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A PERMISSIVE WHEELING SCHEME:
QUALIFYING FACILITY TRANSMISSION
ACCESS STRATEGIES AND THE
ENERGY POLICY ACT OF 1992

I. INTRODUCTION

The Public Utility Regulatory Policies Act of 1978 (PURPA)\(^1\) gave the Federal Energy Regulatory Commission (FERC or Commission) a broad mandate\(^2\) to help Qualifying Facilities\(^3\) (QFs) secure access to wholesale transmission. However, section 210 of PURPA contains ambiguities regarding the FERC's role in regulating QF access;\(^4\) indeed, the Commission itself has recognized the ambiguities of this section.\(^5\)

The utility merger activity of the last five years has spawned various

\(^2\) PURPA § 210(a), 16 U.S.C. § 824a-3 ("[T]he Commission shall prescribe . . . such rules as it determines necessary to encourage cogeneration and small power production.").
\(^3\) 18 C.F.R. § 292.203(a) (1992). A QF is a small power production facility that: (1) does not exceed 80 MW of power production, 18 C.F.R. § 292.204(a) (1992), (2) uses as its primary energy source "biomass, waste, renewable resources, geothermal resources, or any combination thereof, and 75 percent or more of the total energy input must be from these sources," 18 C.F.R. § 292.204(b) (1992), and (3) is "not owned by a person primarily engaged in the generation or sale of electric power (other than electric power solely from cogeneration facilities or small power production facilities)," 18 C.F.R. § 292.206(a) (1992).

A QF may also be a "cogeneration facility, including any diesel and duel-fuel cogeneration facility," 18 C.F.R. § 292.203(b) (1992), if it: (1) meets either of the operating and efficiency standards provided in § 292.205(a) or (b), and (2) meets the ownership criteria of § 292.206 described above. 18 C.F.R. § 292.203(b) (1992).

4. Section 210 was aimed at remedying two difficulties cogenerators or small power producers encountered in market entry: 1) traditional electricity utilities were reluctant to trade with nontraditional utilities, and 2) financial burdens placed on such small facilities by federal and state authorities discouraged cogeneration. FERC v. Mississippi, 456 U.S. 742, 750-51 (1982). A third difficulty PURPA addressed was that equitable rates were not encouraged for consumers. Id. at 746. These problems were remedied by statutes requiring electric utilities to purchase power from and interconnect with QFs. 18 C.F.R. § 292.303 (1988). Purchase rate calculations were also specified. 18 C.F.R. § 292.304 (1988). Electric utilities were required to sell to QFs. 18 C.F.R. § 292.305 (1988). Finally, exceptions to certain federal and state regulations required of electric utilities were mandated. 18 C.F.R. §§ 292.601-.602 (1988).


521
attempts to interpret the ambiguities of Section 210 as well as other related sections of PURPA and the Federal Power Act (FPA). Until recently, proponents of the QF industry have unsuccessfully argued that according to section 210 transmission access is not only essential to preserve competition, but necessary to satisfy the stated purpose of Section 210. In response, Congress has recently recognized the need for increased transmission access by QFs in the Energy Policy Act of 1992 which treats QFs more like utilities.

This note will examine the difficulties of applying PURPA section 210 in the post merger dynamic. Opinions arising out of the Utah Power & Light merger with Pacific Power & Electric will serve as primary examples of the tension between the electric utility market and the special role QFs were intended to play. Cost issues will be applied to shed some light on possible competitive effects non-native wheeling will have on the QF. A model depicting the possible microeconomic effects of supra-native wheeling will be offered. The model will attempt to offer solutions to the Commission's initial problems with the mandate of section 210, namely competition and costs. Finally, a logical extension of QF treatment will be examined including the cost reducing effects of the more permissive wheeling scheme in the Energy Policy Act of 1992.

II. TRANSMISSION ACCESS

Transmission access nourishes the QF industry. QFs favor liberal transmission schemes, which broaden potential markets. Electric utilities, on the other hand, regard QF transmission access as a bothersome

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9. The access issue is increasingly important because of difficulties in siting QFs; this is a disincentive because QFs may not build where they would have difficulty obtaining a wheeling order to sell its power to an agreeable utility. See Challengers on QF Access Assert Key Error by FERC in Interpreting PURPA, ELECTRIC UTIL. Wk., Jan. 27, 1992, at 9.
regulation. The Commission views the QF as the durian of electric transmission schemes, sweet to the goal of a diversified energy mix yet the complexities of such a scheme are malodorous.

