Deregulation of the Energy Industry

Elisabeth Pendley

University of Colorado Boulder, Natural Resources Law Center
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DEREGULATION OF THE ENERGY INDUSTRY

By

ELISABETH PENDLEY

EL PASO NATURAL GAS LAW FELLOW - 1995
NATURAL RESOURCES LAW CENTER
SCHOOL OF LAW
UNIVERSITY OF COLORADO AT BOULDER
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Part 1. Deregulation Of The Natural Gas Industry

After the surpluses and shortages of natural gas supplies in the 1970s, and the clamor of producers for less federal control in the 1980s, heretical talk of "regulating" the natural gas industry by deregulation crept into the halls of Congress and the Federal Energy Regulatory Commission (F.E.R.C.). Two magical words: "market-based rates" and "competition" were announced and would drive the deregulation of the natural gas industry.¹

The first actions were the Natural Gas Wellhead Decontrol Act of 1989² and F.E.R.C.'s Open Access Transportation Order (Order No. 436) in response to the Act.³ The Natural Gas Wellhead Decontrol Act freed the price of producers' gas at the wellhead from the multi-tiered (multi-flavored) pricing restrictions imposed by the Natural Gas Policy Act of 1978. Now producers were able to charge non-regulated contract prices for the sale of gas from the wellhead.

The F.E.R.C. Open Access Transportation Order encouraged pipeline companies to open their pipelines voluntarily to third party shippers. While this was a "voluntary" undertaking, F.E.R.C. provided sufficient carrot-and-stick incentives that pipelines complied

¹ Ms. Pendley is a 1976 graduate of the University of Wyoming School of Law. During the 13 years she was employed by the Federal Energy Regulatory Commission, she held various positions in the Office of General Counsel, including Special Assistant to the General Counsel. She was Assistant General Counsel at KN Energy, Inc., and is now in the private practice of law in Colorado. This paper, Deregulation of the Energy Industry, was produced under the auspices of the El Paso Natural Gas Law Fellowship 1995, Natural Resources Law Center, School of Law, University of Colorado at Boulder.


⁴ Order No. 436, supra.
with the order and third party shippers (producers, marketers, aggregators) began to transport gas on these open access pipelines.

While both the Wellhead Decontrol Act and voluntary open access transportation provided increased supply options, these changes were not enough to bring about the regulators’ vision of market-based rates and competition. This would be accomplished by the issuance of F.E.R.C.’s natural gas restructuring rule (Order No. 636) in the spring of 1992.  

As stated in Order No. 636, the rule "will finalize the structural changes in the Commission’s regulation of the natural gas industry. This rule will therefore reflect and finally complete the evolution to competition in the natural gas industry ... [T]his promotion of competition among gas suppliers will benefit all gas consumers and the nation by ensuring an adequate and reliable supply of [clean and abundant] natural gas at the lowest reasonable price." Order No. 636 unraveled the regulated gas industry and in the words of F.E.R.C. Chair Elizabeth Moler, "There is no going back." The restructuring of the natural gas industry was greeted initially with angst and animosity; some given to hyperbole, cried that Order No. 636 was a Pearl Harbor attack on the industry.

To achieve the regulators’ vision, Order No. 636 required pipelines to separate (unbundle) their sales and transportation services and to provide comparable transportation services for all gas supplies, whether purchased from the pipeline or a third party. Open access pipeline storage was required to be offered on a non-discriminatory basis and capacity release programs were created to allow firm shippers to release their capacity temporarily or permanently.

Order No. 636 transformed pipelines exclusively into transporters of natural gas. Even though F.E.R.C. assured pipeline companies that Order No. 636 was not meant to force them out of the merchant role, in reality, no major pipelines continued as merchants. In those instances where the company remains a merchant, the sale of gas is usually handled by a marketing affiliate or subsidiary of the company. The era of pipeline as merchant is defunct; the era of pipeline as transporter has dawned.

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6 Moler, Elizabeth Anne, There is No Going Back, Fortnightly, October 1993, at 51.

7 In fact, Interstate Natural Gas Association of America’s (INGAA) annual pipeline survey “documents the transition between the pre-636 era of bundled gas service and the unbundled post-636 world.” The survey showed pipeline sales dwindling to 10% of all 1993 gas volumes delivered, with the decreases in pipeline sales “balanced by an increase in firm transportation, and to some extent, by the first released firm transportation flowing from the capacity release market.”
Part 2. Deregulation Of Natural Gas Pipelines

In response to the Order No. 636 mandate, the natural gas pipeline industry has changed dramatically. Pipelines have unbundled sales from transportation services, and opened interstate transportation capacity and pipeline storage capacity to access by any qualified shipper on a firm or interruptible basis. Market hubs have developed; unique and competitive pipeline services are being offered; natural gas is being traded as a commodity.

**Pipeline Market Centers Or Market Hubs**

The market center or market hub is defined as a "reliability center" where "many pipelines meet in a reasonably small geographic region." This concept has brought gas marketing sophistication to the natural gas industry. Market hubs encourage market based rates and increase post-636 competition by increasing reliability and trading opportunities; the role of market hubs in the natural gas industry is described as follows:

[linked by electronic trading systems displaying near-real time market data ... [market hubs] form a nationwide clearing house in which any seller across North America would be able to offer supplies to the highest bidders, any buyer could find a smorgasbord of gas supplies and select the source best suited to his needs, and any shipper on equal footing with all other players could obtain the services he needed to efficiently move purchased volumes to end users.]

Because market hubs embody the regulatory vision of competition, F.E.R.C. has actively encouraged market centers by: (1) prohibiting rate design or tariff language which frustrates market centers, (2) preferring fully unbundled services which has made market centers easier to develop, and (3) creating a complementary capacity release market.

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10 Id. at 28.
11 Id. at 12. Not everyone would agree with this analysis of F.E.R.C.’s supportive role: "F.E.R.C. failed to keep its promise not to inhibit development of the centers. Production area hubs are a casualty of F.E.R.C.’s inability to resolve ... production area rate zone rates... Production area rate hubs are eroding as market zone hubs proliferate." Texas Conference Portrays Market Centers As The Standard For Natural Gas Transaction Business In The Future; Participants Debate Definitions, F.E.R.C.’s Role, And Impact Of Competition, Foster Report, May 12, 1994 at 14 [hereinafter Texas Conference].
The proliferation of market centers is the first stage of an industry metamorphosis. Currently there are more than forty existing and proposed market centers located at "natural pooling points" with multiple pipeline interconnections sitting midstream between major gas supply and market areas on underutilized interstate gas transportation systems with downstream sales capability and access to upstream supply areas. It is doubtful that this large number of market centers will continue. "Shakeout is imminent. Competitive pressures are increasing. ... [T]he numbers will dwindle down to a handful." With market centers or market hubs appearing nationwide, competition will be especially fierce in the initial stages of development.

Numerous pipelines have applied for and received authorization for market centers. Each application is very individual, covering various geographical areas and offering competitive services. However, F.E.R.C. has rejected an enhanced hub application from Northern Illinois Gas Co. and Southern California Gas Co. which would have extended their services to include their capacity rights on other pipelines. F.E.R.C. rejected this off-system service stating that

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12 Approximately one and one-half years ago, Coopers and Lybrand counted about fifteen existing and planned market hubs. That number has burgeoned from fifteen to twenty-six to forty in a very short period of time! A.D. Koen, U.S. Natural Gas Hubs Symbolize Order 636 Marketing Evolution, Oil & Gas Journal, Sept. 5, 1994, at 27 [hereinafter U.S. Natural Gas Hubs].

13 Id., supra at 30.

14 Id.

15 Already plans for one market hub have been dropped. On August 22, 1994, Mid-Louisiana withdrew its proposal to reduce rates on a four mile lateral in order to encourage its use as a market hub. Compliance with the conditions imposed by the F.E.R.C. would require additional expenditures; "given the speculative nature of the new business estimated to be generated by its (market hub) proposal," Mid Louisiana withdrew its proposal. Mid Louisiana Gas Co. "Order Accepting and Suspending Certain Tariff Sheets Subject to Refund and Conditions and Rejecting Certain Tariff Sheets," Docket No. RP94-322-000, 68 F.E.R.C. P61,229 (August 12, 1994). Mid Louisiana Drops Plan To Use T-32 Lateral As Market Hub Due To Additional Costs Required To Comply With F.E.R.C. Authorization, Foster Report, August 25, 1994, at 1.

the application violated the shipper-must-have-title rule, evaded capacity release procedures, and was a return to now illegal buy/sell transactions.17

Market hubs are evolving into natural gas "supermarkets" where gas services are increasingly bought and sold and will be integrally related to short-term markets. Market hubs will become the primary pricing points for the industry and may supplant utilities’ formal monthly spot gas bidding programs. When fully implemented, real time metering will boost the demand for hub services. In addition, a two-tier hub structure will emerge: primary hub points in major production/market areas and regional or satellite hubs in secondary production/market areas.18

New Pipeline Market Centers Or Market Hub Services
In order to be successful, the hub or market center must offer flexible buying and selling, the availability of long term contracting and hourly trading, uniform electronic markets, futures trading and capacity release transactions.19 "Hub operators are expected to offer unique services to users, services such as wheeling, ... title transfer, displacement delivery, parking, inverse parking and imbalance penalty management .... Hub operators will be the future market-makers, featuring full service menus."20 While the definitions of these services may vary from pipeline to pipeline, the following are the most commonly held definitions for the new hub services which are offered:

- Parking - delivery of gas into the hub and "parking" or short-term storage at the hub for a very short term - (one or more days);
- Parked Quantity Delivery - transportation of parked quantities of gas from the parking point to an identified delivery point;
- Loaning - removal of gas from the hub and its return one or more days later;
- Wheeling - simultaneous receipt of gas into the hub and delivery of gas out of the hub through displacement or exchanges at different receipt and delivery locations;
- Pooling - aggregation of gas at the pool;
- Authorized Imbalance - hub operator (transporter) will advance gas to shippers who will return the volumes to the hub operator at a later date or upon notice from the operator.

Electronic Trading Systems - Another hub service which is becoming more widely used are electronic trading systems.

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19 O'Neill, supra note 9, at 13.

With an electronic market hub trading network, traders can track gas price differentials among all the hubs and buy gas daily in a transaction-intensive manner at any hub linked to the net. In time, large regional hubs will be tied together by a unified electronic trading network; a master hub electronic trading system is in the future. Many believe that including all large regional hubs on the network will lower gas costs volumetrically.\(^{21}\)

**Uniformity At Market Centers**

Uniformity and flexibility are key words integral to the success of market hubs.\(^{22}\) To facilitate the use of market centers, uniform tariff language must be developed for industry terms, such as: gas day,\(^{23}\) nomination deadlines, daily balancing,\(^{24}\) electronic bulletin boards, real time measurement and flow control, data interchange and environmental monitoring.\(^{25}\)

Although F.E.R.C. is concerned with uniformity of standards at market centers, it has not attempted to "regulate" uniformity. Commissioner Santa wondered if F.E.R.C. "should initiate proceedings to change rates, terms and conditions believed to discourage hubs, scrutinize pipeline rate design with respect to its effect on market centers, or insist on greater uniformity of pipeline business practices and standards?" Santa also considered applying the regional transmission group (RTG) electric concept to the gas industry: F.E.R.C. would accept the hub group’s tariff filings setting out rules for doing business at a hub. "This would achieve consistency in the operation of the multiple pipelines that access a hub without the need for heavy handed regulatory intervention."\(^{26}\)

\(^{21}\) "The electronic data interchange could provide arbitrage opportunities on a national basis so shippers could wheel gas to various parts of the country... And if we could include main hubs in Canada and the border crossing points between the U.S. and Mexico, maybe we could start creating our vision of what an international electronic hub trading system ought to provide in terms of information and services." *U.S. Natural Gas Hubs*, supra note 12, at 32.

\(^{22}\) Interstate Natural Gas Association task force has recommended steps to assist integration of the deregulated natural gas industry. *INGAA Details Ways To Improve Gas Grid Integration*, Oil & Gas Journal, March 20, 1995, at 122.

\(^{23}\) Gas day is typically defined in a pipeline’s tariff as a period of twenty-four consecutive hours beginning and ending at 8:00 a.m., unless otherwise agreed to by the parties.

\(^{24}\) If a balance of receipts and deliveries is not maintained, Seller may impose one or more imbalance charges as described in the pipeline tariff.


\(^{26}\) Commissioner Santa Discusses What’s Ahead For F.E.R.C., Both Near Term And Long Term, Foster Report, July 21, 1994, at 1. F.E.R.C. has received at least one filing requesting that it address the creation of market centers, contending that "de facto development of a market center policy is not enough." The City of Hamilton, Ohio has requested that F.E.R.C. designate Lebanon, Ohio as a market center and require the five interconnecting pipelines
According to F.E.R.C. Office of Economic Policy Director Richard O'Neill, F.E.R.C.'s policy is to "let the market develop the market centers." However, neither Commissioner Santanor O'Neill closed the door on F.E.R.C. intervention.

