

A PERSPECTIVE ON PIPELINE PRICING UNDER THE NATURAL GAS ACT

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I. INTRODUCTION

The Federal Energy Regulatory Commission (hereinafter FERC or Commission) initiated an inquiry, in Docket No. PL94-4, addressed to the "Pricing Policy for New and Existing Pipeline Facilities" in order to assess the relative merits of "rolled-in" and "incremental" pricing. After almost a year of internal soul searching, the Commission, on May 31, 1995, produced a very indecisive "Statement of Policy" for "New and Existing Facilities Constructed By Interstate Natural Gas Pipelines," which focused essentially upon procedures to be employed in certificate cases to evaluate incremental vs. rolled-in rates.¹

Regrettably the Commission has missed the opportunity to make a broader assessment of pricing issues, and it did not even mention the fundamental issue of undue discrimination which is raised by incremental rates.

One of the forces driving the Commission's examination of pipeline pricing was the conflict between cases involving two pipelines, Algonquin Gas Transmission Company² and Great Lakes Gas Transmission Ltd. Partnership.³ In both of those cases, in which the Commission had reached dramatically opposite conclusions, the Commission's orders were vacated and remanded by the Court of Appeals for the D.C. Circuit. In *Algonquin* the Commission had ordered a total roll-in of all costs and rates, and in *Great Lakes* the Commission had ordered that "incremental" rates be charged to recover the investment cost of a major mainline expansion.⁴

The Commission has focused in its Policy Statement primarily on the procedures to be employed in future certificate and rate cases to evaluate incremental vs. rolled-in rates. The Commission has failed to address the critical statutory and substantive pricing issues in both of those cases, and

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1. *Pricing Policy for New and Existing Facilities Constructed By Interstate Pipelines*, 71 F.E.R.C. ¶ 61,241 (1995).

2. *Algonquin Gas Transmission Co.*, 47 F.E.R.C. ¶ 61,048 (1989); 47 F.E.R.C. ¶ 61,482 (1989); 48 F.E.R.C. ¶ 61,287 (1989); 49 F.E.R.C. ¶ 61,029 (1989); 49 F.E.R.C. ¶ 61,228 (1989).

3. *Great Lakes Gas Transmission Ltd.*, 57 F.E.R.C. ¶ 61,140, at 61,512 (1991), *reh'g denied*, 62 F.E.R.C. ¶ 61,101, at 61,713 (1993); *Great Lakes Gas Transmission Ltd.*, 57 F.E.R.C. ¶ 61,141 (1991), *reh'g denied*, 62 F.E.R.C. ¶ 61,102 (1993).

4. *Algonquin Gas Transmission Co. v. FERC*, 948 F.2d 1305 (D.C. Cir. 1991); *TransCanada Pipelines Ltd. v. FERC*, 24 F.3d 305 (D.C. Cir. 1994).

has failed to give serious consideration to the need for a modern pricing policy. The objective of this paper is to provide a perspective on the Commission's historical pricing methodologies, on the incompatibility of some of those pricing methodologies with the standards of Sections 4 and 5 of the Natural Gas Act, and on the fundamental faults of what the Commission refers to as "incremental pricing."

II. THE FALLACY OF FERC'S "INCREMENTAL" PRICING

A. So-Called "Incremental Costs" are an Invalid Base for Pricing

The costs which the FERC identifies as "incremental costs" (hereinafter FERCIC's) are not "incremental" in any economic context. They are, in fact, a portion of a pipeline's total system capital, operating, and administrative costs, distributed to a new service in proportion to the investment cost of an expansion to total investment. Using an incremental capital investment as a basis for "fully distributed costs"⁵ is an invalid procedure.

In today's world, when a pipeline engages in a major expansion, it generally funds most of that new investment by issuing debt securities, with a very minor investment of retained earnings. In such a financing, the incremental capital cost is essentially the cost of the debt incurred, with little or no incremental income tax liability. But the FERC, in calculating an "incremental" cost for that expansion, allocates a portion of the total rolled-in rate of return plus income taxes capital cost which follows the expansion, and which can be as much as 200% of the incremental debt cost.⁶

A partial looping of a pipeline or installation of a new compressor station may generate a small increase in maintenance costs, but FERCIC's attribute a share of total expenses, from the Company President down, to the incremental investment. The "costs" which the Commission refers to as "incremental" (FERCIC) bear no resemblance either to the Long Run Incremental Costs (LRIC) or short-run incremental or marginal costs referred to in economic pricing theory. LRIC, also referred to as long-run marginal costs, have long-standing recognition in economic theory, essentially reflecting the total costs that would be incurred by a new entrant into a competitive market.⁷ Economists have attempted to apply this pricing

5. See discussion of the errors of Fully Distributed Costs, *infra* Section III.

6. For example, when Algonquin Gas Transmission Co. made its 1986-87 investment of \$74,774,871 to fund an expansion for "F-4" service of about 72,000 MDQ, that investment was financed almost completely by debt capital at an interest rate of about 9%. Consequently, the Pretax Rate of Return (PTROR) on the incremental investment was only about 10%, far less than the PTROR of about 20% on the pre-existing plant investment. In calculating the F-4 rate, which the Commission authorized in its June 26, 1993 order, retroactive to May 1, 1987, Algonquin applied its rolled-in ROR plus taxes to the CP87-654 investment. The result of that calculation was to apply a ROR plus taxes to all prior investment that was below the pre F-4 ROR plus taxes. The effect of that action of applying the rolled-in ROR + T to both the incremental plant and the preceding plant accounts was to assess an F-4 rate that substantially exceeded the actual incremental costs, and to subsidize the previously effective rates (on file with author).

7. See, *e.g.*, FREDERIC B. GARVER & ALVIN H. HANSEN, PRINCIPLES OF ECONOMICS 152-59 (1937); PAUL A. SAMUELSON, ECONOMICS 512 (2d ed. 1951).

theory to regulated industries.⁸ When a potential new entrant into a competitive environment looks at the "opportunity costs" it will incur, it clearly looks for the feasibility of recovering fixed and variable costs, and making some profit, but that opportunity cost certainly does not include the 20% pretax rate of return on the investment that is typically attributed as an "incremental cost" by the FERC.

The total additional fixed and variable costs generated by successive expansions of a pipeline can bounce from almost nil to a number that may be a vast multiple of average total cost, and those FERCIC's bear no resemblance to LRIC as defined by economists.