The primary opinion addressing these issues came out of the Utah Power & Light / Pacific Power & Electric Merger, Opinion 318. The first federal case arising out of this PacifiCorp saga questioned the Commission's logic in excluding QFs from wider transmission access. Despite a federal court recommendation, the Commission retreated to their original arguments.

A. Transmission Competitive Effects Identified by Opinion No. 318 and Questioned in Environmental Action

In Opinion No. 318 the Commission identified two principal dangers of the merger between Utah Power & Light and Pacific Corporation of Maine. "First, by refusing to wheel low-cost power...the merged company could [broker power and] extract monopoly profits" by selling to third parties. "Second, the merged company could give preference to its own generation over that of competitors for sales into southwestern markets," thus acting as a vertically integrated monopolist controlling transmission, principal, and alternate generation. The Commission imposed conditions on the merger in order to avoid the monopoly and monopsony problems: 1) PacifiCorp would provide firm wholesale power to any requesting "utility," 2) a five year reservation of transmission capacity would be imposed for transmission dependent utilities (TDUs) existing at the date of the merger, and 3) if PacifiCorp was to provide non-firm power, it would be based on an equal three-way sharing of any savings.

12. 45 F.E.R.C. ¶ 61,095.
13. Id. at 61,288.
14. Id.
15. Id.
16. PacifiCorp was the post merger entity.
17. Opinion No. 57, Florida Power & Light Co., 8 F.E.R.C. ¶ 61,121, at 61,454 (1979) ("[F]irm services are non-interruptible; priced on the basis of average system costs; designed to meet a customer's base, intermediate and/or peak load requirements; and continuously available over the indefinite future." Id.).
18. QFs are not considered utilities; this exclusion became a pivotal issue in subsequent cases. See 47 F.E.R.C. ¶ 61,209, at 61,739.
19. Opinion No. 318, 45 F.E.R.C. ¶ 61,095, at 61,298 (in three-way sharing among the selling, buying and wheeling parties, "[e]ach party...shall agree to make available to the other parties such incremental cost information as is reasonably necessary to estimate the total savings to be shared." Id. at 61,295.).
B. **Exclusion of QFs from Transmission Access**

The Commission declined to drop QFs from the groups entitled to wholesale transmission access because QFs can force local utilities to purchase power.\(^\text{20}\) However, QFs can have transmission access outside the local transmission area by negotiating with non-native utilities\(^\text{21}\) for the sale of their excess capacity.\(^\text{22}\) Unwarranted competitive advantage would be given to the QFs if mandatory wheeling to non-native utilities was a condition of the merger.\(^\text{23}\) The request by interveners for mandatory wheeling was not that outlandish; the FERC has waived certain types of transmission requirements upon request.\(^\text{24}\) The wheeling issue lingered with the first federal case arising out of the PacifiCorp saga. In *Environmental Action*, the D.C. Circuit Court of Appeals held that the Commission offered an inadequate explanation for denying QFs mandatory wheeling access.\(^\text{25}\)

C. **Environmental Action on Remand**

After another look at *Environmental Action*, the Commission reaffirmed its denial of mandatory wheeling access for QFs. The Commission offered three reasons for denying QFs access: 1) the legislative intent in PURPA purposefully excluded QFs from those that could obtain involuntary wheeling,\(^\text{26}\) 2) under the statutory framework (favorable to QFs) there can be no anti-competitive effects or undue discrimination to QFs in barring them from the transmission,\(^\text{27}\) and 3) there is no evidence that mandatory wheeling of QF power is necessary to maintain adequate service or coordination.\(^\text{28}\)

In a vigorous dissent Commissioner Moler attacked each one of the majority’s points.\(^\text{29}\) Moreover, she argued that the Commission had gone full circle in explaining its exclusion of QFs as “utilities” regarding transmission access; the new arguments presented did not offer clarifications

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20. 47 F.E.R.C. § 61,209, at 61,739-40 (citing 18 C.F.R. § 292.303 (1988)).

21. Id. at 61,739.

22. The motivation for the remote utility to purchase such capacity at the statutorily avoided cost may be nonexistent.


27. Id. at 62,190-91.

28. Id. at 62,191.

29. Id. at 62,197-98.
beyond those given in Opinion 318.30 Much of the circuitry of the argument springs from the dichotomous idea of QFs as competitors.