**New Pipeline Transportation Services**

In addition to the exotic new services offered at market centers or hubs, pipelines are competing for customers by revising their current tariffs to allow greater flexibility for firm and interruptible transportation. Such services as hourly scheduling flexibility, paper-


27 O'Neill, supra note 9, at 12


29 Tennessee Gas Pipeline Company filed tariff sheets last year to provide new hourly scheduling flexibility service for interruptible transportation. Tennessee Gas Pipeline Company, "Order Accepting Tariff Sheets Subject To Conditions," Docket No. RP94-187-000, 67 F.E.R.C. P61,316, (June 14, 1994). The new hourly scheduling flexibility for interruptible transportation service allows a shipper to change its nominations with 60 minutes prior notice at any time of the day to reflect changes in quantities to be delivered under the transportation contract related to qualified receipt and delivery points. This new service will meet the needs of electric generator customers who need short notice transportation service to meet their fluctuating peak load. Koch Gateway Pipeline Co. has implemented ten paper pooling points which will allow customers to purchase gas at receipt points and bring the gas to a pool without being charged a transportation rate, except for gathering charges if applicable. Koch Gateway Pipeline Co., "Order On Third Compliance Filing And Granting And Denying Request For Rehearing," Docket No. RS 92-26-007, et al., 65 F.E.R.C. P61,338 (December 16, 1993). See also Koch Gateway Proposes To Establish Pooling Service, Foster Report, April 14, 1994, at 21. Koch's paper pooling points apply transportation charges to the movement of gas from the pool to a delivery point on an interruptible basis. A firm shipper with a primary receipt point in a specific pooling area could assign primary receipt point capacity within pooling areas to a pooling customer supplying it gas at the pooling points. The pooling customer could then use that capacity to serve the firm customer's transportation needs. Questar Pipeline Co. filed revised tariff sheets to implement a new Receipt Point Group (RPG) service concept which provides additional flexibility to firm transportation customers by allowing customers who hold firm primary capacity to nominate all or any portion of that capacity to any other available receipt point within the RPG; F.E.R.C. adopted this proposal. Questar Pipeline Company, "Letter Order," Docket Nos. RP94-210-000, et al., 67 F.E.R.C. P61,218 (May 20, 1994). See also Questar Proposes New Service Providing Firm Shippers Greater Flexibility To Nominate Alternate Receipt Points In Same Area, Foster Report, April 28, 1994, at 19. Texas Eastern Transmission Corp. proposed to implement tariff sheets providing "enhanced transportation rights" to its customers in its market zones, allowing customers to deliver gas in one market zone without limiting the customer's capacity rights in a downstream market zone. F.E.R.C. accepted this "enhanced transportation" proposal subject to refund and a technical conference. Texas Eastern Transmission Corporation, "Order Accepting And Suspending Tariff Sheets, Subject To Refund And Conditions, And Establishing A Technical Conference," Docket No. RP94-357-000, 68 F.E.R.C. P61,385, (September 29, 1994).
pooling points, and enhanced transportation rights are being introduced to expand pipeline transportation services.

**Pipeline Capacity Release**

To increase transportation volumes, F.E.R.C. envisioned a robust secondary transportation market engineered by its capacity release program. Under Order No. 636, capacity release allowed customers who hold contracts for firm pipeline capacity to release it (either temporarily or permanently) for use by other parties. The customer’s ability to release unused capacity would "minimize the net cost of firm transmission capacity to their ratepayers .... The capacity-related revenues generated by such transactions are then credited against the bills rendered to the original capacity holder under the pipeline’s contract.”

What F.E.R.C. expected and what F.E.R.C. is getting are proving to be two different things. All agree that increased capacity release transactions will affect market hub operations; however, there is minimal reliance on capacity release among pipelines and most local distribution companies and there are more short term capacity release transactions than long term ones.

In particular, these capacity release issues must be addressed: "(1) the requirement to post releases in excess of 30 days (or one month less one day ...); (2) the requirement that the shippers have title to the gas ...; (3) the current price cap (the pipeline’s maximum firm

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30 Gas Capacity Release: Opportunity or Pitfall? Fortnightly, December 1, 1993, at p. 3.

31 Relying on a study performed by Hadson Gas Systems, the following information was uncovered about capacity release: 1) 6 percent of the total natural gas volumes transported over the past six months have been moved through released capacity; 2) four pipelines (El Paso Natural Gas Co., Pacific Gas Transmission Co., Columbia Gas Transmission Corp., Natural Gas Pipeline Co. of America) have accounted for 55 percent of the capacity released; 3) most capacity releases are prearranged for a short term; 4) a "gray market" has developed which involves transactions that make use of regulated firm transportation rebundled with unregulated sales of gas to serve markets that otherwise would rely on either interruptible or released firm transportation service; 5) there is a lack of participation in capacity release transactions by many large LDCs; 6) affiliate related capacity releases play a relatively minor role, amounting to less than 5 percent of the national total volume released; and 7) pipelines' discounted IT service has directly competed with capacity released to the same markets by their LDC customers. The Hadson study is entitled: The Rumble of Bundles: A Review of Experience Under the Capacity Release Experiment. Hadson Executive Analyzes Capacity Release Programs In The Interstate Gas Market, Foster Report, September 1, 1994, at 1 - 4; Capacity Release Yields Bargains. But Business Isn't Brisk Everywhere, Inside F.E.R.C., August 29, 1994, at 1 - 3; Order No. 636 Capacity Release Program Gets Critical Airing At Gas Industry Conference, Foster Report, September 8, 1994, at 2 [hereinafter Order No. 636 Capacity Release].

32 Initially, F.E.R.C. refused to alter the definition of a short term prearranged capacity release of one month or less when it denied Natural Gas Pipeline Co. of America’s request. See Natural Gas Pipeline Co. of America, "Order Accepting Certain Tariff Sheets, Subject to Conditions, And Rejecting Other Tariff Sheets," Docket No. RP94-255-000, 67 F.E.R.C. P61,385 (June 23, 1994). Chair Moler stated that the industry should continue to "play the release game before we change the rules." Moler Suggests That Less Regulation May Be The Best For Gas Market, Inside F.E.R.C., September 12, 1994, at 11.
transportation (FT) rate); 

34 (4) pipelines' ability to acquire available transportation and storage capacity on other pipelines.

Disappointed with the lack of enthusiasm for capacity release, F.E.R.C. agreed to review the Order No. 636 capacity release mechanism by issuing a list of questions and by inviting a number of gas industry members to informal discussions on the topic.

On January 12, 1995, F.E.R.C. issued a proposed rulemaking that alters the short term prearranged capacity release to thirty days, ending the large number of release transactions which involved the pairing of a twenty-nine day prearranged release with a one day deal with the same terms to avoid the bidding process. This is the first substantive change to the capacity release rules outlined in Order No. 636. F.E.R.C. is continuing to consider removing the price cap set at the pipeline's maximum FT rate.

35 Order No. 636 Capacity Release, supra note 31, at 3. The F.E.R.C. refused to alter the definition of a short term prearranged capacity release to one month or less when it denied Natural Gas Pipeline Co. of America's request in Docket No. RP94-255. Natural Gas Pipeline Co. of America, "Order Accepting Certain Tariff Sheets, Subject to Conditions, and Rejecting Other Tariff Sheets," Docket No. RP94-255-000, 67 F.E.R.C. P61,385 (June 23, 1994). However this position was changed in Order No. 577 and Order No. 577-A. See note 37 infra.


Among the fourteen Capacity Release Outreach Questions, the following were asked: "What are the strengths and weaknesses of the program? What needs to be changed? Has the lack of uniform operational rules on different pipelines hindered capacity release transactions involving multiple pipelines? Are price caps on released capacity necessary? Has the lack of uniform operational rules on different pipelines hindered release transactions involving multiple pipelines? Is there a perception that prearranged deals are preferable over bidding? What would be the effect of permitting the sale of capacity directly between shippers without posting and bidding? Why are buy/sell and bundled capacity/gas transactions, the so-called 'gray market,' being used as an alternative to the capacity release program?" Staff Solicits Industry Views on Workings Of Capacity-Release Program, Inside F.E.R.C., October 3, 1994, at 12 - 13. F.E.R.C. Staff To Hold Information Meetings With Industry Groups To Find Out How Capacity Release Program Is Working Prior To Scheduling Public Conference, Foster Report, October 6, 1994, at 9.

37 These informal meetings occurred in October and November, 1994. INGAA suggested that the revenue crediting requirement for Interruptible Transportation (IT) volumes be eliminated; that calendar-month prearranged deals be allowed; that the complaint procedure should be used by F.E.R.C. to address Electronic Bulletin Board (EBB) posting issues; and that pipeline affiliates should be treated no differently than other marketers who participate in the secondary market. "Recommendation of the Rate & Policy Analysis Committees on the Capacity Release Market," INGAA White Paper, October 12, 1994.

New Pipeline Storage Services

To enhance competition, Order No. 636 unbundled pipeline storage capacity allowing access by any qualified shipper on a firm or interruptible basis. Many independent pipelines and "storage" marketers are assessing available storage and are considering installing or expanding seasonal and peaking gas storage facilities in supply and market areas. With storage now playing a vital role in the supply chain, it is entirely possible that "storage capacity could become a commodity as valuable as gas." 

While F.E.R.C. has not directly addressed the interplay between market centers and storage, numerous efforts have been made to link the two through hub agreements. Like hubs, storage facilities can provide balancing services, short-term inventory balancing, incremental supplies and demand, and operational flexibility for shippers. "It is arguable that these hub services are rebundled storage services...."

F.E.R.C. has authorized market-based rates for storage services. The first market

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83 Order No. 636, III F.E.R.C. Stats. & Regs. Preambles at 30,426; see 18 CFR 284.1(a). Since Order No. 636 allowed pipelines to retain only enough storage and transportation capacity to maintain operational control of the interstate transportation system and to provide no-notice service, access to storage is now available to producers and end users. Indeed, the American Gas Association states that more than 3 tcf of working gas will be in storage for the coming winter peak demand periods and that "[s]torage withdrawals this winter are expected to account for about 5% of U.S. interstate gas pipeline non-peak month throughput, firm transportation volumes 71%, interruptible transportation 17%, and no-notice and pipeline system gas the balance." F.E.R.C. Order 636 Spawns Flurry Of U.S. Gas Storage Projects, Oil & Gas Journal, October 1993, at 26.

89 Historically, storage was built for seasonal use under a rate based system; a "one size fits all" seasonal storage facility which some believe is overbuilt in the market area but high deliverability storage is under built in both the market and producing areas. Pipeline Industry, Vol. 77, No. 2, February 1994, at 36. High deliverability storage such as salt dome storage -- currently a small percentage of total storage capacity -- will increase significantly as it can cycle completely up to ten times a year. Foster Report, February 1994, at 30.


41 Texas Conference Portrays Market Centers As The Standard For Natural Gas Transaction Business In The Future: Participants Debate Definitions, F.E.R.C.'s Role, And Impact Of Competition, Foster Report, May 12, 1994, at 14. One such example is the proposed Alberta Energy Partnership storage and market center project. Development of this 2,500 acre $5 million project would "provide an independent gas storage alternative for California non-core customers who traditionally have had to rely on the storage services of the state's two major public utilities... A number of other HUB and market center services would be offered to satisfy the requirements of the California gas marketplace." Alberta Energy Partnership Exploring Kern County, California Gas Storage Project And Market Center, Foster Report, March 31, 1994, at 30.

