A NEGOTIATED ALTERNATIVE TO MANDATORY WHEELING

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I. INTRODUCTION

The electric utility industry is composed of generation, transmission, and distribution facilities. While most electric energy is generated by traditional vertically integrated electric utilities, a growing proportion of new capacity is being met through independent power producers, small power producers and cogenerators. These producers often are more efficient and can produce electricity at a lower cost. The availability of efficient low cost power has created a competitive market for bulk power. Recognizing that a competitive market exists, the Federal Energy Regulatory Commission (FERC or Commission) recently issued several Notices of Proposed Rulemakings (NOPRs) designed to promote the market.[1]

Market competition in the industry encourages wholesale and retail power customers to "shop" for the lowest priced power available to meet their demands. Where the lowest cost power is available from a distant supplier, the purchaser must frequently rely on an intermediary utility's voluntary agreement to wheel the power over its transmission lines. "Wheeling" is "to transfer by direct transmission or displacement electric power from one utility to another over the facilities of an intermediate utility."[2] While the NOPRs leave open the question of transmission access, access can be achieved through transmission pricing without the necessity of imposing a new rule.

In some regions of the country, the electric utility industry is faced with unprecedented excess generating capacity due to overestimated demand forecasts. Without access to transmission facilities through wheeling, excess generating capacity is not marketable; sellers cannot compete for sales; and utilities cannot obtain the least cost supply available. Similarly, capacity shortfalls, which have been predicted for the Northeast in the mid-1990s, may become a reality if all potential sellers are denied access through wheeling. Where excess transmission capacity exists, refusals to wheel are a waste of economic resources and should be viewed as unreasonably anticompetitive.[3]

Most power pools recognize the widespread benefits of coordination in

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1. *See, e.g.*, Notice of Proposed Rulemaking, *Regulations Governing Bidding Programs*, IV F.E.R.C. Stats. & Regs. ¶ 32,455, 53 Fed. Reg. 9324 (1988); Notice of Proposed Rulemaking, *Regulations Governing Independent Power Producers*, IV F.E.R.C. Stats & Regs. ¶ 32,456, 53 Fed. Reg. 9327 (1988); Notice of Proposed Rulemaking. *Administrative Determination of Full Avoided Costs, Sales of Power to Qualifying Facilities, and Interconnection Facilities*, IV F.E.R.C. Stats. & Regs. ¶ 32,457, 53 Fed. Reg. 9331 (1988).

2. Otter Tail Power Co. v. United States, 410 U.S. 366, 368 (1973).

3. W. PRIMEAUX, DIRECT ELECTRIC UTILITY REGULATION 87 (1986) (excess capacity is deemed a waste of resources because the potential output is not available for consumption by society).

the form of reserve sharing, back-up power, system planning, reliability, efficiency, economy exchange, and economic dispatch. Power pools and integrated systems provide members with transmission and central dispatch services to control costs.[4] Membership is frequently restricted and the pools often exclude smaller utilities and independent power producers whose contribution to the pool is deemed negligible. Additionally, many pools do not allow member utilities to enter into transactions with non-member smaller utilities, arguing that the smaller utilities cannot contribute proportionately in exchange for the benefits received. Therefore, smaller utilities are frequently prevented from realizing the benefits of power pools only because of their small size.

Excess and new generating capacity is forcing competition in the wholesale market at a pace which exceeds voluntary transmission access. While the NOPRs are intended to promote competition, effective competition in the bulk power market depends on the ability to transmit power from seller to buyer. Wheeling is necessary to promote more efficient production and distribution of electric energy and to lower the overall cost of generation. Wheeling, therefore, is integral to establishing a low-cost power market. Restrictive transmission access policies prevent efficient utilization of resources. Wheeling provides captive wholesale purchasers of electricity with the opportunity to obtain the lowest cost power for all or part of their power needs, and enhances economic efficiency by allocating least cost supplies to demand. Wheeling should be available to all customers where access will not interfere with existing system demands, the system's reliability, and the owner's ability to adequately serve its existing customers.

Where system reliability is maintained, wheeling helps effect an efficient allocation of resources.[5] Efficient wheeling transactions are desirable to encourage bulk power transactions and efficient production and distribution of electric energy. Wheeling allows those with excess generating capacity to sell their power to distant customers. As long as the wheeling rate does not raise the cost of the transaction beyond the cost of self-generation, two utilities will enter into a wheeling contract. The wheeling rate must encourage optimal use of transmission systems and encourage expansion.

The FERC's authority to order wheeling is inadequate and current ratemaking policies do not encourage voluntary wheeling. As will be shown, the FERC should allow more flexibility for negotiated rates in order to encourage more widespread use of existing transmission facilities and investment in new facilities.

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4. Transmission systems typically offer two types of wheeling services—firm and non-firm. Firm service is uninterruptible, except for emergencies and scheduled maintenance, and typical of long-term requirements service contracts. New transmission capacity will be added for long-term firm wheeling contracts if the contract warrants the addition of new capacity. Non firm wheeling service is interruptible and of shorter duration. Non-firm wheeling occurs only when there is excess transmission capacity.

5. Where excess transmission capacity exists and is underutilized, the level of power transfers is not optimal. If transportation cost exceeds the difference in marginal generation costs, then the level of power transfers may be optimal (yet, excess transmission capacity may exist).

II. WHEELING AUTHORITY

The wheeling of wholesale electric energy is a federal matter. Wheeling is governed by statute pursuant to the Public Utility Regulatory Policies Act of 1978 (PURPA)[6] and the Atomic Energy Act.[7] In enacting the Federal Power Act (FPA)[8] in 1935 and the PURPA,[9] Congress refused to give the Federal Power Commission (FPC or Commission)[10] unlimited power to order transmission access.[11] While Congress recognized the importance of transmission access in enacting the FPA, Congress chose only to encourage voluntary interconnection and coordination of facilities for the generation, transmission, and distribution of electric energy.[12] Likewise, in enacting PURPA, Congress refused to vest the FERC with the authority to order unlimited wheeling, and in order to encourage voluntary agreements, provided that all wheeling orders must give the parties time to reach a voluntary agreement.[13] Wheeling also is available as a judicial remedy for antitrust violations under the Sherman Act[14] and may be available as a remedy for anticompetitive conduct in an administrative proceeding before the FERC under the FPA.

A. PURPA Wheeling Authority

Under sections 203 and 204 of PURPA, an electric utility may obtain an order from the Commission requiring another utility to wheel[15] if, after notice and hearing, it is determined that such service: (1) is in the public interest; (2) conserves a significant amount of energy, significantly promotes the efficient use of facilities and resources, or improves the reliability of any electric utility system; (3) is not likely to result in a reasonably ascertainable uncompensated economic loss to the transmitting utility; (4) will not place an undue burden on the transmitting utility; (5) will not unreasonably impair the relia-

6. Pubilic Utility Regulatory Policies Act of 1978, Pub. L. No. 95-617, § 2, 92 Stat. 3117, 3119 (1978) (codified at 16 U.S.C. §§ 2601-45 (1982) [hereinafter PURPA].

7. Atomic Energy Act, 42 U.S.C. § 2135(c)(3) (1982) (Section 105(c) of the Atomic Energy Act empowers the Nuclear Regulatory Commission (NRC) through its antitrust provisions to require wheeling in connection with the granting of a construction permit for a nuclear power plant). Part I of the Federal Power Act (FPA) gives the Federal Power Commission (FPC) authority to insert wheeling conditions as part of its conditioning power in issuing hydropower licenses. FPC v. Idaho Power Co., 344 U.S. 17, 22 (1952). Similarly, wheeling may be required as a condition to FERC approval of a proposed merger. 16 U.S.C. § 824c (1982).

8. Federal Power Act, 16 U.S.C. §§ 791a-825u (1982 & Supp. 1986).

9. PURPA, *supra* note 6.

10. In 1977 all duties of the FPC were transferred to the FERC. Department of Energy Organization Act, Pub. L. No. 95-91, 91 Stat. 565, 577-78 (1977). All decisions relevant to the FPC are equally applicable to the FERC.

11. PURPA amended Part II of the FPA by adding certain wheeling provisions. PURPA added sections 211 and 212 to the FPA. *See* 16 U.S.C. §§ 824j, 824k (1982 & Supp. 1986).

12. 16 U.S.C. § 824a(a) (1982); S. Rep. No. 621, 74th Cong., 1st Sess. 19 (1935).

