PIPELINE RESTRUCTURING: THE FUTURE OF OPEN-ACCESS TRANSPORTATION

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Over the last ten years, natural gas pipeline companies in the United States have transformed themselves from fully regulated natural gas supply aggregation and resale businesses to increasingly less regulated transportation companies hauling gas for shippers for a fee. As the 1990s begin, industry participants—including producers, independent supply aggregation companies as well as pipeline companies—are exploring different ways of fulfilling the supply aggregation and resale functions traditionally performed by pipeline company merchants. A key consideration influencing the ability of new entrants to compete for firm sales to weather-sensitive consumers is the issue of who controls pipeline transmission capacity and under what terms and conditions it is made available for gas shipments.¹

This article examines the implementation of open-access transportation to date. It begins by showing why open-access transportation is a necessary and direct corollary of the 1978 congressional decision to remove wellhead price controls,² and how the industry and the Federal Energy Regulatory Commission (Commission or FERC) responded during the 1980s to the increasing demand for unbundled transportation services. Next, the article examines the implementation of open-access transportation services after the promulgation of Order No. 436³ in 1985. Finally, it concludes with an analy-

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^{1.} The issue is also being examined in Europe. Indeed, recent proposals of the European Economic Community suggest that changes may be in the offing there as well, in the context of the drive to create an integrated internal market by 1993. See Hancher, A Single European Energy Market—Rhetoric or Reality?, 11 ENERGY L.J. 217 (1990).

^{2. 15} U.S.C. §§ 3311-3333 (1988).

^{3.} Order No. 436, Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol, [Regulations Preambles 1982-1985] F.E.R.C. Stats. & Regs. ¶ 30,665 (1985) [hereinafter Order No. 436], modified, Order No. 436-A [Regulations Preambles 1982-1985] F.E.R.C. Stats. & Regs. ¶ 30,675 (1985), modified further, Order No. 436-B, III F.E.R.C. Stats. & Regs. ¶ 30,688, reh'g denied, Order No. 436-C, 34 F.E.R.C. ¶ 61,404, reh'g denied, Order No. 436-D, 34 F.E.R.C. ¶ 61,405, reconsideration denied, Order No. 436-E, 34 F.E.R.C. ¶ 61,403 (1986), vacated and remanded sub nom., Associated Gas Distrib. v. FERC, 824 F.2d 981 (D.C. Cir. 1987), cert. denied sub nom., 485 U.S. 1006 (1988) (AGD) (generally upholding the substance of Order No. 436 and the procedures employed in adopting it, but finding problems with certain issues and vacating and remanding the matter for further proceedings). On August 7, 1987, the Commission issued Order No. 500 which promulgated interim regulations in response to the Court's remand. See Order No. 500, Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol, 40 F.E.R.C. ¶ 61,172 (1987) (Interim Rule and Statement of Policy). These interim regulations became effective on September 15, 1987. On October 16, 1989, in American Gas Ass'n v. FERC, 888 F.2d 136 (D.C. Cir. 1989) (AGA I), the D.C. Circuit Court found that the Interim Rule did not comply with the

sis of Commission and industry options for completing the process of restructuring the pipeline merchant function and the transition to a full open-access regime.

I. THE IMPACT OF THE NGPA

A. The Legal Framework

On November 9, 1978, the Natural Gas Policy Act (NGPA)⁴ was signed into law. At the time, most analysts and commentators focused their attention on the price control provisions of Title I. Under Title I, wellhead sales ("first sales," as defined in section 2(21) of the NGPA) were subjected to a complex system of price controls consisting of some twenty-seven or more categories.⁵ Some categories were based on where the gas was produced; others were based on when the well was drilled, or to whom the gas had previously been sold. Still other categories were based on various contract terms that otherwise governed the sale of the gas. Nearly all of the categories, however, provided for the ceiling price to increase over a period as long as ten years. The process was to culminate on January 1, 1985, and July 1, 1987, when the price controls on a large quantity of gas were due to formally expire. The desire of producing interests to attain "NGPA deregulation" and the desire of consuming interests to avoid the same were the driving political considerations affecting the natural gas industry from 1978 until about 1983.⁶

mandate in AGD and determined it should keep jurisdiction over the matter while remanding the record to the Commission to issue a final rule within sixty days. On December 13, 1989, the Commission issued a final rule, Order No. 500-H, in response to the Court's remand, which continued in effect, with certain modifications, the open-access transportation program originally adopted in Order No. 436, and repromulgated on an interim basis through Order Nos. 500 through 500-G, Order No. 500-H, Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol, III F.E.R.C. Stats. & Regs. ¶ 30,867 (1989), order on reh'g, Order No. 500-I, 50 F.E.R.C. 61,172 (1990). These final regulations became effective on January 22, 1990 and March 28, 1990. On August 24, 1990, in American Gas Ass'n v. FERC, 912 F.2d 1496 (D.C. Cir. 1990) (AGA II), cert. denied, sub nom., City of Willcox v. FERC, 59 U.S.L.W. 3562 (U.S. Feb. 19, 1991) (No. 90-806), the D.C. Circuit issued its decision on review of Order Nos. 500-H and 500-I. The D.C. Circuit Court affirmed the Commission on most issues while remanding, but not vacating, the provision of dealing with pregranted abandonment of service for converting sales customers. In response to the remand, the Commission (Commissioners Trabandt and Langdon concurring, Commissioner Moler dissenting), on February 13, 1991, issued Order No. 500-J, 54 F.E.R.C. § 61,148 (1991), staying in part the effectiveness of the pregranted abandonment rules and stating that the pregranted abandonment issue would be further addressed in a rulemaking proceeding on the subject of comparability of service between unbundled transportation services and transportation services bundled with pipeline system sales. On April 4, 1991, the Commission issued Order No. 500-K, 55 F.E.R.C. ¶ 61,020 (1991) (order on remand on "double crediting" issue and final rule removing crediting regulations).

- 4. Natural Gas Policy Act of 1978, 15 U.S.C. §§ 3301-3432 (1988).
- 5. For discussions of the NGPA pricing scheme, see Moody and Garten, *The Natural Gas Policy Act of 1978: Analysis and Overview*, 25 ROCKY MTN. MIN. L. INST. 2-1 (1979) and MacAvoy, *The Natural Gas Policy Act of 1978*, 19 NAT. RESOURCES J. 811 (1979).
- 6. For example, the expected effect of NGPA deregulation was the subject of repeated Congressional hearings during this period. See, e.g., Hearings on Implementation of Title I of the Natural Gas Policy Act of 1978 before the Senate Comm. on Energy and Natural Resources, 97th Cong., 1st Sess. (November 5-6, 1981); Hearings on Natural Gas Policy and Regulatory Issues before the Senate Comm. on Energy and Natural Resources, 97th Cong., 2d Sess. (March 22-23, 1982); Hearings on Current Conditions in the Natural Gas Market before the Senate Comm. on Energy and Natural Resources, 97th Cong., 2d Sess. (December 13, 1982).

Yet, quite overlooked by the commentators, two other provisions of the NGPA, operating in combination with the price control provisions, were to prove even more significant, and indeed soon began to remake the industry. The first was section 601, entitled "Coordination with the Natural Gas Act." Section 601 provided that the "first sale" of large volumes of gas, as defined by section 2(21) of the NGPA, would be exempt from the Natural Gas Act's jurisdiction. As a practical matter, the extension of this "NGA deregulation" to "first sales" meant that anyone other than an interstate or intrastate pipeline or local distribution company could sell NGA-deregulated gas without first obtaining a certificate of public convenience and necessity as directed by section 7(c) of the NGA. Nor did they have to obtain authorization under section 7(b) of the NGA prior to abandoning the sale at the end of the contract term. Moreover, unlike the bulk of the price decontrol provisions of Title I, the "NGA deregulation" provisions, under section 601, became effective December 1, 1978.

The second key provision of the NGPA was section 311, which authorized the Commission to allow interstate and intrastate pipelines to transport gas in interstate commerce without being subject to the certificate and abandonment requirements of section 7 of the NGA. In implementing section 311 in 1978 and 1979, the Commission took a broad view of its power to authorize section 311 transportation by repeatedly stating the desire to encourage the integration of the nation's gas markets. As a result, section 311 quickly offered a framework for "self-implementing" transportation.

Moreover, section 284.3(c) of the Commission's 1979 Regulations¹¹ stated that facilities utilized "solely for" the purpose of providing section 311(a) transportation were also exempt from NGA jurisdiction.¹² This

- 7. Section 2(21) of the NGPA defines "first sale" as follows:
- (A) General rule.—The term "first sale" means any sale of any volume of natural gas—
 - (i) to any interstate or intrastate pipeline;
 - (ii) to any local distribution company;
 - (iii) to any person for use by such person;
 - (iv) which precedes any sale described in clauses (i), (ii), or (iii); and
 - (v) which precedes or follows any sale described in clauses (i), (ii), (iii), or (iv) and is defined by the Commission as a first sale in order to prevent circumvention of any maximum lawful price established under this chapter.
- (B) Certain sales not included.—Clauses (i), (ii), (iii), or (iv) of subparagraph (A) shall not include the sale of any volume of natural gas by any interstate pipeline, intrastate pipeline, or local distribution company, or any affiliate thereof, unless such sale is attributable to volumes of natural gas produced by such interstate pipeline, intrastate pipeline, and local distribution company, or any affiliate thereof.
- 15 U.S.C. § 3301(21) (1988).
 - 8. 15 U.S.C. § 717f(c)(1)(A) (1988).
 - 9. 15 U.S.C. § 717f(b) (1988).
- 10. See especially Interim Regulations Implementing the Natural Gas Policy Act of 1978, [Regulations Preambles 1977-1981] F.E.R.C. Stats. & Regs. ¶ 30,026 (1978); Order No. 46, Sales and Transportation of Natural Gas, [Regulations Preambles 1977-1981] F.E.R.C. Stats. & Regs. ¶ 30,081 (1979), order on reh'g, [Regulations Preambles 1977-1981] F.E.R.C. Stats. & Regs. ¶ 30,104 (1979); see also, Mogel & Mapes, Assessment of Section 311 of Natural Gas Policy Act of 1978, 58 N.D.L. Rev. 575 (1982).
 - 11. 18 C.F.R. § 284.3(c) (1990).
 - 12. In promulgating the rule in 1979, the Commission put it this way:

allowed pipelines the freedom to construct facilities to penetrate new markets almost at will, ¹³ but only if the facilities were used for transportation under section 311 and not for pipeline sales. The traditional certificate requirements of section 7(c) continued to apply to construction of facilities to effectuate a pipeline's sale of gas to any new market.

