On April 20, 1977, President Carter unveiled to Congress and the country a national energy plan which attempted to provide a comprehensive approach to the multifarious and controversial energy issues facing the United States. After approximately eighteen months of debate in Congress, one segment of this program was signed into law on November 9, 1978, as the Natural Gas Policy Act of 1978 (NGPA). The ultimate form of this legislation represented a compromise between widely divergent proposals favored by the Administration, the House, and the Senate which were coalesced in a conference report and narrowly approved in both the House and the Senate. The statute must still withstand a constitutional challenge from the producing states.

It is the purpose of this paper first to attempt to analyze some of the policy considerations leading to the enactment of the NGPA, specifically the incremental pricing provisions contained in title II. Second, the operation and effect of incremental pricing will be reviewed together with the role of the Federal Energy Regulatory Commission (FERC) in implementing the program through rulemaking. Finally, an alternative scheme will be proposed that has the potential to achieve the same ends as incremental pricing by an administratively less burdensome means.

I. POLICY CONSIDERATIONS AND HISTORICAL BACKGROUND

The NGPA attempts to comply with and give effect to four national economic policy objectives: maintenance and improvement of economic health, reduction in unemployment, minimization of inflation, and preservation of economic equities; at the same time it attempts to achieve efficient
use of energy resources. Complex tradeoffs between equity and efficiency goals are involved to balance these objectives.

In the most general sense, the NGPA provides a new scheme of controls on wellhead prices which are paid for natural gas produced in the United States (intrastate as well as interstate) and also provides controls on volumes of gas imported into the United States subsequent to December 1, 1978. It does not directly affect the regulation of the gas pipeline industry except to the extent that certain obligations are imposed on pipeline companies in order to implement the incremental pricing provisions of the NGPA. While touted as “deregulation” of gas prices, the statute substantially complicates both the determination of gas prices charged by producers and the distribution of the cost of gas services to consumers until 1985. Deregulation of significant categories of “new” natural gas production will take place on January 1, 1985, subject to Presidential or Congressional power to reinstate controls for one eighteen month period if this appears warranted after six months of deregulation. It is anticipated that by January 1, 1985, the price of natural gas will be comparable to that of fuel oil on a Btu equivalent basis.

Since the 1954 decision of the Supreme Court in the Phillips I case, the Federal Power Commission (FPC) and its successor, the FERC, have been charged with responsibility under the Natural Gas Act (NGA) for regulating the prices that may be charged by natural gas producers and gatherers for the sale in interstate commerce of gas for resale. Heretofore, the FPC's function under the NGA had been limited largely to regulation of natural gas pipelines that sell or transport natural gas in interstate commerce. As indicated above, this function will continue substantially unaffected by the NGPA. The setting by the FPC of producer prices for natural has traditionally been based on a cost-of-service, “just and reasonable rates” approach similar to that used in setting the rates of, for example, electrical utilities or pipelines. This approach took no special account of the fact that natural gas production is a wasting resource industry. Initially, the FPC attempted to control producer prices on a producer-by-producer, contract-by-contract basis, but this proved impracticable. Faced with a burgeoning administrative backlog, the FPC began to implement regional price ceilings in 1960 and in

5. The schedule for deregulation and provisions for reinstatement of controls are contained in NGPA §§ 121-122.
7. Title IV of the Department of Energy Organization Act, Pub. L. 95-91, § 401, 92 Stat. 582 (1977), authorized the creation of the FERC and the transfer to it of the authority previously administered by the FPC.
9. See Permian Basin Area Rate Cases, 390 U.S. 747 (1967), sustaining FPC orders establishing maximum and minimum prices for producers in a large geographic area based on industry-wide costs and using a double-tier rate structure for “old” and “new” gas.
1974 switched to national maximum prices for gas of different “vintages.” Because the FPC regulation maintained interstate gas prices at below market levels while the intrastate gas market was outside of the FPC regulatory jurisdiction, two separate markets developed at increasingly disparate prices. One of the most significant departures from previous regulation under the NGA is that ceiling prices established under the NGPA will apply to sales of gas for resale in the intrastate market as well as interstate gas.

The NGPA defines upwards of twenty different classifications of natural gas and then authorizes the FERC to establish maximum price ceilings payable to a producer for each category. Different formulas are prescribed for calculating the ceiling price for each category of natural gas. One of the key prices is for “new natural gas,” which includes production from leases on the Outer Continental Shelf entered into subsequent to April 20, 1977, and from wells drilled onshore after February 19, 1977, which are sufficiently deeper than or distant from existing wells or which penetrate new reservoirs. Starting at a base price of $1.75 per million Btu as of April 1977, the ceiling increases each month by the monthly equivalent of a factor equal to the sum of the annual adjustment factor applicable for that month plus three and one-half percent until April 1981, and four percent thereafter. This latter increment is intended to represent the “real growth” factor in the economy. Under this formula the ceiling price for “new gas” in January 1979, was $2.10 per million Btu’s.

The formula for “new gas” also determines the general ceiling price for “high-cost natural gas.” The ceiling price for stripper well natural gas is determined in a similar way using a different base price, for example, $2.09 as of May 1978. Section 109 of the NGPA creates a residual formula for setting the ceiling price of natural gas not falling within any other category, including gas from the Prudhoe Bay Unit of Alaska. In this case, a base price of $1.45 per million Btu’s as of April 1977 increases monthly by a factor related to the annual inflation adjustment factor but without the “real growth” component. The specific calculations of ceiling prices for all categories of natural gas are obviously complex.

Historically, the FPC and FERC rate regulations have dictated “rolled-in” pricing whereby the pipeline blended the cost of gas acquired from all sources pursuant to any applicable contract. This resulted in a common per unit cost of gas to all consumers.