On further consideration, the Commission recognized that Congress gave QFs special privileges as well as limitations under PURPA.31 Under section 210 of PURPA, Congress gave QFs the right to seek interconnection.32 However, only electric utilities are given the right to wheeling orders under section 211.33 Various interveners, as well as a Commission member, maintained that the legislative history could support either view of QF transmission access.34 The FERC's broad mandate35 should favor permissive wheeling to preserve competition when merged entities control access. Supranative wheeling access should be based on economic efficiency in keeping with the stated purpose of section 210. The Energy Policy Act of 1992 is sensitive to such efficiency issues and has embraced certain market principles in the QF industry.36 The Commission is seeking to streamline and reduce regulatory burdens on the electric utility and QF industries.37 Judgments of economic efficiency may resolve the "to compete or not to compete" quandary in which QFs find themselves.

III. QUALIFYING FACILITIES AND COMPETITION

Legislative, judicial and administrative definitions of competition vary widely. QFs are not true competitors in the electric utility industry, yet, they must struggle to make their statutorily created market niche worth their while. Since the identity of "anti-competitive effects" is illusive, a focus on the "encouragement of cogeneration" language of PURPA will light the path to solving the QF access issue.

A. QF Exclusion was a Reasonable Interpretation

The Commission has consistently held that QFs are separate from

30. Id.
31. 59 F.E.R.C. ¶ 61,035, at 61,114.
32. Id. ("[T]he Commission's rules implementing section 210 of PURPA state that, if a QF agrees, the utility receiving the QF's power 'may transmit the energy or capacity to any other electric utility.'" (quoting Order No. 69, Small Power Production And Cogeneration Facilities; Regulations Implementing Section 210 of the Public Utility Regulatory Policies Act of 1978, 45 Fed. Reg. 12,214, at 12,235 (1980))).
33. Id.
34. 57 F.E.R.C. ¶ 61,363, at 62,197-98.
35. See supra note 2.
36. Supra note 10, 2776 Stat. at 2911.
electric utilities and, therefore, should be excluded from mandatory wheeling.\textsuperscript{38} The Commission has also maintained that where ambiguities exist or when legislative history is illusive, the statutory interpretation need only be reasonable with a plain reading of the statute.\textsuperscript{39} In applying this reasoning, a plain reading of the statute reveals that electric utilities are mentioned separately from QFs; section 210(a) grants the Commission the duty to promote cogeneration and small power production:

\begin{quote}
[T]he Commission shall prescribe, and from time to time thereafter revise, such rules as it determines necessary to encourage cogeneration and small power production . . . which rules require electric utilities to offer—
\begin{enumerate}
  \item sell electric energy to qualifying cogeneration facilities and qualifying small power production facilities and
  \item purchase electric energy from such facilities (emphasis added).\textsuperscript{40}
\end{enumerate}
\end{quote}

Thus, the plain reading of the statute separates the QF from the electric utility. Furthermore, throughout PURPA and the FPA, a reasonable interpretation leads to the conclusion that electric utility denotes a separate entity from QFs. This argument resulted in duel legislative histories throughout the merger application litigation.\textsuperscript{41} Also, the broad “revise” and “encourage cogeneration” language found throughout PURPA indicates that the statute discourages cogeneration in the post merger system.

While the FERC’s application of the statutory framework reasonably interprets the plain meaning of the statutory language, the broadness of the Commission’s duties\textsuperscript{42} necessitates greater latitude in statutory interpretation. The FERC should integrate the fundamental goal of section 210 into future decisions. That goal is the promotion of cogeneration and small power production.