13. *See* 16 U.S.C. § 824j(d)(2)(B)(i) (1982). *Cf.* H.R. Rep. No. 496, part IV, 95th Cong., 1st Sess. 152, *reprinted in* 1978 U.S. CODE CONG. & ADMIN. NEWS 8454, 8593.

14. Sherman Act, 15 U.S.C. §§ 1-7 (1982).

15. A qualifying facility cannot seek a wheeling order. Wheeling between a qualifying facility and an electric utility occurs only where the wheeling utility agrees. Wheeling is discretionary with the purchasing utility so long as the qualifying facility agrees, otherwise the utility obligated to purchase the energy must do so. 18 C.F.R. § 292.303(d) (1988).

bility of an electric utility; (6) will not unreasonably impair the ability of any electric utility affected to render adequate service to its customers; and (7) will reasonably preserve existing competitive relationships. Additionally, in order to protect the wheeling utility's relations with its existing customers and protect the wheeling utility from losing its wholesale customers within its service area to order bulk suppliers, the FERC may not order wheeling where such an order would require the utility to replace any amount of electric energy already provided by the utility's existing contracts or rate schedules.[16]

Congress enacted PURPA to lessen the country's dependence on foreign oil, to promote conservation of electric energy by consumers, to promote efficient use of facilities and resources by the utility industry, and to ensure equitable rates to consumers.[17] Wheeling, therefore, can be ordered only to the extent that wheeling encourages conservation of energy resources, or promotes efficiency or reliability of the electric utility industry.[18] Wheeling cannot be ordered if such an order would impair the reliability of the wheeling utility. Wheeling authority was granted, in part, to help prevent wasteful overconstruction of new generating and transmission facilities and make better use of existing facilities.[19]

The numerous requirements imposed by these sections make it unlikely that transmission access will be significantly affected. The PURPA wheeling provisions cannot be used to compel a utility to wheel power to its wholesale customers or to encourage competition in the bulk power market. The FERC first addressed its authority to order wheeling under PURPA in *Southeastern Power Administration v. Kentucky Utilities Company*.[20] As interpreted by the FERC, PURPA cannot be used to order wheeling for competing bulk power sales. In *Southeastern Power*, the Southeastern Power Administration (SEPA) asked the FERC to order Kentucky Utilities (KU) to wheel power to eight municipally owned utilities (wholesale customers of KU). The proposed sales

16. H.R. Rep. No. 1750, 95th Cong., 2d Sess. 92, *reprinted in* 1978 U.S. CODE CONG. & ADMIN. NEWS 7797, 7826. 16 U.S.C. § 824j(c)(2) (1982). The FERC does not have jurisdiction over retail rates or transactions in which the electricity is to be used by an ultimate consumer. PURPA prohibits the FERC from ordering wheeling to a direct retail customer in order to prevent "piracy," i.e., the loss of wholesale customers. *See generally* Tiano & Zimmer, *Wheeling for Cogeneration and Small Power Production Facilities*, 3 ENERGY L.J. 95, 100-05 (1984). The legislative history shows the neutrality of the PURPA wheeling provisions. *See* 124 CONG. REC. 34,764 (1978) (statement of Sen. Metzenbaum). The FERC cannot issue a wheeling order unless the order reasonably protects existing competitive relationships. However, PURPA does not prohibit wheeling merely because there is a change in the competitive relationship between two utilities. The change must be "substantial." The legislative history of PURPA gives an example of what is meant by substantial. If two utilities compete for the same new customer in a service area and one of those customers would need wheeling services from the other in order to serve the new customer, the FERC could order wheeling so long as the other provisions were met since the FERC could find that a wheeling order would not significantly alter the competitive relationship. *See* 124 CONG. REC. 34,764 (1978) (statement of Sen. Metzenbaum).

17. 16 U.S.C. § 2601 (1982). *See* H.R. Rep. No. 95-110, 95th Cong., 2d Sess. 70, *reprinted in* 1978 U.S. CODE CONG. & ADMIN. NEWS 7797.

18. *See* 124 CONG. REC. 34,558 (1978) (statement of Sen. Jackson); 124 CONG. REC. 34,763 (1978) (statement of Sen. Metzenbaum).

19. 124 CONG. REC. 34,764 (1978) (statement of Sen. Metzenbaum).

20. Southeastern Power Admin. v. Kentucky Utils. Co., 25 F.E.R.C. ¶ 61,204 (1983), *aff'd*, Opinion No. 198-A, 26 F.E.R.C. ¶ 61,127 (1984).

would displace eighteen percent of the power KU currently sold to the municipalities. In interpreting the phrase, "reasonably preserve existing competitive relationships," the FERC examined the legislative history of section 203 of PURPA and concluded that Congress intended PURPA to be "competitively neutral."[21] The FERC concluded that the displacement of eighteen percent of the power currently sold by KU was not "competitively neutral." The FERC, therefore, denied the request, finding that the wheeling order would not "reasonably preserve existing competitive relationships" as required under section 211(c)(1) of the FPA.[22]

B. Sherman Act Wheeling Authority

Section 2 of the Sherman Act prohibits the possession and maintenance of monopoly power which is used to "foreclose competition or gain competitive advantage."[23] Where the ownership of transmission facilities creates monopoly power in the wholesale power market and access to pools and alternative suppliers of energy is dependent on access to existing lines, the federal courts can order wheeling where the owner unreasonably refuses to wheel. The Sherman Act empowers the federal courts to order wheeling as a remedy to correct abuse of market power.

Electric utilities are accorded different treatment under the antitrust laws from unregulated industries. At the retail level, electric utilities have a significant share of the market only because they have been granted an exclusive service territory by the state. Market power does not arise because of the utility's ability to control prices, exclude competition, or exhibit superior business skills, but rather arises because of the franchise.[24] In exchange for the franchise, the utility agrees to serve all its customers in its service territory and to justify its rates.[25]

At the wholesale level, market power is evidenced by control of an

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21. *Southeastern Power*, 25 F.E.R.C. ¶ 61,204, at 61,537. As noted in the legislative history, to remedy anticompetitive conduct, the utility must look to other sections of the FPA. In *Southeastern Power*, the FERC noted that such authority would probably not come under sections 205 and 206 of the FPA. *Southeastern Power*, 25 F.E.R.C. ¶ 61,204, at 61,542 n.56. *See* H.R. Rep. No. 1750, 95th Cong., 2d Sess. 68, *reprinted in* 1978 U.S. CODE CONG. & ADMIN. NEWS 7797, 7826; *see also* 124 CONG. REC. 34,764 (1978) (statement of Sen. Metzenbaum) (wheeling provisions cannot disrupt existing competitive relationships). *See generally* Norton & Early, *Limitations on the Obligation to Provide Access to Electric Transmission and Distribution Lines*, 5 ENERGY L.J. 47, 51 (1984); Reiter, *Competition and Access to the Bottleneck: The Scope of Contract Carrier Regulation Under the Federal Power and Natural Gas Acts*, 18 LAND & WATER L. REV. 1, 78 (1983); Collins, *Electric Utility Rate Regulation: Curing Economic Shortcomings Through Competition*, 19 TULSA L.J. 141, 182-83 (1983).

22. *Southeastern Power*, 25 F.E.R.C. ¶ 61,204, at 61,204.

23. 15 U.S.C. § 2 (1982). Section 2 provides that "every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States . . . shall be deemed guilty of a felony. . . ." *Id.*

24. *See* United States v. Grinnell Corp., 384 U.S. 563 (1966); United States v. Aluminum Co. of America, 148 F.2d 416, 430 (2d Cir. 1945). *See generally* Norton & Early, *supra* note 21, at 51.

25. *See* Mid-Texas Communications Sys., Inc. v. AT&T, 615 F.2d 1372, 1389 (5th Cir.), *cert. denied sub nom.* Woodlands Telecommunications Corp. v. Southwestern Bell Tel. Co., 449 U.S. 912 (1980); MCI Communications Corp. v. AT&T, 708 F.2d 1081 (7th Cir.), *cert. denied*, 464 U.S. 891 (1983).