Title II of the NGPA creates an unprecedented scheme of “incremental pricing” whereby all interstate pipelines will be required to maintain an “incremental pricing account” to which the pipelines will credit certain por-

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10. See Shell Oil Co. v. FPC, 520 F.2d 1061 (5th Cir. 1975), sustaining cost-based national ratemaking by the FPC. Initially the maximum price of natural gas from wells commenced in the 1973-74 biennium was set at 42 per Mcf. Effective June 21, 1974, this rate was increased to 50 per Mcf. The national rate for the 1974-75 biennium was fixed at $1.42 per Mcf, at which time the rate for the 1975-76 biennium was increased to 93 per Mcf.

11. The specific provisions with respect to wellhead price controls are contained in subtitle A of title I of the NGPA § 110. It is not the intention of this paper to examine these in detail.

12. NGPA § 102.
tions of the acquisition costs of specified categories of natural gas. These costs must be passed downstream through any intermediary pipeline or local distributor and ultimately levied as a surcharge against gas purchases by a “non-exempt” industrial user until such user is paying a price for gas equivalent to the alternative fuel oil cost on a Btu basis. This will then become a ceiling price to that user until every incrementally priced customer served by that interstate pipeline is paying its “alternative fuel cost” for gas. The allocation of credits to the incremental pricing account beyond this point appears to be in dispute. The FERC staff task force established to study and propose rulemaking in respect to incremental pricing mechanisms has advocated that all consumers other than incrementally priced industrial users should pay these “excess costs” until parity is reached with the price of gas to incrementally priced consumers. The Interstate Natural Gas Association of America has urged that costs be spread among all consumers including residential, commercial, and incrementally priced industrial users. Another proposal, from the United Distribution Companies, is to “accrue” these costs in the incremental pricing account until recovery is possible from incrementally priced users who become capable of further surcharge absorption as fuel oil prices increase.

The NGA will continue to govern pricing of “old” gas in interstate commerce although the NGPA authorizes the FERC to amend ceiling prices for sales of gas previously dedicated to interstate commerce and provides a minimal escalation of “old gas” prices in accordance with the annual inflation adjustment factor. “Old gas” presently subject to intrastate contracts will be regulated under the NGPA only to the extent that contractual prices may be increased up to but not exceeding the “new gas” price.

The underlying philosophy of the NGPA is that higher incentive prices are required to encourage exploration for, development of, and production from domestic natural gas reserves critically needed to reduce dependence on foreign oil imports. At least since 1960, regulation by the FPC and the FERC has suppressed the price of natural gas relative to other fuel sources thereby discouraging new discoveries and encouraging gas consumption by low priority users.

13. While incremental pricing has no real counterpart under the Natural Gas Act, analogies can be drawn to emergency purchases and “purchased gas adjustment” clauses.
14. NGPA § 205 prohibits a local distributor from offsetting the surcharge to nonexempt industrial users through modifications in allocation of costs or any other procedure. Furthermore, title II preempts any state or local law that might have the effect of precluding the pass-through of the surcharge or otherwise defeating the intention of the NGPA.
18. NGPA § 104.
19. The NGPA § 105 provides that where contract prices under existing intrastate contracts are below the price for “new natural gas,” the contract price will prevail, subject to escalation expressly provided for in the contract up to a level equivalent to the “new gas” price. Where prices under intrastate contracts exceed the new gas price in effect as of November 9, 1978, the price will be fixed as at that date, subject to increases for the inflation factor. In other words, further escalation clauses contained in the contract would not be enforceable.
20. STAFF OF SUBCOMMITTEE ON ENERGY, JOINT ECONOMIC COMM., THE ECONOMICS
Much of the economic analysis of the NGPA has focused on price elasticity of supply of natural gas. Congressional staff members concluded from the diminishing ratio of annual additions of proven reserves to annual production over the past ten to twelve years that, despite progressively higher gas prices, long-run supply elasticity of gas is substantially less than 1.0. The natural gas industry appears to be of the opinion that domestic natural gas resources have not been exhausted and that increased gas supplies would be forthcoming if producers were free from price regulation. While a three to five year lead time is normally allowed for a program of exploration and development, it is anticipated that a temporary surplus of "bubble gas" will come on the market almost immediately.

Regulation of gas prices under the NGA failed to take into account the variable risks and hence variable costs of producing gas from different types of wells, for example, a high-risk wildcat well as opposed to a development well. Without an adequate price incentive for new discoveries, producers have tended to drill fewer exploratory wells and therefore most new proven reserves have been extensions of existing reservoirs. The aim of the NGPA is to offer the greatest price incentive to those types of production having the highest supply elasticity. For example, "high-cost gas" produced under conditions of extraordinary risk or cost will be deregulated as to the price on the date of the FERC incremental pricing rules go into effect, which must be no later than November 9, 1979. Assuming that this incentive scheme is successful, money that would otherwise have been paid to foreign energy sources will now be channelled to domestic producers. Secondary benefits should be realized in the form of stimulation of the economy, increased employment, improvement in the balance of payments position, and strengthening of the American dollar.

In addition to the general gas supply problem, interstate pipelines have suffered particular supply failures. Under the "vintage" pricing regime, considerable incentive has existed for producers to withhold production from

of the Natural Gas Controversy, Joint Comm. No. 9080, 95th Cong., 1st Sess. 10 (Sept. 1977) [hereinafter cited as the Sept. 1977 Staff Study].
23. There has been considerable controversy over the significance of this bubble gas in both extent and duration. Inside FERC (McGraw-Hill) Mar. 12, 1979, at 1.
24. NGPA § 107 defines "High-Cost Natural Gas" to include the following:
(a) production from a well drilled subsequent to February 19, 1977, with a completion location in excess of 15,000 feet;
(b) gas produced from geopressurized brine;
(c) occluded natural gas produced from coal seams;
(d) gas produced from Devonshire shale;
(e) gas produced under such other circumstances as the FERC determines to present extraordinary risks or costs.