B. FERCIC's are Erratic Costs Which Have no Relationship to so Called "Cost Responsibility"

The Commission's rationale for imposing incremental rates is that those customers which signed up thirty years ago for service became "entitled" to preferential rates for their service,⁹ and that new customers, or existing customers with expanding demands, "cause" high cost expansions.¹⁰ That rationale ignores the fact that continued demands of existing customers create a need for an expansion of system capacity as much as the needs of new customers. For example, home owners and business owners who continue to use low efficiency gas furnaces, which waste as much as 40% of the heat generated, when high efficiency furnaces are readily available, contribute to the need for expansion. As Alfred E. Kahn has pointed out, "As far as causal cost responsibility is concerned, all customers are marginal":

This reasoning clearly applies even when incremental investment costs per unit of capacity are rising and where, again, it might appear on first consideration that since it is the expansion of the B demands that is responsible for the supplier's incurring the higher costs, it is that group that ought to bear the additional burden. Even though B's demand is "marginal" in the temporal sense, both groups are marginal in the economic sense. Both should be forced to match those higher capacity costs against the satisfaction they derive from continuing to use the service.¹¹

One of the leading authorities on utility rate making, James C. Bonbright, reached a similar conclusion:

Customers which may be marginal in a time sense may not be in an economic sense. Just because one customer has a stable demand, while another has a growing demand, necessitating future expansion, both should bear capacity costs. While the increasing demand precipitates the incremental investment,

8. See, e.g., IRSTON R. BARNES, *THE ECONOMICS OF PUBLIC UTILITY REGULATION* 321 (1942); 1 ALFRED E. KAHN, *THE ECONOMICS OF REGULATION* 65 (1970).

9. The United States Supreme Court long ago rejected any such claim to entitlement. *Board of Pub. Util. Comm'n v. N.Y. Tel. Co.*, 271 U.S. 23 (1926). And the Federal Power Commission made a similar rejection. *Duke Power Co.*, 48 F.P.C. 1384, 1394-95 (1972).

10. In the Algonquin expansion, some of the customers which opposed roll-in had been the primary beneficiaries of earlier high cost, rolled-in, expansions.

11. KAHN, *supra* note 8, at 140.

the stable demander could have curtailed consumption just as easily as the growing demander could have refrained from increasing consumption.¹²

The Commission, in assigning FERCIC's as a basis for pricing the additional volumes provided by a pipeline expansion, defends its action as representing the assignment of responsibility for costs. The error of such a claim can be demonstrated by a review of one of the major cases involving the rolled-in/incremental issue.¹³ When Algonquin, in early 1984, proposed an expansion which would complete the looping of its mainline system, including a long planned loop through the environmentally sensitive Great Swamp Wildlife Refuge, and installation of a new, low powered, compressor station, in Docket No. CP84-654, its market justification for that expansion was not the requirements of the customers which would be immediately served, but a projection of the expected growth of its entire market in the 1985-1994 decade. In certificating the expansion, the Commission stated:

The need for the requested facilities is substantiated by the market data obtained from Algonquin's customers. Algonquin's customers project an 18 percent average increase in their residential markets, a 26 percent average increase in their commercial markets, and a 30 percent average increase in their industrial markets *over the period 1985-1994*.¹⁴

The final design of the Algonquin expansion facilities, primarily the completion of the looping of the original 26" line, installed in 1953-54, with new 30" pipe running around the environmentally sensitive Great Swamp area (the relocation imposed a major increase of recorded cost over the originally estimated cost), was not an effort to provide the most economical base for the immediate needs of the market, but to lay a foundation for future expansions over the next decade. The initial volume offered by Algonquin to its customers was 90,000 MMBTU/d¹⁵ which was significantly less than the capacity to be added. The customers only signed up for 69,084 Dt/d¹⁶ but, instead of cutting back on the expansion facilities, Algonquin added to the facilities to be certificated as "F-4 service" an additional 3.5 miles of mainline pipe previously certificated in Docket No. CP82-119-003.¹⁷ That planned expansion to meet the ten-year needs of the entire Algonquin market, to complete the long planned and delayed looping through a very environmentally sensitive area, and to serve as a foundation for subsequent expansions, was not the "responsibility" of the customers who needed and signed up for F-4 service at the coincidental time.

Further, if there were any legitimate claimed "entitlements" to a preferential F-1 rate, those entitlements expired when all of the F-1 service agreements expired, and all customers signed new service agreements

12. JAMES C. BONBRIGHT ET AL., *PRINCIPLES OF PUBLIC UTILITY RATES* 175 (2d ed. 1988) (citation omitted).

13. *Algonquin Gas Transmission Co. v. FERC*, 948 F.2d 1305 (D.C. Cir. 1991).

14. *Texas Eastern Transmission Corp.*, 32 F.E.R.C. ¶ 61,227, at 61,527 (1985) (emphasis added).

15. *Texas Eastern Transmission Corp.*, 32 F.E.R.C. ¶ 61,007, at 61,011 (1985).

16. *Id.*

17. *Algonquin Gas Transmission Co.*, 26 F.E.R.C. ¶ 61,114 (1984).

effective November 1, 1989, under which they agreed to pay the then effective rolled-in F-1 rate. Similarly, when the F-1 rate was superseded by the "no-notice" AFT-E service, any claim by the former F-1 customers to historical preferential prices disappeared. Nevertheless, the Commission assigned the F-4 FERCIC's on the basis of "cost responsibilities."

Pipeline expansions occur in sequences with significantly different capital and operating costs per unit of added capacity. After a pipeline is first constructed, many low cost expansions of capacity can be obtained merely by adding compressor units to existing stations. The next, more expensive, expansion is generally the construction of a new compressor station, which requires substantial one-time costs such as land acquisition, local governmental permitting and construction of infrastructure (power and telephone lines, etc.) or the commencement of pipeline looping. A major looping can send the capital cost per unit of added capacity skyrocketing, with the installation of a new compressor station with minimal compressor units installed. But those widely varying costs are not a sound basis for attribution of cost responsibility.

C. FERCIC's Do Not Send Appropriate Market Signals

One principal argument of those espousing incremental cost pricing is that incremental prices will send effective price signals which will discourage excessive investment in pipeline expansions. One fundamental problem with that premise for the use of FERCIC's is that to a large extent pipelines are not directly connected to the markets where decisions regarding expanding demands are made. For the most part, pipelines deliver gas and complete their services at mainline connections or city gate delivery points. The retailers, local gas distribution companies (LDC's), provide service to the public which in turn makes the decisions affecting expansion of gas use.

The pipelines do have direct connections to one of the major natural gas markets (e.g., the industrial user market) which includes the expanding electric power generation market, but even that market is not always sensitive to gas supply pricing signals. An industrial consumer/power generator, offered a gas supply at a high incremental rate, can evaluate its alternatives. It may either expand its coal or heavy oil consumption, expand its nuclear fuel use, or search for exotic energy alternatives such as solar, wind or geothermal, or look for other power suppliers which may have lower incremental expansion costs. But, even if a pipeline's anticipated incremental expansion cost can be precisely estimated and communicated to that industrial customer before it makes an investment decision, it is not at all clear that such investment cost is the only relevant message to be sent. As the population of the United States continues to expand (and assuming conservation practices have been employed), increasing amounts of power must be generated. In areas of the United States where coal cannot be cheaply shipped, the fuels most readily available are imported oil and natural gas.