In short, by mid-1979, the NGPA (by removing NGA jurisdiction over certain "first sales" and transportation) and the Commission's initial implementing regulations (adopting a broad interpretation of NGPA section 311) had created a legal structure in which "unbundled" sales of gas by parties other than pipeline companies enjoyed freedom from NGA certificate and abandonment regulation while the traditional "bundled" sales of gas by pipelines remained subject to traditional NGA regulation.

By enacting the NGPA, Congress had, in practical effect, decided to transform the pipeline industry from a merchant business into a transportation business. Although the rationale for the Act was unclear at the time, in retrospect it is clear that the new legal rules made eminent public policy sense, given Congress' determination to remove federal price controls over the gas commodity. For deregulation of the gas commodity to work, market forces must be relied upon to constrain wellhead prices and to establish supply and demand based prices. Yet those market forces cannot work unless sellers and buyers of the commodity have access to pipeline transportation. Otherwise producers would be unable to sell to anyone other than the pipeline and the pipeline would be able to retain market power over sales to local gas utilities. Absent open-access transportation, where pipelines are prohibited from discriminating against the transportation of gas that displaces their own sales, federal intervention would again be required to prorate access to markets during periods of supply surplus and to ration supplies during periods of shortage. Hence, it is the author's view that the transition of pipelines from merchants to transportation companies is the necessary and direct corollary to Congress's decision to rely on market forces to set producer prices.¹⁴

[T]he NGPA is silent on the jurisdictional consequences of participating in the construction and operation of the facilities necessary to effectuate transportation authorized by the Commission under Section 311(a). It is our view that a facility is not subject to NGA jurisdiction if it is used exclusively for transportation authorized under Section 311(a); thus no certificate is required by Section 7 of the NGA. This position is set out in the final rule 284.3(c).

Order No. 46, supra note 10, at 30,535.

The Committee stresses that these new rules, and especially the wide adoption of blanket certificates for non-discriminatory open access, interstate transportation of non-pipeline gas, are essential to its decision to complete the decontrol process. All sellers must be able to reasonably

^{13.} See, e.g., Columbia Gas Transmission Corp. v. Transcontinental Gas Pipe Line Corp., 30 F.E.R.C. ¶ 61,298 (1985) (dismissing complaint against pipeline for constructing pipeline to interconnect with Baltimore Gas & Electric Company on grounds that pipeline construction to provide § 311 transportation service was not subject to the certificate requirement of § 7 of the Natural Gas Act; and Columbia Gas Transmission Corp. v. Consolidated Gas Transmission Corp., 31 F.E.R.C. ¶ 61,057 (1985) (same holding with regard to pipeline connecting with Dayton Power & Light Company).

^{14.} Indeed by 1989, Congress itself recognized the linkage between open-access transportation and Congress' decision to deregulate natural gas wellhead prices. In adopting the Natural Gas Wellhead Decontrol Act of 1989, Pub. L. No. 101-60, 103 Stat. 157 (1989), the House Committee Report described the importance of open-access transportation as follows:

B. Development of Transportation Programs

By the early 1980s, the effect of this sea-change in the legal framework was becoming apparent in the industry. In particular, the availability of NGA-deregulated gas at competitive prices increased the demand for unbundled transportation services to effectuate the sales.

Initially, pipelines tried to limit the competition from these new merchants to incremental loads that would not otherwise directly purchase gas from the pipeline company. Hence, by 1983, a number of pipelines implemented "nondisplacement" policies or proposed "Special Marketing Programs" (SMPs) which limited the availability of transportation service to loads that would not purchase gas from the pipeline. The SMPs segmented the market by allowing only certain incremental customers to buy gas at the lower price while holding existing customers to pay the higher prices for gas in inventory. A pipeline with an SMP did not benefit directly from this market segmentation. Rather, the benefits of the segmented market were effectively made available to the pipeline's producer-suppliers, enabling them to continue to charge the high, regulated prices for resale to local distribution companies (LDCs) (for ultimate resale to temperature-sensitive consumers) while charging lower, competitive prices only to those end users who would not otherwise buy the gas at all.

Also in 1983, the Commission promulgated in Order No. 234-B¹⁶ a facially neutral blanket certificate rule that allowed all customers to obtain access to interruptible transportation service. While Order No. 234-B allowed any end user to receive transportation service under the program, it was alleged that some pipelines imposed the same customer exclusions as under the SMPs.¹⁷

The economics of both SMPs and discriminatory implementation of the blanket certificates might be viewed as illustrations of monopoly pricing that are diagrammed in countless textbooks on the law and economics of anti-

reach the highest-bidding buyer in an increasingly national market. All buyers must be free to reach the lowest-selling producer, and obtain shipment of its gas to them on even terms with other supplies.

Both the FERC and the courts are strongly urged to retain and improve this competitive structure in order to maximize the benefits of decontrol.

H.R. REP. No 29, 101st Cong., 1st Sess. 6 (1989).

- 15. The SMP was apparently invented by Transcontinental Gas Pipe Line Corporation (Transco) under the name of an "Industrial Sales Program" or ISP in 1983. See Transcontinental Gas Pipe Line Corp., 23 F.E.R.C. ¶ 61,199 (1983), amended, 25 F.E.R.C. ¶ 61,219 (1983), modified, 26 F.E.R.C. ¶ 61,029 (1984), order on reh'g and request for stay, 26 F.E.R.C. ¶ 61,340 (1984). SMPs were subsequently adopted on a number of pipelines under fairly uniform standards. See, e.g., Tenneco Oil Co., 25 F.E.R.C. ¶ 61,234 (1983); Panmark Gas Co., 26 F.E.R.C. ¶ 61,341 (1984).
- 16. Order No. 234-B, Interstate Pipeline Blanket Certificates for Routine Transactions and Sales and Transportation by Interstate Pipelines and Distributors, [Regulations Preambles 1982-1983] F.E.R.C. Stats. & Regs. ¶ 30,476 (1985), promulgating 18 CFR § 157.209(e), vacated sub nom. Maryland Peoples Counsel v. FERC, 761 F.2d 780 (D.C. Cir. 1985) [hereafter MPC II].
- 17. See, e.g., Columbia Gas Transmission Corp., 25 F.E.R.C. ¶ 61,262 (1983); 26 F.E.R.C. ¶ 61,169 (1984) (directing briefing and oral argument on issue) and 36 F.E.R.C. ¶ 61,168 (1986) (dismissing as moot because of pipeline's acceptance of Order No. 436 open-access blanket certificate).

trust.¹⁸ The essence of market segmentation is to charge each customer the full amount he is willing to pay, beginning with those who value the product or service most, then charging less and less to induce additional buyers to purchase additional units.¹⁹ An unregulated monopolist that segments the market in this fashion reaps monopoly profits by capturing in each transaction the "consumer's surplus," i.e., the value in excess of cost which consumers receive in a competitive marketplace.²⁰

In the case of the SMPs, the situation was complicated by the fact that the pipeline was not segmenting the market for the benefit of its own sales price, but as a way of benefiting producers with whom the pipeline had long-term contracts at uneconomic prices. Absent the segmentation offered by the SMPs, producers would have been under greater pressure to renegotiate the price of all of their higher-than-market contracts in order to reduce the pipeline's average price down to a level where the low valued customers would switch from fuel oil back to gas. With an SMP, producers were arguably able to continue to charge the high prices to the customers denied transportation access while only cutting prices to those users who had competitive alternatives. Hence, the discriminatory aspect of the programs was very clear at the outset.

The justification advanced by the Commission for approving the programs in spite of these discriminatory aspects was threefold. First, the programs obviously benefited those customers who were allowed access to competitively-priced gas, and, after years of constantly rising natural gas prices, there was a natural tendency to latch on to any vehicle that promised price moderation for any customer group. Second, the programs were supposed to mitigate take-or-pay exposure. Third, the Commission stressed that the non-qualifying customers would still receive an indirect benefit because the programs would lead to higher total throughput on the pipeline, thereby allowing the fixed costs to be spread over a larger number of units.

Another factor may have also been at work in the Commission's tolerance for SMPs during this period. When a monopolistic industry begins to experience competition, the process begins with such discriminatory programs and grows from there. For example, it has been observed in connection with airlines prior to deregulation:²²

If the [Civil Aeronautics Board] had prohibited discriminatory price cutting in the form of special fares (and discrimination indeed violated the rule of classical public-utility regulation), there would have been no breakthrough at all. As [CAB Chairman Alfred] Kahn wrote to a law professor who had objected to this discrimination, 'Observe the fact that the Super Savers are now available between all major cities of the country; observe the Chickenfeed fare, which is available to

^{18.} See, e.g., R. Posner, Antitrust: Cases, Economic Notes and Other Materials 10 (1974).

^{19.} For a full theoretical analysis of such market segmentation in the context of public utility regulation, see A.E. KAHN, THE ECONOMICS OF REGULATION, 123-58 (1988).

^{20.} Id. at 131, n.16. See also P. SAMUELSON, ECONOMICS 417-18 (8th ed. 1970).

^{21.} See Panmark Gas Co., 26 F.E.R.C. ¶ 61,341 (1984); Tenneco Oil Co., 25 F.E.R.C. ¶ 61,234 (1983).

^{22.} T. McCraw, Prophets of Regulation 278 (1984).

anyone who calls in time, regardless of race, creed, previous condition of servitude, or length of hair; and observe, finally, and most satisfactory, the beginnings of competition in the basic fares themselves.'

Or, as A.E. Kahn put it still more bluntly: "When a cartel-like regime begins to break up, it breaks up grudgingly, selectively, sloppily. . . ." Hence the Commission's tolerance for discriminatory programs in this early phase may have stemmed from a similar assessment.