The NGPA provides for deregulation of the price of gas falling within all except subcategory (e) above. Id.
interstate commerce in anticipation of higher future prices. Furthermore, production has been diverted to the higher priced intrastate market whenever possible. With increasing frequency, interstate pipelines have had to impose curtailment measures against their industrial customers and arrange for short-term emergency gas purchases from producers, intrastate pipelines, or local distribution companies at "unregulated" prices. An ancillary problem has been the economic dislocation caused by industry migrating to the "southern rim" producing states in order to obtain a more secure supply of gas from intrastate pipelines despite higher prices.

It is anticipated that the establishment of a uniform price for new gas in both the intrastate and interstate markets will enable interstate pipelines to compete more effectively with intrastate pipelines for new supplies. Furthermore, because the average price of "old" interstate gas is approximately $0.60 per million Btu's compared with $1.30 per million Btu for intrastate gas, the interstate pipelines can roll in higher volumes of the more expensive "new gas" and still maintain a lower blended price. This could provide interstate pipelines with a competitive advantage over intrastate pipelines, allowing them to increase their market share. In any event, establishing a definite price path for gas until deregulation should facilitate long range planning and financing by producers and also alleviate the problem of withholding production until prices are higher.

Congressional economic advisers postulated that to completely deregulate gas prices at this time would cause massive inflation without any substantial gains in supply. A pipeline company is less concerned about the price it is paying to the producer than about the security of supply needed to maintain its customers because its profits are based upon the volume of gas carried. Particularly in the initial stages of deregulation the price of new gas could be driven above its Btu equivalent price in relation to oil since this higher cost "new gas" (a small percentage of total gas volumes) could still be sold at a price lower than fuel oil on a Btu equivalent basis when blended with low-cost "old gas." It is feared that rapidly rising prices would cause marginal industrial gas users to convert to alternative fuel sources, leaving the residential and small commercial customer to finance a disproportionately large burden of the fixed costs of gas service as well as paying for the higher priced gas.

The incremental pricing provisions contained in title II of the NGPA are designed to shield the residential and small commercial consumer of gas

26. The price of such emergency purchases was regulated to the extent that the Natural Gas Act, 15 U.S.C. § 717 (1976), required the President of the United States to authorize emergency purchases by interstate pipelines on terms and conditions (including price) which he determined to be "appropriate."
29. Id. at 5.
from the increased wellhead prices allowed under the statute, at least in the short run. A second objective of incremental pricing is to achieve a more efficient allocation of resources by shifting the burden of new higher priced gas onto low priority users up to the point where they are paying a price that equates natural gas to its Btu equivalent in fuel oil. Although scarce, natural gas has unique properties that make it a particularly superior fuel for purposes such as domestic cooking, water heating, and space heating. However, at the prices that have prevailed under the FPC and FERC legislation, industry has drawn heavily on supplies of this resource rather than using relatively higher priced but abundant fuels such as coal. From time to time the FPC has attempted to exercise a general allocation and conservation function with respect to natural gas, but its effectiveness has largely been thwarted by lack of jurisdiction over intrastate sales. As of September 1977, it was estimated that seven Tcf of natural gas were sold annually to industrial users, and as of October 1978, it was estimated that approximately ten percent of interstate demand (1.1-1.2 Tcf annually) consisted of industrial users of gas as boiler fuel. This latter group will be affected most seriously and immediately by the incremental pricing provisions of the NGPA.

II. Operation and Effect of Incremental Pricing—Rulemaking Under the NGPA

A. Substantive Rulemaking

The NCPA does not specifically prescribe incremental pricing. Instead, the recent enactment of section 4(a) of the Emergency Petroleum Allocation Act directs the FERC to prescribe and make effective an incremental pric-
ing rule; i.e., a rule designed to provide for the pass through to certain ultimate consumers of certain costs incurred by pipelines in purchasing natural gas. The statute specifies in some detail how the incremental pricing program is to function and therefore what the FERC must include in its initial rule and any subsequent amendments. Nevertheless, the FERC has been granted considerable latitude and inevitably will make important policy choices.

Rulemaking pursuant to title II of the NGPA can be roughly classified into four areas: determination of who will be subject to incremental pricing, what costs will be incrementally priced, what will be the "alternative fuel cost" to incrementally priced consumers, and what mechanical and accounting procedures must be adopted in order to implement the scheme.

1) Who is subject to incremental pricing?

Section 201 of the NGPA requires that no later than November 9, 1979, the FERC will prescribe and begin to enforce a rule providing for pass-through of incremental costs to consumers of gas for industrial boiler fuel use who are serviced by interstate pipelines. No later than May 9, 1980, an amendment to this rule must be proposed pursuant to section 202 to extend the application of incremental pricing to a wider class of industrial consumers. In anticipation of the controversy surrounding this exercise of discretion, the NGPA expressly provides that both the House and the Senate must review such amendment and either congressional body may adopt a "resolution of disapproval" rejecting the amendment. Obviously, this is a politically sensitive issue since the residential consumer will feel the effect of higher gas prices more slowly if the incremental pricing net is cast more widely.