Recent Congressional actions suggest that national energy policy favors increased use of natural gas as fuel for electric generation. As the Commission stated in *Iroquois Gas Transmission System Ltd. Partnership*:

In Order No. 636, the Commission acknowledged Congress' interest, expressed in the legislative history of the Natural Gas Wellhead Decontrol Act of 1989, in promoting a competitive gas market for the purpose of reducing the Nation's dependence on imported oil and, among other things, providing a clean-burning fuel for the production of electricity. In addition to the Wellhead Decontrol Act, a number of other Congressional actions have created a more favorable environment for gas-fired electric generation. Also, it cannot be forgotten that the impetus for non-utility generation in general, and cogeneration in particular, was Congress' enactment of section 210 of the Public Utility Regulatory Policies Act of 1978 and the program pursuant to that provision which the Commission administers.¹⁸

Assigning a high incremental price to a pipeline expansion designed to supply power generation sends a clear message: "Buy foreign oil." But the national energy policies do not include a "Buy Foreign Oil" signal.

The major natural gas market, the core market which the NGA was designed to protect from exploitation, is the consuming public served by regulated LDCs.¹⁹ Most LDCs have a statutory obligation to serve the public in a non-discriminatory manner. Pipelines have no direct connection to that ultimate consumer market, and there is no way that a pipeline's prospective incremental expansion costs can be communicated to and affect investment decisions of that consuming public market before those decisions are made. If an LDC serving an expanding customer market is confronted with a very high price for a small incremental supply of natural gas it has almost no choice but to agree to purchase that high cost incremental supply which it then rolls-in to its rates to its customers. An LDC serving a growing community cannot charge new homes in a new subdivision higher rates than their neighbors' rates in order to recover the FERCIC's assigned to the LDC, nor can it charge higher rates for gas supplied to additional gas burning facilities. An accidentally high incremental rate resulting from an expansion of pipeline transportation services does not send any message either to the purchasers of homes in a new suburb of a city served by an LDC, or to the purchasers of fireplace logs, gas dryers or ovens, even if those new homes, fireplace logs, dryers and ovens created the demand compelling an expansion. Thus, the only incremental price sig-

18. 63 F.E.R.C. ¶ 61,285, at 62,904 (1993) (footnotes omitted). In 1987, Congress substantially amended the Fuel Use Act by virtually eliminating fuel burning restrictions on the use of natural gas in electric powerplants and other major fuel burning installations. Pub. L. No. 100-42, 101 Stat. 310 (1987) (codified at 42 U.S.C. §§ 8301-8484 (1988)). Congress enacted amendments to the Clean Air Act in 1990, Pub. L. No. 101-549, 104 Stat. 2399 (1990) (codified at 42 U.S.C. § 7412 (Supp. II 1990)), which created a role for natural gas as a cost-effective option for compliance with the market-based acid rain program. Finally, Title VII of the Energy Policy Act of 1992, Pub. L. No. 102-486, 106 Stat. 2776 (1992) (codified at 42 U.S.C. §§ 13,201-13,556 (Supp. IV 1992)), which amends the Public Utility Holding Company Act of 1935 and the Federal Power Act, will provide additional impetus for gas-fired generation.

19. *FPC v. Hope Natural Gas Co.*, 320 U.S. 591, 610 (1944).

nal to an LDC is "Stop attaching new customers, or stop selling more gas"; that is hardly an appropriate or legal price signal to a public utility.

D. FERCIC's are Inconsistent with Order No. 636 Objectives

In Order No. 636, the Commission compelled pipelines to move out of their traditional purchase/sale operations and into a pure transportation mode. Recognizing that many LDCs which had depended upon their pipeline supplier to aggregate their supplies and to provide delivery services to meet widely fluctuating, temperature-sensitive demands, would have difficulty in assuming those responsibilities, the FERC ordered pipelines to replace that basic sales service with a "No-Notice Transportation Service" (NNS) as well as Firm Transportation services. And, in so doing, the FERC ordered that essentially the same services should be provided at essentially the same rates, and that "rates for different services should reflect differences in the quality of the services."²⁰ "Simply put, 'a lower quality service should have a lower rate.'"²¹ The FERC clearly recognized that NNS service was a superior service which should carry a rate higher than the standard firm transportation service. But the FERC's incremental pricing has blocked those Order No. 636 objectives. The inconsistent effect of incremental prices with the Order No. 636 policies is well illustrated by the Order No. 636 rates implemented by Algonquin with express Commission approval. Algonquin has ten different rates under its firm transportation service, AFT-1, and all but one of those ten rates exceed, some of them substantially, Algonquin's AFT-E (NNS). Because the basic service (which included several early rolled-in high-cost expansions) provided by Algonquin for almost thirty years was the only service permitted to convert to its new No-Notice Service, that superior service has become the lowest priced service, and all of the subsequent expansions (since 1984) have been converted into an inferior service (AFT-1) at widely ranging prices higher than the superior AFT-E service. Thus, the implementation of FERCIC's as a basis for pricing pipeline services is inconsistent with the value pricing objective of Order No. 636.

III. THE FUNDAMENTAL FALLACY OF "FULLY DISTRIBUTED COSTS"

Rolled-in and incremental pricing are each a variation of what economists call Fully Distributed Costs (FDC). The Commission's FDC methodology involves "classifying" variable and non-variable costs as "demand" costs or "commodity" costs, then using some "demand" period (peak day, 3-day peak, winter period, average peak days) as a basis for allocating "demand" cost responsibility to services provided in proportion to their "demand" period use, and allocating "commodity" costs on a volumetric basis. Since its establishment, the FPC/FERC has adhered to the flawed

20. *Interstate Natural Gas Pipeline Rate Design*, 48 F.E.R.C. ¶ 61,122, at 61,442 (1989).

21. *Id.*

pricing policy of using FDC as the absolute basis for pricing services.²² Economists have almost universally condemned FDCs for as long as the FPC/FERC has followed that approach:

- (a) "When two goods are the inseparable results of one productive process, it is impossible to ascertain the separable cost of either as far as that process is concerned."²³
- (b) "Any allocation of costs must necessarily be arbitrary."²⁴
- (c) "[I]t is impossible to ascertain the costs of production of joint products."²⁵
- (d) "The vast majority of goods produced are joint products. The industry—in ascertaining the cost of its individual products—is faced with the impossibility of separating nonseparable products. No accountant has been able to devise a method yielding by-product or joint-cost figures which does not embody a dominance of arbitrariness and guesswork."²⁶
- (e) "When products are produced jointly, that is, when one cannot be produced without the others, separate true costs for each cannot be found. In fact, there are no separate costs for the several products. True joint costs for all may be compiled but these total costs cannot be accurately divided among the several products."²⁷
- (f) "When the cost of raw materials is joint, any method for allocating the joint cost to the various products tends to be arbitrary."²⁸
- (g) "[E]ven the most logical cost allocation is more or less meaningless. Cost allocation is an institutional ritual."²⁹
- (h) "There is no perfect, unassailable allocation of joint utility costs Any allocation of joint costs is an arbitrary allocation."³⁰
- (i) "[J]oint costs cannot be traced to specific joint products and overhead costs are untraceable to specific units of service."³¹
- (j) "Quite simply, the basic defect of fully distributed costs as a basis for rate making is that they do not necessarily measure marginal cost responsibility in a causal sense."³²
- (k) "The Commission here, over all dictates of common sense, views of Congressional experts, the practice of other regulatory agencies and the protestations of state regulatory agencies, has adopted a Fully Distributed Cost accounting method that is all but unyielding and defies every proven rule of economic logic."³³
- (l) "But there remains the question what, if any, significance should be attached to these fully distributed costs even as guides, or even as points of departure for rate determination, in view of the admitted fact that they fail to