Whatever the reasoning, by the early 1980s, the Commission's regulations governing transportation had become a confusing patchwork of pigeonholes and overlapping programs each with various qualification criteria and restrictions. While a particular transaction might not qualify under one program, it might well qualify under another.²⁴ Despite these various limitations, the amount of gas transported by interstate pipelines began to grow by leaps and bounds.²⁵ By the middle of 1985, despite the attempt to limit transportation to incremental loads, the amount of gas transported by pipelines for others rivaled the amount sold by the pipelines.²⁶

It was at this time that the D.C. Circuit issued its opinions in the Maryland People's Counsel cases²⁷ on review of Order No. 234-B and one pipeline's SMP. The court was unpersuaded by the theory that those customers forbidden access would benefit more from a spreading of fixed cost than from being allowed to buy competitively-priced gas instead. Rather, the court focused on the benefit that the non-qualifying customers were being denied: the ability to buy available supplies at competitive prices. As the court put it in the first Maryland People's Counsel decision (MPC I) in vacating the SMP:²⁸

Moreover, even if competition between pipelines were allowed, it is quite possible that the downward pressure exerted by competition on gas prices (constituting 85 percent of the captive customers' rates) would outweigh any increased fixed cost burden—enabling even the "loser" pipelines to stay in business by charging their remaining customers higher fixed costs but overall lower rates.

The court reached the same conclusion in the second Maryland People's Counsel decision (MPC II) concluding that the Commission had failed to prevent discrimination in implementation of its Order No. 234-B transportation program. Accordingly, the court vacated Order 234-B to the extent that the blanket certificate rules "permit transportation [of direct-sale gas] to fuel-switchable end users without requiring pipelines to furnish the same service to

^{23.} Id. McCraw's analysis of Kahn's strategy at the CAB makes for fascinating reading. See Id. at 273-96. One readily sees analogies between Kahn's deregulatory strategy at the CAB in the 1970s and the FERC's strategy in the 1983-1985 period in encouraging a proliferation of producer SMPs, in granting automatic, discretionary market entry authority of the blanket certificates and in the availability of discount pricing flexibility.

^{24.} For an excellent analysis of the pre-436 regulations, see Means & Angyal, The Regulation and Future Role of Direct Producer Sales, 5 ENERGY L.J. 1 (1984).

^{25.} United States Department of Energy, Energy Information Administration, Nat. Gas Monthly Table 15 (DOE/EIA-0130 (85/11)).

^{26.} Id. In fact the EIA data show that transportation first exceeded sales in September of 1985, one month prior to issuance of Order No. 436.

^{27.} Maryland People's Counsel v. FERC, 761 F.2d 768 (D.C. Cir. 1985) (MPC I); Maryland Peoples Counsel v. FERC, 761 F.2d 780 (D.C. Cir. 1985) (MPC II).

^{28.} MPC I, 761 F.2d at 777.

LDCs and captive consumers on nondiscriminatory terms."29

II. IMPLEMENTATION OF OPEN-ACCESS TRANSPORTATION

The MPC decisions may have been the death knell of the traditional approach to pipeline regulation since they indicated that the D.C. Circuit Court would not countenance a pipeline's use of control over regulated transmission capacity to engage in market segmentation for the benefit of sales of the unregulated gas commodity. Hence, the Commission and the industry were forced to look to other approaches for dealing with the increasing demand for transportation services and the Congressional directive to implement wellhead price decontrol.

The approach the Commission adopted in Order No. 436 was to foster a regime of open-access, non-discriminatory transportation. Open-access seeks to solve the pricing problem by allowing competing buyers and sellers of the gas commodity to agree among themselves how to allocate and price the commodity. Under this approach, industrial users are able to purchase gas directly from producers and marketers at competitive prices, satisfying the need to be competitive in those end-use markets. But the relatively price-inelastic customers will also have access to the competitive market as the established demand-aggregation companies—the local gas utilities—play one supplier off against another in search of the best combination of reliability, price, and service.

The "Constitution" for the new regime was established in FERC Order Nos. 436 and 500.³⁰ The general thrust of the new rules was that if a pipeline provides transportation for any shipper, it must provide such service for all shippers on a non-discriminatory basis, ³¹ even if the shipper is a direct competitor of the pipeline-as-merchant or purchasing from such a competitor. Rates are to reflect seasonal and mileage factors. And, under the so-called "CD Conversion" Option, ³² firm sales customers of the pipelines are to be allowed the option to convert a portion of their firm gas purchase entitlements into an equivalent amount of firm transportation rights. The Commission stressed that the CD Conversion Option was an integral part of the new openaccess structure, so as to ensure that all customers—including the relatively price-inelastic consumers—would have access to market-responsive supplies. ³³ Adoption of these non-discriminatory transportation rules was only the beginning of the process, however, for the details of implementation were still to be worked out. This was done largely on a case-by-case basis in two stages.

^{29.} MPC II, 761 F.2d at 782.

^{30.} See Order Nos. 436 and 500, supra note 3.

^{31.} The legal issues raised by non-discriminatory transportation were outlined as early as 1983. See Mogel & Gregg, Appropriateness of Imposing Common Carrier Status on Interstate Natural Gas Pipelines, 4 ENERGY L.J. 155 (1983).

^{32. 18} C.F.R. § 284.10 (1990).

^{33.} See Order No. 436, Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol, [Regulations Preambles 1982-1985] F.E.R.C. Stats. & Regs. ¶ 30,665, 31,518-19 (1985). See also Associated Gas Distributors v. FERC, 824 F.2d 981, 1017 (D.C. Cir. 1987), cert. denied, 485 U.S. 1006 (1988).

A. Phase I: Implementation of Interruptible Transportation

The first stage was to lay out rules for interruptible transportation.³⁴ Elaboration of the basic ground rules for interruptible service was largely completed between 1986 and 1988. The process was marked by a series of efforts by pipelines to impose obstacles to competing merchants by establishing various terms and conditions for shippers that increased competitors' costs and limited their operational flexibility. A few of the issues included:

1. Information Required for a Valid Transportation Request.

Pipelines adopted tariff provisions which required a shipper to disclose to the pipeline the identity of the shipper's customer. This requirement provided the pipeline with a profile of each of its competitors, in effect requiring competing merchants to turn over their customer lists to the pipeline. It also made it more difficult for competing gas merchants to aggregate interruptible capacity rights that could be used to supply a diverse portfolio of markets from a diverse portfolio of supply sources. The disclosure requirement was contested by shippers, but ultimately affirmed by the court of appeals.³⁵

2. Creditworthiness Requirements

Obviously, the pipeline-as-transporter has a legitimate interest in receiving prompt payment for transportation services provided. Hence, it may be appropriate for a pipeline-as-transporter to set reasonable standards for shipper creditworthiness. In the first phase of implementation, however, some pipelines imposed credit standards that would have made it very difficult for new entrants to contract for such services, or at a minimum, would have sharply curtailed the amount of transportation services for which they could contract.³⁶

Generally speaking, the Commission refused to allow the more egregious creditworthiness standards,³⁷ such that competing merchants, while con-

^{34.} Transportation can be separated into "interruptible" transportation and "firm" transportation. Under firm transportation, the shipper has reserved or "booked" the capacity and, absent force majeure, has a higher right to receive that transportation service than anyone else. In the event a firm shipper (or the pipeline itself, operating as a firm merchant) is not actually using its share of capacity, however, the capacity may be sold on an interruptible basis to other shippers. The interruptible shipper may be "bumped" or interrupted whenever a firm shipper (again including the pipeline-as-merchant) seeks to use the reserved capacity. For discussion of Commission policy on "bumping" by firm shippers, see *infra*.

^{35.} Hadson Gas Systems, Inc. v. FERC, 877 F.2d 66 (D.C. Cir. 1989).

^{36.} For example, one pipeline sought to require shippers to provide a letter of credit to cover not only the cost of transportation service but also an amount equal to the total value of the shipper's gas to be transported for 60 days, measured on the basis of the pipeline's own system supply gas price. Hence, for a small shipment of 5,000 dt/d for 60 days costing 6.62e per unit to transport, the pipeline would have required a letter of credit equal to \$19,860 for the cost of transportation service for 60 days (\$0.0662 \times 5,000 \times 60) plus \$600,000 (the value of the quantity of gas to be shipped for 60 days, assuming a system supply price of \$2.00 per dt). And if the term of the transmission agreement were for nine months, the shipper would have had to post security to cover the transportation costs for the entire nine-month term of the agreement. See, e.g., Tennessee Gas Pipeline Co., 38 F.E.R.C. § 61,004 (1987).

^{37.} Id. at 61,018.

strained by the pipeline's provisions, were nevertheless able to gain a toehold on the pipeline's interruptible capacity.

3. Balancing Tolerances and Imbalance Penalties

Another tact taken by many pipelines was to impose balancing tolerances that would be difficult to meet and then have the right under the tariff to assess draconian penalties upon shipper-competitors for failure to operate within the tolerance limits. For example, a pipeline sought to impose a \$10 per Mcf penalty on any shipper that transported gas in excess of its Maximum Daily Transportation Quantity (MDTQ). The tolerance level proposed was 102% of the shipper's MDTQ. Assuming an MDTQ of 100 Dth and deliveries of 110 Dth on a given day, 8 Dth would be considered excess gas and a penalty of \$80 (\$10 times 8 Dth) could be imposed on the shipper. 39

As with credit standards, the Commission developed standards that have generally allowed competition to proceed.⁴⁰ The Commission generally has held that pipelines may not require shippers to keep within a tighter tolerance than 10% on a daily basis and 4% on a monthly basis. Perhaps more important, the Commission established the principle that a pipeline could not impose any such penalty without first providing notice to the shipper that it was out of balance and then allowing a reasonable time for the shipper to cure the imbalance. The matter is not resolved, however. Pipelines have asked for, and have received in a number of cases, the right to assess a scheduling penalty.⁴¹ A key difference between an imbalance penalty and a scheduling penalty is that the Commission has ruled that scheduling penalties may be assessed without any prior notice to the shipper or opportunity to cure.⁴² Skirmishes along this front may be expected to continue, and the scheduling penalties of one pipeline are already being challenged in the court of appeals.⁴³

4. The Affiliated Marketer Phenomenon

Another response pipelines made to the transportation era was to set up unregulated marketing affiliates that would make "first sales" of gas, thereby gaining the same pricing and operational freedom of producers and supply aggregation companies. In commercial effect, the pipeline could then try to resurrect the outlawed SMPs in a new form by selling pipeline system supply at high, embedded-cost prices to local utilities for resale to residential consumers while having its unregulated affiliate sell gas at unregulated market-respon-

^{38.} See, e.g., Texas Eastern Transmission Corp., 37 F.E.R.C. ¶ 61,260 (1986), order on reh'g, 41 F.E.R.C. ¶ 61,015 (1987).