The discretion of the FERC in such rulemaking is constrained by statutorily mandated exemptions from incremental pricing. However, the nature of the exemptions portends onerous case-by-case decisionmaking on the part of the FERC. Exemptions are to be granted in two stages: an interim exemption applicable for a six-month period from November 9, 1979, and a permanent exemption to be promulgated not later than eighteen months from enactment of the NGPA. Exemptions are to be granted to the following consumer groups:

(a) Small industrial—An interim exemption must be granted to
INCREMENTAL PRICING

Industrial boiler fuel users in existence on November 9, 1978, consuming on average less than 300 mcf of gas per day.\textsuperscript{39} The permanent exemption rule is potentially more restrictive and will apply to small industrial boiler fuel facilities whose average daily consumption during a peak month of 1977 did not exceed either 300 mcf or such lower amount as the FERC may determine as a maximum rate of consumption (total volume of gas consumption by facilities eligible for this exemption is not to exceed five percent of the total volume of gas transmitted by the interstate pipelines and used as boiler fuel in 1977).\textsuperscript{40}

(b) Agricultural—A facility will be exempt from incremental pricing in the interim period to the extent that its consumption of natural gas is for an "agricultural use," which includes strictly agricultural purposes such as irrigation pumping and crop drying and also industrial uses such as those utilized in food processing and in production of fertilizer, agricultural chemicals, and animal feed.\textsuperscript{41} The permanent rule must exempt agricultural users from incremental pricing in all cases where an alternative fuel is neither "economically practicable" nor "reasonably available."\textsuperscript{42}

(c) Schools, hospitals and other similar institutions.\textsuperscript{43}

(d) Any electrical utility.\textsuperscript{44}

(e) Any qualifying cogenerator to the extent provided by FERC rules.\textsuperscript{45}

(f) Any other incrementally priced facility or category thereof designated by FERC rules, subject to the right of either the House or the Senate to pass a resolution of disapproval within thirty days.\textsuperscript{46} Under this provision the FERC has discretion to exempt "in whole or in part" and therefore would appear to have authority to establish variable levels of incremental pricing for specified industrial consumers.

(2) Costs to be incrementally priced.

The costs that are to be passed through to non-exempt industrial users

\textsuperscript{39} NGPA § 206(a)(1).

\textsuperscript{40} NGPA § 206(a)(2).

\textsuperscript{41} NGPA § 206(a)(3). In the proposed rulemaking by the FERC Staff Task Force, "agricultural use" has been defined as any use of natural gas which is certified by the Secretary of Agriculture as an "essential agricultural use" qualifying for exemption from curtailment under NGPA § 401. This is an exceedingly broad category essentially including every agricultural use necessary for "full food and fiber production."

\textsuperscript{42} NGPA § 206(b)(2).

\textsuperscript{43} NGPA § 206(c)(1). This wording has been criticized as creating "an open-ended area of confusion" in effect encouraging "all sorts of people to claim they are in a similar use." Inside FERC (McGraw-Hill), Feb. 19, 1979, at 11.

\textsuperscript{44} NGPA § 206(c)(2).

\textsuperscript{45} NGPA § 206(c)(3). The cogenerator must meet the definitional requirements prescribed in the Federal Power Act § 3(18)(B), as amended by the Public Utility Regulatory Policies Act of 1978, 16 U.S.C.A. §§ 791a–828c (1974 & Supp. 1978). Essentially a cogenerator is an electric power plant or major fuel-burning facility which produces electric power and some other form of useful energy (steam, gas, heat) to be used for industrial, commercial or other space heating purposes.

\textsuperscript{46} NGPA § 206(d).
served by an interstate pipeline are the following acquisition costs of natural gas incurred by such pipelines subsequent to January 1, 1980 and calculated in accordance with section 203:

(a) An interstate pipeline must include in its incremental pricing account the amount by which such pipeline’s “first sale acquisition costs” for certain categories of natural gas exceed the “incremental pricing threshold” applicable for the month in which delivery of the gas occurs. “First sale acquisition costs” are defined as the price paid per million Btu in the first sale of natural gas (exclusive of any amount of state severance tax) with respect to domestic gas production and the price paid per million Btu at point of entry in the case of natural gas or liquified natural gas imported into the United States. The “incremental pricing threshold” is a monthly calculation based on $1.48 per million Btu as of March 1978, afterwards adjusted for inflation. The categories of natural gas whose costs are subject to this scheme of incremental pricing are the following:

(i) New natural gas—includes gas (other than Prudhoe Bay Unit gas from Alaska) produced from a new lease on the Outer Continental Shelf or from any new onshore well more than two and one-half miles from a marker well or deeper than any marker well within a two and one-half mile radius by more than 1000 feet, or from a new reservoir which had no commercial production of natural gas prior to April 1977.

(ii) Natural gas under intrastate rollover contract—includes gas sold under a contract renegotiated subsequent to enactment of the NGPA that was not previously dedicated to interstate commerce.

(iii) New onshore production well gas—includes gas (other than Prudhoe Bay Unit gas) from an onshore well in which surface drilling began on or after February 19, 1977, and which essentially represents production from a reservoir having had no previous commercial production.