"essential facility."[26] The essential facility doctrine states that "where facilities cannot be practicably duplicated by would-be competitors, those in possession of such facilities must allow them to be shared on fair terms. It is an illegal restraint of trade to foreclose the use of a scarce facility."[27]

Transmission facilities have been held to be "essential facilities."[28] A facility is deemed essential if it is necessary for entry into the market and cannot be economically duplicated.[29] As stated in *Hecht v. Pro-Football, Inc.*,[30] "to be 'essential' a facility need not be indispensable; it is sufficient if duplication of the facility would be economically infeasible and if denial of its use inflicts a severe handicap on potential market entrants."[31]

However, the antitrust laws do not require that an essential facility be shared if the sharing would be impracticable or would affect the owner's ability to serve its customers adequately.[32] A utility denied access to another utility's transmission network must show that the utility possesses monopoly power and that the refusal to wheel is an abuse of that power. If the court finds that (1) the utility is abusing its control over its transmission facilities, (2) it is not feasible to duplicate the facilities, and (3) it is feasible to furnish the service, the court may order that a company in possession or control of essential transmission facilities provide its competitors with reasonable access.[33]

Antitrust proceedings are laborious, protracted, and costly. Even though a court orders wheeling, it may be several years before such services are actually provided.[34] While the courts may assess treble damages if a violation is

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26. Evidence of market structure, concentration, and leverage are also used to prove monopoly power. Market power is also evidenced by market share.

27. A.D. NEALS, THE ANTITRUST LAWS OF THE UNITED STATES 67 (2d ed. 1970). *See* United States v. Terminal R.R. Ass'n, 224 U.S. 383 (1912); United States v. Otter Tail Power Co., 331 F. Supp. 54, 59 (D. Minn. 1971); City of Chanute v. Kansas Gas & Elec. Co., 754 F.2d 310 (10th Cir. 1985). *See generally* Note, *Unclogging the Bottleneck: A New Essential Facility Doctrine*, 83 COLUM. L. REV. 441, 451 (1983).

28. *See* City of Cleveland v. Cleveland Elec. Illuminating Co., 734 F.2d 1157, 1166 (6th Cir. 1984).

29. *See Mid-Texas Communications*, 615 F.2d at 1389; *MCI Communications*, 708 F.2d 1081.

30. Hecht v. Pro-Football, Inc., 570 F.2d 982 (D.C. Cir. 1977), *cert. denied*, 436 U.S. 956 (1978).

31. *Id.* at 992. *See also* Aspen Highlands Skiing Corp. v. Aspen Skiing Co., 738 F.2d 1509, 1520 (10th Cir. 1984), *aff'd on other grounds*, 472 U.S. 585 (1985).

32. *Hecht*, 570 F.2d at 992-93.

33. Several commentators have suggested that an objective standard must be used alongside the essential facilities doctrine in order to impose a duty to deal. *See generally* Norton & Early, *supra* note 21, at 51-53; Note, *supra* note 21, at 445. The courts have been using a variety of objective standards to evaluate a utility's refusal to wheel before finding a violation of section 2 of the Sherman Act and imposing a wheeling remedy. *See, e.g.*, *MCI Communications*, 708 F.2d at 1081 (a pure market share approach to monopoly power was misleading for regulated industries); Town of Massena v. Niagara Mohawk Power Corp., 1980-81 Trade Cas. (CCH) ¶ 63,526, at 76,791 (N.D.N.Y. 1980) (the court did not find the requisite elements of monopoly power and predatory intent where refusal to wheel was based on Niagara's obligation to protect the legitimate interests of its customers, shareholders, and employees). Likewise, the courts will look to the totality of the utility's behavior in determining the anticompetitive effects of a utility's refusal to wheel. *See, e.g.*, City of Groton v. Connecticut Light & Power Co., 662 F.2d 921 (2d Cir. 1981) (the court emphasized the importance of looking at the aggregate effects of a utility's action, instead of examining the individual parts of a claim of anticompetitive conduct).

34. 16 U.S.C. §§ 824d, 824e (1982); *see also* Otter Tail Power Co. v. United States, 410 U.S. 366, 371-75 (1973).

found, many parties denied access do not have the resources to engage in antitrust litigation. Arguably, the same result can be reached through a FERC proceeding to correct anticompetitive and discriminatory practices under the policies underlying sections 205 and 206 of the FPA.[35] However, such a proceeding could take several years, with no guarantee that wheeling will be ordered.

C. Federal Power Act Wheeling Authority

It is undisputed that an unjustifiable difference in rates for substantially similar services is unlawful discrimination and can be corrected by the FERC.[36] Section 206 requires that all rates filed with the Commission be "just and reasonable."[37] A "just and reasonable" rate is one which allows the utility to recover its costs plus a reasonable return on investment, and is not excessive to consumers.[38] Therefore, most rate schedules are cost-based. All filed rates are subject to review by the FERC under section 206 of the FPA.[39] Section 206 of the FPA provides that if the Commission finds any rate, or rule, regulation, practice or contract affecting such rate is "unjust, unreasonable, unduly discriminatory or preferential, the Commission shall determine the just and reasonable rate, charge, classification, rule regulation, practice or contract. . . ."[40]

Rate regulation is also intended to prevent price discrimination among similarly situated customers.[41] As part of its responsibility under sections 205 and 206 of the FPA, the FERC must consider the anticompetitive effect of any filed rate, charge, rule, regulation, practice, or contract.[42] The FERC approval of a rate as just and reasonable does not preclude an investigation into any rule, regulation, practice, or contract affecting such rate.[43] Section 205 of the FPA prohibits any public utility from granting "any undue preference or advantage" or subjecting any person to "any undue prejudice or disad-

35. 16 U.S.C. §§ 824d, 824e (1982).

36. Town of Norwood v. FERC, 587 F.2d 1306, 1311, 1315 (D.C. Cir. 1978) (the FERC can use its section 205 authority to remedy discriminatory wheeling rates). In Town of Norwood v. FERC, the Town of Norwood, Mass., notified Boston Edison Co. of its intention to discontinue buying Boston Edison power in favor of buying lower cost power from New England Power Co. (NEPCO), and to use Boston Edison's lines to wheel the NEPCO power. Boston Edison, meanwhile, entered into an unrelated agreement to wheel power for NEPCO to the Quincy-Wyemouth area. The wheeling rate, for services substantially similar to those requested by Norwood, was about 30 percent less than the amount Boston Edison suggested Norwood would have to pay for NEPCO's wheeled power. Norwood claimed that the difference in rates was unduly discriminatory. The court held that the FERC had the authority to correct the discrimination. *Id. See also* Richmond Power & Light Co. v. FERC, 574 F.2d 610, 623 n.53 (D.C. Cir. 1978); Towns of Alexandria v. FPC, 555 F.2d 1020, 1028 (D.C. Cir. 1977); St. Michaels Utils. Comm'n v. FPC, 377 F.2d 912, 915 (4th Cir. 1967); Otter Tail Power Co., 2 F.P.C. 134, 141, 145 (1940).

37. 16 U.S.C. § 824d(a) (1982).

38. FPC v. Hope Natural Gas Co., 320 U.S. 591, 597 (1944).

39. 16 U.S.C. § 824e (1982).

40. *Id.* at § 824e(a).

41. *See generally* Collins, *supra*, note 21 at 145-47.

42. Gulf States Utils. Co. v. FPC, 411 U.S. 747, 758-59 (1973); City of Huntingburg v. FPC, 498 F.2d 778, 783 (D.C. Cir. 1974); Northern Natural Gas Co. v. FPC, 399 F.2d 953, 958 (D.C. Cir. 1968).

43. Niagara Mohawk Power Corp. v. FPC, 538 F.2d 966, 971 (2d Cir. 1976) (citing FPC v. Sierra Pac. Power Co., 350 U.S. 348, 353 (1956)).

vantage, or . . . maintain any unreasonable difference in rates, charges, service, facilities, . . . either as between localities or as between classes of service."[44]

The issue is only whether the FERC's choice of remedy in applying its power under these provisions is restricted. Arguably, the FERC's ratemaking authority could be used to order wheeling where the filed rates have been determined to be unjust, unreasonable, unduly discriminatory, or preferential.[45] The Supreme Court has not addressed the issue.