22. When the Postal Rate Commission was created it adopted a fully distributed cost methodology in fixing postal rates. That methodology was rejected by the Supreme Court. *National Ass'n of Greeting Card Publishers v. United States Postal Serv.*, 462 U.S. 810 (1983).

23. FREDERIC B. GARVER & ALVIN H. HANSEN, *PRINCIPLES OF ECONOMICS* 181 (1937).

24. BARNES, *supra* note 8, at 325.

25. JOHN ISE, *ECONOMICS* 228 (1946).

26. Walton H. Hamilton, *Cost as a Standard for Price*, 4 *LAW & CONTEMP. PROBLEMS* 321, 328 (1937).

27. CHARLES F. SCHLATTER, *COST ACCOUNTING* 652 (1948).

28. NATIONAL ASSOCIATION OF COST ACCOUNTANTS, *N.A.C.A. BULL., PRODUCT COSTS FOR PRICING PURPOSES* 1696 (1953).

29. ELI W. CLEMENS, *ECONOMICS AND PUBLIC UTILITIES* 640 (1950).

30. EMERY TROXEL, *ECONOMICS OF PUBLIC UTILITIES* 576 (1947).

31. MARTIN G. GLAESER, *PUBLIC UTILITIES IN AMERICAN CAPITALISM* 424 (1957).

32. KAHN, *supra* note 8, at 151.

33. WILLIAM J. BAUMOL & ALAN S. BLINDER, *ECONOMICS PRINCIPLES AND POLICY* 498 (1979) (quoting an FCC dissenting opinion).

mark the dividing line between compensatory and noncompensatory charges for particular classes or quantities of service."³⁴

Over the decades of regulation, the Commission has, from time to time, realized that a then-effective FDC formula was producing inappropriate market prices, and it has engaged in gamesmanship by altering the FDC formula without admitting that it was engaging in market pricing. In the earliest days of natural gas pipeline regulation, in order to assign costs between regulated wholesale sales to LDCs serving the public and unregulated sales to industrial customers, the FPC employed the same FDC methodology that had been applied to wholesale electric rate regulation.³⁵ Then, in *In re Mississippi River Fuel Corp.*,³⁶ the Commission recognized that the industrial customers receiving interruptible service were being allocated costs substantially below the level the market could absorb, and the FPC, in its order, departed from the staff's litigation position. That case was vacated on procedural grounds,³⁷ which led to the implementation of the *Atlantic Seaboard* formula,³⁸ which remained the standard FDC methodology for two decades.

In the early 1970s, the Commission perceived that, because of an OPEC Oil Embargo, the market value of heavy fuel oil had skyrocketed, allowing room for more costs to be shifted to industrial customers, so it adopted the *United* formula which classified 75% of non-variable costs as "commodity" costs which were allocated on a volumetric basis to both firm and interruptible/industrial services.³⁹ When the Arab embargo collapsed and No. 5/6 fuel oil prices fell, the Commission retreated from the *United* formula to the Modified Fixed Variable Formula, in which only return on equity and related taxes were classified as commodity costs.⁴⁰ Then, in Order No. 636, the Commission imposed the Straight Fixed Variable (SFV) methodology which classifies all non-variable costs as "demand" costs, but allows some "mitigation" factors to be employed (such as annual entitlements).

One of the offsprings of traditional FDC mechanisms, which disguises market pricing, is the imputation of a hypothetical load factor to establish a rate for interruptible service. The standard imputation was 100% LF, but as a result of customer protests, the interruptible rates have gone down to 150% LF or even as low as 300% LF. Then the pipeline is allowed to discount its filed interruptible rate to a level that is marketable. As long as little or no costs are attributed to the interruptible service, the pipeline can discount its rate, utilize its excess capacity, and generate a little income.

34. BONBRIGHT, *supra* note 12, at 481.

35. *Canadian River Gas Co.*, 3 F.P.C. 32 (1942), *aff'd*, *Colorado Interstate Gas Co. v. FPC*, 324 U.S. 581 (1945).

36. 4 F.P.C. 340 (1945).

37. *Mississippi River Fuel Corp. v. FPC*, 163 F.2d 433 (D.C. Cir. 1947).

38. *Atlantic Seaboard Transmission Co.*, 11 F.P.C. 43 (1952).

39. *United Gas Pipe Line Co.*, 50 F.P.C. 1348 (1973).

40. *Natural Gas Pipeline Co. of America*, 25 F.E.R.C. ¶ 61,176 (1983).

What is evident is that throughout five decades of regulation the Commission has engaged in primitive forms of market pricing, but that market pricing has always been implemented under the guise of a "fully distributed cost" allocation methodology. The Commission has, from time to time, acknowledged that its methodology was a mechanism for market pricing, and where there was a conflict between the result of its FDC methodology and acceptable market prices, the Commission has "tilted" the FDC rate to accommodate the result to market constraints.⁴¹

The recent implementation of FERCIC's as a basis for pricing services is a misguided effort to use a fully distributed cost methodology to "send signals to the market," that is, to engage in market pricing through an invalid fully distributed cost allocation methodology. The Commission, in its review in PL94-4, had an excellent opportunity to establish modern guidelines for pricing that would take into account market conditions and national energy policies. Instead it reaffirmed FERCIC pricing as the preferred methodology where an expansion would cause more than a 5% increase in pre-expansion rates, and placed an extraordinary burden on customers opposing incremental rates.