42 Among these are Koch Gateway Pipeline Co. out of its Bistineau Storage Facility in Webster Parish, Louisiana (42.5 Bcf); Bay Gas Storage Co. Ltd. in association with a new salt dome storage cavern being constructed jointly with Olin Corp. in Washington County, Alabama (1.5 Bcf); Richfield Gas Storage System from underground storage in Morton County, Kansas (3.5 Bcf); Petal Gas Storage Co. in Mississippi (1.6 Bcf); and Transok, Inc. (4.0 Bcf). F.E.R.C. Grants Preliminary Approval Of Avoca's Market-Based Storage Services In Consumption Area Based On Extensive Evaluation Of Competitive Conventional Storage And LNG Alternatives, Foster Report, June 30, 1994, at 4. F.E.R.C. Approves Koch Gateway's Request To Charge Negotiated Rates For Unbundled Storage Service, Foster Report, March 31, 1994, at 6. Recently an intrastate pipeline, Llano Inc.'s market based transmission and storage
area storage project to seek and obtain approval of negotiated rates was Avoca Natural Gas Storage. F.E.R.C. determined that:

(1) a salt dome storage facility would be in the public convenience and necessity; (2) Avoca can provide peak period supply, balancing and gas price arbitrage in competition with similar services already provided by conventional and LNG storage in the area; and (3) Avoca will be unable to exercise market power because it is small relative to the alternatives available to customers, because market concentration for short-term peak supply services is low, and because other factors temper Avoca's ability to exercise power where market concentration for other services is high.43

Several applications for market based storage rates have run aground at the F.E.R.C. absent evidence of lack of market power. Neither Michigan Consolidated Gas Co. nor Cove Point LNG Limited Partnership were successful in their bid for market-based storage rates.44 Not all certificate applications for storage facilities request market based rates. Young Gas Storage Co. Ltd.'s application to develop and operate a natural gas storage field at cost-based rates was approved.45

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Recognition of the important role storage will play has encouraged numerous pipelines to consider adding storage projects to their future plans. Both Southern California Gas Co. and Pacific Gas & Electric Co. have proposed unbundled storage programs in California for non-core customers. The storage program will offer load balancing, basic long term contract, short term and off-season storage services. Alberta Energy Partnership is considering development and operation of the Ten Section Hub. The project would be located near all five California pipeline systems and serve as a market center for the western regions of the U.S., Canada, and Mexico.46

Storage has become a vital part of the gas supply chain; a menu of storage services has been included as part of pipelines', producers', marketers' and aggregators' portfolios. Local distribution companies and large industrial customers will buy storage in order to manage their own portfolios of gas supplies. In the future, storage will be tradedlectronically and will become part of the futures market.

**Pipeline Rate Zones, Cost-Based Rates, Market-Based Rates**

A number of pipelines have found that a complex multi-tiered rate structure hinders the ability to compete at the market centers; pipelines are filing revised tariff sheets to simplify their rate structure.47 Once the gas arrives at the market center, the shipper reviews the pipeline capacity available and selects the most competitive rate. F.E.R.C.'s Economic Policy Director O'Neill believes that rate zone boundaries will develop at and around the market centers — so called "concentric rate zones."48

Another issue which has been raised by applications for market hub rates or storage service rates at F.E.R.C. is the authorization of market based or cost-based rates. Although F.E.R.C. generally authorizes rates based on the cost of service, F.E.R.C. "is not required to adhere rigidly to a cost-based determination of rates"49 and has flexibility in selecting a ratemaking methodology.50 F.E.R.C. may consider rates reached as a result of competition


47 For example, NorAm Gas Transmission Company filed tariff sheets to change from its current complexity of postage stamp transportation rates to three additive rate zones on NorAm's throughway system and to establish a market lateral surcharge designed to recover the costs of such facilities only from those customers who use them. NorAm Gas Transmission Company, "Order Accepting And Suspending Tariff Sheets Subject To Refund And Conditions, And Establishing A Technical Conference And Hearing Procedures," Docket Nos. RP94-343-000, et al. 68 F.E.R.C. P61, 272 (August 31, 1994).

48 O'Neill, supra note 9, at 12. An example of these rate zone boundaries or concentric rate zones was applied by National Fuel Gas Supply Corp. at Ellisburg-Leidy.


where it can "demonstrate that market forces could be relied upon to keep prices at reasonable levels."\(^{31}\)

However, F.E.R.C. has exhibited a reluctance to approve market based rates for transportation. K N Interstate Gas Transmission Co. applied for market-based rates for its Buffalo Wallow market hub. If granted by F.E.R.C., this application would have been the first time market-based rates for transportation services would have been approved. Instead, F.E.R.C. rejected the proposed market-based transportation tariff sheets stating that K N had not shown that it lacked significant market power.\(^{32}\) When K N Interstate Gas Transmission Co. reapplied for cost-based transportation rates, F.E.R.C. granted this revised application.\(^{33}\) F.E.R.C. also denied Ouachita River Gas Storage Co.'s request to provide interruptible hub services at market-based rates since Ouachita had not demonstrated a sufficient lack of market power. F.E.R.C. grappled with "how its framework for analysis of market power might apply to an application for market-based rates for hub services"\(^{34}\) and decided that the company must show that "sufficient good alternatives to its proposed services are available in sufficient quantity to prevent Ouachita River from exercising market power."\(^{35}\)

F.E.R.C. continues to be uncomfortable with market-based transportation rates; however, F.E.R.C. did ask the industry for comments on achieving non traditional, market-based and incentive rates.\(^{36}\) It is unclear what evidence F.E.R.C. will accept as conclusively proving lack of market power. Uneasy with untying the regulators' hands by approving market-based transportation rates, F.E.R.C. is now encouraging incentive rate plans.

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\(^{31}\) Farmers Union, supra note 49, at 1510.

\(^{32}\) F.E.R.C. expressed concern that extensive business arrangements with affiliates and the existence of captive customers did not lend itself to light-handed regulation. F.E.R.C. stated that K N had not documented the effect the non jurisdictional services (title transfers, electronic trading) would have on jurisdictional services and that requiring daily balancing and a daily variance charge contradicted the need for additional flexibility in negotiating terms and conditions with prospective shippers. K N Interstate Gas Transmission Co., "Order Rejecting Tariff Sheets And Providing For Further Procedures," Docket No. RP94-328-000, 68 F.E.R.C. P61,401 (September 30, 1994).


\(^{34}\) Commission Says No To Market Based Rates For Associated Interruptible Hub Service, Foster Report, October 6, 1994, at 3.

\(^{35}\) Commissioner Santa mused, "What if Ouachita River demonstrated good alternatives for 50 of the 72 interconnect paths but then offered rate caps or some other means to mitigate its market power with respect to the interconnect paths for which there was no good alternative?" F.E.R.C. Has Mixed Feelings About Planned Ouachita River Storage Project, Inside F.E.R.C., October 10, 1994, at 15.

\(^{36}\) Alternatives To Traditional Cost-Of-Service Ratemaking For Natural Gas Pipelines, "Request For Comments And Alternative Pricing Methods," Docket No. RM95-6-000, 70 F.E.R.C. P61,139 (February 8, 1995); "Market-based rates for pipelines may result in a barrage of litigation before the pipelines finally lose the battle ... market analysis for pipelines would be extremely complex and costly and would likely result in findings of significant market power for most pipeline markets." Utilities Warn F.E.R.C. To Go Easy With Market Rates, Gas Daily, March 1, 1995, at 3.
In conclusion, the era of pipeline exclusively as transporter has dawned. And along with this new role, has come the creation of market hubs offering flexible buying and selling, the availability of long term contracting and hourly trading, uniform electronic markets, futures trading and capacity release transactions. Unique pipeline transportation services have appeared.

F.E.R.C.’s vision of replicating wellhead competition and introducing competition into the pipeline segment of the natural gas industry is complete. But how will the benefits of competition reach the consumer? Currently small gas producers, many local distribution companies and small end users are not directly using market hubs since they lack firm transportation capacity and do not ship large volumes of gas on hub facilities. Even though F.E.R.C. has no jurisdictional control over local distribution companies, it is reasonable to assume that the various state commissions will use F.E.R.C. deregulation of the pipeline industry as a template to deregulate the gas industry at the local level.

Part 3. Deregulation of the Local Distribution Company

Natural gas pipeline deregulation has dramatically impacted state commissions and the local distribution companies (LDCs) they regulate. In time, LDCs will mimic deregulated pipelines and terminate or severely curtail their historic gas sales service, offering unbundled transportation, storage, capacity release, administrative and financial services.

Repercussions from the deregulation of the pipeline industry have altered completely the LDC’s sales service. Competition is appearing at the local level. And with this competition, the LDC will face more risk, more responsibility for gas supply, variable costs of gas transportation and storage, threat of pipeline bypass, and loss of large loads. To be


58 "Order No. 636 pulled the bundled merchant service ‘safety net’ out from under local distribution companies. Now responsibilities are shifting from the pipelines to the LDCs, who must manage their interstate pipeline capacity and the markets behind their city gates," according to F.E.R.C. Commissioner Santa. Santa: LDCs Turning Leaner And Meaner Under 636, Gas Daily, February 28, 1995, at 2.

59 Historically, most LDCs offered only three types of service: residential, firm non residential, and interruptible gas sales service. Except during supply shortages in the 1970s, LDCs did not offer customers the option of transportation, balancing, and storage service for customer-owned gas. Moreover, rates for firm and interruptible sales service to industrial customers were set above cost of service, causing industrial customers to subsidize residential service. This was justified on the basis that industrial customers placed a higher value on the gas. Until recently, this price discrimination between rate classes and bundling of sales with transportation service continued with little complaint from industrial customers because federal authorities kept LDC wholesale gas costs—the bulk of LDC total costs—at low levels compared to alternate fuels. Louis Monacell, Unbundling Natural Gas Service: Lessons From Virginia, Fortnightly, May 11, 1989, at 9 [hereinafter Monacell].

60 Competition will jeopardize the industrial load which has historically subsidized the LDC residential forcing prices to increase dramatically to the residential core customer. Order 636 May Add 34 Cents Per Mcf To Residential Consumers’ Bills from 1993 through 1995 according to the Energy Information Administration in the recent article in Inside F.E.R.C., February 28, 1994, at 13.
successful, the LDC now must face the challenge of deregulation and expand beyond its historic sales service role. The LDC must add new services, marketing affiliates, gas procurement and management, pipeline hubs, storage projects, capacity release, transportation, curtailment, and pooling of resources to its current portfolio of services.61

**Increased Oversight Role of State Commissions**

Now that the LDC "can assemble a portfolio of gas supplies, firm transportation, and storage arrangements which are tailored to their individual needs rather than purchasing a 'one size fits all' bundled service package from their pipeline supplier, the LDCs [can] reduce their costs by purchasing only services they need and [so exercise] ... control over [their] destiny."62 However, with this increased LDC control comes increased LDC responsibility and risk. Indeed, F.E.R.C.'s lessening of control over pipelines at the federal level has increased regulatory oversight at the local level. The increased oversight role of the state commissions began once the pipelines unbundled, with some state commissions angered by the abdication of F.E.R.C.'s regulatory role and the resulting increased responsibility at the local level.63

Issues which were addressed by F.E.R.C. reappear at the state level: competition, partial or complete deregulation, market-based rates, market affiliates, incentive plans, unbundling, and new services.64 Chief among state commission concerns is the fear that deregulation will result in poorer services and higher rates for the consumer.65 In an attempt

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61 Stephen Huntoon, *636 to the Burnertip?* Fortnightly, July 1, 1994, at 22 [hereinafter Huntoon].
63 A number of state commissions and associations have filed a joint brief requesting that the U.S. Court of Appeals for the District of Columbia Circuit reverse and remand Order No. 636, et al. Among other issues, the petitioners state that SFV rate design eliminated pipeline incentives for productive efficiency and attack the position that MFV rate design is unjust and unreasonable; petitioners contend that F.E.R.C. should have mitigated GSR costs through the abrogation or modification of jurisdictional contracts or disallowance of some portion of gas supply realignment (GSR) cost recovery from consumers; petitioners also claim that the F.E.R.C. failed to provide a reasoned explanation for preempting state commission jurisdiction over the assignment by LDCs of their capacity entitlements on interstate pipelines. *United Distribution Companies, et al. v. Federal Energy Regulatory Commission*, Joint Brief For Petitioners: Pennsylvania Public Utility Commission, Public Utilities Commission Of The State Of California, Illinois Commerce Commission, State Of Indiana, Office Of Utility Consumer Counselor, Iowa Utilities Board, Public Service Commission of the Commonwealth Of Kentucky, Maryland Office Of People's Counsel, Missouri Public Service Commission, New Jersey Board of Public Utilities, Public Service Commission of the State of New York, Ohio Office Of The Consumers' Counsel, Pennsylvania Office Of Consumer Advocate, Public Service Commission Of West Virginia, Consumer Advocate Division, Public Service Commission Of Wisconsin, The National Association Of State Utility Consumer Advocates, And The National Association Of Regulatory Utility Commissioners; United States Court Of Appeals For The District Of Columbia Circuit, Nos. 92-1485, et al., March 14, 1995.
65 State commissions must now embark on a thorough analysis of the need for LDC regulatory reform to allow "more reliable, flexible, efficient and customer service (oriented LDCs)." Foster Report, No. 1967, February 24, 1994, at 16.
to alleviate this concern, state commissions immediately began by participating at the F.E.R.C. level "to try to mitigate cost shifting to core distribution customers."  

**State Commissions Review Gas Purchasing Practices**

State commissions fear that the LDC core customers 67 will pay the costs for unbundling. The LDC "will still be the sole supplier for bundled gas and will continue to be subject to state public utility regulation. The size of the core market is expected to shrink as Straight Fixed Variable (SFV) transportation rate and full passthrough of transition costs make core distribution service more expensive." 68 Sophisticated noncore customers will leave the LDC, and contract individually for gas supply, bypass, or use alternate fuels to supplement their gas load. Noncore customers will use LDC facilities to transport gas only.