B. \textit{Exclusion of QFs: Apparent Conflicts in Section 210}

The Commission asserted that no evidence of anti-competitive effects of the PacifiCorp merger adversely effecting the QFs could be

\begin{itemize}
  \item \textsuperscript{38} 59 F.E.R.C. ¶ 61,035, at 61,117 (interpreting § 211 of the Federal Power Act of 1935).
  \item \textsuperscript{39} Id.
  \item \textsuperscript{40} PURPA § 210(a), 16 U.S.C. § 824a-3 (footnote omitted).
  \item \textsuperscript{41} See generally supra note 11.
  \item \textsuperscript{42} See PURPA § 210, 16 U.S.C. § 824a-3.
\end{itemize}
shown.\textsuperscript{43} However, the Commission has revealed legislative history saying Congress sought to insulate\textsuperscript{44} QFs from competition.\textsuperscript{45} The Commission further confuses the analysis by treating QFs as competitive entities while simultaneously insulating them from competition. Fortunately, Congress has resolved this problem in the new energy act by liberalizing transmission access for QFs while permitting utility ownership of QFs.\textsuperscript{46}

Liberal use of the language may also have contributed to the confusion.\textsuperscript{47} Given the broad mandate of section 210 of PURPA, the FERC can conceivably allow supra-native wheeling and still fall within the statutory framework. At least one court has explained that the full-avoided cost guarantees the QF a competitive market price.\textsuperscript{48} The same court goes on to say QFs do not compete with public utilities.\textsuperscript{49} The premise is defective since prices tend to be dynamic in both the long and short-terms.\textsuperscript{50} Furthermore, competitive markets generally promote a downward pressure on costs. Thus, to guarantee a "competitive" cost one must understand that the cost variable is not static.

The next logical step the Commission must take to clarify the mandate of section 210 as intending to "encourage cogeneration and small power production"\textsuperscript{51} would be to introduce true competitive elements to the electric utility generation industry. Typically, competition best serves the consumer.\textsuperscript{52} Since electricity generation is a natural monopoly and can never embrace a true market without threatening "just and reasonable" and nondiscriminatory rates while guaranteeing constant supply, the introduction of market forces to the QF industry must be conducted carefully.\textsuperscript{53}

The \textit{Environmental Action} court expressed concern that the Commission's exclusion focused on the interests of competitors and should

\begin{verbatim}
43.  57 F.E.R.C. ¶ 61,363, at 62,190.
45.  57 F.E.R.C. ¶ 61,363, at 62,190.
46.  See generally supra note 10.
49.  Id.
\end{verbatim}
have focused on consumer interests.\textsuperscript{54} The Commission responded that regulatory commissions can only protect electric consumers within the statutory framework.\textsuperscript{55} The courts may resolve this deadlock by balancing the needs of the consumers and the QF. Both parties may be better off in a truer "market."

IV. MANDATORY MARKETS FOR QFs: A REMEDY

The QFs are armed with options to gain wider transmission access but these options tend not to encourage cogeneration and small power production. Manipulating these options creatively is still a solution to gaining wider access should the Energy Policy Act of 1992 fail to work. A long-run marginal cost analysis may be the best argument in a permissive wheeling scheme for QFs.

A. Voluntary Wheeling: Costs, Rates and Consumers.

With voluntary wheeling, the QF is at the mercy of the electric utility. The "market"\textsuperscript{56} is created by electricity consumers in search of the lowest priced source. The current regime does not facilitate voluntary wheeling.\textsuperscript{57} A partial market mechanism is present when QFs seek voluntary wheeling, giving all producers wider transmission access.\textsuperscript{58} The market is "partial" in that the electric utilities have superior bargaining power; they alone are the market makers. In the monopsonistic tradition the single buyer of QF capacity is the native utility;\textsuperscript{59} QFs thus have a "mandatory market." This is not a true anticompetitive remedy in that the electric utilities virtually create their own demand for low cost power. The motivation to seek out low cost power may not be present in the utilities' rate structure.

Rates are the product of a bargaining process; eventually this process determines the rate structure\textsuperscript{60} which exists within a "zone of reasonableness."\textsuperscript{61} Section 210 of PURPA requires the FERC to "consider" potential savings for utility consumers.\textsuperscript{62} These consumer savings may be used to form a basis for allowing QF wholesale wheeling

\textsuperscript{54} Environmental Action, 939 F.2d at 1061.
\textsuperscript{55} 57 F.E.R.C. § 61,363, at 62,199.
\textsuperscript{56} See 18 C.F.R. § 292.303(a), (d) (1992) (explaining that the "market" for the QF is the interconnected utility or voluntarily wheeling utility).
\textsuperscript{57} Wallace, supra note 53, at 100.
\textsuperscript{58} See Wallace, supra note 53.
\textsuperscript{59} 45 F.E.R.C. § 61,095, at 61,290.
\textsuperscript{60} DANIEL F. SPULBER, REGULATION AND MARKETS 272 (MIT Press 1989).
\textsuperscript{61} Permian Basin Area Rate Cases, 390 U.S. 747, 767 (1968).
outside the QF's native region. Arguments for a rate increase would be weak in an environment of low-cost production encouragement.