^{39.} Such penalties also present a discriminatory aspect in that the pipeline-as-merchant is allowed to conduct a competing business, shipping over the same physical facilities, without being subject to any such tolerances or penalties at all.

^{40.} See El Paso Natural Gas Co., 35 F.E.R.C. ¶ 61,440, at 62,066-70 (1986), reh'g denied, 38 F.E.R.C. ¶ 61,008 (1987).

^{41.} See, e.g., Natural Gas Pipeline Co. of Am., 39 F.E.R.C. ¶ 61,153 (1987); Texas E. Transmission Corp., 37 F.E.R.C. ¶ 61,260 (1987); Tennessee Gas Pipeline Co., 49 F.E.R.C. ¶ 61,084 (1989).

^{42.} See El Paso, 35 F.E.R.C. ¶ 61,440 at 62,070; Northern Natural Gas Co., 50 F.E.R.C. ¶ 61,256 (1990).

^{43.} Hadson Gas Sys. v. FERC, No. 90-1173 (D.C. Cir.).

sive prices to price-sensitive users.44

In itself, the concept of a pipeline organizing a nonjurisdictional marketing affiliate may not be objectionable under appropriate conditions that prevent the pipeline from providing preferential treatment to the affiliate. But the industry soon discovered that in a number of cases, the pipeline was using its position as a transporter to benefit its affiliated marketer. For example, one pipeline was found to have tipped off its marketing affiliate as to the pipeline's plans to commence non-discriminatory transportation under section 311 of the NGPA, thereby allowing the affiliate to gain a head start in contacting potential customers and in preparing the necessary paperwork to request transportation.⁴⁵

By the summer of 1986, complaints began to be voiced by a public utility commission, a supply aggregation company, and a producer concerning these types of activities. 46 Responding to these complaints, the Commission initiated proceedings culminating in 1988 in Order No. 497,47 a final rule which imposed standards of conduct to govern transactions with a marketing affiliate. The new rules required that employees of the interstate pipelines and the marketing affiliate "function independently" of each other "to the maximum extent practicable" and prohibited any preferential treatment for an affiliate in scheduling, transportation, storage, or curtailment priority. The new rules also prohibited disclosure to an affiliate of nonaffiliated shipper-supplied information and required that any information shared with an affiliate regarding the transportation of natural gas, gas sales and marketing, and shipper-supplied information be contemporaneously shared with all potential shippers. Further, the final rule provided that an interstate pipeline must not condition or tie its agreement to release gas subject to take-or-pay relief to an agreement by the producer or customer or end-user to obtain services from any affiliate of the pipeline or to an offer by the pipeline to provide or expedite transportation service to its affiliate relating to the released gas. Finally, the final rule established reporting requirements which required the filing and maintenance of data regarding transportation requests. The Commission, however, declined to require "divorcement" (forbidding the pipeline from transporting gas sold

^{44.} See Transcontinental Gas Pipe Line Corp., 52 F.E.R.C. ¶ 61,248 (1990) (order affirming and adopting two initial decisions concerning a pipeline's violation of §§ 4(b), 4(d), and 7(c) of the NGA when it loaned excess supplies of gas to its marketing affiliates who then sold the gas at market prices to the pipeline's non-captive customers, i.e., those who had other supply options, as well as off-system customers).

^{45.} Panhandle E. Pipe Line Co., 39 F.E.R.C. ¶ 61,274, at 61,902 (1987), order on reh'g, 42 F.E.R.C. ¶ 61,076 (1988), aff'd without opinion, No. 88-1226 (D.C. Cir. Sept. 22, 1989). In a separate proceeding, the Commission assessed a civil penalty of \$130,000 against Panhandle, finding that the actions constituted a "knowing violation" of regulations promulgated under the NGPA. 40 F.E.R.C. ¶ 61,187 (1987). Following Panhandle's decision to contest the matter, the Commission has brought a de novo action in federal district court, under § 504(b)(6)(F) for an order affirming the assessment. FERC v. Panhandle E. Pipe Line Co., No. 88-0526 (D.C. Cir. Feb. 26, 1988). This case has been settled out of court.

^{46.} See, e.g., Petitions of Minnesota Dept. of Pub. Serv., No. RM87-1-000, Hadson Gas Sys., No. RM86-19-000 (F.E.R.C.); Shell Gas Trading Co., No. RM87-2-000 (F.E.R.C.).

^{47.} Order No. 497, Inquiry into Alleged Anticompetitive Practices Related to Marketing Affiliates of Interstate Pipelines, III F.E.R.C. Stats. & Regs. ¶ 30,820, 53 Fed. Reg. 22, 139 (1988), order on reh'g, Order No. 497-A, III F.E.R.C. Stats. & Regs. ¶ 30,868, 54 Fed. Reg. 52,781 (1989), petition for rev. pend. sub nom., Tenneco Gas v. FERC, No. 89-1768 (D.C. Cir.).

or brokered by its unregulated affiliate), divestiture (separation of the marketing entity into an independent, non-affiliated entity), or merely that the affiliate be physically and organizationally separated from the regulated pipeline.

On rehearing,⁴⁸ the Commission, as an alternative to complete organizational separation of the pipeline and its marketing affiliate, modified the rule to require contemporaneous disclosure to non-affiliated shippers of "any" information related to gas sales, marketing, or transportation that was received by any employee or officer shared by a pipeline and marketing affiliate. In addition, the Commission adopted a standard whereby, if a pipeline offers a transportation discount to an affiliated marketer, it must make a comparable and contemporaneous discount available to all similarly situated non-affiliated shippers.⁴⁹

As of March 1991, the Order No. 497 rules are before the court of appeals.⁵⁰ However, as detailed below, with the rapid movement towards lessened regulation of the pipeline's system sales, competitors are increasingly concerned that the pipeline-as-transporter will favor the pipeline-as-merchant directly and without the need for a separately organized marketing affiliate.⁵¹ These concerns become more pronounced as pipelines unbundle their firm transportation and seek to charge a competitive mark-up in their firm sales service.

B. Phase II: Implementation of Firm Transportation

1. The Shift to "FT"

As the Commission worked through implementation of interruptible transportation in the 1986 to 1988 period, the focus of the debate began to shift gradually to the implementation of firm transportation (FT). Lying behind the shift towards FT implementation were developments involving three separate but interrelated issues:

- The provisions of the regulations allowing local utilities to "convert" from
 firm sales to firm transportation finally became effective on January 1, 1988,
 as the Commission-ordered stay of section 284.10 of title 18 of the Code of
 Federal Regulations was allowed to expire. This created a legal ability for
 the local utilities to contract for FT.
- Local utilities began to confront the prospect of paying a Gas Inventory Charge (GIC) to the pipeline-as-merchant for the right to purchase firm supply from the pipeline. Prior to implementation of GICs, the utilities had the right to receive firm "back-up" supply from the pipeline without the need to

^{48.} Order No. 497-A, Inquiry into Alleged Anticompetitive Practices Related to Marketing Affiliates of Interstate Pipelines; Order on Rehearing, III F.E.R.C. Stats. & Regs. ¶ 30,868, 54 Fed. Reg. 52,781 (1989), petition for rev. pend. sub nom., Tenneco Gas v. FERC, No. 89-1768 (D.C. Cir.).

^{49.} Id. III F.E.R.C. Stats. & Regs. ¶ 30,868, at 31,594.

^{50.} See supra note 47.

^{51.} See El Paso Natural Gas Co., 50 F.E.R.C. ¶ 61,363 (1990) (imposition of the requirement that the pipeline provide a correlative discount to any delivery point where the pipeline's discounted interruptible sales gas competes or can compete in order to minimize the potential for discrimination against producers, marketers, and other suppliers); El Paso Natural Gas Co., 52 F.E.R.C. ¶ 61,227 (1990) (expansion of the correlative discount requirement to include requirement that the pipeline treat a discount as coming from the transportation component of the discounted interruptible sales rate first in order to minimize the pipeline's ability to disguise any discounts).

pay any additional charge other than the sales demand charge. Hence, the threat of a GIC created a practical incentive for the utilities to contract with competing gas merchants in order to avoid the GIC.⁵²

 The court of appeals' decision to remand the "pre-granted abandonment" issue⁵³ created the opportunity for the Commission to address the utilities' concerns on this issue.

As these events were being debated or were unfolding, the amount of firm transportation began to increase. Firm transportation jumped from 13% of total transport volumes in 1988 to some 23% in 1989.⁵⁴ Comparable data are not yet available for 1990. But anecdotal evidence strongly suggests that the trend toward "FT" is continuing.

2. Tariff Restrictions on FT service

As parties attempted to implement CD conversions, however, they were confronted by a new series of restrictive terms and conditions imposed by the pipeline-as-transporter. These new tariff restrictions had the common trait of making the firm transportation services that the pipeline-as-transporter provided to competitors distinctly inferior to the transportation service that the pipeline-as-transporter provided to itself, the pipeline-as-merchant. This lack of "comparability" between the unbundled services and the various firm services embedded in the pipeline's firm sales service has led to calls for reform, as detailed below.