IV. THE LEGAL ISSUE - UNDUE DISCRIMINATION

In the remanded *Algonquin* and *TransCanada* cases, the court directed the Commission to address the issue of undue discrimination. The Commission avoided resolving that issue in the *Algonquin* case by declining to act on an application for rehearing for nine months, with the result that the adversely impacted parties accepted a settlement which perpetuated incremental rates, and barred challenges to those rates until the year 2000.⁴² However, in the *TransCanada/Great Lakes* case the Commission reversed itself and approved rolled-in rates.⁴³ The restoration of rolled-in rates on the Great Lakes system was carefully predicated upon the Commission's conclusion that the applicable policy was *Battle Creek*, not the new "Pricing Policy", and that the Great Lakes expansion provided benefits which satisfied the *Battle Creek* test favoring roll-in of expansion costs.⁴⁴ A strong dissent by Chair Moler argued that the new Pricing Policy should be applied. Although the order refers to arguments by *TransCanada* and *MCV* that the court remand requires that the issue of undue discrimination be addressed, the Commission's decision does not refer to that subject in restoring rolled-in rates. The Commission's Policy Statement avoids any discussion about whether assigning widely varying FERCIC's to identical services could be a violation of Sections 4 and 5 of the Natural Gas Act.⁴⁵

There are instances when the recovery of particular pipeline investment costs can be legally assessed against and recovered from particular

41. See, e.g., *United Fuel Gas Co.*, 31 F.P.C. 1342 (1964); *Northern Natural Gas Co.*, 22 F.P.C. 164 (1958).

42. *Algonquin Gas Transmission Co.*, 68 F.E.R.C. ¶ 61,039 (1994).

43. *Great Lakes Gas Transmission Ltd.*, 72 F.E.R.C. ¶ 61,081 (1995).

44. *Id.*

45. See 15 U.S.C. § 717c-d (1988).

customers. For example, the Commission has long maintained a policy allowing a pipeline to require its customers to make a contribution in aid of construction (CIAC) to reimburse the pipeline for the cost of extending or expanding a lateral line from the pipeline's mainline to a city gate.⁴⁶ Where a CIAC would be too large, the Commission has authorized a lateral line surcharge.⁴⁷ When Trunkline Gas Company both expanded and extended its main line in order to serve Consumers Power, the investment cost of that main line expansion was rolled in, but the extension became the responsibility of Consumers Power, in effect creating a new "zone rate."⁴⁸

When an expansion of an existing system provides a new and optional service that some customers may elect not to purchase, the Commission clearly has the authority under Sections 4 and 5 of the NGA to select something other than rolled-in, embedded costs as the basis for pricing that optional service. For example, where the incremental cost of a pipeline expansion to provide access to storage is less expensive than available alternatives, such as LNG service, use of some of that incremental expansion cost as a basis or proxy for establishing rates for that transportation to and from storage is reasonable price discrimination.⁴⁹ The Commission, in the *Algonquin* rate case order that was remanded, had not recognized that some of Algonquin's prior expansions had been certificated to provide different services, and that some of the prices for those services had been reviewed and approved on an incremental basis in prior rate cases. It was the Commission's all-or-nothing approach that led to the remand in *Algonquin*.⁵⁰

Where a pipeline expansion provides service to a totally new market, and that market accepts the incremental expansion cost as a cheaper alternative than the "opportunity cost" of a totally new pipeline, the cost of that expansion can legally be used as a foundation for pricing service to that new market.⁵¹ In today's sophisticated economic environment, there are many occasions for differential pricing for particular services, although so-called "incremental pricing" may not be the preferred basis for that pricing. The Policy Statement addresses none of those pipeline pricing problems.

The NGA contains two express statutory objectives. First, that rates must be "just and reasonable"⁵² (generally referring to total revenue levels), and second, that rates may not be "unduly discriminatory."⁵³ In

46. *Kansas-Nebraska Natural Gas Co.*, 30 F.P.C. 956 (1963).

47. See, e.g., *Atlantic Seaboard Corp. and Virginia Gas Co.*, 11 F.P.C. 486, 510 (1951). See also *Montana Power Co.*, 11 F.P.C. 1 (1952); *Texas Gas Transmission Co.*, 22 F.P.C. 378, 384 (1959) (assigning the responsibility of particular supply lateral to discrete customers).

48. *Trunkline Gas Co.*, 21 F.P.C. 704 (1959), *aff'd*, *Battle Creek Gas Co. v. FPC*, 281 F.2d 42 (D.C. Cir. 1960).

49. *Southern Natural Gas Co.*, 51 F.E.R.C. ¶ 61,296 (1990); *Southern Natural Gas Co.*, 53 F.E.R.C. ¶ 61,195 (1990); *Texas Eastern Transmission Corp.*, 11 F.E.R.C. ¶ 61,284, at 61,372 (1980); *Tennessee Gas Transmission Co.*, 24 F.P.C. 71 (1960).

50. *Algonquin*, 948 F.2d at 1312.

51. *Pacific Gas Transmission Co.*, 50 F.E.R.C. ¶ 61,067 (1990).

52. 15 U.S.C. § 717c(a) (1988).

53. 15 U.S.C. § 717c(b) (1988).

both of the remanded cases, a critical issue was that of undue discrimination under the NGA. In the *Algonquin* case, the Commission relied upon the prohibition against undue discrimination as a basis for ordering a "roll-in" of all rates, but it ignored that several rate schedules ordered rolled-in were for different services for which different rates are legal under the NGA. In the remanded *TransCanada* case,⁵⁴ one of the principal errors perceived by the court was the failure of the Commission to address the issue of whether radically different rates ordered by the Commission for essentially the same service to the same class of customers violated the statutory prohibition against undue discrimination. In its Policy Statement, the Commission avoided the undue discrimination issue.

Construction of natural gas pipelines commenced well before passage of the NGA.⁵⁵ By the time of passage of the NGA in 1935, there were 79,600 miles of natural gas transmission main lines in the United States.⁵⁶ Some pipelines were constructed to provide gas to industrial consumers, but most interstate pipelines were required to replace dwindling local gas supplies upon which the local gas utility industry had been built. The NGA was passed primarily to control the transmission and wholesale sales by pipelines to LDCs in order to protect the public from exploitation. Under the NGA, utilities serving the public are the pipeline's "core" market. Congress did not perceive of any necessity to provide federal regulatory protection to the industrial consumers who purchased their supplies directly from pipelines. NGA regulation of sales of gas was consequently applied only to sales for resale, not to all pipeline sales. To protect the public from exploitation, the NGA directed the Commission to place limits on pipeline revenues, which require "just and reasonable rates"⁵⁷ in Section 4(a), and in Sections 4(b) and 5(a), prohibit pipelines from granting any undue preference, imposing any undue prejudice, or allowing any unreasonable difference in rates between classes of service. Now that pipelines have been converted from wholesalers/retailers to transporters, the industrial customers have gained regulatory protection, which was not the original intent of the NGA, but they constitute a different class of customers upon which different prices can be imposed.

When a mainline pipeline is expanded to meet the growing needs of the pipeline's core market for basic transportation service, the assignment of "vintage" expansion costs to a few core customers, resulting in widely different rates for the same service to customers within the same class, is, on its face unduly discriminatory and *prima facie*, contrary to Sections 4(b) and 5(a) of the NGA.⁵⁸ Different rates can be charged for different services to a single class of customers, and different rates can be charged for

54. *TransCanada*, 24 F.3d 305.