In *Otter Tail Power Company v. United States*,[46] the Supreme Court held that wheeling is available as a remedy in the district courts under the antitrust laws. However, while the Supreme Court stated that the FPA does not give the Commission the authority to directly order wheeling under part II of the FPA, the case has been interpreted as having left open the question of whether the Commission could order wheeling indirectly under its authority to correct anticompetitive and monopolistic practices using the policies underlying sections 205 and 206 of the FPA.[47] In view of the limited authority to impose wheeling under PURPA and the complicated litigation under the antitrust laws, this backdoor method of wheeling under the FPA may be appropriate to correct both anticompetitive conduct and further the goals of the FPA.[48]

Recent court decisions have been unclear as to the extent wheeling can be used to correct anticompetitive rate practices under sections 205 and 206 of the FPA. In *Sunflower Electric Cooperative, Inc. v. Kansas Power and Light Company*,[49] the Tenth Circuit held that the Commission did not have primary jurisdiction to grant injunctive relief in the form of wheeling or interconnection under the FPA.[50] Additionally, in *Central Iowa Power Cooperative v. FERC*,[51] the District of Columbia Circuit held that the Commission's refusal to order a power pool's participants to wheel power to non-generating electric systems was proper in light of the voluntary nature of the wheeling authority under the FPA. The court held that the Commission did not have the authority to adjudicate violations of the antitrust laws, but the Commission must

44. 16 U.S.C. § 824d(b) (1982).

45. The issue was first raised in City of Paris v. FPC, 399 F.2d 983, 985 n.3 (D.C. Cir. 1968) (concluding the FPC has no authority to order wheeling); Niagara Mohawk Power Corp. v. FPC, 538 F.2d 966, 971 (2d Cir. 1976) (left open the question of whether the FPC could order wheeling to correct antitrust violations); Municipalities of Groton v. FERC, 587 F.2d 1296 (D.C. Cir. 1978) (if the FPC found discrimination in wheeling provision, it could order the discrimination be eliminated, but could not order additional wheeling); Southern Cal. Edison Co., 50 F.P.C. 1479 (1973) (a company's voluntary agreement to wheel to some customers does not indirectly vest the FPC with the authority to order wheeling for all); Southeastern Power Admin. v. Kentucky Utils. Co., 25 F.E.R.C. ¶ 61,204, at 61,542 n.56 (1983) (the FERC noted that it was unclear whether the remedy under sections 205 and 206 of the FPA could be wheeling); Pacific Power & Light Co., 26 F.E.R.C. ¶ 63,048, at 65,178 (1984) (the FERC has the authority to amend certain provisions of contracts on file with the FERC even where such amendment results in wheeling).

46. Otter Tail Power Co. v. United States, 410 U.S. 366 (1973).

47. *See* Associated Gas Distribs. v. FERC, 824 F.2d 981, 998-99 (D.C. Cir. 1987), *cert. denied*, 108 S. Ct. 1468 (1988); Richmond Power & Light Co. v. FERC, 574 F.2d 610, 624 (D.C. Cir. 1978); Southeastern Power Admin. v. Kentucky Utils. Co., 25 F.E.R.C. ¶ 61,204, at 61,539 (1983).

48. Where pooling participants engage in anticompetitive conduct, the conduct is subject to Commission scrutiny. *See* Central Iowa Power Coop. v. FERC, 606 F.2d 1156, 1172 (D.C. Cir. 1979).

49. Sunflower Elec. Coop., Inc. v. Kansas Power and Light Co., 603 F.2d 791 (10th Cir. 1979).

50. *Id.* at 802.

51. *Central Iowa*, 606 F.2d 1156.

consider competitive factors when acting in the public interest.[52] Importantly, while the Commission uses antitrust principles similar to those that the federal courts apply under the Sherman Act, a Commission proceeding is not an antitrust adjudication.

In *Richmond Power & Light v. FERC*[53] the New England Power Pool (NEPOOL) responded to the FPC's call to reduce dependence on oil created by the 1973 embargo by requesting that utilities with excess capacity wheel such power to NEPOOL. Several suppliers and transmitters responded to the request and filed rate schedules with the FPC. Richmond Power & Light (Richmond) objected to the filed rates. Richmond claimed that the rates were unreasonable since they did not guarantee transmission access and the utilities had submitted rates only for voluntary wheeling.

Richmond argued that the FPC could use its power to reject unreasonable rate proposals under section 206 of the FPA to order wheeling by conditioning its approval of the voluntary rates on continued, involuntary wheeling. The Commission refused to compel the utilities to wheel Richmond's power even though the Commission did have the authority to impose requirements which are "necessary or appropriate" to promote the policies of the Act under section 202(a) of the FPA. The court rejected Richmond's assumption that the rates were unreasonable because they did not guarantee wheeling. In examining the legislative history, the court stated "that if Congress had intended that utilities could inadvertently bootstrap themselves into common carrier status by filing rates for voluntary service, it would not have rejected mandatory wheeling."[54]

Richmond also argued that the alleged refusal of American Electric Power System (AEP), and its affiliate, Indiana & Michigan Electric Company (I&M), to wheel Richmond's excess energy was unlawful discrimination because AEP and I&M wheeled higher-priced electricity from other AEP members. The court acknowledged that Richmond's claim had validity but that Richmond failed to prove its case. The court stated, "Richmond spurned the opportunity to demonstrate that particular activities were unreasonably anticompetitive or discriminatory and claimed instead that the mere failure to wheel energy to and from Richmond while wheeling for any other utility was unlawful discrimination."[55] The court noted that if Richmond had argued that the rates were unjustifiably discriminatory, or that I&M's failure to utilize its transmission capability fully or to purchase less expensive electricity resulted in unnecessarily high rates, a different case would be before the court. As Richmond had presented its claim, the court concluded that the Commission correctly held that "since Congress made wheeling voluntary an individual decision to wheel for one customer but not for another is not automatically

52. *Id.* at 1162 (citing Central Power & Light Co. v. FERC, 575 F.2d 937, 938 (D.C. Cir.) (per curiam), *cert. denied*, 439 U.S. 981 (1978)).

53. Richmond Power and Light Co. v. FERC, 574 F.2d 610 (D.C. Cir. 1978).

54. *Id.* at 620.

55. *Id.* at 623.

discriminatory."[56]

In *Central Iowa Power Cooperative v. FERC*,[57] the FPC reviewed the terms of the Mid-Continent Area Power Pool (MAPP) Agreement under its section 205 and 206 authority to review filed contracts. The MAPP agreement sought to promote reliable and economical operation of the interconnected regional network through reserve sharing. The agreement established two classes of membership, one being entitled to more pool privileges than the other.[58] The FPC found the membership criterion were discriminatory and not reasonably related to MAPP's objectives. The Commission conditioned its approval of the agreement on the removal of the discriminatory criteria.[59] The District of Columbia Circuit held that the Commission had the authority under section 206 of the FPA to order changes in the scope of the MAPP agreement, including the addition of pool services, where the agreement was unjust, unreasonable, unduly discriminatory or preferential under section 206 of the FPA.[60] However, the court recognized that the plan was not unreasonable merely because a more comprehensive arrangement was possible.[61]

These cases also demonstrate that the Commission cannot order wheeling using its authority under sections 205 and 206 to correct anticompetitive or discriminatory practices where the effect of the order is to convert the transmission system into a common carrier. The legislative history of the FPA establishes that Congress specifically refused to designate electric transmission utilities as "common carriers" and rejected a provision which would have "empowered the FPC to order wheeling if it found such action to be 'necessary or desirable in the public interest.' "[62] A common carrier is defined as "one who holds himself out as engaged in the business of providing a particular service to the public."[63]

In *Florida Power & Light Company v. FERC*,[64] the Commission had ordered Florida Power & Light (FP&L) to file a tariff including FP&L's policy relating to the availability of transmission service.[65] FP&L objected to the

56. *Id.* at 623. *See also* Southern Cal. Edison Co., 50 F.P.C. 1479 (1973) (section 205 does not give FPC authority to order wheeling).

57. Central Iowa Power Coop. v. FERC, 606 F.2d 1156 (D.C. Cir. 1979).

58. *Id.* at 1170-71 n.46. The agreement excluded generating electric systems with only one interconnection and less than the specified level of transmission capability from participating in reserve sharing. *Id.*

59. *Id.* The rest of the agreement was just, reasonable, and nondiscriminatory, and did not violate the antitrust laws. The court noted that it was unable to order wheeling since PURPA did not apply to the proceeding. *Id.* at 1169.

60. *Id.* at 1168.

61. *Id. See also* Municipalities of Groton v. FERC, 587 F.2d 1296, 1302-03 (D.C. Cir. 1978).

62. Otter Tail Power Co. v. United States, 410 U.S. 366, 374 (1973). The legislative history shows that common carrier obligations on transmission line owners were specifically deleted. S. 1725, 74th Cong., 1st Sess. § 213 (1935).