At this point, some general observations about the restrictions may be helpful. First, the tariff restrictions tend to force competing merchants to offer a "point-to-point" service, which makes supply aggregation far more difficult for new entrants than for the pipeline-as-merchant. In effect the tariff restrictions serve to create a structure within which only the pipeline-as-merchant is able to "pool" supplies from numerous receipt points, thereby gaining the supply reliability and creating flexibility made possible by such "pool-to-point" service. Second, the tariff restrictions tend to subject competing merchants to more stringent operating terms and conditions than are allowed for the pipeline-as-merchant. Last, the restrictions deny competitors access to transportation-related services that make it possible to offer a truly flexible sales service.

a. Limitations on the Number of Receipt Points

A common operating practice has been to limit the number of receipt points that can be included on a firm transportation contract. For instance, on

^{52.} For an introduction to GICs, see Manning, Carretta & White, Gas Inventory Charges: Evolving Mechanisms for Allocating the Risks and Recovering the Costs of Maintaining Gas Supply, 11 ENERGY L.J. 1 (1990). See also Opinion No. 336, El Paso Natural Gas Co., 49 F.E.R.C. ¶ 61,262 (1989); Natural Gas Pipeline Co. of Am., 53 F.E.R.C. ¶ 61,212 (1990) (approving GIC for two year period).

^{53.} See American Gas Ass'n v. FERC, 912 F.2d 1496 (D.C. Cir. 1990). As detailed *infra*, Order Nos. 436 and 500 had allowed a pipeline to abandon transportation service at the end of the contract term to any LDC that exercised its conversion rights. LDCs have claimed that this "pregrant" of authority to abandon transportation service make firm transportation inferior to firm sales (where any pipeline request to abandon the service is considered on a case-by-case basis).

^{54.} INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA, CARRIAGE THROUGH 1989 (1990); INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA CARRIAGE THROUGH 1988 (1989).

one pipeline system⁵⁵ the maximum number is five. The pipeline-as-merchant, however, has no such limitation, but may purchase and receive gas at all of the hundreds or even thousands of receipt points.

b. Limitations on Receipt Point Capacity

This type of provision is found in one variation or another in many transportation tariffs. In the "MDRO \Rightarrow MDTQ" formulation, ⁵⁶ the acronym MDRO stands for the "Maximum Daily Receipt Obligation," or the maximum daily quantity that the shipper may receive at each receipt point. "MDTQ" stands for the "Maximum Daily Transportation Quantity" or the maximum daily quantity of transportation service the shipper may receive on the mainline. In essence, the MDRO \Rightarrow MDTQ restriction means that the sum of a shipper's receipt point rights may not exceed the shipper's mainline transmission quantity. ⁵⁷ Another way of saying it is that the ratio of receipt point capacity to mainline capacity may not exceed a one-to-one ratio.

Particularly in combination with a limited number of receipt points, this restriction tends to preclude a shipper from assembling a geographically diverse supply portfolio that will ensure full mainline deliveries even when some supply sources are unable to deliver (for example, when well freeze-offs occur in Oklahoma or when hurricanes curtail production in the Gulf of Mexico). An LDC faced with this type of tariff restriction is discouraged from converting to firm transportation because it will be less likely to actually receive the full contract quantity throughout the year. But while imposing a one-to-one ratio on competitors, the pipeline-as-merchant may enjoy the use of far greater receipt point capacity than it uses in mainline transmission capacity. Hence, to receive a level of supply security that is comparable to that offered by pipeline system sales, the LDC would have to "book" more mainline capacity for transport than it would to purchase firm sales from the pipeline. This in turn means that the LDC contemplating a conversion must choose between the possibility of supply curtailments due to the MDRO limitation or the prospect of higher unit transportation costs resulting from booking extra mainline capacity and then operating at less than 100% load factor.

By reducing the reliability and flexibility of the FT service, imposing these limitations on FT shippers while not imposing them on the pipeline-as-

^{55.} See Tennessee Gas Pipeline Co., 43 F.E.R.C. ¶ 61,544, at 62,343 (1988).

^{56.} In the past, the Commission has routinely approved the "MDRO ≯ MDTQ" restriction because "[the pipeline] should satisfy its contractual commitments to all its customers before it provides service to a firm shipper that is in excess of the shipper's [daily] contract demand." Texas E. Transmission Corp., 37 F.E.R.C. ¶ 61,260, at 61,677 (1987). While the Commission has authorized pipelines to allow a firm or interruptible shipper to transport gas in excess of its MDTQ, the pipeline must include tariff provisions that set forth the conditions under which it will authorize excess service. *Id.* at 61,677-78.

^{57.} See, e.g., Colorado Interstate Gas Co., 46 F.E.R.C. ¶ 61,109, at 61,433 (1989) ("[A] shipper's right to change receipt points is limited to the shipper's firm transportation quantities for mainline service set forth in the transportation contract. Consequently, a shipper may have to delete old receipt points when designating new firm receipt points."). See also Panhandle E. Pipe Line Co., 46 F.E.R.C. ¶ 61,110 (1989).

merchant devalues the sales services offered by competing gas merchants as compared to the sales service offered by the pipeline itself. In short, for whatever reason, the pipeline in such an instance is effectively using its control over the regulated transmission asset to disadvantage its competitors selling the unregulated commodity.

One approach to addressing both the MDRO > MDTQ limitation as well as the limitation on the number of receipt points is to give firm shippers the ability to include secondary or alternate receipt points. Yet, here again, on a number of pipelines, the value of the alternate firm receipt points has been degraded by assigning the alternate firm points with an interruptible scheduling priority, 58 such that the firm shipper's rights at the back up point are subordinated to all existing interruptible shippers. When parties complained that this devalued the unbundled firm transportation service as compared to the firm transportation service embedded in the pipeline's sales, the Commission agreed: 59

In order to deal with certain contingencies such as routine maintenance, down time, equipment failure, compressor malfunction, freezing and the like, firm transportation customers must have some flexibility in shifting to alternate receipt points. To limit MDQs [Maximum Daily Quantities] at individual receipt points without providing additional interruptible receipt points leaves firm transportation shippers at a disadvantage. Firm shippers would lack the ability to use other receipt points if the firm receipt points at which they have MDQs become unavailable. On the other hand, when [the pipeline] provides firm sales service it may purchase gas for resale at any receipt point not then utilized for firm transportation and may displace any existing service except firm transportation when doing so. Thus, under [the pipeline's] proposal, firm transportation is inferior to firm sales service. The Commission's requirement that [the pipeline] provide additional interruptible receipt points to firm transportation customers or remove the limit on MDQs at individual receipt points affords [the pipeline's] shippers the ability to switch to alternate receipt points if a particular firm receipt point becomes unavailable and also reduces the unfair advantage that firm sales customers would have over firm transportation customers.

The solution ordered by the Commission in *Williams*, and other similar cases, was to require that the alternate firm receipt points must be able to interrupt or "bump" interruptible shippers:

[The pipeline's] argument that interruptible shippers should not be bumped by firm transportation customers is without merit. Firm transportation has a greater priority to pipeline capacity than interruptible service. Interruptible customers can therefore receive no protection from being bumped. That is the nature of interruptible service. Because interruptible customers pay no demand charge, they can be interrupted by firm transportation and sales customers. Therefore, the Commission requires [the pipeline's] tariff to allow a firm customer to bump any interruptible customer at the new receipt points, but not a firm customer.⁶⁰

^{58.} See Panhandle, 46 F.E.R.C. ¶ 61,110.

^{59.} Williams Natural Gas Co., 52 F.E.R.C. § 61,152, at 61,612 (1990) (footnotes omitted).

^{60.} Id. (footnotes omitted); see also Northern Natural Gas Co., 52 F.E.R.C. ¶ 61,296, at 62,175 (1990) (firm shippers "always" get priority over interruptible shippers and to provide otherwise "would degrade the quality of firm service").

Moreover, the Commission has held⁶¹ that the bumping rights of the firm shipper at the alternate points may be exercised during a month and not merely for first-of-the-month flow. Accordingly, the Commission has rejected as non-complying tariff sheets that would have limited bump rights to alternate firm points to first-of-the-month flow only.

c. Preferred Access at Constrained Receipt Points for the Pipeline-as-Merchant

An issue that has only just begun to receive attention is the question of how to allocate capacity at constrained receipt points as between the pipeline-as-merchant and sales by its competitors. Some pipeline tariffs which have been approved by the Commission provide so much discretion for the pipeline to reserve receipt point capacity for its own sales as to say in effect that a converting sales customer may have any receipt point that it wishes so long as the pipeline does not want it for its own sales.

This issue has come to a head on one pipeline system where a sales customer, seeking to convert to FT in order to limit its exposure under the pipeline's GIC, has filed a formal complaint over how receipt point capacity was allocated as between the pipeline and converting sales customers. The complaint has been supported by a number of the other parties involved in frustrated CD conversions on the pipeline's system and is currently pending before the Commission. The case is one that deserves close attention by all practitioners involved in CD conversions.

d. Restrictions of Storage

The availability of storage on a meaningful basis is a key component of making firm transportation comparable to firm sales because, on a number of systems, system storage⁶⁴ is a key operational element in offering utilities a

^{61.} Northern Natural Gas Co., 53 F.E.R.C. ¶ 61,294 (1990) (firm transportation customers have priority over interruptible transportation customers "at all times," regardless of whether the firm shipper is using a primary or alternate receipt point) (emphasis in original). But see Williams Natural Gas Co., 54 F.E.R.C. ¶ 61,037 (1991) (clarifying that its earlier orders involving Williams did not impose mid-month bumping).

^{62.} Equitrans, Inc. v. Texas E. Transmission Corp., 49 F.E.R.C. ¶ 61,397 (1990).

^{63.} For example, in a proceeding where a pipeline filed tariff provisions to govern allocation of receipt point capacity between the pipeline's GIC sales and customers converting to firm transportation service, the Commission agreed with protestors that the pipeline's proposal would result in the pipeline-as-merchant receiving unlimited preferential access to receipt point capacity over customers converting to firm transportation. To remedy this problem, the Commission held that the pipeline's preferential access would not apply to supply contracts entered into after August 27, 1990, the date the tariff sheets implementing this allocation methodology became effective. Natural Gas Pipeline Co. of Am., 52 F.E.R.C. ¶ 61,219 (1990); Natural Gas Pipeline Co. of Am., 53 F.E.R.C. ¶ 61,208 (1990).

^{64.} A distinction needs to be made between "contract storage" and "system storage." "Contract storage" consists of storage facilities that are sold to customers separately from the basic sales service. "System storage" consists of storage facilities that the pipeline-as-transporter traditionally operated for the benefit of the pipeline-as-merchant.

large amount of "swing"65 capability to handle winter peak demand.