Cost-based pricing\(^63\) is often controversial and, at times, the Commission may accept "second best efficiency" which allows consumer surplus and the profits of regulated firms to adjust rates.\(^64\) However, QFs are guaranteed the "full-avoided cost."\(^65\) The full-avoided cost rule is one of the elements which insulates QFs from competition.\(^66\) The Commission has noted several cost distortions likely to impact a mandatory access regime.\(^67\)

The Commission states that unconditioned transmission access for QFs would exacerbate potential problems in administratively determined avoided costs.\(^68\) Not only is the administratively determined cost a problem, but the interstate differential prices can pose additional problems.\(^69\) Therefore, any integrated wheeling system requires a standard calculation for avoided costs.\(^70\)

B. Transmission Access as an Anticompetitive Tool: Managing Interests

Using section 203 of PURPA, the Commission may provide QFs with transmission access upon request.\(^71\) The FERC will grant access where the public interest is affected and a remedy is needed to counteract the anticompetitive effects of a merger.\(^72\) In *Utah Power & Light*, the Commission found no need for a QF wheeling order.\(^73\) However, in Opinion 318, the Commission stated that "the proposed merger is likely to result in a substantial lessening of competition in the relevant product and geographic markets"\(^74\) and "the merger as proposed is not consistent

\(^63\) SPULBER, supra note 60, at 274 (The firm's fixed and variable costs are estimated by the formula: Total Cost = Variable Cost \(+\) Rate of Return \(\times\) Rate Base).

\(^64\) Id.

\(^65\) American Paper Inst., 402 U.S. at 406 ("permitting a utility to obtain energy at a cost less than the cost to the utility of producing the energy itself or purchasing it from an alternative source." Id.)


\(^67\) Id.


\(^70\) The determination of such rates is a controversial proposition and will not be addressed at length here.

\(^71\) 57 F.E.R.C. ¶ 61,363, at 62,190.

\(^72\) Id.

\(^73\) Id.

\(^74\) 45 F.E.R.C. ¶ 61,095, at 61,284 (footnote omitted).
with the public interest.”\textsuperscript{75} The Commission then went on to condition the merger. This apparently inconsistent language is relied on by the dissent in the remanded decision requested by the \textit{Environmental Action} court.\textsuperscript{76}

An example of clearly anticompetitive effects was present in the Southern California Edison (Edison) / San Diego Gas and Electric (SDG&E) proposed merger.\textsuperscript{77} An unregulated QF affiliate of Edison, Mission Energy, alleged sold its power at inflated prices to the parent company. The court found that such self-dealing was used to evade rate regulation.\textsuperscript{78} The administrative law judge found that the required conditions would increase societal costs, therefore, the merger application was denied.\textsuperscript{79} The societal or consumer nexus was established with the increased monopoly power the merger would give Edison.\textsuperscript{80}

C. \textit{Reduction of Merger Activity and Competition}

The Mission Energy self-dealing scenario was not present in the PacifiCorp merger.\textsuperscript{81} However, an independent type of market pressure may effectively lead to an anticompetitive atmosphere. The American electrical utility industry has been approaching a merger ceiling because increasingly fewer utility mergers are possible,\textsuperscript{82} and the industry is having difficulty in siting new QFs.\textsuperscript{83} Therefore, existing facilities are being forced to increase their capacity. The problem of losing QF status rears its head should capacity grow over 80 MW.\textsuperscript{84} The Commission's interpretation of competition in the \textit{Utah Power & Light} saga\textsuperscript{85} shows that QFs will have limited success in showing competitive harm in a section 203 application. The Commission will allow a QF to wheel to distant utilities if it waives mandatory wheeling purchase rights.\textsuperscript{86}