55. See JOSEPH E. POGUE, *THE ECONOMICS OF PETROLEUM* 200-01 (1921).

56. See C. WOODY THOMPSON & WENDELL R. SMITH, *PUBLIC UTILITY ECONOMICS* 21 (1941).

57. A just and reasonable rate must yield a just and reasonable return on the value of the property used to perform the services. See *Banton v. Belt Line Ry.*, 268 U.S. 413, 422 (1925); *FPC v. Hope Natural Gas Co.*, 320 U.S. 591 (1944); *Colorado Interstate Gas Co. v. FPC*, 324 U.S. 581 (1945).

58. 15 U.S.C. § 717c(b)-d(a) (1988).

services to different classes of customers, but, absent some clear justification, different charges for the same or similar services to the same class of customers are contrary to the statute.⁵⁹

One fundamental historical objective of utility regulation is to impose the kind of rates that would be reflected in a perfectly competitive economic environment. "It is also the duty of the commission to enforce the provisions of the law against discriminations in rates to the end that all customers having similar services shall pay the same rates."⁶⁰ In a competitive market, competing suppliers of goods and services offer those goods and services to all customers at the market price. Some discounting is offered on a volume or class basis, but not on the basis of whether the customer just walked in the door or had been there before. Some of the suppliers of goods and services which have depreciated plants may recover "economic rent" while a new entrant barely recovers its costs. In a regulated environment, the "economic rent" is passed on to all customers, not to selected customers. Incremental pricing would reserve the "economic rent" for non-expanding demand customers, and assign all (and in most cases, excessive) incremental costs to the expansion customers. In today's competitive and regulated economic environments, "unbundling" and "deaveraging" are becoming more common⁶¹ but "vintaging" is still an unacceptable practice.

An entity with monopoly powers in some, but not all, markets, can exploit the customers in the monopolized market with excessive prices, while driving out competition with below market prices in the competitive markets. Public concern regarding the potential for this kind of capability generated the prohibitions against unduly discriminatory rates found in Sections 2 and 3 of the Interstate Commerce Act, Section 205(b) of the Federal Power Act and in Sections 4 and 5 of the Natural Gas Act.⁶²

Pursuant to Order No. 636, natural gas pipelines were converted from gas wholesalers to contract carriers, essentially the same as common carriers (e.g., railroads and petroleum pipelines) regulated under the Interstate Commerce Act, the American Telephone and Telegraph System regulated under the Federal Communications Act, and the U.S. Postal Service, transformed from a department of the federal government to a regulated com-

59. "Everybody constituting a part of the public is entitled to an equal and impartial participation in the use of the facilities it is capable of affording." *John Hays & Co. v. Pennsylvania Co.*, 31 AM. L. REG. 39-40 (N.D. Okla. 1883). "It serves the interest of equal treatment for customers receiving equal service to require new customers to pay for a portion of existing facilities, just as old customers should pay for new facilities." *Williston Basin Interstate Pipeline Co.*, 56 F.E.R.C. ¶ 61,104, at 61,395 (1991). See *Transwestern Pipeline Co.*, 36 F.E.R.C. ¶ 61,176; *City of Frankfort v. FERC*, 678 F.2d 699, 706 (D.C. Cir. 1982); *Transcontinental Gas Pipeline Corp.*, 63 F.E.R.C. ¶ 61,194 (1993); *Appalachian Power Co.*, 63 F.E.R.C. ¶ 61,151, at 61,978; *Alabama Power Co.*, 63 F.E.R.C. ¶ 61,309 (1993); *Public Serv. Co. of Colo.*, 59 F.E.R.C. ¶ 61,311 (1992), *reh'g denied*, 62 F.E.R.C. ¶ 61,013, at 61,061 (1993).

60. L.R. NASH, *THE ECONOMICS OF PUBLIC UTILITIES* 114 (1931).

61. Alfred E. Kahn & William B. Shew, *Current Issues in Telecommunications Regulation: Pricing*, 4 YALE J. ON REG. 191, 233 (1987).

62. "[A] charge may be perfectly reasonable under section 1, and yet may create an unjust discrimination or an unreasonable preference under sections 2 and 3 [of the Interstate Commerce Act]." *Interstate Commerce Comm'n v. Baltimore & O. R.R.*, 145 U.S. 263, 277 (1892).

mon carrier by the Postal Reorganization Act of 1970.⁶³ The President's Commission on Postal Organization, in its report, TOWARDS POSTAL EXCELLENCE, which led to the Postal Reorganization Act, reported that the postal system is operated as a public utility and "a utility is not allowed to discriminate unduly among its users in the pricing of its services."⁶⁴

Common carrier rates are applied to classes of service. Both the ICC and the FERC have allowed discounted rates for shippers willing to sign contracts to ship minimum volumes over a three to five year period as a consideration for the shipper's waiver of its right to use alternative carriers.⁶⁵ But FERCIC's have the opposite effect. An LDC which has access to two or more supplying pipelines can dodge the high cost expansions, while an LDC with no alternative supplier gets hit with excessive FERCIC's.

The Commission has confused the pricing issue by failing to recognize that the NGA prohibits unduly discriminatory prices for the same or similar service to a single class of customers, but that the NGA permits reasonably discriminatory pricing among different classes of customers, or for clearly different services. One of the problems, over the years, in developing a rational and legal "rolled-in/incremental pricing policy" has been an insistence upon the part of some FPC/FERC staff and the Commission that all costs should be "rolled-in" without regard to the related services. That was one of the errors that led to the remand in *Algonquin*,⁶⁶ which the Commission in the Policy Statement misconstrues. The Commission states that the court required the Commission to demonstrate, with reasonable particularity, the specific system-wide benefits from the expansion project.⁶⁷ Although the Court's decision engages in extensive dicta over cost/benefits, the court merely ruled that there was not substantial evidence in the record to support a compulsory roll-in of different rates for totally different services. In the *Algonquin* rate case which went to court, the Staff had insisted, and the Commission had ruled, that all of Algonquin's services should be priced on a rolled-in basis even though Algonquin's services included a Winter Sales Service and two Storage Transportation services (STB and SS-III). These are optional premium services which, under Sections 4 and 5, could be legally priced on a separate basis, and which had been approved or accepted in earlier rate cases.⁶⁸

The error by the Commission of ordering a total roll-in of all rates for all classes of service in the *Algonquin* case was compounded by its erroneous procedural ruling regarding which party had the burden of proof to defend or challenge incremental rates. The Policy Statement does not clar-

63. Postal Reorganization Act of 1970, Pub. L. No. 91-375, 84 Stat. 719 (codified as amended at 39 U.S.C. §§ 101-5605 (1988 & Supp. V 1993)).

64. GOVERNMENT PRINTING OFFICE, TOWARDS POSTAL EXCELLENCE 129 (1969).

65. See, e.g., *Coal to New York Harbor Area*, 311 I.C.C. 355 (1960); Texas Eastern Products Pipeline Co., Schedule B, Tariff No. 204.