Some pipeline tariffs have imposed restrictions on the origin of gas that customers purchase to put into their contract storage. For example, until this provision of the tariff was waived, storage customers of Transco were required to purchase at least 85% of the gas to be stored in their contract storage from Transco-as-merchant.⁶⁶ Hence, even though there was "unbundled" storage service available in the sense that it was contracted for separately from sales, the customer had to buy gas from the pipeline in order to inject it into the storage facility, effectively tying the availability of storage to the purchase of gas from the pipeline-as-merchant.

Opening access to system storage may prove even more difficult. In Order No. 436, the Commission said that, since system storage facilities are used essentially for the same types of transactions as are mainline transmission facilities, access to system storage facilities should be made available on a non-discriminatory basis "to assure firm transportation service." While conceptually sound, the actual implementation of this principle may prove difficult. Resolution requires the identification of how much of the capacity is used as a surrogate for transportation capacity and how much is used for seasonal swings in demand. The amount of storage capacity that is effectively a surrogate for transmission capacity would then be allocated to those converting sales customers for whom the storage operated in this fashion, but not to others.

e. Unavailability of Line Pack

Another source of operational flexibility that the pipeline-as-merchant has used in the past to handle weather-related swings in demand is line pack.⁶⁸ The amount of flexibility provided by line pack can be substantial. For example, a one-thousand-mile segment of 30-inch pipeline operating at 600 pounds per square inch contains approximately 1.14 Bcf of gas. If the pressure in the line is raised to 1,000 pounds per square inch, approximately 800 million cubic feet *more* gas can be effectively "stored" in the pipeline itself, and can be delivered simply by allowing customers to take gas out of the system faster than it is pumped into the system, thereby bleeding down the pressure and "delivering" the gas out of "storage." If the line is fully looped,⁶⁹ the amount of line-pack storage in this example basically doubles to 1.6 Bcf.

^{65.} Demand for gas is extremely variable. The arrival of a cold front can cause a local utility's demand for gas to increase dramatically in just a few hours and passage of a warm front can cause demand to drop just as quickly. These "swings" in demand must be met by one or more operational techniques, including the use of storage service.

^{66.} Transcontinental Gas Pipe Line Corp., 43 F.E.R.C. ¶ 61,195 (1988).

^{67.} Order No. 436, supra note 3, at 31,507.

^{68. &}quot;Line pack" consists of the gas that is "packed" into a pipeline when it begins operating.

^{69. &}quot;Looping" a pipeline means laying an additional line segment parallel to a preexisting line between compressor stations, using the same right of way and tying the new line into the existing compressor stations. Many of the mainline pipelines have multiple parallel lines along much of their length.

The Commission has apparently attempted to recognize the availability of line pack by requiring pipelines to provide balancing tolerances within which no penalties or charges may be assessed on shippers. But the Commission has not expressly justified these tolerances as being based on the flexibility available from line pack. Moreover, while the balancing tolerances developed by the Commission have been applied fairly uniformly, the amount of flexibility in fact offered by line pack will vary from one pipeline to another. On some pipelines, the actual flexibility that can be accommodated may be far in excess of the balancing tolerances the Commission has developed; on other pipelines, it could conceivably be less. To date, however, Commission orders have not yet examined exactly how much operating flexibility is provided by variations in line pack.

f. Notification of Changes in Pipeline Rates, Curtailments of Transportation Due to Maintenance, or Other Operational Changes

Where new entrants compete directly with pipeline system sales for core markets and not simply for interruptible, fuel-switchable loads, a special premium is placed on reliability. In this environment, advance knowledge about such things as when routine pipeline maintenance will be performed may become competitively valuable. Comparability of service implies that such information must be made available to all competing merchants on a fair and equal basis.

Comparability would thus seem to forbid the pipeline-as-transporter from providing the pipeline-as-marketer preferential access to any material inside information relating to the transmission services. Rather, such information should be made available equally to all interested parties via electronic bulletin boards or some other nondiscriminatory mechanism. In effect, comparability may require the pipeline-as-transporter to observe the same rules in its dealings with the pipeline-as-marketer as it currently must follow in dealing with its affiliated marketing companies.⁷¹

g. Confidentiality of Pricing Information

The converse of the preceding requirement is that pricing information that the pipeline-as-marketer provides on a confidential basis to its customers may not be disclosed to the pipeline-as-transporter. Again, the rationale for this requirement derives from the fact that the pipeline is engaged in two very distinct businesses. There is an inherent potential for a pipeline to abuse its

^{70.} The Commission has generally required pipelines providing open-access transportation to comply with the tolerance levels approved in El Paso Natural Gas Co., 35 F.E.R.C. ¶ 61,440, at 62,066-70 (1986), reh'g denied, 38 F.E.R.C. ¶ 61,008 (1987).

^{71.} The Commission has called for comments as to whether this principle should be applied to pipeline's interruptible sales programs, Arkla Energy Resources, Inc., 50 F.E.R.C. ¶ 61,366 (1990) (order setting generic review of ISS programs), but has not yet imposed the requirement.

market power over the regulated transmission lines if the personnel engaged in pricing the pipeline's transmission services are privy to—or indeed involved in determining—the prices for gas service quoted to the market. Comparability would appear to require that the pipeline price its transmission services without regard to whether a customer is buying the gas commodity from the pipeline's portfolio of supply contracts or from that of a competitor.

h. Access to "Upstream Transmission Rights" and to Exchanges and Backhauls

Over the years many pipelines have established large networks of transportation agreements with upstream pipelines, essentially creating "contract gathering" systems to aggregate supply from new areas and bring those supplies into its system rather than building new pipelines themselves. Analogously, some pipelines are essentially "downstream" pipelines receiving the great bulk of their supplies via non-affiliated upstream companies. Finally, nearly all pipelines have exchange and backhaul⁷² agreements with other pipelines to provide their own sales service more efficiently.

In order for converting sales customers to gain an "unbundled" FT service that is comparable to the bundled sales service, some way must be found to make available these contract gathering rights and exchange and backhaul agreements. This is a matter which the Commission has just begun to address, as for example, in the Columbia Gas Transmission Corporation restructuring settlement⁷³ and the Texas Eastern Transmission Corporation capacity assignment program.⁷⁴

i. Loss of Abandonment Protection Under Section 7(b)

A major disparity between firm sales and firm transportation service from the LDC's perspective is the loss of abandonment protection under section 7(b) of the Natural Gas Act.⁷⁵ As a firm sales customer, the LDC enjoys the protection that the pipeline may not abandon the sales service or the facilities used to render the sales service without prior approval by the Commission.

^{72.} Exchanges and backhauls are ways of transferring gas from one point to another without physical movement of the gas between the two points. In an exchange, the parties agree to exchange deliveries of gas at one point for equivalent volumes available at another point. A backhaul is essentially a particular kind of exchange in which gas at a downstream point on a pipeline is "transported" upstream (against the direction of physical flow of gas in the pipeline) to a different delivery point. In a backhaul there is no physical movement of the gas upstream. Rather the pipeline merely decreases deliveries at the downstream point and increases deliveries at the upstream point. Both exchanges and backhauls are efficient transactions since they avoid the need for physical transportation of the supply involved.

^{73.} Columbia Gas Transmission Corp., 49 F.E.R.C. ¶ 61,071, at 61,292 (1989), order on reh'g, 51 F.E.R.C. ¶ 61,194, at 61,534 (1990).

^{74.} Texas E. Transmission Corp., 48 F.E.R.C. ¶ 61,248 (1989), clarified, 48 F.E.R.C. ¶ 61,378 (1989), modified and clarified, 51 F.E.R.C. ¶ 61,170 (1990), further modified and clarified, 52 F.E.R.C. ¶ 61,273 (1990), appeal docketed, No. 90-1261 (D.C. Cir. May 21, 1990) (appealing extension of NGA jurisdiction to brokering shippers).

^{75. 15} U.S.C. § 717f(b) (1988).

However, if the LDC converts to firm transportation under section 284.10 of the regulations, ⁷⁶ the customer loses that protection. In reviewing Order No. 500, the United States Court of Appeals for the District of Columbia Circuit remanded the pregranted abandonment issue to the Commission, holding that the Commission has not yet adequately explained how pregranted abandonment trumps another basic precept of natural gas regulation—protection of gas customers from pipeline exercise of monopoly power through refusal of service at the end of a contract period. ⁷⁷ On remand, the Commission stayed the effectiveness of pregranted abandonment with respect to prospective conversions under section 284.10 and indicated its intention to review the matter further in its rulemaking proceeding on comparability of service. ⁷⁸

III. COMPLETING THE TRANSITION: THE POLICY OPTIONS

The goal of open-access transportation is for pipelines to offer a "menu" of FT services that enable LDCs and other shippers to receive firm gas at the city gate in a manner that is comparable to the firm sales services traditionally provided by the pipeline-as-merchant. The Commission has hesitated to impose a single "template" on particular pipelines, choosing instead to lay out a clear goal in concept while showing considerable flexibility in implementing the goal. This case-by-case approach obviously created some inconsistencies and frustrations as the Commission seeks to tailor its policy goals to the particular cases before it. Despite the inconsistencies, this approach allowed the parties during the early stages of the transition to an FT regime to gain actual experience with the operational realities of a diminishing pipeline merchant function.

A. Forces Underlying the Trend

During 1991 and 1992, the pace of pipeline restructuring is likely to accelerate for several reasons. First, because of the court decision invalidating the purchase deficiency mechanism for allocation of take-or-pay buyout costs, 80 a number of pipelines now have an increased incentive to offer LDCs

^{76. 18} C.F.R. § 284.10 (1990).

^{77.} American Gas Ass'n v. FERC, 912 F.2d 1496, 1518 (D.C. Cir. 1990).

^{78.} Order No. 500-J III F.E.R.C. Stats. & Regs. ¶ 30,915, 56 Fed. Reg. 6962 (1991).