Since the LDC is no longer tied to the pipeline for gas supplies, for the first time the LDC is strictly accountable for their gas purchasing policies. Not only is the LDC responsible for choosing their suppliers and for portfolio diversification, they are now answerable to the state commissions for a hindsight review of these decisions. "[C]oncepts of reliability and portfolio diversification and how a portfolio lowers risks in a quantitative manner are simple, technical problems .... Without a way to quantify reliability, there can be no rational basis to agree on the ‘prudency’ of paying for reliability." 69 Without the F.E.R.C. purchase gas adjustment (PGA) approval process, state commissions question their ability to review utility filings. The LDC must convince the state commissions that its gas supply choices were the most prudent choices it could make. However, since the LDC still operates in a mostly regulated marketplace, regulators "retain the essential task of making sure that the obligation to serve does not get lost in the pushing and shoving of competition." 70

Many state commissions, including Colorado, 71 are reconsidering the gas cost

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66 Id.

67 Typically, the core customer is served under the LDC’s firm sales service tariff, is heat sensitive, uses low volumes of natural gas and has no alternate fuels available — the small residential customer. In contrast, the non core customer takes sales service under a flexible rate schedule, has installed dual fuel equipment, and takes interruptible or firm transportation service — the small commercial or industrial customer. The New York Public Service Commission listed non core customer criteria: service by contract not tariff, direct customer participation in commodity and capacity markets, alternative fuel capability and minimum volume (5,000dth) or minimum purchase conditions ($10,000 annually.) New York Public Service Commission Will Evaluate Report Of Staff On Competitive Market Options For The State’s Natural Gas Utilities, Foster Report, May 26, 1994, at 19.


69 Id.


adjustment (GCA) or purchase gas adjustment (PGA) filings to determine if (1) the GCA/PGA is still necessary; (2) if the GCA/PGA cost components are accurate and the costs should be passed through to the consumers; and (3) if the level of review at the state commission is sufficient now that F.E.R.C. is no longer scrutinizing purchase gas costs at the federal level. The Colorado Public Utilities Commission refused to eliminate the current GCA/PGA filings but instead scheduled informal conferences to "develop modifications to the GCA filing and review procedures" which will assist the commission in its new oversight role of substantively reviewing these filings.

The New Jersey state commission considered whether "review of specific purchased gas costs [should] be abandoned in favor of benchmark regulation, such as performance based regulation." At least one state commission (New York Public Service Commission) is reviewing three different approaches for reviewing LDC gas purchasing practices: "pre-approvals, contemporaneous indexing, and post hoc prudence assessments." Without question, pre-approval of the contract portfolio would give the utility a sense of security by "publicly and procedurally committing the commission."

Of fundamental concern to all LDCs is the issue of state commissions actively participating in both a pre-review and a post-review of LDC gas supply decisions. Seeking security in this volatile gas market, LDCs support the prior approval of supply and capacity portfolios. F.E.R.C. Commissioner Jim Hoecker agrees. Prudence review standards and procedures "have historically held gas management to a standard of care, if not 'clairvoyance,' that will foil peak market responses in the future. Distributors should no longer be held exclusively to long term firm supply commitments and the premium those arrangements entail."

**Integrated Resource Planning**

In addition, Integrated Resource Planning (IRP) initiatives have been demanded by many state commissions. Long range least cost demand side management (DSM) and supply side forecast planning is an attempt to assert a "pre-review" of gas costs and gas supply expenditures. Utilities are hopeful that a "pre-review" or "pre-approval" of gas costs and gas supply expenditures will decrease the need for audits or hearings. To date, LDCs have filed DSM programs in at least sixteen states with IRP dockets opened in at least eleven states.

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74 Jaffe, Adam and Joseph Kalt, Insight On Oversight, fortnightly, April 15, 1994 at 24 - 25.

However, generic natural gas DSM and IRP standards are being rejected in various states on the grounds that review of purchased gas adjustment filings accomplish the same thing as IRP, that competition makes IRP incentives less necessary to ensure lower gas prices, and/or that the regulatory process may not be an appropriate public intervention vehicle or an effective policy instrument for achieving IRP objectives. Some state commissions have reviewed gas IRP options and have concluded:

[T]hat the need exists for pro-competitive, incentive based policies in the gas sector and that an IRP process should focus more attention on the supply side of LDC operations. [Furthermore,] PUCs should consider moving toward less regulation to facilitate the movement toward greater competition in the energy industry. A participatory or interventionist IRP process can either impede competition, especially when customer choices are obstructed, or be ineffective or redundant when customers have options to override the intended purposes.

The IRP process is no longer seen as the panacea for all natural gas supply concerns.

Incentives

State commissions must consider rate incentives for unbundled LDCs, especially for those LDCs which continue to provide gas sales service to their core customers. Incentive plans must be tailored on an individual basis to meet the unique concerns of each LDC. LDCs should actively lobby against state commission attempts to create "generic" incentive plans.

Incentive plans vary from state commission to state commission. The New York Public Service Commission is considering whether it should allow the LDC to retain 15% of the net revenues or credits from capacity release and other pipeline services, with 85% passed along to its customers. Incentives for previous firm sales service customers might either

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76 The Colorado Public Utility Commission ended its IRP docket for natural gas utilities when it concluded that generic IRP gas standards were generally opposed. Three reasons were listed by the Commission: (1) natural gas production is a competitive industry; (2) there was no substantial evidence that there is cost effective demand-side management measures for natural gas; (3) there are pending dockets which allow parties to raise issues relating to the prudency of utility purchases of natural gas and the utilities' incentives to purchase the least cost natural gas. "Re: Investigation Into The Development Of The Gas Rules Concerning Integrated Resource Planning," Colorado Public Utilities Commission, Docket No. 92R-287G, May 26, 1994. The IRP issues, in particular supply side management, will be reviewed in the Colorado PUC investigation of gas costs and purchased gas adjustment clauses. See note 71 supra.

77 Not all state commissions are enamored with the IRP process. In an article entitled A Real Loser, Illinois Commissioner Ruth Kretschmer states "... the reality is that gas IRP is not cost-effective. In fact, it's a clear loser." Kretschmer, Ruth and Larry Mraz, Forthnightly, March 1, 1994 at 17. Third Survey: Of State Developments Shows More Utility Commissions Support Rate And Business Incentives For LDCs, Foster Report, No. 2002, October 27, 1994 at 11 (hereinafter Third Survey).

78 Id. at 10 - 11.
allow the LDC (1) to retain the amount realized above the previously forecasted margin or (2) to absorb any shortfall below the margin; or (3) to allocate net revenues on an 85%/15% sharing basis until the core customer has generated sufficient net revenues to offset its full allocation of fixed costs.79

Massachusetts Department of Public Utilities issued a generic notice of inquiry and order requesting comments on incentive regulation for natural gas companies to consider performance based regulatory processes.80 The Commission posits that "incentive regulation ties a utility's level of cost recovery to a predetermined performance indicator or mix of indicators, or to external indices such as a price level or expected productivity levels. It also recognizes the legitimacy of profit as an important motivator for utilities as long as customers benefit beyond levels likely under current regulation ... three general approaches to incentive regulation: (1) use of a broad-based or narrowly-targeted incentives, (2) price caps, and (3) rate of return bandwidth."

The California Public Utilities Commission has approved a tailor made base rate incentive plan for San Diego Gas & Electric Co.; this plan includes (1) a five year review cycle, (2) a cap on revenues subject to changes in inflation, customer growth and productivity, (3) regressive revenue sharing, and (4) performance incentives.

The Georgia Public Service Commission is reviewing plans to promote new business for utilities, including discounts and cash incentives for targeted businesses. For example, "United Cities Gas Co., is currently operating an incentive plan that is applied to new customers that bring an annual load of at least 27,000 Mcf and to existing customers that raise their load by 13,500 Mcf. A 40% discount on marginal cost is attributed to the eligible customer in the first year, 30% in the second year, 20% in the third year, and 10% in the fourth year."81

However, at least one state commission (Connecticut Department of Public Utility Control) concluded that it was premature to implement a gas cost incentive mechanism. Indeed, the Connecticut Department of Public Utility Control required utilities to submit a load duration curve, a load factor calculation and a capacity utilization factor for the twelve month period as part of the annual PGA deferred gas cost filing; this additional information might be used as performance standards for future incentive type gas supply cost mechanisms.82


80 Third Survey supra note 77, at 5.

81 Id. at 9.

LDC Marketing Affiliates

Another issue which the state regulators must consider is how to deal with LDC market affiliates. Many LDCs will contemplate the formation of an unregulated market affiliate to compete with aggregators and producers. Questions similar to those F.E.R.C. grappled with are as follows: Should states adopt an Order No. 497 marketing affiliate-type rule? Is there a potential for cross subsidies? Should core customers bear the risk of the marketing affiliate’s off-system activities if they don’t share in the commensurate benefits where the affiliate is profitable? Is there discrimination or favoritism in the LDC’s treatment of the marketing affiliate?83

One area in which market affiliate issues arise is in offering rebundled sales service (gas supply plus transportation) to customers. Eligibility to market gas through unregulated affiliates in their own service territories raises state commission concerns. Because of the potential for abuse, some commissions restrict the LDCs by disallowing the use of market affiliates in the parent’s service territories.84

There is no indication that Order No. 497 will be repealed and so state commissions will be tempted to use the F.E.R.C. order as a template for state regulation. This type of oversight is unnecessary at the state level and will inhibit competition. State commissions must be encouraged to adopt a complaint procedure — if a complaint is lodged by a third party, the state commission will investigate and, if necessary, resolve market affiliate concerns.

Unbundling at the State Level

Smaller local distribution company customers behind the city gate are the only major segment of the natural gas industry left to deregulate fully.85 The pressure to unbundle at the local level will be insurmountable for the LDCs and for the state commissions. Indeed, the question is no longer "if" unbundling will occur at the LDC level, but "when."86 Many


85 Pruner, David, U.S. Gas Market Adapting To Commoditization; Electricity Likely To Follow Similar Course, Oil & Gas Journal, March 13, 1995 at 66 [hereinafter Pruner].

86 Pennsylvania regulators are urged to "permit gas utilities to depart from their merchant role and give customers more competitive gas purchase choices based on market-driven prices and services." Panel Votes To Bring 636 To State Level, Gas Daily, May 4, 1994 at 5. "The New York State Public Service Commission will ... hear opinions on taking Order 636 to a state level." N.Y. Commission To Hear Ideas On Unbundling, Gas Daily, June 8, 1994 at 4. Staff at the Ohio Public Utilities Commission concluded, "the intrastate natural gas industry can no longer operate in a paternalistic manner whereby regulatory edict decides which uses and which consumers of gas are entitled to preferential treatment under varying circumstances and conditions. The LDCs, while retaining upstream capacity and commodity planning and acquisition responsibility for a yet to be fully defined captive or core class of consumers, can no longer conduct operations in the black box fashion of a previous era ... Staff recommended that it relieve LDCs of a firm obligation to provide commodity in the event of a failure in the transportation of gas supply and adopt ... a best efforts only obligation." Survey Of States Uncovers No Radical Effort To Reform LDC Regulations
believe that the "unbundling of services, each priced at the cost of service, best achieves the goals of promoting financially strong utilities, fair rates to all classes of customers, efficient utility management, and the filtering down of benefits of upstream competition."  

There is general agreement that the spread of unbundling to the LDCs will begin with open access transportation and from there spread to the unbundling of LDC storage with storage capacity held by industrials or an aggregator. In addition to firm and interruptible transportation and storage service, LDCs will offer released firm transportation, various seasonal peak and off peak services and emergency transportation.

LDC open access transportation allows third party shippers to move gas on the LDC distribution transportation system. New Mexico was the first state commission to encourage open access transportation, followed closely by Colorado. Basically, the LDC open access transportation tariffs on file with the state commissions mirror the pipeline-filed F.E.R.C. open access transportation tariffs, promising nondiscriminatory transportation of third party gas at a set transportation rate. Since gas aggregators and marketers have the most to benefit from open access transportation at the local level, it is not surprising that gas aggregators or marketers are confirmed proponents of gas utility unbundling and service options to small commercial, industrial end users and groups of residential end users.

This Winter, But Ideas For Local Responses To F.E.R.C.'s Restructuring Of Natural Gas Pipelines Are Being Explored, Foster Report, No. 1965, February 10, 1994 at 12 [hereinafter Survey Of States]. Wisconsin Public Service Commission is leaning toward "let[ting] the free market decide," and therefore taking steps "to expand operations beyond their franchise territories and are competing for outside industrial customers." Survey Of States supra at 16; Election Forces States To Quicken Unbundling Pace, Gas Daily, February 14, 1995 at 1.