63. Florida Power & Light Co. v. FERC, 660 F.2d 668, 674 (5th Cir. 1981) (citing United States v. California, 297 U.S. 175 (1936)), *cert. denied*, 459 U.S. 1156 (1983).

64. *Id.* at 669.

65. *Id.* at 671. FP&L provided transmission service when four conditions were met: (1) the specific potential seller and buyer were contractually identified; (2) the magnitude, time and duration of the transaction were specified prior to the commencement of the transmission; (3) it could be determined that

inclusion of the policy statement in its tariff and argued that the filing of such a policy would obligate FP&L to offer service to all customers who complied with the published access policy and would, therefore, convert FP&L into a common carrier. FP&L argued that such compulsory wheeling was beyond the scope of the Commission's authority.[66] The Commission argued that it could order such a filing as a "practice" under section 205(c) of the FPA, and that the order did not expand FP&L's voluntary agreement to wheel.[67]

The court agreed with FP&L that the filing of the policy statement would require FP&L to provide transmission service beyond its voluntary commitment.[68] Under the filed rate doctrine, a refusal to wheel would be unduly discriminatory under section 206 of the FPA.[69] As the court acknowledged, a customer refused service could petition the Commission to find that FP&L's policy of availability was unduly discriminatory under section 206(a) of the FPA.[70] In the absence of a tariff on file, a utility refused wheeling services would unlikely be able to claim discrimination under section 206(a) of the FPA.[71]

In a recent case analyzing the Natural Gas Act (NGA),[72] *Associated Gas Distributors v. FERC*,[73] the District of Columbia Circuit rejected the proposi-

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the transmission capacity would be available for the term of the contract; and (4) the rate was sufficient to cover FP&L's costs.

66. *Id.*

67. *Id.* at 672. The Commission made a similar agreement in New York State Elec. & Gas Corp. v. FERC, 638 F.2d 388 (2d Cir. 1980), *cert. denied*, 454 U.S. 821 (1981). The court found that the Commission's extension of the agreement beyond the 1961 borders expanded NYSEG's voluntary commitment to wheel and held that sections 211 and 212 of the FPA applied to Commission orders which expanded a voluntary commitment to wheel power and must therefore be followed. The court examined the Commission's authority to modify a wheeling agreement under section 206 of the FPA and held that the Commission could modify a contract, but if the modification amounted to an order requiring wheeling, the order must comply with the PURPA wheeling conditions. *Id.* at 403. Also, in Cincinnati Gas & Elec. Co. v. FERC, 724 F.2d 550 (6th Cir. 1984), the Commission ordered Cincinnati Gas & Elec. Co. (CG&E) to wheel power generated by Buckeye Power, Inc. (Buckeye) to the city of Hamilton pursuant to a 1968 wheeling contract. In that contract, CG&E agreed to wheel power from Buckeye, a cooperative which generates and transmits electricity to its member cooperatives, to Buckeye's existing member utilities for 35 years. In 1979, Buckeye requested that CG&E wheel power to Hamilton. CG&E refused to wheel power under the 1968 contract, but offered to negotiate a separate contract for transmission. The Sixth Circuit held that since Hamilton was not a member of the original Buckeye group, CG&E could not be ordered to wheel power for Hamilton under the 1968 contract. *Id.* at 555. Buckeye could arrange, however, the same transaction by having CG&E wheel to one of the original agreement members whose service area is near Hamilton. *Id.* at 555. The court left open the question of whether the Commission could order wheeling among original Buckeye members pursuant to the 1968 contract.

68. *Florida Power & Light*, 660 F.2d at 675.

69. *Id.* at 678. The court noted that the Commission did not rely on the finding of Gainesville Utils. Dept. v. Florida Power & Light Co., 573 F.2d 292 (5th Cir.), *cert. denied*, 439 U.S. 966 (1978), that FP&L engaged in a conspiracy with Florida Power Corporation to divide the wholesale power market in Florida, or make its own finding of anticompetitive behavior. *Florida Power & Light*, 660 F.2d at 678.

70. *Id.* at 675.

71. *Id.*

72. Natural Gas Act, 15 U.S.C. 717-17w (1982). Where the provisions between the Natural Gas Act (NGA) and FPA are the same, the courts use the decisions interchangeably. *See* FPC v. Sierra Pac. Power Co., 350 U.S. 348, 353 (1956); *see also* Jersey Cent. Power & Light Co. v. FERC, 810 F.2d 1168, 1177 (D.C. Cir. 1987) (citing Arkansas Louisiana Gas Co. v. Hall, 453 U.S. 571, 577 n.7 (1981)).

73. Associated Gas Distrs. v. FERC, 824 F.2d 981 (D.C. Cir. 1987).

tion that imposing open access requirements on a transmission owner, arguably, is equivalent to imposing common carrier status on the transmission system, since the owner would have a duty to carry without discrimination.[74] The court analyzed the Commission's authority to impose an "open-access" condition on any pipeline that (1) secures a "blanket certificate" to provide gas transportation, pursuant to section 7 of the NGA, or (2) actually provides gas transportation under section 311 of the Natural Gas Policy Act (NGPA). Several pipelines opposed these conditions, arguing that the open-access condition is equivalent to a "common carriage" requirement which is beyond the scope of the Commission's authority under the NGA and NGPA.[75]

The court rejected the argument that a duty to provide service to all comers is the essence of common carriage. The court reasoned that while the legislative history of the NGA clearly demonstrated that Congress refused to impose common carriage status on pipelines, there was no "support for the idea that the Commission could under no circumstances whatsoever impose obligations encompassing the core of a common carriage duty."[76] The court stated that under the NGA the Commission could prevent or correct undue discrimination, and that the order reflected an attempt to do just that.[77] In acknowledging the conflict between affecting common carriage status and correcting undue discrimination, the court rejected the proposition that although Congress explicitly gave the Commission the power and duty to eliminate undue discrimination, the Commission could not use this power to order open access.[78] The court focused on whether Congress's omission of the term common carrier significantly undercuts its explicit provision of authority to prevent or correct undue discrimination.[79]

In interpreting *Richmond Power & Light v. FERC*,[80] and *Florida Power & Light v. FERC*,[81] the court stated that it is an open question whether the Commission would be entitled to use open-access conditions as a remedy for anticompetitive conduct under section 206 of the FPA.[82] The court rejected the argument that any order by the Commission conditioning its approval of any wheeling on the utility's agreement to wheel for all violated the FPA by imposing common carrier duties on the wheeling utility. The court, relying on *Central Iowa Power Coop. v. FERC*,[83] stated that the Commission could "subject approval of a set of voluntary transactions to a condition that providers open up the class of permissible users."[84] An open-access condition could be premised on the principle that access is necessary to prevent undue

74. *Id.* at 977.
75. *Id.*
76. *Id.*
77. *Id.* at 1001.
78. *Id.* at 998.
79. *Id.* at 987-98.
80. Richmond Power & Light v. FERC, 574 F.2d 610 (D.C. Cir. 1978).
81. Florida Power & Light Co. v. FERC, 660 F.2d 668 (5th Cir. 1981).
82. *Associated Gas*, 824 F.2d at 999.
83. Central Iowa Power Corp. v. FERC, 606 F.2d 1156 (D.C. Cir. 1979).
84. *Associated Gas*, 824 F.2d at 999.

discrimination.[85]

Under *Associated Gas*, neither *Florida Power & Light* nor *Richmond* bars the Commission from imposing an open access condition in all circumstances. According to the court's interpretation in *Associated Gas*, *Florida Power & Light* left open the question of whether wheeling could be used to remedy anticompetitive conduct, and *Richmond* held that the refusal to transmit electricity for all was not per se discriminatory.[86] Both *Richmond* and *Central Iowa* suggest that electric services (wheeling) can be extended to new customers as a remedy for undue discrimination.[87] In *Richmond*, the court indicated that Richmond's failure to prove that particular activities were anticompetitive was fatal.[88]

However, mandatory transmission access under either PURPA, the Sherman Act, or the FPA should not be the preferred alternative. The owners of transmission facilities need economic incentives to open their lines voluntarily to competitors. Through its power to approve rates for transmission service, the Commission can provide incentives for utilities to invest in new transmission capacity and thereby encourage efficient trades of excess generation capacity.