^{79.} For example, in Order No. 436 itself, the Commission left implementation of the rates and terms and conditions for open access transportation to be set in individual pipeline rate and tariff proceedings. See 18 C.F.R. (1990) § 284.7 (leaving rate conditions to be implemented case-by-case); id. at §§ 284.8(c), 284.9(c) (allowing pipelines to impose "reasonable operational conditions" on non-discriminatory transportation services and requiring that any such conditions be filed by the pipeline as part of its transportation tariff). Similarly, in addressing rate design changes in 1989, the Commission adopted a Policy Statement to provide further guidance to the industry on how to implement § 284.7, but again left actual implementation to individual rate proceedings. See Policy Statement Providing Guidance with Respect to the Designing of Rates, 47 F.E.R.C. ¶ 61,295, order on reh'g, 48 F.E.R.C. ¶ 61,122 (1989).

^{80.} Associated Gas Distribs. v. FERC, 893 F.2d 349 (D.C. Cir. 1989), cert. denied, 111 S. Ct. 277 (1990). In the challenged orders, the Commission had allocated cost responsibility for a portion of a pipeline's take-or-pay settlement costs on the basis of how much less gas a customer purchased from the pipeline during a prior period as compared to purchases by other customers. Under the Commission-approved methodology, the less gas the customer had purchased, the greater the share of take-or-pay costs

and other firm shippers the various transportation and transportation-related services they desire in exchange for settlement of the take-or-pay cost recovery issues of such importance to the pipeline.

Second, the Commission has repeatedly held that comparability between bundled and unbundled services is a prerequisite for any pipeline seeking approval of a gas inventory charge,⁸¹ even where the GIC is proposed to be cost-based rather than market-based.⁸² Indeed, the Commission has recognized that comparability is required prior to a pipeline seeking to flow-through, on an "as-billed" basis, fixed demand charges the pipeline may pay directly to a production company.⁸³

Third, parties are gaining invaluable operational experience with firm transportation and firm non-pipeline supply arrangements. The fruits of that experience will make it increasingly easier to draft tariff conditions for firm transportation and transportation-related services. The experience will also encourage parties to proceed with more firm none-pipeline arrangements, thereby increasing the demand to complete the restructuring of the pipeline's merchant and transmission functions. And, while the initial conversions have generally been used for base-loaded supply contracts (due in part to the inferior quality of the existing FT as a result of the above restrictions on swing flexibility under the FT tariffs), the LDCs will increasingly look for competitive alternatives to the pipeline's peaking sales service.

Fourth, the Bush administration has issued its National Energy Strategy (NES)⁸⁴ which calls for restructuring—and indeed deregulation—of the pipeline's traditional merchant function. In so doing the Administration has underscored the critical role of comparability of service:

Historically, FERC has required that pipelines reflect their actual cost of gas purchased in their sales rates. The rationale for cost-based rates was concern that a pipeline could extract monopoly profits on its natural gas sales because its customers had no other alternative.

If consumers do have access to alternative suppliers of natural gas, there is no basis for sales rate regulation. Accordingly, the National Energy Strategy calls for deregulating the price a pipeline charges for natural gas, if it offers comparable transportation and other services to all on a nondiscriminatory

to be paid, effectively penalizing those customers who had sought competitive alternatives to the pipeline system sales and retroactively increasing the cost of the customer's prior purchase decisions. On remand, the Commission issued Order No. 528, *Mechanisms for Passthrough of Pipeline Take-or-Pay Buyout and Buydown Costs*, 53 F.E.R.C. ¶ 61,163 (staying the effectiveness of tariff mechanisms relying on the purchase deficiency methodologies and allowing pipelines to submit revised plans), *clarified*, 53 F.E.R.C. ¶ 61,380 (1990), *order on reh'g*, Order No. 528-A, 54 F.E.R.C. ¶ 61,095 (1991).

^{81.} See El Paso Natural Gas Co., 47 F.E.R.C. ¶ 61,108 (1989); Tennessee Gas Pipeline Co., 47 F.E.R.C. ¶ 61,245; Natural Gas Pipeline Co. of Am., 49 F.E.R.C. ¶ 61,132; and Southern Natural Gas Co., 49 F.E.R.C. ¶ 61, 131 (1989). For the Commission's most exhaustive examination of these issues to date, see Opinion No. 336, El Paso Natural Gas Co., 49 F.E.R.C. ¶ 61,262 (1989); Panhandle E. Pipe Line Co., 54 F.E.R.C. ¶ 61,303 (1991).

^{82.} Texas Gas Transmission Corp., 50 F.E.R.C. ¶ 61,215, at 61,682 (1990).

^{83.} Tennessee Gas Pipeline Co., 53 F.E.R.C. ¶ 61,463 (1990); CNG Transmission Corp., 54 F.E.R.C. ¶ 61,159 (1991) ("comparability of sales and transportation services must be established before a pipeline is allowed to flow through producer demand charges on an "as-billed basis"); Equitrans, Inc., 54 F.E.R.C. ¶ 61,161 (1991).

^{84.} United States Department of Energy, National Energy Strategy (1991).

basis.85

Accordingly, the NES stated that the Administration supports "full utilization" by the Commission of its authorities "to ensure that pipelines with monopoly power over transportation services offer transportation and other services for third parties on a nondiscriminatory basis." As of March 1991, a number of energy policy proposals were before Congress, and it is unclear what form of implementation this aspect of the NES will assume. Lastly, the Commission has now stated its intent to initiate a rulemaking proceeding to examine the comparability of service between unbundled and bundled transmission services.⁸⁷

B. A Sketch of the Options

In addressing the comparability issues, whether in the context of a Commission NOPR or in the context of deregulatory legislation, analysts may draw from a variety of models, not all of which are mutually exclusive.

1. The Internal Tariff Approach

Under this approach, the Commission could order the pipeline's sales department to nominate to its transportation department under formalized rules to be embodied in what has been called an "internal transportation tariff."

The rationale for this approach lies in the recognition that the pipeline has greater expertise than any outside party in how to address the operational realities of achieving comparability between bundled and unbundled services. As explained by one expert, this approach

doesn't try to identify each and every way that a pipeline-as-transporter can favor the pipeline-as-merchant. Nor does it try to identify the particular level of unbundling necessary on [a particular pipeline's] system to satisfy the conditions of comparable service. Rather, it seeks to remove the pipeline-as-transporter's *incentive* to act in ways that disadvantage competition and then allow[s] the pipeline to determine the appropriate level of unbundling its services. In effect, [this] proposal leaves the pipeline in charge of crafting the ground rules governing the operation of the transportation system; the pipeline's exercise of that responsibility will be tempered by the knowledge that the same rules will apply to the pipeline's own sales.

The primary disadvantage with this approach is that the pipeline could resolve the problem by degrading the quality of the firm sales service rather than enhancing the quality of the firm transportation service.

The Commission has declined to impose an "internal tariff" requirement on a pipeline over its objections. For example, in *Natural Gas Pipeline Com*pany of America, 90 the Commission found the proposal "premature" and con-

^{85.} Id. at 94 (emphasis in original).

^{86.} Id. at 93.

^{87.} Order No. 500-J, III F.E.R.C. Stats. & Regs., ¶ 30,915, 56 Fed. Reg. 6962 (1991).

^{88.} Affidavit of Robert C. Means on behalf of the Indicated Shippers at 31-35, Transcontinental Gas Pipe Line Corp., No. CP88-391 (F.E.R.C. July 24, 1989).

^{89.} Statement of Dr. William W. Hogan on behalf of Designated Marketing Companies at 34-35, in Natural Gas Pipe Line Co. of Am., No. RP88-209-000 (F.E.R.C. Feb. 28, 1989).

^{90. 48} F.E.R.C. ¶ 61,306 (1989).

cluded that a more thorough evaluation was required before such an approach could be adopted.

2. The Pooling Point Approach

This approach goes beyond the "internal tariff" approach in that it would require the pipeline to actually make its own system sales from its portfolio of gas supply agreements at "pooling points" in or near the producing areas. Under this approach, rather than purchasing pipeline sales gas at the city gate and gas from other suppliers in the field, the firm sales customers would move gas from all suppliers through predefined pooling points (also sometimes referred to as "headstations") to the city gate under the pipeline's firm transportation tariff. In effect, the pipeline would get out of the business of selling a bundled product at the LDC's city gate and go into the business of offering an unbundled sales product on an equal basis with other, unregulated, supply aggregation companies. The approach has already been formally implemented on the Transcontinental Gas Pipe Line Company system⁹¹ and has been approved for the El Paso Natural Gas Company as well.92 The primary advantage of this approach is that it enables the parties to structure a system under which the pipeline no longer has preferential access to mainline capacity. It thus seeks to solve the comparability problem by turning the pipeline company into a "pure transporter," at least as to mainline deliveries. 94

A variation on this approach would be to create pooling as an option, allowing firm shippers to delegate the administration of their firm transport rights to their supplier. In this way the supplier would be able to pool the customers' firm receipt point rights to aggregate supply for those customers who chose this approach. Other customers could retain the option of buying a bundled service from the pipeline.

Other variations on these approaches are likely to evolve. Whatever system is adopted, however, it must make it possible for competing suppliers, whether producers, pipelines, or independent supply aggregation companies, to aggregate a diverse and reliable portfolio of supplies that will satisfy the temperature-sensitive loads of retail gas utilities.

^{91.} On Transco, the system was implemented pursuant to a settlement approved by the Commission. There, the sales at the pooling point are made by the pipeline as a regulated seller under the Natural Gas Act. Transcontinental Gas Pipe Line Corporation, 48 F.E.R.C. ¶ 61,399 (1989), order on reh'g, 50 F.E.R.C. ¶ 61,442 (1990).

^{92.} El Paso Natural Gas. Co., 54 F.E.R.C. ¶ 61,316 (1991).

^{93.} This approach would thus be consistent with the recently promulgated National Energy Strategy with its call for "requiring that pipelines unbundle and sell separately the various services they provide—transportation, balancing, marketing, gas purchasing and storage—so that customers can choose and pay for only those services they desire." NATIONAL ENERGY STRATEGY, supra note 84, at 93.

^{94.} Implementing the approach, however, requires the parties to address a host of additional operational considerations not the least of which is determining how capacity upstream of the pooling point is allocated, both between the pipeline as merchant and the shippers as a group and among shippers. Generally speaking it appears that what is needed is a regulatory approach that allows parties to reserve particular points on a "non-bumpable" basis while retaining the option to move to alternate points, displacing any non-firm shipper or service. The Commission has generally moved to implement this approach, stressing that non-firm services are subordinate to the firm services and thus may be displaced or "bumped" by firm shippers. See, e.g., Northern Natural Gas Co., 52 F.E.R.C. ¶ 61,296 (1990).