"Unbundling of services at cost-based rates offers the prospect of achieving to a greater degree the policy objectives of regulation. All classes of customers would be treated fairly by being charged rates based on cost of service. If a wide menu of unbundled services is offered, customers would be able to determine what types and levels of service they want. Most importantly, unbundling allows alternate-fuel and gas-on-gas competition to put pressure on LDCs to reduce their costs and rates for all customers and to be innovative in their development of new types of services and in their gas supply acquisition strategies." Monacell supra note 59, at 15.


In fact, transportation by the LDCs has increased dramatically according to the American Gas Association (AGA); "A large percentage of the medium to large LDCs currently offers some type of transportation service .... The percentage of volumes delivered to commercial, industrial and electric utility customers as transportation climbed steadily from 42.7% in 1988 to 46.6% in 1989, 50.6% in 1990, 53.7% in 1991 and 56% in 1992. AGA Finds LDC Transportation On Upswing, Firm Supply Predominating, Inside F.E.R.C., October 31, 1994 at 19. AGA figures for 1993 continue to show increased transportation by the LDCs.


Unbundling And Rebundling The Core/NonCore Customers

The most difficult problem faced by the LDCs and state commissions is the LDCs' continuing obligation to serve its customers (an obligation not held by marketers or aggregators). Conservative analysts encourage the unbundling of LDC services for non-core customers to allow non-core customers the economic benefits of market priced competition.\(^{92}\) They conclude that unbundled services offered to non-core customers should be offered on a "best efforts" basis, with individual circumstances determining whether such services are offered at cost or at market prices. If non-core customers are unbundled, there need not be state regulatory oversight of gas purchases as the competitively priced market will replace state regulation.

However, regulatory oversight of gas purchases made for core customers remains essential and indeed, "must necessarily increase in scope."\(^{93}\) LDCs are burdened with the duty to serve the core market.

We will never achieve a level playing field contested by like players if one of the players has to bear a load which the others shun: the core .... The issue ... is severely complicated by the cumbersome burden of the market participant with core responsibilities and the social interest in the survival of that entity .... [P]roper ... regulation turns on recognition that the marketplace has ... [distinguished] between ... [the core and non-core markets]....\(^{94}\)

There are a few who challenge this position. Former F.E.R.C. Commissioner Charles Stalon advocates that "state regulators ... rethink an LDC's obligation to serve." This obligation "needs to be modified dramatically; with an eye toward eliminating it after the new industry structure is seasoned."\(^{95}\) But it is not simply a matter of removing the LDC obligation to serve. Stalon raises such questions as:

-[W]ill an LDC have a continuing obligation to provide sales service to a customer that wants only transportation service; or what will be the response to pressures to mandate that LDCs offer transportation on terms comparable to that embedded in retail sales service; and what will be the response when an LDC seeks to recover transition costs, or stranded costs, associated with gas

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\(^{93}\) New York Public Service Commission supra note 79, at 20; Regulators See Need For Utilities To Continue Bundled Service Option, Gas Utility Report, February 17, 1995 at 1.

\(^{94}\) Gas Utility Incentive Rate Mechanisms In California Differentiate Core And Non-Core Customer Mix, Fessler Tells NARUC/DOE Conference, Foster Report, No. 1966, February 17, 1994 at 3.

\(^{95}\) In The Post-Order 636 Industry, LDCs Should Concentrate ... Inside F.E.R.C., February 14, 1994 at 6.
supply that were intended for a customer that no longer wants to purchase from the distributor?\textsuperscript{96}

Commissioner Santa raises an additional issue: "If an LDC decides to exit the gas merchant business ... would state regulators release the LDC from its obligation to be the supplier of last resort and, if so, then who will be?"\textsuperscript{97}

Every state commission will eventually deal with the issue of unbundling as LDCs will watch their competitors and imitate them. State commissions will be presented with unbundling issues whether they have initiated proceedings of their own and may emulate resolutions adopted by other state commissions or F.E.R.C.\textsuperscript{98}

Dissatisfied with or not wishing to be limited to the unbundled options, some LDCs prefer the rebundled option — optional merchant-bundled services. Swimming against the unbundling tide, two LDCs have "asked for complete pricing flexibility in the large volume market" by proposing programs which would "wrap together released capacity with gas supply to serve larger end users."\textsuperscript{99} Acting as agent, the LDC would combine a capacity release and a pooling program, purchase gas, and arrange for transportation to the burner tip — so-called "one stop shopping."\textsuperscript{100} The LDC would buy competitively priced gas for both the pool and its own system supply requirements, with the lowest cost gas going to system supply needs and the higher priced supplies to the pool. At the same time, it would acquire firm capacity on upstream pipelines that either the LDC or another party is releasing. Then the LDC would schedule the gas to its city gate and if requested by the pool customer, to the burner tip. As agent it would receive all bills for gas supply and released capacity and would send the pool customer a single bill for the whole service.\textsuperscript{101}

Streaming is a form of rebundling which allows the LDC to dedicate specific gas supplies to certain customers or markets. Many LDCs claim that "streaming is necessary to participate effectively in competitive markets. However, core customers must be assured of

\textsuperscript{96} Foster Report, No. 1968, March 3, 1994 at 31.

\textsuperscript{97} Commissioner Don Santa supra note 83, at 4.


\textsuperscript{100} Several companies have expanded this concept to include "one stop energy shopping" by adding oil and liquids marketing and the marketing of electric power. CNG Executive Has Big Plans For 'One Stop (Energy) Shop, Energy Daily, January 20, 1995 at 1; Transco Establishes Power Marketing Unit; Initial Operations In Eastern U.S., Independent Power Report, December 30, 1994 at 8; Petroleum Marketer Forms Power Marketing Division For California, Independent Power Report, September 23, 1994 at 6.

\textsuperscript{101} Id. at 4.
no adverse impact, must be shown to be better off, and must be protected from undue
discrimination.”102

New Services
In order to be competitive, the LDCs must rethink the services they historically offered
(residential, firm non residential and interruptible gas sales service) and consider offering new,
additional services. These new services are "unbundled." Basically, "the customer is entitled
to choose any, all or none of its gas related services and only pay for those it wants ... an a la
carte approach can save the customer money by allowing him to choose only those services he
believes he needs."103 Regulators are actively encouraging LDCs to offer new services.
The New Jersey Board of Regulatory Commissioners’ guidelines required LDCs (1) to
eliminate any minimum volume restrictions, (2) to remove alternative fuel requirements, (3) to
allow the aggregation of small customer transportation availability, (4) to offer storage
balancing and standby services and (5) to offer a mechanism for notifying in-state customers
of available interstate capacity. In response to these guidelines, new natural gas transportation
service options were filed, without size limits or alternative fuel requirements.104 For
example, New Jersey Natural Gas Co. won commission approval to unbundle transportation
services from sales; it has implemented a menu of services including firm transportation,
interruptible transportation, supply aggregation, storage and balancing, and interruptible sales.
It removed any minimum volume restrictions, alternate fuel requirements and was permitted to
aggregate when feasible to make small customer transportation available.

Threatened by the loss of its historic customer base, pressed to compete with
aggregators and marketers, many LDCs will (in addition to their sales service) offer additional
services to attract and/or keep customers.105

102 New York Public Service Commission Will Evaluate Report On Staff On Competitive Market Options For

103 Elizabethtown Gas Seeks New Jersey State Board Of Commissioners’ Approval Of Additional Unbundled

104 Third Survey supra note 77, at 10.

105 Market-based pricing of LDC balancing services for transportation customers. The balancing charges will be
capped at the utility’s undiscounted fully embedded cost until questions about market power are answered. State
Commissions Tiptoe supra note 41, at 10.

Flexible contract rates for gas;
Gas marketing programs for excess capacity in nonpeak periods;
Aggregation and Pooling — One modified natural gas supply pool tariff for onsystem transportation
customers aggregates on behalf of qualified customers commingled gas supplies, from each interstate pipeline, that
may be purchased either on a short term or long term basis. The supplies may be coupled with interruptible
transportation service or firm transportation service secured through capacity release for delivery to the city gate.
Pool customers are free to purchase from the pool or from other marketers/brokers depending on which option is the
least cost supply alternative. One unique element of the proposed service is an “un-firm quoted price and customer
nomination procedure provided through an 800 toll free telephone number ... the actual price will be slightly higher or
lower than the requested price but the change will not be significant.” Id., at 14.

Negotiated gas sales program;
It is no longer appropriate to ask the question, "Will local distribution companies deregulate?" Now the question is, "When?" Local distribution companies will grapple with the issues which plagued pipelines ( unbundling, competition, market-based rates, market affiliates, open access transportation) and struggle with their position of "gas supply provider of last resort." Faced with these deregulation issues, state commissions must decide whether to retain broad authority over the retail services by forcing the LDC to remain as principal aggregator and merchant or give up that authority to the unregulated market.\textsuperscript{106} State commissions will be tempted to adopt F.E.R.C. resolutions to these issues. While deregulation at the local level will accomplish the goal of competition from wellhead to burner tip by bringing the low-priced well head gas to the consumer, it will also increase state commission regulation over LDC activity. The LDC's work is before them — they must convince state commissions that market based regulation, not increased state commission regulation is the best way to accomplish F.E.R.C.'s goal.

\textbf{The Canadian Experience}

Many of these issues were raised and resolved almost ten years ago in Canada. The "Halloween Agreement\textsuperscript{107}" deregulated the Canadian natural gas industry by lifting the controls on natural gas commodity prices, allowing market forces to determine prices, and removing barriers between willing buyers and sellers. This agreement forced TransCanada Pipe Line to eliminate its merchant function; services were unbundled in 1987. Eastern

\begin{itemize}
\item \textit{Offpeak firm service} for sales and transportation;
\item \textit{Firm transportation program} that includes an initial allotment of 40 MMcf/d of capacity for delivery of gas purchased by small commercial and industrial customers from third party suppliers. Participating suppliers are required to accept, under prearranged capacity releases at maximum rates, a portion of the LDC's firm transportation capacity in interstate pipelines that is equivalent to their customers' peak day use. \textit{Id.}
\item \textit{Prearranged transportation and storage capacity releases} provided that the designated replacement shipper matches the highest bid in the interstate pipeline's bidding process. \textit{End-Users Concerns About Problems That Direct Assignment, Inside F.E.R.C.}, March 7, 1994 at 16.
\item Capacity release along F.E.R.C. Order No. 636 pipeline capacity release — release on a firm, offpeak firm, or recallable basis, and the term of each release would be set based on the utility's determination of the period over which the capacity will not be needed for other services.
\item Capacity release option of direct capacity assignment to LDCs' customers without going through the F.E.R.C. Order No. 636 bidding process.
\item Hedging, futures and swaps — In order to remain competitive, LDCs must utilize "financial instruments such as futures, options and swaps to provide ... supply security to its customers." \textit{Id.} at 13. Most state commissions do not have specific rules prohibiting the hedging of gas supply or recovery of hedging costs; however, only about 15% of the LDCs currently hedge gas purchases. Yet, "61% indicated that their gas suppliers currently hedge for them." Walker III, Harold, \textit{Paying The Piper}, Forthnightly, April 15, 1994 at 33. While it appears that most LDCs have not realized the economic benefit afforded them by engaging in futures, options, swaps and hedging, it is apparent that these financial tools will have to be added to the LDC's portfolio of services.
\item \textit{Electronic Data Services} — use of the EBB to locate space on interstate pipelines and real time measurement to allow the sale/transport of gas for shorter periods.
\end{itemize}

\textsuperscript{106} Huntoon, \textit{supra} note 61, at 25.

\textsuperscript{107} Agreement Among The Governments Of Canada, Alberta, British Columbia and Saskatchewan on Natural Gas Markets And Prices, October 31, 1985.
Canadian LDCs entered into pure transportation contracts with TransCanada Pipe Line. The National Energy Board ordered "operating demand" capacity release to provide direct access for end users to supply in Western Canada. Gas deregulation was implemented during a period of supply surplus. The new regulatory framework facilitated competition between end users' direct purchase and LDC system supply. This encouraged competition, and gas-on-gas competition was vigorous. The LDCs' traditional long term supply could not compete with short term direct purchase supply.\(^{108}\)

Similar to our experience, Canadian agents, brokers and marketers were new players in the deregulated gas market — players who were dealing directly with the LDCs' customers.\(^{109}\) The new players had market knowledge and access to information and communication technology; they offered new services — storage, load balancing, information and control systems, financial risk management. Canadian LDCs were concerned that the new players would capture other segments of their business — billing, customer service and appliance rental. Finally, Canadian LDCs concluded that direct purchase did not threaten their business so long as this supply security was not compromised.\(^{110}\) At that point, many Canadian LDCs embraced the new players by forming broker/aggregator subsidiaries. Instead of competing with the new players, they recognized new business opportunities.