47. NGPA § 203(b)(1). The FERC also has power under NGPA § 203(b)(2) to prescribe rules for determining proper “first sale acquisition costs” with respect to gas produced by any interstate pipeline or its affiliate.
48. NGPA § 203(c). The “Annual Inflation Adjustment Factor” is defined in NGPA § 101(a).
49. NGPA § 2(9) defines a “New Lease” to include a lease of submerged acreage entered into on or after April 20, 1977.
50. NGPA § 2(3) defines a “New Well” to include a well the surface drilling of which began after February 19, 1977, or which was recompleted after that date at a depth at least 1000 feet below its previous completion location.
51. NGPA § 2(5) defines a “Marker Well” to include a well from which natural gas was produced in commercial quantities at any time between January 1, 1970, and April 20, 1977, excepting certain “new wells” that might otherwise also fall within this definition.
52. NGPA § 102(c).
53. NGPA § 2(12).
54. NGPA § 103(c).
(iv) Liquid Natural Gas (LNG) imports—subject to a general rule that incremental pricing will not apply to LNG where importation was authorized or an application to import was pending prior to May 1, 1978. However, the right has been reserved to the FERC or the Secretary of the Department of Energy (DOE) to impose incremental pricing in the granting of an import permit for LNG under the NGA.56

(v) Sales of gas from an intrastate pipeline to interstate pipeline or any local distribution company served by an interstate pipeline—subject to the authorization of the FERC in accordance with section 311(b) of the NGPA.57

(b) To the extent that the volume of imported natural gas (other than LNG) exceeds the maximum delivery obligations under a contract entered into prior to May 1, 1978, and exceeds the volume of gas delivered under that contract for the comparable period in 1977, its first sale acquisition cost in excess of the “new gas” price will be included in the incremental pricing account.58 The FERC or the Secretary of the DOE has the right to impose incremental pricing as a condition to granting any import permit for natural gas with respect to volumes in excess of 1977 deliveries.59

(c) First sale acquisition costs of non-associated natural gas from a stripper well that are in excess of the “new gas” price will be included in the incremental pricing account. A stripper well is one that produces no more than sixty mcf per day at its maximum efficient rate of flow.60

(d) First sale acquisition costs for “high-cost” gas in excess of 130 percent of what is determined by the FERC monthly to be the equivalent Btu cost of No. 2 fuel oil landed in New York will also be included in the incremental pricing account.61

(e) Two types of costs may be incrementally priced with respect to Prudhoe Bay Unit gas transported through the natural gas transportation system approved under the Alaska Natural Gas Transportation Act of 1976.62 One of these is first sale acquisition cost exceeding the maximum lawful price computed under section 109.63 The

55. NGPA § 207.
56. NGPA §§ 207(a), (c).
57. NGPA § 203(a)(10).
58. NGPA § 207(b).
59. NGPA § 203(a)(5).
60. NGPA § 207(c).
61. NGPA § 203(a)(6).
62. NGPA § 203(a)(7). For definition of high-cost gas, see supra note 24.
64. NGPA § 109 provides a ceiling price for residual categories of natural gas not included within any other section of subtitle I, and specifically covers natural gas produced from the Prudhoe Bay Unit of Alaska. As a general rule, this price has been set at $1.45 per million Btu.
other is any amount paid other than to the producer for costs of gathering, processing, treating, liquifying, transporting, or compressing such gas prior to its delivery into the system.65

(f) One further cost that is to pass through to non-exempt industrial consumers under the incremental pricing scheme is any increase in state severance tax above the level in force on December 1, 1977, unless such increase results from a change in the method of computing the tax meeting certain statutory criteria.66 However, the pre-December 1977 base amount of such tax will be shared by all consumers.

As is obvious from the above discussion, one of the most complicated and potentially controversial aspects of implementation of the NGPA will be the certification of each source of production as belonging to one of the categories defined in the statute. Categorization has a threefold impact: it determines the maximum price to which the producer is entitled; it determines whether any part of that acquisition price will be subject to incremental pricing, and, if so, the formula to be applied in determining the amount to be included in the incremental pricing account; and it determines when, if ever, the price of that production will be deregulated. It is further apparent that in some circumstances a well could meet the requirements of more than one category. The FERC is required to establish a rule for classifying gas in order to calculate the pass-through of acquisition costs based upon the classification for pricing purposes in title I. Where natural gas would qualify for inclusion in more than one pricing category, it must be classified within the category yielding the highest price.67 Under most circumstances this will work to the advantage of the producer. However, because of the various dates for deregulation of different categories of gas and the various ways pass-through portions of acquisition costs are calculated, it could be in the best interests of the producer to seek a lower-priced classification in the short run in anticipation of greater long-term revenue and increased marketability.

Much of the technical information required to properly classify the different types of natural gas production must come from the various state agencies responsible for regulating the actual drilling and operations of the

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65. NGPA § 203(a)(8)(B). It is significant to note that actual transportation costs within the proposed new pipeline will be rolled-in to the price of the Alaska natural gas. This was deemed necessary in order to attract the vast sums of private investment capital sought in connection with construction of the pipeline.

66. NGPA § 203(a)(9).

67. NGPA § 101(b)(5) would appear to be a rule of general application qualifying NGPA § 203(d).
producers. In many instances the records of these agencies are inadequate and can't provide the information required by the NGPA with respect to matters such as well completion depth and volume of production. Technical engineering expertise will be required to assess whether a well drains a new reservoir from which there has been no previous commercial production. There is considerable room for honest differences of expert opinion on these questions. A further problem will be the resistance anticipated from state agencies regarding the additional workload and expense imposed by this federal statute.

(3) Determination of alternative fuel cost.

Another key rulemaking function delegated to the FERC is determination of "alternative fuel cost," a critical fulcrum on which incremental pricing is balanced. Each non-exempt industrial gas user will be subjected to incremental pricing until its cost for gas reaches its alternative fuel cost. This then becomes a ceiling for that user, at least until all customers of the interstate pipeline supplying the gas have reached their respective alternative fuel cost.

