65 Id. at 749.
66 4 F.P.C. 1099 (1945).
67 Northern Natural Gas Co., 7 F.P.C. 296 (1948).
76 Id.
77 Id. at 20-21.
78 Id. at 20-22.
79 See text at n. 44-49.
80 47 F.P.C. 896 (1972).
81 Id. at 899.
82 Id. at 924.
86 See text at n. 22.
320 U.S. 591 (1944).
92Id. at 607-09.
93Id. at 615.
94Id. at 617.
95Id. at 610.
96Id. at 610-14.
97Id. at 613-14.
98Id. at 616.
99Id. at 617.
100Id. at 628 (dissenting opinion).
101Id. at 624, 627 (dissenting opinion).
104Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591, 602 (1944). The Commission is "not bound to the use of any single formula or combination of formulae in determining rates. Its rate making function, moreover, involves the making of pragmatic adjustments. And when the Commission's order is challenged in the courts, the question is whether that order 'viewed in its entirety' meets the requirements of the Act. Under the statutory standard of 'just and reasonable' it is the result reached not the method employed which is controlling." (citations omitted).
107324 U.S. 581 (1945).
108Id. at 612-13.
109Id. at 589.
110Id. at 614.
111Id. at 613-14.
112Id. at 615.
113See Bonbright and Priest, supra n. 106.
11411 F.P.C. 43 (1952).
115Id. at 55.
116Id. at 56.
117Id. at 53; see also, e.g., Southern Natural Gas Co., 29 F.P.C.
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118206 F.2d 690 (8th Cir. 1953), cert. denied, 346 U.S. 922 (1954).
119.Id. at 710.
120 11 F.P.C. 75 (1952).
121 203 F.2d 494 (3rd Cir. 1952).
123 374 F.2d 842 (7th Cir. 1967).
124 Id. at 852.
125 Id. at 853.
126 Id. at 853-54.
127 45 F.P.C. 570 (1971).
128 Id.; see also 18 C.F.R. §2.70(b)(5) (1973).
130 Id. 47 F.P.C. ____, 94 P.U.R.3d at 519.
131 Id.
133 Id. mimeo at 15.
134 Id. mimeo at 7.
139 Id.; see also 18 C.F.R. §2.70 (1973).
143 Id. at 642.
144 Id. at 647.
145 Id. at 645-46.
147 Id. The Commission stated: "We are impelled to direct curtailment on the basis of end use rather than on the basis of contract simply because contracts do not necessarily serve the public interest requirement of efficient allocation of this wasting resource. In time of shortage, performance of a firm contract to deliver gas for an inferior use, at the expense of reduced deliveries for priority uses, is
not compatible with consumer protection."


149See, e.g., Arkansas Louisiana Gas Co., Docket No. RP71-122; El Paso Natural Gas Co., Docket No. RP72-6; Panhandle Eastern Pipe Line Co., Docket No. RP71-119; see also Order No. 492, ____ F.P.C. ____ , 38 Fed. Reg. 27607 (1973): "As the winter season arrives, additional requests for relief will undoubtedly be received. . . . This Commission will thus become increasingly burdened in resolving these requests and some petitioners will sustain serious operational and economical injury during the interval."

150Id. It would seem that the FPC is in a bit over its head in making some of these determinations. It is one thing to recognize that certain uses of natural gas are inferior, in the sense of being energy-inefficient, and to regulate prospective applications of natural gas on that basis. It is quite another thing to turn off existing supplies and decide between unemployment in state X, no heat in state Y, or a shortage of fertilizer in state Z.


15418 C.F.R. §2.82 (1973).


156Id. ____ F.P.C. ____ , 98 P.U.R.3d at 330.

157Id. ____ F.P.C. ____ , 98 P.U.R.3d at 329.


160476 F.2d 142 (5th Cir. 1973).

161Id. at 150.

162Id.