III. A BETTER ALTERNATIVE: NEGOTIATED WHEELING AGREEMENTS BETWEEN TRANSMISSION OWNERS AND THE PARTY SEEKING ACCESS

Mandatory access and traditional wheeling rates are unlikely to succeed. PURPA's many preconditions to wheeling and its neutral position on encouraging competition make the PURPA wheeling provisions an unlikely source of transmission access. The Sherman Act[89] and sections 205 and 206 of the FPA[90] provide a remedy for anticompetitive conduct where a party meets its burden of proof. However, due to the wheeling utility's defenses, length of time to obtain relief, and uncertainty of relief, mandatory wheeling will probably not be accomplished using anticompetitive principles. In any event, mandatory wheeling also could result in serious misallocations of transmission capacity, particularly if the Commission does not permit flexible pricing.

The Commission's ratemaking powers could be used to encourage greater voluntary wheeling. Wholesale wheeling rates are subject to exclusive Com-

85. *Id.*

86. *Id.*

87. In New York State Elec. & Gas Corp. v. FERC, 638 F.2d 388 (2d Cir. 1980), *cert. denied*, 454 U.S. 821 (1981), the contract provision was clearly unduly discriminatory. *See supra* note 67 and accompanying text. While Penn Yan made out a prima facie case of anticompetitive conduct, the court concentrated on the PASNY-Penn Yan contract, rather than on the NYSEG-PASNY contract. The NYSEG-PASNY contract obligated NYSEG to wheel power for all customers within the 1961 borders. If the new Penn Yan customers were within those borders, NYSEG had to wheel to the extent that the wheeling would not affect reliability. Only because the new customers were beyond the borders did NYSEG refuse to wheel. Under *Richmond* and *Central Iowa*, the Commission could have modified the contract to provide wheeling to Penn Yan.

88. Richmond Power & Light v. FERC, 574 F.2d 610 (D.C. Cir. 1978).

89. 15 U.S.C. §§ 1-7 (1982).

90. 16 U.S.C. §§ 824d, 824e (1982).

mission jurisdiction.[91] If a utility wheels power, the utility must file a rate schedule with the Commission pursuant to section 205 of the FPA.[92] Voluntary wheeling contracts are filed as rate schedules with the Commission and become binding on both parties without prior Commission approval. If a utility wishes to file a proposed rate schedule, making its transmission lines available to any agreeable party, the utility may file a blanket rate schedule or tariff which binds the utility to the filed terms and conditions and any utility can demand access at the filed rate.[93] Under sections 205 and 206 of the FPA, the Commission can accept, as just and reasonable, negotiated wheeling rates.[94] It is through the power to approve rates that the Commission can best encourage transmission access.[95]

However, to achieve these goals, the Commission must look beyond the rate methodologies it has generally used in the past. The proper pricing of transmission should encourage efficient generation trades, provide incentive to wheel and incentives for utilities to invest in new transmission facilities without regulatory oversight. The decision to increase transmission capacity for wheeling is a function of whether expected revenues from the wheeling transactions would be greater than the cost of new capacity. The wheeling utility must always receive a return equal to or greater than its actual costs in order to be provided with sufficient incentive to wheel.[96] As long as the wheeling utility's revenue requirement assures the utility's investors that costs are recoverable under any pricing policy, investments in transmission will be made. Where the wheeling rate does not provide an economic incentive to wheel, the wheeling utility will not expand its transmission facilities. Current ratemaking methodologies do not satisfy these tests. Under embedded cost rates, capacity is priced at the historic cost of the system, and does not include current costs. Pricing at marginal cost is theoretically desirable, but practically limited. In contrast, a negotiated wheeling rate, which reflects in part both long and short run marginal cost principles should encourage efficient wheeling transactions. Transmission access should be more available for wheeling services where the wheeling rate could be negotiated to meet the present and future needs of the parties and more accurately reflect the demand for transmission services.

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91. 16 U.S.C. § 824 (1982). Section 201 of the FPA gives the Commission jurisdiction over the transmission and sale for resale of electric energy in interstate commerce. *Id.* Jurisdiction is primarily in the form of regulating wheeling rates under sections 205 and 206 of the FPA. 16 U.S.C. §§ 824b, 824d, 824e (1982); FPC v. Southern Cal. Edison Co., 376 U.S. 205 (1964); *see also* Florida Power & Light Co., 40 FERC ¶ 61,045, 61,121 (1987) (Commission has jurisdiction over the terms and conditions, as well as the rates, for interstate wheeling services).

92. 16 U.S.C. § 824d (1982); 18 C.F.R. § 35.1 (1988).

93. This is the so-called "filed rate doctrine." *See* Arkansas Louisiana Gas Co. v. Hall, 453 U.S. 571, 577 (1981); City of Kirkwood v. Union Elec. Co., 671 F.2d 1173 (8th Cir. 1982); Northwestern Pub. Serv. Co. v. Montana-Dakota Utils. Co., 181 F.2d 19 (8th Cir. 1950), *aff'd*, 341 U.S. 246 (1951).

94. *See supra* pp. 105-06.

95. State commissions can influence the construction of new transmission capacity through their siting, licensing, environmental and rate regulation authority.

96. Additional wheeling is encouraged whenever price is greater than or equal to marginal cost.

A. Pricing Principles

1. Embedded Cost Rates

Currently, wheeling rates are based on the wheeling utility's average embedded cost of its transmission system. The rates are primarily "postage stamp" rates which are set at a fixed charge per unit of power transmitted.[97] A postage stamp rate allows the utility to collect a proportion of its embedded cost of capital plus its average operating costs for its transmission system.[98]

Under postage stamp rates, the rates for transmission services are unrelated to distance. Since it does not cost the customer anymore to obtain power generated from a remote source, embedded cost pricing of wheeling transactions distorts the decisions made by buyers, sellers, and the wheeling utility by sending out incorrect price signals, precluding efficient generation trades. For instance, where excess capacity exists, a wheeling rate based on embedded costs results in a wheeling rate which is too high and thereby discourages efficient generation trades and use of otherwise idle facilities. As a result, excess transmission capacity is underutilized. Conversely, where the lines are near maximum capacity, an embedded cost rate yields a rate which is too low and encourages wheeling over a fully loaded system at a longer distance.

Embedded cost rates do not provide an economic incentive for a utility with excess transmission capacity to wheel to its competitors. Where the wheeling rate represents only average transmission costs, the price does not reflect the real cost of providing transmission services. For example, the increased use of transmission systems to wheel energy may affect the wheeling utility's ability to provide adequate capacity and energy to its customers. Since embedded cost rates do not reflect the value of the capacity that is displaced by a particular transaction, a wheeling transaction could result in the loss of a low-cost purchase to the wheeling utility's own customers, or encourage utilities to retain capacity for their own trades. Any increase in flow through the network will cause generation line losses which must be compensated with increased generation. The rate could lead parties to purchase power from the cheapest source without regard to the costs imposed throughout the network since wheeling affects the utility's entire system and those of neighboring systems, but does not take into account these changes.

Embedded cost rates discourage construction of new transmission capacity.[99] Typically, transmission systems are expanded to achieve greater fuel cost savings. When two utilities enter into a wheeling contract, the buying utility does so because the cost of the power plus the wheeling charge is less than the cost of self-generation. Capacity expansion under embedded cost ratemaking is based on the assumption that future resources will cost the same. Returns under average embedded system cost rates discourage con-

97. The rate is typically mills per kilowatt hour for non-firm wheeling and dollars per kilowatt for firm wheeling.

98. Average operating costs include line losses, power factor correction, maintenance and labor.

99. Postage stamp rates also may lead to inefficient generation plant locations. Because the rates are unrelated to distance, customers may buy without regard to transmission costs, and sellers may build where generation costs are minimized, without regard to transmission.

struction of new transmission capacity because the utility must replace capacity used presently for wheeling with new capacity at higher current costs. New transmission could be a substitute for the construction of a new plant where a cheaper source of power could be wheeled at a cost savings.

Under a split-the-savings wheeling rate, the price is set at a percentage of the savings produced by the generation trade. A utility has the discretion to limit wheeling to only profit maximizing trades without regard to the social value of the generation trade. Under a variable rate, wheeling services are priced at the incremental cost of each transaction plus an adder. The wheeling utility does not have an incentive to efficiently allocate the capacity because the profits are not tied to the value of the trade. Therefore, a low incremental cost trade may displace a higher valued trade. Under a fixed price rate, wheeling services are set at the average system cost plus a "fixed adder." If the resulting rate is too low, capacity is not allocated to the highest valued use. If the rate is too high, demand for services will decrease, discouraging trades. Thus, embedded cost rates do not provide the incentive necessary for broader, voluntary, wheeling.