The NGPA provides as a general rule that the FERC will designate regions throughout the country. Within each of these regions the alternative fuel cost will be the price per million Btu paid for No. 2 fuel oil by industrial users of such fuel in that region. However, to alleviate the risk of rapid conversion of industrial gas users from gas to other fields by applying this broad standard, the FERC is authorized to reduce the "alternative fuel cost" for any category of incrementally-priced industrial user or individual facility within a region to a level not lower than the price per million Btu of No. 6 fuel oil in that region. In deciding whether an alternative fuel cost should be reduced the FERC must satisfy itself, after an appropriate investigation and hearing, that such conversion is "likely to occur" if the appropriate alternative fuel cost is not reduced and that rates and charges to high-priority gas users would be increased if conversion took place.

The FERC is not empowered to consider the relative cost of coal as a potential alternative fuel source in setting the threshold for incremental pric-
ing. It is anticipated that if gas prices rise to a Btu equivalent of No. 6 fuel oil there will be massive conversion to coal in the Rocky Mountain states where coal is readily available resulting in load-shifting to high-priority gas users. It would seem that Congress either was not concerned with or did not appreciate fully the impact of increased gas prices upon residential and commercial users brought about by industrial users converting from gas to coal. The principal preoccupation has been to minimize dependence on oil. The extent to which high-priority users should bear the cost of gas and gas service raises squarely the conflict between efficiency and equity considerations. On the one hand, a more efficient resource allocation should result if cost savings can be realized by industry through conversion to coal once gas has been priced at its true Btu value. On the other hand, it may be thought that load-shifting creates an undue hardship on residential and commercial consumers, a situation made more an anathema because of the regional basis on which conversion to coal is likely to occur, e.g., within the western states where enormous reserves of low-sulphur coal are readily accessible.

In calculating the “alternative fuel cost,” no consideration is given to the capital and operating costs of conversion. Unless there were full substitutability of fuels within an existing plant, it would be rational for facilities to resist incurring costs of conversion where the marginal cost of the fuel itself was equal. Theoretically, this will achieve the optimal outcome of a facility paying the full Btu value of the gas without converting to oil. However, other factors such as the long run security of supply and the environmental considerations will also be critical to management in making the decision to convert.

There is an obvious incentive for almost every incrementally-priced industrial gas user to apply either to be exempted completely from the scheme or to have its alternative fuel cost reduced. The administrative costs of this rulemaking process could be formidable. In addition, there is a compounding effect because as some industrial users are exempted or have their alternative fuel cost reduced, incremental pricing will be accelerated for others.

(4) Accounting procedures and other mechanics of implementation.

It is inevitable that the metering, accounting, reporting, and filing functions imposed on the pipeline industry as a result of incremental pricing will be onerous. The greatest challenge to rulemaking in this area may be to try

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72. See supra note 46, and accompanying text. Utah and Wyoming have already indicated their intention to apply for state-wide exemptions from incremental pricing, alleging that it is "inappropriate" where the alternative fuel to gas is coal. Inside FERC (McGraw-Hill), Feb. 19, 1979, at 1. California has also proposed that a state should be exempted when it can certify that gas prices are already equal to the designated alternative fuel. Inside FERC (McGraw-Hill) Mar. 12, 1979, at 7. One proposal put forward by an FERC staff adviser is to have incrementally-priced users self-certify their alternative fuel cost; i.e., each facility would indicate whether No. 2 or No. 6 fuel oil represented its alternative fuel cost with the understanding that if the selection was made for the fuel oil which resulted in a higher incremental pricing burden, the facility would have higher priority in respect to curtailment. Inside FERC (McGraw-Hill) Apr. 9, 1979, at 5, 6.
to minimize the administrative paperwork.\footnote{73}{The FERC is requesting 300 new staff members at a cost of $11 million per year to alleviate the start-up workload anticipated as a result of passage of the NGPA. Supra note 69, at 88.}

The supplier who is farthest downstream must maintain records respecting each of its non-exempt customers in regard to volumes of gas delivered; this includes distinguishing between volumes of gas used for exempt and non-exempt purposes by any given customer\footnote{74}{The FERC Task Force proposal for rulemaking has been criticized for failing to deal with the costs of metering gas volumes. “Sub-metering” devices would have to be installed in those industrial facilities consuming gas for both exempt and non-exempt use. It is argued by industrial users that these costs should be borne by gas customers who are essentially being subsidized by the incrementally-priced consumers, or at least should be included in calculating the cost of the gas service in relation to its achieving a price level equivalent to alternative fuel cost. Inside FERC (McGraw-Hill) Feb. 19, 1979, at 11.} and the alternative fuel cost of each. Accounts must be kept of costs to be incrementally priced including surcharges imposed by upstream suppliers and carrying charges. Calculations must be made with respect to surcharges to be imposed on each non-exempt user based upon the volume of gas consumed by that user in relation to all gas consumed by non-exempt users who are serviced by that supplier and subject to each user’s alternative fuel cost ceiling. Accounts must be maintained with respect to collection of such surcharges and information must be passed upstream as to capacity to levy a surcharge as customers reach their respective alternative fuel cost.\footnote{75}{NGPA §§ 201-202.}

Corresponding accounts must be maintained by each of the upstream suppliers in the chain in order that the scheme can be maintained in dynamic equilibrium. Obviously the system becomes increasingly complex as the number of carriers between producer and consumer increases. In addition, the FERC will undoubtedly prescribe rules requiring filing of tariff sheets and detailed computations of surcharges together with other information that the FERC and Energy Information Administration (EIA) believe to be necessary to monitor the incremental pricing program.