Before the Energy Policy Act of 1992, QFs were caught in a conundrum because the two available alternatives conflicted with the mandate

\begin{itemize}
\item \textsuperscript{75} \textit{Id.} at 61,289.
\item \textsuperscript{76} 57 F.E.R.C. \textsuperscript{1} 61,363, at 62,196-97; \textit{see supra} note 19.
\item \textsuperscript{77} \textit{See} Southern Cal. Edison Co., 47 F.E.R.C. \textsuperscript{2} 61,196, at 61,666 (1989).
\item \textsuperscript{78} Southern Cal. Edison Co., 53 F.E.R.C. \textsuperscript{3} 63,014, at 65,109-10 (1990).
\item \textsuperscript{79} \textit{Id.} at 65,147.
\item \textsuperscript{80} \textit{See} 53 F.E.R.C. \textsuperscript{1} 63,014; 47 F.E.R.C. \textsuperscript{2} 61,196.
\item \textsuperscript{81} \textit{See generally} 57 F.E.R.C. \textsuperscript{3} 61,363.
\item \textsuperscript{83} \textit{Challengers on QF Access Assert Key Error by FERC in Interpreting PURPA, Electric Util. Wx.}, Jan. 27, 1992, at 9-10.
\item \textsuperscript{84} 18 C.F.R. \textsuperscript{3} 292.203 (1992).
\item \textsuperscript{85} \textit{See supra} note 11.
\item \textsuperscript{86} 57 F.E.R.C. \textsuperscript{3} 61,363, at 62,186 n.18.
\end{itemize}
of section 210. Problems with siting lead existing QFs to increase capacity, but exceeding the 80 MW could cost the firm QF status. On the other hand they could waive QF status and get greater transmission access. Unfortunately, both of these scenarios develop an electric utility market, not a QF or cogenerator market.

Today, QFs may be more successful in requesting that the Commission accept wheeling applications in order to meet the mandate of section 210\textsuperscript{87} and the liberalized transmission scheme\textsuperscript{88} because cogeneration and small power production is not encouraged if no real markets exist for wholesale transmission.\textsuperscript{89} The antitrust concerns expressed in \textit{Environmental Action, Inc. v. FERC}\textsuperscript{90} are best met by greater QF access to transmission. Simply put, the incentive of greater return for cogenerators is needed in order to promote cogeneration and small power production.

D. \textit{Full-Avoided Cost,\textsuperscript{91} Minimum Rates: Making A Truer QF Market via Permissive Wheeling}

Wheeling across state lines causes a problem with full-avoided cost calculation. According to section 210(b), the rates for QF purchases must be “just and reasonable,” nondiscriminatory, and that no FERC rule “shall provide for a rate which exceeds the incremental cost to the electric utility of alternative electric energy.”\textsuperscript{92} States that set minimum rates for purchases from QFs create a problem when minimum rates exceed full-avoided costs. Eleven states set minimum costs at rates higher than the full-avoided cost rate.\textsuperscript{93} In \textit{Consolidated Edison}, Justice White’s dissent indicated favorable state-determined rates were within the section

\textsuperscript{87} See \textit{supra} note 2.

\textsuperscript{88} \textit{Supra} note 10.

\textsuperscript{89} 57 F.E.R.C. \textsection 61,363, at 62,184. Potential market distortions may exist in avoided cost calculations; states differ in avoided cost calculation.

\textsuperscript{90} 939 F.2d 1057 (D.C. Cir. 1991).

\textsuperscript{91} FERC promulgated a rule requiring “electric utilities to purchase electric energy from cogenerators and small power producers at a rate equal to the purchasing utility’s full avoided cost, i.e., the cost the utility would have incurred had it generated the electricity itself or purchased the electricity from another source.” American Paper Inst., Inc. v. American Elec. Power Serv. Corp. 461 U.S. 402, 404 (1983).

The calculation of full-avoided cost is controversial, especially when calculating long-run versus short-run and embedded versus future costs. These issues will not be addressed in this note. For an eloquent introduction to this area see Wallace, \textit{supra} note 53. For an analysis of PURPA § 210 incremental marginal cost and “just and reasonable” pricing see Stephen R. Miles, Comment, \textit{Full Avoided Cost Pricing Under the Public Utility Regulatory Policies Act: “Just and Reasonable” To Electric Consumers?}, 69 CORNELL L. REV. 1267 (1984).


\textsuperscript{93} \textit{Id.} at 1078.
210 powers delegated to the states in PURPA. Congress did not give the FERC the power to exempt QFs from state laws or regulations.