2. Marginal Cost Pricing

Economically efficient price signals are provided to consumers whenever the price is based on marginal cost. Marginal cost is the cost of producing or consuming one more unit of a product or service. In a competitive market, price equals marginal cost. A price based on marginal cost indicates the true economic cost of the transaction to the consumer since the price is a measure of the opportunity cost associated with the consumption or production of an additional unit.[100]

In the electric industry, marginal cost pricing of transmission should reflect inter-utility cost differentials and encourage efficient trades. Since utilities trade to exploit short run energy cost differentials, efficient generation trades will take place only if the delivered price is less than the purchasing utility's marginal generation cost. Generation is most efficient when the cost of generation for any utility equals the cost for any other utility to generate plus transportation.

Where excess transmission capacity exists, pricing wheeling services at the cost caused by the incremental load on the system makes sense. Where the wheeling rate is below the marginal cost of the wheeling transaction, incorrect price signals are sent to the parties.

Marginal costs are either short run or long run. For transmission, the short run is the period of time during which capacity remains constant. Capital investment is a sunk cost. Only variable costs affect economic efficiency in the short run. The long run is represented by the period of time during which capacity can be increased. The long run is forward looking, and anticipates expansion by allocating resources efficiently. All costs, fixed and variable, are relevant in the long run since expansion is based on future investments in new capacity.

100. Munasinghe, *Electric Power Pricing Policy*, World Bank Staff Working Paper No. 340 (July 1979).

A wheeling obligation that does not require the construction of new transmission capacity should be priced at short run marginal cost (SRMC). Non-firm wheeling services should be priced a rate which approximates SRMC. Where excess transmission capacity exists, SRMC is based on the cost increment caused by the incremental wheeling load on the transmission system. Short run costs are variable only if the transmission system has excess capacity. The price signals the economic effect of the non-firm transaction on the system and allocates the capacity to those who value it the most.

In the short run, capacity is constrained (i.e., there is no opportunity to build more transmission) and there is no recovery of fixed costs. Equilibrium is reached when no more efficient trades are possible, i.e., when the marginal cost of the energy delivered (including transportation) is equal throughout the system. As capacity decreases, SRMC increases. SRMC is indicative of the value customers place on the existing capacity. The price allocates the available transmission capacity to those who value it the most where competing demands for capacity exists.[101]

SRMC pricing contains a congestion charge since in the short run transmission capacity is constrained. Efficient trades will take place so long as the net gains from trade are positive and the price reflects the value of the service in its highest valued use. Short run marginal cost pricing represents an efficient rate for short run energy exchanges. Economic efficiency is reached where the marginal cost of the energy delivered is equal throughout the system, and no more beneficial trades are possible. Prices must signal to consumers the value of the resources presently consumed and to be consumed in the future. If the transmission capacity constraint is reached before the marginal generation cost differentials are eliminated, the price will increase to "auction off" scarce supplies in the short run.

A wheeling rate based only on the cost of the burden to the system that the wheeling transaction imposes does not provide an incentive to build new capacity. The wheeling rate must be set at a price higher than the SRMC of wheeling the power in order to give the utility the incentive to wheel and increase transmission capacity in the future.[102] Investors need to be assured that fixed and variable costs are recovered in the wheeling rate. If SRMC is used to determine the rate for non-firm wheeling services, marginal cost should include a charge for variable use which may affect the system's reliability. Non-firm wheeling services should require the user to pay more of the capital cost of the transmission since the increased and variable use associated with non-firm wheeling causes more system fluctuations than base, firm wheeling services.

For investment in new capacity to be economically efficient, the investor must expect to recover the long run marginal cost of expansion. Long run marginal costs (LRMC) are not demand constrained. Capacity expansion is included in the rate. Congestion charges are not part of LRMC since in the

101. Frame & Pace, TRG Working Paper No. 1, *Approaching the Transmission Access Debate Rationally* 164 (National Economic Research Associates, Nov. 1987).

102. This assumes that SRMC does not recover all the wheeling utility's fixed costs. SRMC may recover fixed costs where the price reflects the level of congestion.

long run, capacity will be expanded to provide the optimal level of transmission services. LRMC prices represent the long term resource value of the wheeling service. Firm wheeling rates should be based on LRMC since firm wheeling contracts extend over several years and require capital investment to be undertaken to provide the services demanded.

A large component of the LRMC wheeling rate is the cost of capital. Firm wheeling services require that capacity be reserved to meet the needs of the firm service customer. In the long run, capacity is expanded to meet the needs of firm customers. Equilibrium is reached when generation and transmission capacity meet the peak load needs efficiently. LRMC represent the optimal value of resources so that there is no surplus generating or transmission capacity, and bulk power supply costs are equal across the network.

SRMC and LRMC principles price wheeling services to effectuate a theoretically optimal result. However, SRMC and LRMC are not useful in setting a wheeling rate for short-term energy exchanges. SRMC varies hourly and is tied to existing capacity. LRMC is based on future expectations of demand. The capital component of LRMC discourages short run transactions. Nonfirm wheeling services use existing excess capacity, therefore, passing the capital cost of excess existing capacity is inefficient. The congestion component of SRMC discourages long run transactions. Firm wheeling service customers pay for guaranteed capacity and do not compete for existing capacity when there is excess transmission demand. Therefore, pricing electricity under either SRMC or LRMC will result in inefficiencies and will not produce the necessary incentives for voluntary wheeling.

However, despite these problems, a wheeling rate which incorporates both long run and short run pricing principles should lead to efficient generation decisions. Such a rate can be negotiated to meet the current and future needs of both the wheeling utility and the parties seeking wheeling services.

3. Market Based Rates

Market based rates represent a middle ground between cost-based rates and pricing at marginal cost. Market based rates reflect both the accounting cost-of-service and the present and future value of the transmission services which is absent in the singular application of the above methodologies. In recognition of the fact that cost-based rates may not be appropriate for all transactions under its jurisdiction the Commission has, in recent years, approved some rates that are market or value-based.[103]

In 1980, the Commission accepted for filing a rate schedule between the Pennsylvania-New Jersey-Maryland Interconnection (PJM) and the New York Power Pool based on the percentage of the benefits of economy energy transactions transmitted through their systems.[104] In 1984, the Commission approved a settlement agreement among PJM members establishing a rate for using excess transmission capacity to import economy energy from outside the

103. Notice of Inquiry, *Regulation of Electricity Sales-For-Resale and Transmission Service*, IV F.E.R.C. Stats. & Regs. ¶ 35,518, 50 Fed. Reg. 23,445 (1985) [hereinafter NOI Phase I].

104. Pennsylvania Power and Light Co., Docket No. ER80-509 (letter order dated Oct. 29, 1980).

power pool. The rate was based on the projected revenues a member could realize by importing the power itself and then selling it to other members at a "split-the-savings" price.[105] The Commission also accepted a settlement agreement involving the sale of excess transmission capacity where the rate was determined by a sealed bid procedure open to the other transmission system owners in the pool.[106]

In 1987, the Commission accepted a rate schedule in which an open telephone auction would occur monthly for Baltimore Gas and Electric Company's (BG&E) unutilized share of its transmission capability of the PJM transmission system. The rates charged would be market-based, rather than cost-based, and subject to a price cap based on BG&E's projection of the savings which could be realized if the PJM member with the highest alternative cost were able to use BG&E's transmission entitlement.[107]

Most recently, the Commission approved flexible pricing for transmission services between Pacific Gas & Electric Company (PG&E) and Turlock Irrigation District (Turlock) and Modesto Irrigation District (Modesto), respectively. In *Pacific Gas & Electric Company* (Turlock),[108] the Commission approved a rate schedule which allows the parties to negotiate the price for coordination transmission services within a pre-approved range without advance filing or approval by the Commission.[109]

An important consideration in granting pricing flexibility was the assurance that PG&E would not be able to exercise substantial market power over Turlock. In the Regulations Governing Independent Power Procedures NOPR,[110] the Commission adopted the definition of "market power" as "the ability to influence the price that customers in a particular area must pay for a product."[111] "Significant market power" is defined as "the ability to set and maintain a price in excess of the cost of competitively supplied generation."[112] In explaining the significance of market power, the Commission stated "the essential characteristic of a buying utility's vulnerability to a seller's exercise of significant market power is that the buying utility is able to create supply alternatives only with great difficulty, and at a high cost."[113]

Under the "reserved transmission service" agreement between Turlock

105. Pennsylvania-New Jersey-Maryland Interconnection, 28 F.E.R.C. ¶ 61,205 (1984). Under a "split-the-savings" rate, a price per kilowatt hour is set midway between the seller's incremental and the buyer's decremental variable costs. *See* NOI Phase I, *supra* note 103, at 35,629.