3. Divestiture

An approach that has not yet been publicly discussed to any great degree is divestiture, i.e., the corporate separation of the pipeline merchant function from the transportation function. Divestiture is based on the fact that the implementation of open-access transportation puts pipelines in the position of engaging in two separate and possibly irreconcilable businesses. On the one hand, the pipeline-as-transporter is in the business of offering transportation and transportation-related services to shippers. The shipper is the customer and the customer is king. Hence a pipeline will suceed in this business to the extent that it aggressively markets its services, maximizes use of its facilities, and lays pipeline quickly and efficiently into new supply and market regions.

But the pipeline-as-merchant remains in the business of aggregating supply and selling the commodity. Hence the pipeline-as-merchant must compete head-to-head against the suppliers of the very people the pipeline-astranporter tries to woo and accommodate as customers. In a world where the pipeline-as-tranporter is required to offer nondiscriminatory services, this is a fundamentally unstable arrangement. The strongest weapon the pipeline-asmerchant has in the competitive struggle is to devalue its competitors' product by causing the unbundled transportation service available for the movement of its competitiors' gas to be an inferior service as compared to the bundled service embedded in the pipeline's own sales. Up until the early 1980s, that was done by essentially refusing to provide transportation access for competitors. As pressures for access increased, pipelines allowed transportation access only to price-sensitive or other incremental markets under SMPs, or through restrictive implementation of Order 234-B transportation, or transportation "guidelines." When the MPC decisions shut that door, the pipeline-as-transporter moved to impose balancing, creditworthiness, and disclosure requirements on competitors while exempting the pipeline-as-merchant.

As interest shited to firm transportation, the pipeline-as-transporter imposed a "point-to-point" regime on competing sellers while allowing the pipeline-as-merchant to aggregate supply from hundreds of points, balance on a system-wide basis, use all storage facilities, etc. And pipelines-as-transporters won the right to impose various scheduling and imbalance penalties on their competitors while exempting the pipeline's own merchant transactions. As long as such practices are allowed by law, one cannot and should not expect the pipeline-as-transporter to do anything but favor sales by the pipeline-as-merchant in this fashion. Yet success in favoring the pipeline's own sales in this fashion will lead to increasing charges that the pipeline is granting preferential treatment to its own sales. Viewed in his perspective the controversy over alleged preferences for affiliated marketers was a minor concern in comparison. Ultimately, the fundamental tension between the pipeline's two roles will have to be resolved.

The advantage of divestiture as a policy option is that it is the "cleanest" approach for resolving the concerns over pipelines acting as transporters to favor their own sales. Under divestiture, the pipeline would be a pure transportation company and would not make any sales at all, not even at field area pooling points. Rather, the portfolio of supply agreements the pipeline has

with producers, together with the personnel, "back-office" support services, and any associated market assets, would all be spun off as a separate company. Sales of gas that was previously under contract to the pipeline would be effectively deregulated, allowing for all gas merchants to compete on a level, unregulated playing field. All the related flexibility previously embedded in sales—line pack, system storage, upstream transportation and exchange rights, etc.—would be made available to the newly created company on the same, non-discriminatory basis as these services are made available for all other unregulated merchants.

Presumably only the Congress could force a pipeline to shed its merchant role in this fashion. But divestiture could come in a gradual, voluntary and de facto sort of way by pipelines simply shedding the reserves that enable them to perform their merchant function at the traditional, certificated levels.⁹⁵

4. The Ad Hoc Approach

Under the Ad Hoc approach, as its name suggests, parties would negotiate that mix of unbundled services (as well as terms and conditions affecting all services) that the parties are prepared to accept on a given pipeline system for a given period of time. The advantage of this approach is that it is flexible and avoids casting rules in stone before the parties have any real operating experience under those rules.

A potential disadvantage, of course, is that it runs the risk of creating serious competitive distortions by putting one set of rules in place governing one pipeline serving a particular market and a very different set of rules to govern a second pipeline serving the very same market. It thus runs the risk of beginning to create a new regime that is no more rational—and no more economically efficient—than the previous regulatory framework. In view of the difficulties of implementing past reforms in pipeline regulation, however, the "Ac Hoc Approach" may well be the more likely scenario.

5. Capacity Trading or Assignments

Capacity trading in some form is a final fundamental reform that is likely to be required as part of any approach, whether regulatory or legislative. Following some early false starts, 6 the Commission has made significant progress in developing guidelines for capacity trading or assignment programs. A key question in many brokering cases thus far has been the extent to which a firm shipper may retain a right to "recall" the firm capacity from an assignee. In recent orders approving capacity assignment programs on the Texas Eastern Transmission Corporation and Transcontinental Gas Pipe Line Corporation

^{95.} Moreover, with the National Energy Strategy now calling for the deregulation of the pipeline's merchant function if comparable unbundled services are available to all on a nondiscriminatory basis, the divestiture option may come under legislative scrutiny in the context of establishing the conditions for such sales deregulation. For an economist's critique of such "light-handed" regulation, including an assessment of FERC's efforts to adopt such an approach in some of the GIC proceedings, see Hughes & Hall, Substituting Competition for Regulation, 11 ENERGY L.J. 243 (1990).

^{96.} United Gas Pipe Line Co., 46 F.E.R.C. ¶ 61,060, order on reh'g, 49 F.E.R.C. ¶ 61,166 (1989) (pipeline declined capacity brokering certificate).

systems,⁹⁷ the Commission has ruled that firm shippers may indeed retain a recall right to brokered firm service. This should encourage LDCs to contract for firm transportation service since they will be able to offer firm capacity to end users when the LDC does not need it for temperature sensitive loads while recalling the capacity to purchase gas for the LDC's system supply during peak periods.

Another difficult issue the Commission has had to grapple with in the context of capacity assignment programs is whether to impose a price ceiling on such resales of capacity. The Commission has declared that the resale of firm capacity by any person constitutes jurisdictional transportation within the meaning of the Natural Gas Act.⁹⁸ The Commission has also ruled that the seller may charge a price between a ceiling and a floor where the ceiling is the "as-billed" rate charged by the pipeline and the floor is the variable (or "commodity") component of the pipeline's FT rates.⁹⁹ For those shippers who prefer to charge a one-part rate for brokered capacity, the Commission has also set forth other alternatives, all subject to fairly detailed "blending" rules, ¹⁰⁰ that are designed to give pricing flexibility while precluding the brokering shipper from "marking up" the capacity. The Commission's policy in this area is largely in its infancy, however, reflecting the industry's lack of experience with brokering.

The National Energy Strategy suggests a more light-handed approach toward regulating the resale of capacity, stating that a pipeline's customers should be allowed to resell firm capacity at unregulated prices, unless the customers have monopoly power in that market.¹⁰¹ The NES does not specify how monopoly power would be determined, however, or whether there would be a change in how price ceilings would be set in those cases where monopoly power was found to prevail. These are issues that will have to be addressed regardless of which of the other policy options are ultimately chosen.

IV. CONCLUSION

The question of how best to prevent abuse of the control of pipeline transmission capacity has never been satisfactorily resolved. The United States industry is currently wrestling with these issues and looking for ways to make unbundled firm transportation comparable or equivalent to the firm transportation service that the pipeline offers on a bundled basis. Driving the process on the one hand is the pipelines' desire to find a way to receive compensation for creating, maintaining, and managing a portfolio of long-term, firm gas

^{97.} Texas E. Transmission Corp., 48 F.E.R.C. ¶ 61,248, clarified, 48 F.E.R.C. ¶ 61,378 (1989), modified and clarified, 51 F.E.R.C. ¶ 61,170, further modified and clarified, 52 F.E.R.C. ¶ 61,273 (1990), pet. for rev. filed sub nom. Associated Gas Distribs. v. FERC (D.C. Cir. May 21, 1990) (No. 90-1261) (appealing extension of NGA jurisdiction to brokering LDC shippers); Transcontinental Gas Pipe Line Corp., 52 F.E.R.C. ¶ 61,277 (1990).

^{98.} United, 46 F.E.R.C. ¶ 61,060; Texas E., 48 F.E.R.C. ¶ 61,248.

^{99.} See Texas E. Transmission Corp., 51 F.E.R.C. ¶ 61,170, at 61,455-57 (1990); Transcontinental Gas Pipe Line Corp., 52 F.E.R.C. ¶ 61,277, at 62,087-89 (1990).

^{100.} See Texas E., 51 F.E.R.C. ¶ 61,170, at 61,456-57.

^{101.} NATIONAL ENERGY STRATEGY, supra note 84, at 95.

purchase contracts and on the other by suppliers' and customers' desire to implement open-access for firm service. As noted above, the Commission generally prohibits pipelines from receiving a "mark-up" on the sale of the gas commodity itself. 102 But in the new gas industry which is struggling to be born, a world in which pipelines offer fully comparable firm transportation services and compete fairly against unregulated gas merchants using those services, pipelines must presumably be allowed either to charge for that service or to be relieved of the obligation of acting as the seller of last resort.

Hence, the future of the industry will be largely shaped by how well the Commission achieves comparability between firm sales and firm transportation—with or without the assistance of the Congress. As with much of life, the promise is bright; the perils, many; and the final outcome, still unclear. But the extent to which the Commission will succeed in solving the "comparability dilemma" will be a critical, even determining factor affecting the structure of the U.S. gas industry for decades to come.

^{102.} But see Panhandle E. Pipe Line Co., 47 F.E.R.C. ¶ 61,472 (1989), order on reh'g, 53 F.E.R.C. ¶ 61,098 (1990), pet. for rev. filed sub nom. Anadarko Petroleum Corp. v. FERC, (D.C. Cir. Nov. 19, 1990) (No. 90-1548). The Commission approved a Seasonal Sales Program (SSP) for Panhandle Eastern Pipe Line Company, allowing the pipeline to effectively "mark up" over cost the price of its system sales (sold on a bundled basis) notwithstanding vigorous complaints from competitors that the unbundled firm service was not comparable. The case has been appealed by competing merchants.