One of the critical aspects of implementation will be timing. Under the NGPA, the FERC was effectively allowed one year to make incremental pricing operational. Given the extensive rulemaking required, this imposes a considerable time constraint and encourages the FERC to incorporate in its rules provisions for deferment of certain calculations as statutorily allowed.\footnote{76}{NGPA § 204(c)(3)(A).} The FERC is authorized to provide by rule that the surcharge applicable for volumes of gas delivered in one calendar period can be levied and collected in the next year.\footnote{77}{The FERC Task Force proposal provides that incremental costs incurred within a six month period ending December 31st and June 30th would be billed to users in six equal monthly installments commencing on the following May 1st and November 1st. This inordinate time lag and the concomitant carrying charges have been seriously criticized by the industry. Inside FERC (McGraw-Hill) Feb. 19, 1979, at 10.} Presumably this would have the advantage of allowing time for the accounting function to be performed with some degree of accuracy rather than making an initial calculation which might later require revisions and rebates. The problem, however, is how long these costs can be
carried by an individual pipeline or local distributor before serious cash-flow problems are encountered.  

B. Rulemaking Procedure

The FERC is directed by the NGPA to observe the customary rulemaking procedures of the Administrative Procedure Act, including the usual notice provisions and opportunity for comment by interested persons. The FERC has approached its rulemaking obligations under title II of the NGPA by segmenting them into two categories, one the designation of alternative fuel cost regions and the pegging of an alternative fuel cost for each region and the other all residual matters requiring rulemaking. A separate task force has been assigned to analyze the issues and draft proposed rules in each area. A sixteen part questionnaire was sent by the EIA to interstate pipelines, local distributors, state commissions, and other interested persons in an attempt to compile the data base necessary to draft rules relating to alternative fuel costs.

Written and oral public comments on this issue are also solicited through regional meetings.

With respect to other rulemaking responsibilities, the FERC issued a Notice of Informal Public Conference and Inquiry on January 12, 1979, containing the recommendations of its staff task force together with some proposed alternatives. Written comments on the proposed rules were solicited for a thirty-day period and an informal public conference to provide a forum for oral presentations followed. Other regional meetings were scheduled to address particular problem areas such as accounting mechanics and state implementation schemes.

After consideration of these informal comments, the task force amended its original proposal and circulated the revised draft notice of proposed rulemaking to the FERC. After meeting on the proposal, the FERC issued a Notice of Proposed Rulemaking in accordance with the Administrative Procedure Act. The FERC then subjected the rules to public scrutiny once again because section 502(b) of the NGPA expressed Congress' intention

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78. Northern Natural Gas Co. estimated that its deferred costs under incremental pricing would be $47 million by the end of June, 1980 and $180 million after three years, with carrying charges of $680,000 per month to support this debt. To meet these cash-flow difficulties suppliers argue that they will be required to arrange short-term financing at interest rates in excess of the carrying charges. Id.


80. Industry has resisted supplying the information requested, alleging that if answered the form would lead to "unwarranted conclusions" about potential for fuel substitution. The form has also been criticized for lacking the refinement necessary to distinguish among different fuels that can be used for some but not all of an industry's activities and to distinguish between the substitutability of fuels and the conversion to a completely new system. Inside FERC (McGraw-Hill) Feb. 5, 1979, at 11-12.


82. This deadline was later extended to allow time for evaluation of new methodologies advanced by industry representatives. Inside FERC (McGraw-Hill) Feb. 19, 1979, at 10.

83. Administrative Procedure Act, 5 U.S.C. § 553(b)(B) (1976) exempts from notice and public hearing procedures, interpretive rules, general statements of policy, rules of agency organization, procedure of practice, and situations where the agency makes a well-reasoned finding that such procedures are impracticable, unnecessary, or contrary to the public interest.
that, to the maximum extent practicable, an opportunity for oral presentation of data and arguments should be afforded prior to the effective date of any rule. The Notice of Proposed Rulemaking concerning alternative fuel cost was issued May 18, 1979, and was followed by four to six weeks of regional hearings. Redrafting and recommendations by the FERC are necessary before the final rule is issued. The procedure for rulemaking on the incremental pricing mechanism will follow the same pattern.

The FERC must provide by rule a procedure whereby anyone claiming "special hardship, inequity or an unfair distribution of burdens" by reason of the substantive rules can apply for an "interpretation, modification, or rescission of, exception to, or exemption from" such rules. If the FERC rejects such a request for adjustment, an aggrieved party is entitled to seek judicial review in accordance with section 506 of the NGPA.

It is significant to note that Congress delegated extensive decisionmaking power to the FERC under title II of the NGPA but, in keeping with recent legislative trends, reserved to itself a veto power in respect to those matters which are anticipated to be most contentious and politically sensitive. Thus, congressional review is allowed in two instances. Section 202(c) of the NGPA allows either the House or the Senate to adopt a resolution of disapproval with respect to the amending rule which expands the class of industrial users who will be subject to incremental pricing. In the event of such congressional disapproval, authority exists for the FERC to resubmit an amending rule within certain time limitations. Section 206(d)(2) of the NGPA allows either the House or the Senate to adopt a resolution of disapproval with respect to any rule providing for exemption in whole or in part of a category of industrial users or of a specific facility from incremental pricing. It remains to be seen whether the exercise of this veto power will seriously hamper the effective administration of the NGPA by the FERC.

III. AN ALTERNATIVE TO INCREMENTAL PRICING

While the theoretical rationale for incremental pricing seems meritorious, the implementations and administrative costs are prohibitive and unjustifiable considering the time frame within which incremental pricing will be operative. Unless fuel oil prices rise dramatically, it is estimated that in certain jurisdictions industrial users subject to incremental pricing will have

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84. The original House bill provided that an opportunity for oral presentation of views would be required in addition to observing the procedural requirements of the Administrative Procedure Act, 5 U.S.C. § 553(d)(3) (1976). The Senate bill relied on the provisions of the Natural Gas Act allowing the Commission to establish procedures for its own hearings, investigations, and proceedings. H.R. REP. NO. 95-1752 at 116, reprinted in [1978] U.S. CODE CONG. & AD. NEWS 8983, 9033. NGPA § 502(b) specifically excepts from this requirement any rules of orders made pursuant to the emergency authority granted the FERC in §§ 301-303 inclusive, but does not contemplate an exercise of discretion on the part of the FERC pursuant to § 553(d)(3) of the APA to shorten or totally abrogate the 30 day period between publication date and effective date provided an opportunity for oral presentation is afforded within 45 days or 30 days respectively after the effective date.