The Canadian LDCs also faced the issue of their obligation to supply gas to end users. Even though Canadian LDCs do not have a statutory obligation to serve,\(^{111}\) most acknowledged a "political" obligation to serve: public policy considerations dictate supplying residential customers and LDCs could not selectively shut off customers.

The typical Canadian LDCs' 1995 gas portfolio bears no resemblance to their portfolio prior to deregulation. Facing down the major deregulation issues, the Canadian LDCs have redefined the scope of their business and their risk. Their concern with the regulatory

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108 In 1985, Canadian LDC system supply equaled 100% of the volumes distributed; in 1995, Canadian LDC system supply equaled 40% of the volumes distributed.

109 In Ontario, there are two direct purchase options through which customers purchase pipeline capacity and obtain gas from nonutility suppliers: 1) the transmission option is used by large volume industrial customers who purchase their own pipeline capacity and manage their own gas supply; and 2) buy/sell option is used by all customer classes (approximately 250,000 residential customers). The buy/sell option works in the following manner: "A customer enters into a contract with a producer or an intermediary (broker or marketer) who agrees to supply gas to the utility at a specified delivery point as agent of the customer. Once the agency agreement is in place, the LDC is required to purchase the gas supply at a predetermined buy/sell reference price which is set by the Ontario Energy Board based on the utility's weighted average cost of gas less any relevant transportation and administrative charges. At the burner tip, the retail customer is charged the same bundled retail rate as the sales or system customer... [T]he distribution service provided by the utility is the same for all customers. A buy/sell customer, however, benefits when its agent is able to purchase alternate gas supplies at a lower cost than the utility's buy/sell reference price. The net gain is shared between agent and direct customer pursuant to terms of the agency contract." Ontario's Direct Gas Purchase Program Includes Substantial Residential Customer Base, Foster Report, No. 2018, February 23, 1995 at 11.

110 There were two direct purchase customers in 1986; this number increased to two hundred twenty-five thousand in 1995. Of that number, approximately 190,000 are residential customers. Speech Notes, Jim Hamilton, Director, Policy Development Marketing, Consumers' Gas Company.

111 Section 54 of Ontario's Public Utilities Act.
treatment of gas costs — gas price volatility, management, prudence review and indexed supply contracts — has been met by the knowledge that a more competitive market place requires less regulatory intervention. Consumers' Gas Company, Canada's oldest and largest LDC, has adopted the following philosophy: (1) We make money by distributing gas, not buying and selling gas; (2) We should not be perceived as a barrier between the customer and cheaper gas; (3) We will acquire a portfolio of least cost gas at moderate risk for customers favoring LDC gas supply; (4) We will facilitate access by any customer to alternate supplies provided that the supply security is not threatened and no subsidy from system supply customers is required.\footnote{112}

The Canadian natural gas deregulation experience illustrates that LDCs can benefit from embracing their competitors, increasing transportation load and market-based rates. To accomplish these positive goals, state commissions must give LDCs the appropriate business tools to compete in the unregulated market place: unbundled and discounted transportation rates, assignment of excess capacity and the end of subsidization of residential customers,\footnote{113} or incentive rates if the LDCs continue to serve core residential customers.

Part 4. Deregulation of the Electric Industry

The electric industry is one of the last major industries in the United States to be deregulated, following the telephone, airlines, and natural gas industries. With assets of $185 billion, it is more than twice as large as the natural gas industry, encompassing 3000 utility companies. (There are only 300 natural gas LDCs!\footnote{114})

Spurred on by its experience of deregulating the natural gas industry and by the electric power shortages during the winter of 1993-1994,\footnote{115} F.E.R.C. has begun the restructuring of the electric power industry.\footnote{116} Many wonder if the deregulation of the

\footnote{112} Speech Notes, Jim Hamilton, Director, Policy Development Marketing, Consumers' Gas Company.

\footnote{113} Driscoll, Mary, Utility Regulators Must Cut LDC Shackles, Says Hare, The Energy Daily, February 7, 1992 at 3.

\footnote{114} Pruner, David, U.S. Gas Market Adapting To Commoditization; Electricity Likely To Follow Similar Course, Oil & Gas Journal, March 13, 1995 at 66.

\footnote{115} "The performance of the still-regulated electricity industry during the 1993-94 winter was almost as disappointing as the gas industry's performance during the winter of 1976-77. The P-J-M pool, serving the middle Atlantic states, avoided a catastrophic regional blackout only by implementing brownouts and rolling blackouts, and by convincing the federal government, the governments of several states, and virtually all private businesses in the region to cease all operations for a day." Pierce, Richard, The State Of The Transition To Competitive Markets In Natural Gas And Electricity, 15 Energy Law Journal 323 (1994) at 324.

\footnote{116} F.E.R.C. began its restructuring of the electric industry on a case by case basis by requiring open access tariffs which provide comparable transmission service before granting the authority to conduct market based electric power transactions. Heartland Energy Services, Inc., Docket Nos. ER94-108-000, ER94-475-000, 68 F.E.R.C. P61,223 (August 9, 1994); F.E.R.C. extended its comparability of service requirement to include a comparability of pricing — transmission pricing must meet the traditional revenue requirement, must reflect comparability, but may
electric industry will follow the pattern established by the F.E.R.C. for the deregulation of the natural gas industry. Without question, the F.E.R.C.'s natural gas unbundling experience will influence the course and timing of electric power industry deregulation.

**Competition, Competition, Competition**

Many electric utility executives decry the restructuring of the electric power industry, emphasizing the differences between the electric and natural gas industries and expressing fears that restructuring will harm reliability, increase consumer rates, cause electric utility bankruptcies, and generally bring about the demise of the electric power industry. Some are resorting to the rhetoric of the early natural gas restructuring days; F.E.R.C. action amounts to a Pearl Harbor attack on the industry.

F.E.R.C. will not be convinced by these electric utility executive naysayers. F.E.R.C.'s vision for the energy industry rests on competition. Indeed, "the common thread" that runs through all of (F.E.R.C.'s) initiatives in the post-Energy Policy Act era is "the goal to foster greater competition in wholesale power markets by means of open access to transmission."

While F.E.R.C. admits that this is an evolutionary process, it plans to develop "rules of the road" for the restructured electric industry. If the deregulation of the electric industry mimics that of the natural gas industry, what specifically would that include? Since the goal for the electric industry is competition, the other components will be comparability, open access transmission, transition costs, market-based rates, unbundled services and direct access promote economic efficiency, fairness and practicality. F.E.R.C. Powers Ahead With Plans For Competitive Electric Future ... Energy Daily, October 27, 1994 at 1; Texas Utilities Electric Co., Final Order Directing Transmission Services, Docket No. ER94-4-000, et al., 69 F.E.R.C. P61,269 (December 1, 1994); American Electric Power Service Corp., 67 F.E.R.C. P61,168 (May 11, 1994); El Paso Natural Gas Co., Docket Nos. RP88-184-015, et al., 69 F.E.R.C. P61,155 (November 3, 1994); Inquiry Concerning the Commission's Pricing Policy for Transmission Services Provided by Public Utilities Under the Federal Power Act, Docket No. RM93-19-000, 69 F.E.R.C. P61,086 (October 26, 1994).


118 Radford, Bruce, Price or Service? Fortnightly, Vol.132, No. 16 at 5.


to customers. In response to electric utility deregulation, there will be more company streamlining, and downsizing, mergers and acquisitions. Electric utilities will compete with power marketers for their traditional customers. State regulators will consider incentive plans and utility rate structure reform. Electricity will become a commodity.

**Square Peg, Round Hole?**

F.E.R.C. would agree that there are physical, statutory, and competitive differences between the electric power industry and the natural gas industry. However, are these differences so monumental that F.E.R.C. should abandon deregulation of the electric industry? Or alter the path it found successful for the natural gas industry?

Fundamentally, there are physical differences between electric power and natural gas. Electricity is produced by generators varying in age, size and fuel type; pooling of these units has allowed utilities to cut costs.\(^{121}\) Electricity is currently limited to regional markets, flows at nearly the speed of light and cannot be stored except at great expense,\(^{122}\) wholesale generation of electricity is priced competitively but there is currently little transmission competition.\(^{123}\) In comparison, natural gas is produced from standard wellhead equipment, commands a nationwide market, is traded as a commodity, moves on the pipeline transportation grid at 15 to 25 miles per hour; it can be stored and is priced competitively both by the producer, the transporter, the marketer and when possible, the distributor.

In addition to these physical differences, there are statutory differences. The F.E.R.C. regulates the electric industry under the Federal Power Act (FPA), amended by the Public Utility Regulatory Policies Act of 1978 (PURPA) and the Energy Policy Act (EPAct).\(^{124}\) It regulates the natural gas industry under the Natural Gas Act (NGA), amended by the Natural Gas Policy Act of 1978 and the Natural Gas Wellhead Decontrol Act of 1989.\(^{125}\)

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\(^{121}\) Pooling "permits a utility peaking at a given time to use the temporary excess capacity of a company peaking at a different time....[E]ach intertied utility experiences a decrease in the quantity of generating and reserve capacity required to support the system." *Electricity: A New Regulatory Order?*, Congressional Research Service 102d Cong., 1st Sess. 71 (1991) at 67.


While limits are placed on F.E.R.C. authority, and state jurisdiction is recognized by both the FPA and the NGA, there are fundamental differences in F.E.R.C.'s jurisdictional and regulatory authority over electric transmission lines and natural gas transportation pipelines. First, electric utility construction — the siting and authorization of transmission facilities — is controlled by state not federal regulation; in comparison, F.E.R.C. authorizes interstate pipeline construction. Second, F.E.R.C. has the specific authority to order electric transmission service (with certain limitations) but F.E.R.C. can not order access to interstate natural gas transportation service. Until recently, these statutory and regulatory differences have slowed the competitive evolution in the electric power industry. Bolstered by their experience of deregulating the natural gas industry, F.E.R.C. is unwilling to be thwarted by these physical and regulatory differences. Chanting the deregulation mantra of competition, comparability, and market-based rates, F.E.R.C. has focussed on the similarities of the electric power industry and the natural gas industry.

Round Peg, Round Hole

Without minimizing the differences, there are numerous similarities between the electric power industry and the natural gas industry. Both are energy industries, with a public service obligation. The players in the electric power industry deregulation are similar to those in the natural gas industry deregulation: bundled generator/transporter/distributor, independent generators, power marketers, state commissioners, and F.E.R.C. commissioners. Both comprise of three functions: generation (production), transmission (transportation), and distribution. Currently, the electric power industry is "bundled" or vertically integrated — similar to a pre-restructured natural gas company, with all three functions in one corporate entity.

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126 Section 201(a) of the FPA states that F.E.R.C. authority extends "only to those matters which are not subject to regulation by the States." Section 201(b) states that unless expressly reserved under part II or part III of the FPA, F.E.R.C.'s jurisdiction does not extend "over facilities used for the generation of electric energy or over facilities for the transmission of electric energy consumed wholly by the transmitter." 16 USC §§ 824(a), 824b(1) (1988). Section 1(b) of the NGA states that F.E.R.C. jurisdiction does not extend "to any other transportation or sale of natural gas or to the local distribution of natural gas or to the facilities used for such distribution or to the production or gathering of natural gas." 15 U.S.C. § 717(b) (1988).

127 Santa supra note 122, at 288; PSI Energy, Inc., 55 F.E.R.C. P61254 at 61,811 (1991) ("The Commission does not have sitting or certification authority with respect to transmission lines under Part II of the Federal Power Act...[T]he Commission's authority is limited to a review of the rates, terms and conditions of jurisdictional agreements to ensure that they are just and reasonable, and not unduly discriminatory or preferential."); 16 USC §§ 824(a)(1988)(Federal regulation shall extend to part of electric utility business "which consists of the transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce..." However, such federal regulation extends "only to those matters which are not subject to regulation by the states.")


129 Section 211 of FHA; Policy Statement Regarding Regional Transmission Groups; III F.E.R.C. Stats. & Regs. P30,976 at 30,869 (1993). "...section 211 of the FPA ... gave the Commission general authority to order electric utilities to provide transmission to, inter alia, other electric utilities..." [EPAct] has significantly expanded the Commission's authority to order transmission services under section 211.
Further, a monopoly exists at the transmission and distribution functions of the electric industry (similar to the bundled natural gas industry) which hinders competition. Transmission and distribution functions remain effective monopolies and therefore "continue to be subject to traditional forms of regulation because (they) must be integrated in order to achieve society’s preferred level of reliability, and because economies of scale dictate that duplication is an inefficient way to provide the necessary services." Once faced with comparability, open access and unbundling, there will be electric industry transition costs that some have placed in the $200 to $300 billion dollar range.