66. *Algonquin*, 948 F.2d at 1313.

67. *Id.*

68. *Algonquin Gas Transmission Co.*, 47 F.E.R.C. ¶ 61,048 (1989), *reh'g denied*, 49 F.E.R.C. ¶ 61,029 (1989).

ify this problem; if anything, it complicates it. Placing a temporary burden of incremental costs on the parties which contract for expansion volumes, until the pipeline files its next rate case to include those expansion costs in its plant accounts, has been a traditional and useful mechanism to allow interim financing without triggering an out-of-time rate filing.⁶⁹ But permitting a temporary use of an incremental rate, which is *prima facie* unduly discriminatory, in a certificate proceeding, should not shift the burden of proof to those opposed to continuation of that discriminatory rate in the subsequent rate case. In certificating the Algonquin expansion, the Commission put Algonquin on notice that the F-4 rate, which was 300% of the basic F-1 rate and 200% of the F-2/F-3 rate, would be at issue in the rate case in which Algonquin would propose incorporating the incremental expansion investment into its plant account.⁷⁰ In the subsequent 3-year rate filing case, Docket No. RP86-41, which did not include the F-4 facilities in Algonquin's plant accounts, the Staff challenged all of the incremental rate schedules in Algonquin's tariff. The Commission ruled, and the court accepted that ruling, that the Staff had the burden of proving that all rate schedules were unduly discriminatory and should be rolled-in. Both the rate schedules for the premium storage and transportation to and from storage, rate schedules which had been approved in prior rate cases, as well as the newly certificated F-4 service where the pipeline was already on notice that the incremental rate would have to be justified. The Commission failed to recognize a burden of proof distinction between a change in rate form for a rate previously approved in a prior rate case and an increase in a rate allowed in a certificate case, coupled with a condition that the rate form would have to be justified in the subsequent rate case. The Commission subsequently reaffirmed this erroneous procedural ruling regarding burden of proof when it overruled an ALJ's decision which made that correct distinction.⁷¹

If the Commission chooses to continue to allow higher incremental rates to be charged to a few customers of a single class, as a temporary financing mechanism between a certificated expansion and a rate case, it should clearly declare that the incremental rate is *prima facie* unduly discriminatory and must be justified by the pipeline when it files to include that investment in plant accounts. As the Commission correctly ruled in the *Transwestern* case:

Undue discrimination is in essence an unjustified difference in treatment of similarly situated customers. The complainant . . . bears the initial burden of [producing evidence to substantiate its allegation]. The complainant satisfies this burden by coming forward with evidence showing that the customers are similarly situated and that they are being treated differently. Once the com-

69. See *Penn East Gas Serv. Co.*, 46 F.E.R.C. ¶ 61,245 (1989); *Transcontinental Gas Pipeline Corp.*, 51 F.E.R.C. ¶ 61,173, at 61,471-72 (1990); *Texas Eastern Transmission Corp.*, 55 F.E.R.C. ¶ 61,482, at 62,602 (1991).

70. *Texas Eastern Transmission Corp.*, 32 F.E.R.C. ¶ 61,227, at 61,532 (1985).

71. *Algonquin Gas Transmission Co.*, 64 F.E.R.C. ¶ 61,293, *reh'g denied*, 65 F.E.R.C. ¶ 61,227 (1993).

plainant does so, the burden of producing evidence shifts to the pipeline to justify [the] disparity on the basis of factual differences.⁷²

The fact that differential market pricing can be justified under some circumstances for different services or to different classes of customers or to different markets does not mean that the Commission's flawed "incremental pricing" methodology should be the basis for that pricing. There are broad economic and policy considerations that should be taken into account in establishing pipeline prices, and the accidental costs arising out of the status of a particular pipeline expansion should not be the controlling factor.

V. COST/BENEFITS CANNOT BE QUANTIFIED

One of the criteria suggested by the court in its *Algonquin* dicta, and by the Commission, for the evaluation of rolled-in rates is whether an incremental expansion generates benefits that are quantifiably in the range of the incremental costs. The Policy Statement requires pipelines seeking rolled-in rates to "specifically identify the system benefits, describe the value of the benefits to its existing customers, and demonstrate, with particularity, how the expansion project will provide the claimed benefits."⁷³ The court, in what was clearly dicta, in the *Algonquin* remand order, declared: "Only when the Commission outlines with reasonable particularity the system-wide benefits which each new facility produces will the roll-in of that facility's cost be supported by substantial evidence as required under section 5(a) of the Natural Gas Act."⁷⁴ Another panel of that court, in the *TransCanada* case,⁷⁵ rejected that dicta, but the Commission still clings to that dicta as an absolute standard.

The Commission has acknowledged that most pipeline expansions generate both contemporary and future benefits to existing customers, who may also become expansion customers, but that the identification and quantification of those benefits is extremely difficult.⁷⁶ If a pipeline proposes incremental prices, a customer requiring an increased supply, but opposed to an incremental price for that supply, could not possibly meet the Commission's standard.

The benefits of a main pipeline expansion are undeniable but also unquantifiable.

A. Pipeline Safety Is Enhanced

One of the major problems with a cost/benefit analysis is that it requires an assessment of pre- and post-expansion risk exposures, which few natural gas pipelines or LDCs are willing to address and evaluate.

72. *Transwestern Pipeline Co.*, 36 F.E.R.C. ¶ 61,175, at 61,433 (1986) (citations omitted).

73. *Pricing Policy for New and Existing Facilities Constructed by Interstate Natural Gas Pipelines*, 71 F.E.R.C. ¶ 61,241, at 61,916 (1995).

74. *Algonquin*, 948 F.2d at 1313.

75. *TransCanada*, 24 F.3d at 305.

76. See, e.g., *Granite State Gas Transmission, Inc.*, 45 F.E.R.C. ¶ 61,261, at 61,821 (1988); *Great Lakes Gas Transmission Ltd.*, 45 F.E.R.C. ¶ 61,237, at 61,701 n.55 (1988).

Safety benefits and the benefits of emergency capacity generated by pipeline looping are significant but difficult to quantify.

Many pipelines are more than forty years old and some systems are over sixty years old. Statistical engineering studies have demonstrated conclusively what logic tells one, that newer pipe and more recent installation technologies, result in significant reductions in pipeline leaks and risk of fractures.⁷⁷ Additionally, many older pipelines were constructed with 20" to 26" pipe. Newer pipeline looping is generally done with much larger diameter pipe. Those statistical studies have demonstrated that larger diameter pipe is much less exposed to failure from both outside force and corrosion than smaller diameter pipe.⁷⁸ Unquestionably, installation of newer, large-diameter pipeline looping provides significant safety benefits to existing markets, but quantifying those benefits is impossible.