106. Baltimore Gas and Elec. Co., 28 F.E.R.C. ¶ 61,096 (1984).

107. Baltimore Gas and Elec. Co., 40 F.E.R.C. ¶ 61,170, at 61,535 (1987).

108. Pacific Gas & Elec. Co. 42 F.E.R.C. ¶ 61,406, *order on reh'g*, 43 F.E.R.C. ¶ 61,403 (1988).

109. *Id.* The range consists of a price floor set at the minimum price PG&E would be willing to consider, and a price ceiling set at either (1) the sum of the four specific subfunctionalized transmission rates on file at the Commission; (2) half the difference between PG&E's recorded production expenses and Turlock's recorded production expenses; or (3) PG&E's highest filed rate for a similar type of transmission service. *Id.*

110. Notice of Proposed Rulemaking, *Regulations Governing Independent Power Producers*, IV F.E.R.C. Stats. & Regs. ¶ 32,456; 53 Fed. Reg. 9327 (1988).

111. IV F.E.R.C. Stats. & Regs. ¶ 32,456, at 32,109 (citing F.M. Scherer, *Industrial Market Structure and Economic Performance* 11 (1980)).

112. *Id.* at 32,109 (citing U.S. Department of Justice Merger Guidelines at 2-3 (June 14, 1984)).

113. *Id.*

and PG&E, Turlock is given direct access to three alternative suppliers in Northern California.[114] This provision, along with a "last resort safety net," contract-firm-service, which PG&E must provide upon proper notice, allowed the Commission to conclude that PG&E could not control Turlock's access to short term power markets.[115]

Likewise, in *Pacific Gas & Electric Company* (Modesto),[116] the Commission reiterated its policy of granting pricing flexibility for coordination transmission services and objective of approving voluntarily negotiated agreements where the parties can show that pricing flexibility cannot be used to exercise monopoly power during the life of the contract.[117]

The Commission has also permitted departures from cost-based rates in the area of coordination transactions. Coordination transactions are "sales or exchanges of specialized electricity services that allow buyers to realize cost savings or reliability gains that are not attainable if they rely solely on their own resources."[118] Coordination transactions are encouraged by the Commission "because they lower the cost of providing electricity to native load customers and improve reliability."[119] Coordination rates allow an energy charge to recover incremental or variable costs, plus a reservation charge or split-the-savings adder. These additional components allow the seller to recover more than its production costs in order to encourage coordination transactions since these transactions are sales of temporarily excess capacity and do not cause generating capacity to be built.[120]

B. The Need for Flexibility

The success of freely negotiated rates in opening transmission corridors suggests that flexibility in pricing will encourage wheeling in areas where such services were previously not available. Flexibility in setting a wheeling rate is necessary to ensure that the rate represents an efficient allocation of transmission capacity. Mandatory access and traditional wheeling rates could result in serious misallocations of transmission capacity. The proper pricing of transmission should provide incentive to wheel, incentive for investment in new facilities, and ensure that both investors and consumers are protected.

Efficient prices should be based on the current cost of transmission and

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114. Pacific Gas & Elec. Co., 43 F.E.R.C. ¶61,403, at 62,034 (1988).

115. *Id.*

116. Pacific Gas & Elec. Co., 45 F.E.R.C. ¶ 61,061 (1988) (order on rehearing and accepting compliance filing).

117. *Id.*

118. NOI Phase I, *supra* note 103, 50 Fed. Reg. at 23,446.

119. *Id.* (citing Pub. Serv. Co. of N.M., 25 F.E.R.C. ¶ 61,469, at 62,038 (1983)).

120. The Commission has likewise accepted noncost-based rates to encourage efficient generation trades. *See, e.g.*, Central Iowa Power Coop. v. FERC, 606 F.2d 1156 (D.C. Cir. 1979) (Commission accepted power pool rate schedules not based exclusively on cost-of-service); Ocean State Power, 44 F.E.R.C. ¶ 61,261 (1988) (Commission accepted power sales agreement where rates were based on market prices); Orange and Rockland Utils., Inc., 42 F.E.R.C. ¶ 61,012 (1988) (Commission accepted rate schedule based on purchasing utility's avoided cost, not seller's cost-of-service); St. Joe Minerals Corp., 23 F.E.R.C. ¶ 61,208 (1983) (Commission accepted rate schedule based on cost of alternatives available to purchasing utility).

not on embedded cost. Current costs more accurately reflect the effect of wheeling on the transmission system. For instance, operating costs are variable and fluctuate hourly, and are not recovered in a postage stamp rate. Short-terms costs, amount of power, duration of the contract, load cycle, distance, time of service, and rate of return must be recovered to compensate the utility for providing transmission services to a competitor. A utility would naturally be unwilling to aid a competitor without protecting its own pecuniary interests. A negotiated wheeling rate allows for parties to reach a mutually agreeable access agreement without introducing a regulatory hand.

Additionally, a wheeling rate tied to market forces would allocate transmission capacity to those users who value it the most. A negotiated wheeling rate would comply with the goals of the FPA by encouraging efficient use of existing facilities as well as development of new facilities to best meet the nation's future energy needs. Restrictive transmission access policies inhibit economic efficiency in the wholesale power market. Where wheeling is readily available, wholesale power customers can "shop" for the lowest priced power available to meet their energy needs. By allowing parties to negotiate the wheeling rate, transmission capacity would be allocated to those who value the capacity the most.

A negotiated wheeling rate would motivate parties to make good decisions with respect to present and future uses of transmission facilities. A negotiated rate would reflect quality factors important to the wheeling utility, such as distance over which the power is to be wheeled, time of day, length of service, contract demand level, interruptibility,[121] revenue requirements, load flow, line losses, dispatch and scheduling costs, and type of service, all of which are unaccounted for in LRMC prices. Additionally, such a rate would take into account the availability of alternative suppliers and the wheeling utility's market power. A negotiated wheeling rate would represent the value of the wheeling service to the customer and that customer's willingness to pay for present and future access to the system.[122]

A wheeling rate should represent the cost to the utility of its foregone opportunities to wheel power and engage in other beneficial transactions. A particular transaction may preclude other transactions such as the opportunity to purchase low cost power to displace its own high cost generation, or make more profitable sales. A utility should be more willing to allow access to its transmission system where the utility receives a rate equal to the value placed on those services by those demanding access.

A negotiated rate would comply with the goals of the FPA and PURPA by encouraging efficient use of existing facilities to best meet the nation's future energy needs. The rate a utility charges is regulated to ensure that customers are protected from excessive prices due to the monopoly nature of the utility's service franchise, and that investors' receive an adequate return on

121. Where excess transmission capacity exists, firm customers would pay more for service since firm service guarantees transmission capacity.

122. The rate must be checked by the Commission to ensure that the transmission owner does not use its monopoly power over transmission to drive the wheeling rate up. Under PURPA, rates cannot discriminate against qualifying facilities, therefore, source should not be a factor.

their capital investment. Where the marketplace can ensure the same result, cost-of-service rate regulation is not necessary.

As with marginal cost rates, a negotiated rate would send out the proper price signals to all buyers and sellers because it would represent the true value of the service to the parties where capacity is constrained as in SRMC. The negotiated wheeling rate would represent the reasonable cost of access plus an adequate return on capital invested. Where the rate represents the value to the customer and the owner of the facilities, the rate would serve as a means of encouraging investment in new capacity up to a more economically efficient level since the existing capacity would be allocated to those who value it the most.

The Commission should permit parties to negotiate rates for transmission services. Such a rate would be just and reasonable where the party providing the transmission services cannot control the options available to the party seeking access. Importantly, flexibility in the wheeling rate would not allow for the exercise of monopoly power since the market would be self-correcting. Voluntary agreements should represent the best allocation of transmission capacity. Over time, widespread wheeling should equalize the disparities in electricity prices which give rise to the demand for access.