87. NGPA § 502(c).
little capacity to absorb surcharges before their cost of gas will be equivalent to a Btu level of fuel oil. Certainly, at some point between 1983 and 1985, by which time most "new gas" prices will have been deregulated, low priority gas users will probably have converted to an alternate energy source or will be paying a price for gas equal to its full Btu value.

An alternative solution to incremental pricing would have been to use a taxing mechanism. Such a program would maintain the wellhead price ceilings and staged deregulation provisions contained in title I of the NGPA to assure proper incentives for exploration and development of new gas reserves without causing precipitous inflation. However, the full cost of new gas acquisitions would be rolled in and passed on pro rata to all consumers.

Recognizing that this rolled in price would not reflect the true Btu value of the gas in relation to fuel oil, at least so long as significant volumes of "old gas" were available, a tax would be assessed against large industrial users of gas as boiler fuel based upon volume of gas consumed. The same criteria and procedures would be adopted for determining who would be subject to taxation as are set out in the NGPA for deciding who will be subject to incremental pricing.

The tax rate would be fixed on a monthly basis equal to the difference between the actual price paid for gas by the low-priority user and the equivalent Btu cost in that period for a particular grade of fuel oil. For the sake of simplicity, it would be preferable to establish a uniform standard of fuel oil, such as No. 2 fuel oil, the delivered cost to be calculated monthly on a state by state basis. However, if it appeared that in certain regions this would trigger massive fuel conversion by industrial users or any of the discussed corresponding problems, variations in the quality of the benchmark fuel oil could be introduced on a regional basis.

The supplier of the gas to the industrial consumer, whether an interstate pipeline or local distributing company, would be responsible for assessing and collecting the tax based on its own delivery records and information from the state regulatory agency as to the appropriate fuel oil cost for that month. Some sub-metering would be required where an end-user consumes gas for both exempt and non-exempt purposes, but otherwise the calculation of the tax would be reasonably straightforward.

Efficiency and conservation gains would be realized by imposing the fuel cost of gas consumption on the general populace. If it is perceived that this results in undue hardship to certain classes, relief could be granted through the income tax structure on a more progressive basis than the proposed subsidy to all non-incrementally priced consumers. Lost tax revenue from such allowances would be recovered from the "boiler fuel gas consumption tax."

This proposal would retain key policy objectives of incentive pricing for increased domestic gas production and of normalizing prices in interstate and intrastate gas markets. While residential consumers would feel the impact of higher gas prices more rapidly than under the incremental pricing

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scheme, the increase would be a gradual one in view of the schedule of staged deregulation. Industrial consumers of gas as boiler fuel would experience an immediate increased cost equal to the "alternative fuel cost" rather than an incremental increase up to this level. If empirical research disclosed that this would precipitate undesirable widespread fuel conversion, the effects could be modified by using a lower grade fuel oil as the initial taxation standard with progressive substitutions of increasingly higher quality alternative fuels. In any event the net effect would be a more efficient allocation of resources in respect to both residential/commercial and industrial consumers since both groups would face costs more closely related to the true heating value of natural gas relative to other fuel sources.

The immediate inflationary effects of this scheme would undoubtedly be greater than under incremental pricing. Residential consumers would face higher direct costs of gas consumption and indirect costs of consumer products as industry internalized the tax into its cost structure. Assuming a certain price elasticity of demand for natural gas, these effects would be offset to some extent as consumers reduced consumption and implemented conservation measures.

The most salient advantage of this proposal over incremental pricing would be the elimination of costly accounting and administrative procedures. Although the taxing scheme also requires implementation and enforcement mechanics, it would eliminate the calculation of gas acquisition costs in excess of the threshold levels for different categories of gas. It would eliminate the determination of surcharge absorption capability of individual facilities. It could eliminate much of the rulemaking in respect to alternative fuel costs, depending upon how finely tuned the tax was to be regulated. Furthermore, it would eliminate the mechanics of pass-through of costs among the various carriers in the chain of delivery from producer to end-user. As gas prices increased, the total tax revenue would decrease and would eventually be phased out, subject of course to variations in the price of fuel oil.

**IV. Conclusion**

Incremental pricing lacks political support from virtually all segments. Interstate pipelines and local distributing companies are antagonistic because of the administrative burden. Non-exempt industrial gas users foresee rapidly increasing costs of gas consumption. Even the residential consumer for whose benefit the scheme is essentially being implemented will continue to experience rising gas costs and will probably lack an understanding of how much more severe these increases would be without incremental pricing. Resistance is anticipated from state agencies whose cooperation is vital in effectively implementing the scheme. All of these factors will aggravate the problems associated with a complicated piece of legislation such as the NGPA especially one which relies heavily on voluntary compliance.

In a period when public reaction toward government regulation and mushrooming bureaucracy is so negative and vociferous, incremental pricing lacks political credibility. Throughout the lengthy congressional debates
and extensive economic analyses that preceded the final draft of the NGPA, more consideration should have been given to how public sentiment could be reflected in choosing among alternative solutions to the problems of natural gas pricing. By this criterion alone, the proposal set forth in Part III of this article would be preferable to the incremental pricing scheme.