Convinced by these similarities, F.E.R.C. has set out to deregulate the electric industry in record time. In some respects, the deregulation of the electric industry may be easier than the natural gas industry restructuring. "First, Congress has already made the decision to mandate equal access to transmission lines (the comparability "golden rule") and to create a competitive wholesale market. Second, most state PUCs have already made the decision to rely on competitive contracting as the primary vehicle for adding new generating capacity. Finally, the F.E.R.C. has already authorized firms to charge market-based wholesale electricity prices when it finds that the firms confront sufficient competition."

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110 Santa supra note 122, at 282. "In theory, the fact that the transportation function is a monopoly means that transmission-owning electric utilities and natural gas pipelines are able to maintain market power in the transportation product market, and may exercise market power in the product markets for delivered gas or electricity as a result of transportation market power." Id.

111 Electric utility transition costs will arise from (1) utility assets, regulatory assets and other costs ... made uneconomic as a result of competition in generation markets; and (2) loss of market to competing sellers with access to new purchasers through enhanced electric transmission services; and (3) contracts to purchase power from third parties at above market prices." Id. at 295, note 109.


113 Deregulation of the natural gas industry occurred over a number of years: beginning with fully integrated companies (production, transportation, distribution) offering wellhead to burner tip services, the 1970s surplus and shortages, Natural Gas Wellhead Decontrol Act of 1979, the 1987 Order No. 436 voluntary open access on gas pipelines, Order No. 500, and culminating in 1992 with Order No. 636 which unbundled pipeline sales from pipeline transportation service. Using natural gas deregulation as a guide, many believe that the deregulation of the electric industry will be completed in less than five years. However, there are some who warn that the upheaval is so great, that the electric industry will do everything possible to delay the inevitable. Production Costs Point To Competitive Winners—Moody’s, Energy Daily, November 1, 1994 at 3; Pierce supra note 132, at 338, 349.

In the natural gas industry, F.E.R.C. broke through the transportation/distribution monopoly by mandating competition, to be achieved through comparability of service and unbundling. Convinced by its experience deregulating the natural gas industry that the transmission/distribution monopoly will be erased by introducing competition to mitigate market power, F.E.R.C. took its first step to deregulate the electric utility industry on March 29, 1995 with the electric Mega-NOPR (Notice of Proposed Rulemaking).

The Electric Mega-NOPR
The electric Mega-NOPR "Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services By Public Utilities" and "Recovery Of Stranded Costs By Public Utilities And Transmitting Utilities" commits F.E.R.C. to a policy of reliance on market driven factors rather than regulatory control in its desire to restructure the electric industry.

As a basis for F.E.R.C.'s proposed rules, it states as follows:

We find that utilities owning or controlling transmission facilities possess substantial market power; that, as profit maximizing firms, they have and will continue to exercise that market power in order to maintain and increase market share, and will thus deny their wholesale customers access to competitively priced electric generation; and that these unduly discriminatory practices will deny consumers the substantial benefits of lower electricity prices.135

As currently written, the proposal affects only the transmission of power to wholesale customers (big industrial plants), not retail customers (residential homeowners). However, F.E.R.C. expects that opening wholesale competition will force the unbundling of the electric industry at the local level, and in time, lower the cost of electricity for all customers.

Specifically, the NOPR proposes the following: (1) Public utilities file open access non-discriminatory transmission tariffs. These tariffs must provide point-to-point, network, and ancillary services. F.E.R.C. would set rates for service in the pro forma generic tariffs based on a standard formula, using company-specific Form 1 data. (Point-to-point rates would be "postage-stamp" rather than "distance sensitive.")136 (2) Public utilities take


136 Id.; F.E.R.C. proposes a two step process for filing the open access tariffs: (1) each public utility which owns or operates a transmission system will be required to file an open access tariff in generic format to be effective sixty days after the effective date of the final rule; (2) Sixty-one days after the final rule becomes effective, utilities are free to propose Section 205 changes in the rates, terms and conditions in the generic tariff and customers are free to file Section 206 complaints seeking changes.
transmission service for their own wholesale transactions under their open access tariff.  

(3) Public utilities will have an opportunity to recover stranded investment associated with the 
open access tariff requirement. Recognizing that it would be unfair to penalize utilities for 
reliance upon past regulatory structure, F.E.R.C. would permit the recovery of "legitimate and 
verifiable" stranded investment from departing wholesale customers, provided that the utility 
could demonstrate "reasonable expectation" of continuing to serve a departing customer.

Taking note of its natural gas deregulation experience, the Mega NOPR does not propose to 
terminate existing contracts but rather proposes that all existing wholesale contracts remain in 
full force and effect until naturally terminated.

The key element in allowing market forces to work is the pricing terms and conditions 
under which transmission facilities are used. This Mega-NOPR addresses transmission access 
and transmission pricing; it doesn’t address generation or distribution. Support of this Mega-
NOPR will vary depending on the utility’s competitive generation prices and the position of 
the utility as a high price or low price producer of energy in an open transmission grid.

**Electricity As A Commodity**

Energy must be viewed as a commodity. As natural gas has become a commodity, 
traded on NYMEX and subject to derivatives, futures and hedging, so will electricity. 
"[A] spot market in electricity will evolve ... [w]ith prices revealed; a commodity market will 
follow. With spot and commodity markets will come the power to reallocate risk and make 
capital investment more productive." NYMEX is developing an electric futures contract. An electric futures market will allow the purchase and sale of specified quantities of commodities for future delivery at a specific location. Prices will be determined by competitive bidding. The actual transaction prices will be instantly disseminated throughout the world and serve as a benchmark for

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137 Id.

138 Id.

139 Id. mimeo at 133.

140 Initial comments on the NOPR are due on August 7, 1995 and reply comments are due on October 4, 1995. If the natural gas deregulation pattern is followed, the final order will be quite similar to the March 29th NOPR regardless of the comments and oral testimony (if scheduled) received by F.E.R.C.

141 Derivatives “are complex hedging instruments, such as futures, options, and swaps, used to defray the risk of changes in interest rates, stock prices, foreign-exchange rates and commodities prices...” Citizens, Lehman Bros. Form Venture For Power Marketing, Derivatives, Independent Power Report, September 23, 1994 at 7.

142 “The coming commoditization of electric power will unbundle price risk from electricity as a 'good.' If utilities don’t do it, new market intermediaries will.” Mango, Bob and John Woodley, The Inevitable Commoditization Of Electric Power Markets, Fortnightly, Vol. 132, No. 20, November 1, 1994 at 27 [hereinafter Mango].

143 Id. at 27.
commodity value. According to NYMEX, "introducing risk management tools into the electric industry is a natural outgrowth of the competition currently being fostered." While F.E.R.C. insists that it does not have jurisdiction over derivative instruments in power markets, it is concerned about investment banking firms seeking marketer status so they can conduct derivative transactions — futures, options and other risk-hedging mechanisms.

**Generation**

Currently, the electric power industry is a vertically integrated industry: generation, transmission and distribution owned by one corporate entity. This structure is incompatible with competition. Therefore, competition and open access transmission will drive the unbundling of the electric utility industry into three separate entities — generation, transmission, distribution — causing a vertical disintegration of the electric utility industry. While the move to separate generation assets from their transmission and distribution units is supported by state commissions, independent power producers and power marketers, it is feared by many vertically integrated investor owned utilities. Investor owned utilities foresee competition forcing unbundling, increased business risk, the spin off and downsizing of corporate entities, the need for unbundled market flexible rates, the erosion of their historic customer base once direct access or customer choice is attained at the distribution level, and the overriding concern of stranded costs.

There have been a number of proposals to disintegrate the electric utility. Each

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144 Burkhart, Lori, *NYMEX Prepares To Launch The Electric Future*, Fortnightly, July 15, 1994 at 39. Mango, *Id.* at 27. "The coming commoditization of electric power will unbundle price risk from electricity as a 'good.' If utilities don't do it, new market intermediaries will." *Id.*


148 AES: *Real Reform Requires Splitting Generation From Transmission And Distribution*, *The Energy Daily*, July 12, 1994 at 1 [hereinafter AES].

149 One plan suggested by an independent producer requires the utility "to sell off its generation assets, and to sign a long-term contract, which would include an immediate rate reduction of 5 percent, to buy power from the purchaser. The utility would be allowed to sell its generation assets as a single entity, in packages or as individual units; it would be guaranteed at least book value for all of these assets....[I]f the contract prices were set at a level that equaled the long-run marginal cost of generation...there would be no stranded asset cost charged to ratepayers. But given the low rates associated with competitive electric generation, it is unlikely that buyers would pay much, if anything, for the assets. A long-term contract would increase the value of the plant to potential purchasers, and they would bid a higher price for the plant to the selling utility. After the contracts expire, the facilities must negotiate..."
recognizes the issue of transition costs. "[P]art of managing the regulatory transition to a more competitive environment is providing a mechanism for natural gas pipelines and electric utilities to recover legitimate costs incurred to honor sales obligations under the old regime." It is this issue, to a large extent, which will shape the deregulation of the electric power industry.

**Transmission**

**Functional Unbundling**

The electric Mega-NOPR does not demand that a vertically integrated electric utility unbundle corporately. However, by demanding open access, comparable service and comparable pricing for transmission, it is pushing the electric utility into functional unbundling. Functional unbundling requires: (1) the transmission facilities owner take transmission services for all of its new wholesale transactions under the same tariff under which third parties take similar service; (2) open access tariffs must separately state rates for transmission and ancillary service components of each transmission service that it provides; (3) the utility must rely upon the same electronic network as its transmission customers to obtain transmission information about its system.

F.E.R.C. recognizes that the NOPR will necessarily establish two separate transmission arrangements: a wholesale transmission tariff filed with F.E.R.C. and retail transmission regulation governed by state commissions. Anticipating retail wheeling (or its equivalent), F.E.R.C. will exercise jurisdiction over the sale of unbundled transmission capacity in interstate commerce but exercise no control over the sale of unbundled generation at retail.

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150 Santa *supra* note 122, at 295.

151 F.E.R.C. does note that many utilities might ultimately choose to disintegrate. NOPR *supra* mimeo at 94.

152 End users arranging for their local utility to purchase generation from a third party supplier of the end user's choice on terms negotiated by the end user, transmit that energy in interstate commerce, and then resell it as part of a bundled retail sale to the end user (buy-sell transaction).
Stranded Costs

Having learned first-hand of the upheaval caused by ignoring stranded costs until late in the deregulation of natural gas industry (Order No. 636), F.E.R.C. determined not to repeat that error again. In the Mega-NOPR, F.E.R.C. asserts its duty to address stranded costs. Having reassured the electric utility industry that stranded costs must be recovered, F.E.R.C. discussed three alternatives for allocation and then chose to allocate the stranded costs directly to the departing wholesale customer. This is exactly opposite of the position taken by F.E.R.C. in the deregulation of the natural gas industry. F.E.R.C. then proposes to divide recovery of stranded costs into two categories: old wholesale power sales contracts (pre July 11, 1994) and new wholesale power sales contracts (post July 11, 1994). Stranded cost recovery will be allowed for contracts entered into after July 11, 1994 only if explicit stranded cost recovery provisions are contained in the contract. Therefore, firm requirements customers will be responsible for planning their own power needs beyond the end of any particular contract term, and the wholesale supplier will be free at the end of such contract term to sell its power on the open market. Stranded cost recovery will be allowed for contracts entered into prior to July 11, 1994 if the old contract includes a stranded cost provision or if the utility can demonstrate that it had a reasonable expectation of continuing to serve a departed customer.

F.E.R.C. proposes that recoverable stranded costs should be based on a 'revenues lost' approach rather than a hypothetical cost of service approach. The utility has an obligation to mitigate its stranded costs by marketing stranded power supplies at competitive market value. Recoverable costs include not only the actual costs incurred by the utility in the expectation of continuing to serve the customer but also includes a return on equity at the rate which was previously approved by F.E.R.C. in the wholesale contract.

F.E.R.C. then refused to consider retail stranded cost determinations, stating that it will only exercise authority to recover stranded costs occasioned by retail wheeling in the instance


155 The three choices were as follows: (1) Do nothing, thereby allocating the burden to shareholders; (2) Allocate the stranded costs directly to the departing wholesale customer; (3) Allocate the costs over a wider group of customers - all customers, all transmission customers, or various other combinations.

156 F.E.R.C. justified spreading stranded costs over all existing transmission customers because its seven year delay in addressing transition costs had caused significant upheaval in the industry.

157 A reasonable expectation standard will be decided on a case by case basis using a totality of the circumstances test. Factors such as whether the customer had access to alternate suppliers; the parties' actual course of negotiation and performance; and communications regarding system planning will be used.
in which a state regulatory authority lacks the authority to do so. However, it asserts that it does have authority over stranded costs caused by 'retail-turned-wholesale' customers (municipalizations).