B. Pressure Reduction Also Reduces Risk

When an old, small diameter, pipe is operating at or near its pressure limits there is a risk of fracture and a risk of widespread impact if a fracture is caused by an external force. Looping reduces the flow through that older pipe, reducing the risk of fracture from internal pressure and reducing the area of impact should an external force injure the pipeline.⁷⁹

There is no sound economic or statistical method for evaluating and quantifying these risk-reduction benefits to society that result from looping a pipeline with newer, larger diameter pipe. Benefits to the segment of society which resides near the pipeline are not necessarily "benefits" to existing customers under the Commission's cost/benefit analysis, yet they are benefits the cost of which all customers should share.

C. Maintenance of Service Is Improved

There are other, non-safety benefits which are equally undeniable but equally impossible to quantify. Older pipelines have to be shut down from time to time in low-demand time periods for maintenance and monitoring. If a non-looped line is shut down, continuation of supply to firm customers may require a substitute fuel supply, such as LNG infusion. When an older looped line is scheduled for a maintenance shut-down, the newer loop can be packed for a short-term continuation of supply, a major benefit to existing customers.

77. See, e.g., Robert J. Eiber et al., *Outside Force Causes Most Natural Gas Pipeline Failures*, OIL & GAS J., Mar. 16, 1987, at 52-57.

78. *Id.* at 57.

79. For example, in the case of the Algonquin looping to provide "F-4" service, before the looping the flow through the 30-year-old 26" line was more than 500,000 MBTU/d. After the expansion, the volume moving through the old line was reduced to less than 200,000 BTU/d. Such a reduction in flows and pressures, which may remain in effect for many years until service expansions bring that pipe flow back to capacity limits, generates significant reductions in leaking and fracturing exposures (on file with author).

D. New Compressor Stations Yield Benefits

The installation of new compressor stations contributes benefits in many of the same ways that pipeline looping benefits existing customers. Risk of failure is reduced, and stand-by capability is created for periods of maintenance on older compressor stations.

E. Throughput Efficiency is Improved

New compressors are significantly more efficient than older compressors so that the average variable cost of compressor fuel use per unit of throughput is reduced. The attribution of those compressor fuel savings to the expansion customers is a difficult task. Similarly, looping a pipeline with larger diameter pipe, which has a lower friction factor than a smaller diameter pipe, can also contribute to a lower fuel cost per unit of throughput. But, as with compressor fuel savings, attribution of fuel costs to expansion service and prior service volumes is very difficult.

F. Emergency Capacity is Created

Natural gas pipelines have greater capacity during extremely cold periods than during warm periods because of the effect of temperature on compressibility. When a pipeline is expanded to meet a constant, year-round, demand volume, that expansion creates excess winter capacity. That excess, extreme cold-weather capacity, frequently provides the basis upon which a pipeline allows its LDC customers to exceed their entitlements when an extreme cold-weather front rolls across a market. Maintenance of customer service in extremely cold weather is a major, but not quantifiable, benefit to existing customers.

G. Foundations for Future Expansions are Established

Most LDCs and electric power generators, both utilities and power marketers, face expanding markets which will ultimately require increased supplies of fuel. When a pipeline is looped, particularly with large diameter pipe, and when new compressor stations are constructed with only one or two compressor units installed, those expansions lay substantial foundations for future expansions. The assignment of an intermediate incremental cost to the immediate customers is totally unjustified, and any roll-forward of those first-step expansion costs to subsequent expansions is difficult.

H. Summary

Major pipeline expansions, mainline looping and new compressor stations, create major benefits for existing customers, but identification and quantification of all of those benefits to existing customers resulting from an expansion is an engineering, accounting, and economic impossibility.

VI. PRICING POLICIES FOR THE FUTURE

In the post-Order No. 636 environment, pipelines are transporters providing a relatively competitive producing industry with access to gas retailers and to industrial consumers, some of which are connected to the pipeline and some are served by retailers, and to some electric power generators providing electricity to the consuming public. Pricing transportation services for those different markets requires some evaluation of responsibilities for costs, both variable and non-variable, and an evaluation of market demands, market elasticities, and applicable national policies and objectives in deciding mark-ups to recover non-assignable system costs. Pricing transportation and communication services in a partly competitive, partly monopolistic economic environment is a complex matter. There are statutory policies in the various regulatory acts, as well as national policies that must be addressed. The policy considerations must meet the statutory standard that rates cannot be unduly discriminatory.

A. Measuring Cost Responsibility

A comprehensive rate design policy must start with some reasonable decisions regarding cost responsibility. Some costs are volume variable costs which can be identified and included in a commodity charge component of each rate schedule. In addition, commodity charges should include some share of non-variable costs. For example, depreciation of pipelines is not based on physical life, potentially 100 years, but upon the expected producing life of attached and available natural gas reserves. Every MMBTU of reserves extracted from the producing field and transported through a pipeline to its customers of all classes shortens the economic life of the pipeline. And every MMBTU pumped through a compressor station generates maintenance costs and depreciation. Consequently, some portion of depreciation charges, even though they are not volume variable, are the responsibility of every MMBTU transported. Similar analyses can be made of other categories of non-variable costs to reach a reasonable conclusion regarding cost responsibility.

B. Demand Elasticity

A major portion of a pipeline's cost cannot be reasonably assigned, and mark-ups over assignable costs must be determined for each service rendered. In reaching conclusions regarding such service mark-ups, market factors such as the value of the service provided and demand elasticity can be taken into consideration. If excess pipeline capacity exists, either on-peak or off-peak, a rate with a low mark-up can be justified in order to stimulate usage. But such a low rate should be considered only as a market holding inducement, until such time as there is demand for capacity by customers willing to pay more. Peaking services and the Commission's prescribed No-Notice Service can justifiably be assigned greater mark-ups than severely constrained constant firm service.

C. National Policies

The United States is faced with a continuing growth in population. Indeed, much of the U.S. economy (e.g., housing construction, automobile manufacturing, etc.) is dependent upon an expanding market. But the increasing number of energy users, and increasing energy use, is not evenly distributed throughout the country. Many urban communities are stable or have declining population bases. The Commission's FERCIC's rewards static communities by giving them "entitlements" to low embedded cost rates, and assigns high FERCIC's to those expanding communities where new homes and new businesses are being built. Assigning such a burden to the expanding sections of our economy is not supported by any national policy. National environmental policies support expanding natural gas usage as an alternative to heavier, environmentally polluting, fuels. There are national energy policies and the United State's relationship with Canada which must be addressed in pricing natural gas expansions. But the Commission's Policy Statement makes no reference to the relevance and applicability of such policies.

D. Conclusion

Pricing different services to a single class of customers, and pricing different services to the same or different classes of customers, are complex matters which, in many instances, are case specific. Cost responsibilities, market demands, and national policies should be taken into account in pricing pipeline services. But one fact is eminently clear, and that is that radically different "FERC incremental" rates for the same service to the same class of customers, depending upon the date upon which the customers signed contracts for an expansion of service, are unduly discriminatory and illegal under the NGA.