Comments filed on the original stranded cost NOPR preview the comments to be expected in August on the Mega-NOPR. Investor-owned utilities (IOU) state that "recovery of stranded costs would promote parity pricing." Taking exception to F.E.R.C.'s position that it lacks jurisdiction over stranded retail costs, the IOUs further conclude that costs associated with generation facilities — included stranded costs — could be included in F.E.R.C.-jurisdictional rates.

However, the American Public Power Association states that "So-called stranded cost recovery is a matter that is already dealt with satisfactorily in existing contracts, and recovery of retail stranded costs should be dealt with by the states." Some state commissions view stranded costs as a state issue. They argue that federally mandated competition caused the decrease in generation and distribution assets — assets which are regulated by the states.

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161 "Stranded investment may be dealt with by a ... mixture of ... causing the utility to write-off, write-down or sell (at market value) some of its assets; recovering stranded investment through entry and exit fees on "defectors" from the utility; ... recovering stranded investment in transmission and distribution charges on all consumers ...; and allowing utilities to find new profitable markets to offset their shares of the stranded investment, such as offering onsite generation services, cogeneration, DSM, ... at a profit." Forum, Fortnightly, November 15, 1994 at 50.
Distribution: Deregulation At The Local Level

Retail Wheeling-Poolco-Buy/Sell

Driven by electric prices higher than the national average, higher prices which can not be explained by demographics or weather patterns, the inevitable has arrived — retail wheeling. Retail wheeling — unbundling of electric power at the retail level — is a concept which is already being considered by a number of state commissions. Out in front, the California Public Utilities Commission has proposed the "Blue Book" plan which will restructure the electric power industry, allowing direct access to all customers (regardless of their size) by 2002.

Retail Wheeling provides direct access to power supply for all consumers. The California "Blue Book" retail wheeling proposal ("Proposed Policies Governing Restructuring California's Electric Services Industry and Reforming Regulation, R.94-04-031, I.94-04-032, April 20, 1994) would allow large customers with transmission levels above 50 kilovolts to buy their own electric power through retail wheeling. By 2002, all customers would be allowed to choose their electric supplier. The plan calls for an unbundling of services and rates and a division of customers into core and noncore groups. Customers may choose to receive bundled services from their certificated utility or to require only those services they need to receive electric power they purchase elsewhere. The California proposal couples market pricing for competitive services and performance-based ratemaking for existing services. California electric companies have found this controversial industry restructuring plan acceptable; although they want to push back the date for full retail wheeling from 2002 to 2008. Maybe It Isn't Such A Bad Idea After All, Energy Daily, June 9, 1994 at 1.

Poolco - an independent regional power pool company to manage the wholesale power market. Utilities would continue to own their own lines but Poolco would manage their use. Poolco would provide a spot power price and would flow the power through distribution companies to retail customers in the same bundled way customers now receive it. As each company joins Poolco, it would separate transmission grid assets from distribution assets, using a principle based on where system congestion can be created.

Buy/Sell is a transmission-distribution transaction which will allow eligible customers to choose from any supplier of electricity inside or outside California, including their local utilities.

Retail Wheeling — Happy Motoring For State Regulators? Fortnightly, Vol. 132, No. 12, June 15, 1994 at 46; Wheeling Update, Fortnightly, Vol.132, No. 17, September 15, 1994 at 49; Radford, Bruce, Regulatory Dreams, Fortnightly, Vol. 132, No. 21, November 15, 1994 at 6. California has taken the lead on retail wheeling; states whose state commissions or state legislature have addressed retail wheeling are as follows: Connecticut (Retail Electric Transmission Service, Docket No. 93-09-29, Jan. 27, 1994; Final decision: retail wheeling would not serve the public interest because of excess generating capacity and potential stranded investment. September 9, 1994; Informal Roundtable Studies of Retail Wheeling Ordered, January 17, 1995, Docket No. 94-12-13); Illinois (Changes in the Structure of the Electric Energy Industry, No.94-R1, April 20, 1994); Massachusetts (Proposal to "Rent" Transmission and Distribution Access to Customers or Power Suppliers, DPU 94-162, Mass. Energy Agency Puts Forward Retail Wheeling Plan; Wire Rental, Electric Utility Week, January 9, 1995, at 11); Michigan (Experimental Program for Consumers Power Co. and Detroit Edison Co.; Association of Businesses Advocating Tariff Equity, 150 PUR4th 409, 1994); New York (Competitive Opportunities, Case 93-M-0229, August 9, 1994); Nevada (State Legislature - Limited Retail Wheeling Statute, S.B. 231 — Fears About State Reciprocity Have Killed The Prospects For Retail Wheeling This Year; Nevada Legislature Nixes Retail Wheeling, For Now, Energy Daily, March 13, 1995 at 4; State Commission - Docket No. 94-6024); Ohio (State Legislature - H.B. 676); Texas ("Self Service Wheeling," Houston Lighting & Power Co., Docket No. 12138, December 22, 1993); Utah (Pacificorp, No. 90-2035-01, June 1, 1993); Vermont (Citizens Utilities Co., Docket No. 5625, March 28, 1994); Wisconsin (Docket No. 05-El-114).
Proponents of competition, direct access and therefore, retail wheeling — nonutility
generators, power marketers, and large electric customers — are positioned against the
opponents of retail wheeling — utility management who fear the end of the regulated
monopoly, conservationists and environmentalists who fear the end of the electric power,
societal programs such as demand side management (DSM) and integrated resource
planning (IRP).

Unbundling of electric power at the local level will give rise to those issues which are
also being faced by state commissions in the unbundling of the natural gas industry:
competition, affiliate relationships, unbundled tariffs, market-based rates, stranded costs,
incentive plans, integrated resource plans and demand side management, core and non core
customers, and the obligation to serve.

Of primary importance is the distribution company’s obligation to serve. Competition
and direct access alters the traditional obligation to serve. The obligation to serve is "the
foundation for the concept of regulation. However, it presumes that the utility is a
monopoly." Under the California Blue Book plan, utilities would retain their duty to
serve customers who continue to receive bundled, tariffed utility service. But the duty to
serve direct access customers would be modified to avoid seriously hampering a utility’s
ability to plan for and reliably serve its remaining customers.

164 Power marketers encourage competition alleging "transmission access discrimination (is) an industry-wide
problem requiring an industry-wide solution. Power Marketers Seek Generic Comparability Rule, Energy Daily,
February 17, 1995 at 1. F.E.R.C. determined that an "affiliate will not be permitted to collect market-based rates for
bulk-power sales unless its transmission owner has filed an open-access transmission tariff offering comparable
services (Hermiston Generating Company, L.P., Docket No. ER94-950-000, 69 F.E.R.C. P61,035 (October 13,
1994)). "Comparability" Required For Affiliate Bulk-Power Sales, Fortnightly, November 15, 1994 at 63. Asserting
that quarterly activity and affiliate activity reports inhibit competition, power marketer affiliates are seeking a "lighter"
regulatory hand, more akin to their natural gas marketer affiliate brethren under Order No. 497. Utilities Look To

165 Understandably, utility management are concerned about the erosion of their traditional customer base, and
stranded costs, including suggestions that stranded costs be 'shared' by wheeling customers, core customers, and
However, the fear of retail wheeling "seems to be declining within the industry as more people realize that discount
pricing and expanding customer bases are the keys to survival in the newly competitive power marketplace." Survey

166 The surcharges and central planning necessary to support IRP and DSM have no place in a competitive
market. However, conservationists and environmentalists’ objectives will be met when competition encourages the
use of fuel-efficient new generating technologies. Studness, Charles, Political Alliances And The Struggle Over
Competition, Fortnightly, Vol. 132, No. 16, September 1, 1994 at 28; Hirst, Eric, Retail Competition May Put DSM


168 Id. at 29. The proposal also requires a twelve month notice period for those customers who wish to return to
bundled service status or for those bundled service customers who wish to return to direct access status.
State/Federal Jurisdiction

Electric power industry unbundling issues are compounded by state/federal jurisdictional conflicts which must be resolved to allow competition at the local level and full implementation of direct access proposals. Once unbundling of the vertically integrated electric power industry — driven by comparable service requirements and open access tariffs — occurs at the transmission level, the line between state and federal jurisdiction over retail transmission will have to be identified. F.E.R.C. recognizes the need for redefinition of regulatory responsibilities between state and federal regulators: "Jurisdictional questions are very very difficult because historically we haven’t had to define those boundaries." 169

The jurisdictional issues have been increased by the uneven application of federal/state authority over the transmission and sale of electricity. F.E.R.C.’s exercise of its new authority under the EPAct to order open access transmission on a comparability-of-service basis encourages competition in the electric industry. The FPA grants the F.E.R.C. authority to determine just and reasonable rates for the transmission of electricity in interstate commerce.170 However F.E.R.C. is still prohibited from mandating retail wheeling,171 and it does not have power to authorize construction or expansion of transmission lines.

Without question the federal/state jurisdictional issue has spawned greater obligations for state regulators to revise traditional modes of regulation to accommodate the emergence of a robust, competitive, wholesale power market. However, the state commissions are not in agreement on how to redefine regulatory responsibilities between state and federal regulators. A Colorado Commissioner believes that "an orderly and equitable shift to a market-based electric service industry will require federal intervention."172 A Wyoming Commissioner believes that "regional and subregional groups — working together to tackle regional and subregional problems — offer better hope of good, rational solutions."173 An Ohio Commissioner believes that the federal/state joint board process should be used to develop federal/state policies based on contractual relationships.174 An Illinois Commissioner


170 Currently most electricity is transmitted as a bundled sales transaction giving little opportunity to resolve jurisdictional disputes over transmission rates. Courts have interpreted "interstate broadly to include any transaction within a single state if the transaction makes use of interconnected transmission lines in which the potential exists for commingling with electricity from an out-of-state source." Practically speaking, these holdings give F.E.R.C. "plenary power over virtually all electricity wholesales in the continental United States." Pierce at 331.

171 Not everyone agrees that states have the authority to order retail wheeling. "The FPA grants the F.E.R.C. jurisdiction to regulate transmission of electric energy in interstate commerce, and several Supreme Court decisions have made it clear that all transmission of electric energy by utilities connected to interstate transmission grid is transmission in interstate commerce." Commissioner Alvarez, Colorado PUC, Fortnightly, November 15, 1994 at 55; F.E.R.C. General Counsel Tomasky believes that it is a "question of interpretation." F.E.R.C., States Struggle To Find Common Ground As West Starts Restructuring, Electric Utility Week, January 23, 1995 at 8.

172 Id.

173 Id.

174 Id.
believes that the issues should be resolved by the states; "... restrict[ing] F.E.R.C.’s responsibility to interstate movement of energy, with all other questions (stranded investment, access charges, timing for retail wheeling, and so on) left to local government, where the impact of those decisions would be most keenly felt."\(^{175}\)

The federal/state issue embroiled in the competitive realignment of the electric power industry will be tempered by the "new federalism" led by the Republican Congress which intends to give more policy responsibility to the states. Power sales are increasingly accorded the rights of the open market, the electric power industry is operating under new transmission access regulations, and the F.E.R.C. is acting as arbiter in debates over multi-million dollar wheeling transactions across state lines.\(^{176}\) Perhaps Congress will end this debate with legislation which clearly delineates the boundaries of federal and state jurisdiction.

It is possible for F.E.R.C. and the states to work out these jurisdictional issues. Certainly, F.E.R.C.’s disclaimer of authority over retail wheeling in its open access transmission NOPR was a step forward. However, satisfactory resolution of the electric power jurisdictional issues may have to be resolved by courts establishing a new "bright line test that confers on the F.E.R.C. plenary power over the rates and conditions of service for all transactions that use a high voltage transmission line ..., including retail wheeling transactions and transactions that purport to involve only transmission from one point to another in a single state."\(^{177}\) States would retain the exclusive power to require retail wheeling. Several believe that nothing short of an amendment to the FPA giving F.E.R.C. the same powers with respect to transmission projects that it has under the NGA for gas pipeline projects will resolve the conflict.\(^{178}\)

**Deregulation Of The Energy Industry**

The F.E.R.C. vision of competition and market-based rates in the natural gas industry discussed in Parts 1, 2, and 3 of this paper will be repeated in the deregulation of the electric power industry. Electric utilities will be disintegrated; generation, transmission and distribution functions will be unbundled. In response to competition, electric utilities will downscale, spinoff and spin down assets. Open access, comparability of service and rates will allow competition on wholesale transmission lines. Retail wheeling, poolco or buy/sell arrangements will allow customers of all sizes direct access to more inexpensively priced electric power. Electricity, like natural gas, will become a commodity offered on NYMEX with futures trading. By reviewing the process followed by the F.E.R.C. in the deregulation

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175. *Id.*


177. Pierce *supra* note 132, at 331.

of the natural gas industry, the path through the deregulation of the electric power industry will become clear.