State-determined minimum rates over the full-avoided cost are effectively a QF subsidy, a veritable boon for QFs in a mandatory wheeling scheme. However, the QFs would be subject to the state laws. It is likely that minimum rate structures such as New York's will be the target of a mandatory QF wheeling scheme because state laws set minimum rates, which may exceed the section 210 requisite full-avoided cost. Such minimum rate setting laws may skew the effectiveness of a broader QF wheeling regime.

The full-avoided cost can be a strong incentive for cogeneration and small power production, provided the local utility has marginal costs that are rising and above those of the cogenerator or the small power producer, i.e., the small power producer is more efficient than the purchasing utility. However, if a QF's native utility is a very efficient producer and its marginal costs are diminishing, the QF can enjoy a guaranteed market but few other encouragements.

An illustration of a "competitively neutral" application of QF wheeling is seen below. This model assumes that marginal costs are set in the long-run, QF's marginal cost curve is stable, full-avoided cost calculations are standard, and that market distorting effects of minimum rate setting are nominal. If a utility's marginal cost curve is designated by U-U, and the QF's marginal cost curve is represented by QF-QF, then the economically efficient full-avoided cost will be the area under

98. The physical limits on transmission costs are largely a function of physics. Transmission costs "vary approximately in proportion to distance and inversely with the square of transmission voltages." Leonard W. Weiss, Antitrust in the Electric Power Industry, in Promoting Competition in Regulated Markets 136 (Almarin Phillips ed., 1975). Therefore, the possible QF market is limited by the physical boundaries of transmission; these limits restrict the QF's "market power," a concern addressed in Opinion No. 318, 45 F.E.R.C. ¶ 61,095 (1988).
99. Marginal costs are the "next unit" of production costs, these costs generally decrease because of economies of scale; however, in the long run the next unit of power production will experience diminishing returns in the form of greater costs realized with additional capacity. Therefore, the long-run marginal cost curve is "U" shaped. For an in depth analysis see Charles F. Phillips, Jr., The Regulation of Public Utilities 423-425, (Public Utilities Reports 1988).
101. The QF's curve is smaller primarily because by statute a QF is a smaller power generator (80 MW). See Third Imperial Geothermal Co., 36 F.E.R.C. ¶ 61,013, at 61,034 (1986). Also, marginal costs will rise as with any long-term marginal cost curve. The curves illustrated are approximate. For an exacting mathematical plot of such curves see Spulber, supra note 60.
the U-(Q_e,P_e)-QF curve (fig. 1). Should the QF be allowed to apply for a wheeling order, it is likely to "shop" for the utility with the steeper marginal cost curve in order to extract the statutorily guaranteed higher full-avoided or incremental cost differential. Inefficient utilities, those with higher costs, will become targets for QF's with permissive wheeling. Over time the "target" utility will be under pressure to flatten or shift its marginal utility curve by more efficient generation (fig. 2). The target utility most likely will not want to pay out the full-avoided cost to the distant QF, especially if the utility is privately held and subject to shareholder pressure. By minimizing its marginal costs, the utility pays out a smaller full-avoided cost. The introduction of this market mechanism may increase efficiency over the long-term by reducing costs, effectively causing a shift in the utility's marginal cost curve to U-U^102 (fig.2). The shifting curve is likely to reduce rates in the long-run provided the QFs marginal cost curve remains stable (QF-QF).

At this point in the model the QF is presented with two options. The QF may reapply to target the next less efficient producer once the current wheeling agreement has terminated. Alternatively, the QF may continue the present interconnection. As a result, "considerations"^103 to

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102. See generally Spulber, supra note 60, at 143-147.
103. See Wallace, supra note 53, at 100.
promote potential consumer savings may be seen; at the very least cost efficiency is promoted.

This market illustration can be argued as leaving PURPA "competitively neutral" because it preserves the mandate of section 210, insulates QFs from true competition, and is non-discriminatory. This proposed transmission access should not be unconditional, which is a concern of the Commission. A showing of the target utilities' high marginal costs along with the QFs relative efficiency would have to be made in the application process. This process may be similar to a rate hearing. Wheeling rates must be based on a system that promotes efficient use of permissive wheeling for utilities. Therefore, a schematic can be developed which would address the concerns of the Commission while creating a truer "market" to encourage cogeneration and small power production in accordance with section 210. It is possible for the FERC to permit a QF wheeling system which counteracts the anticompetitive effects of the merger. Permissive wheeling is likely to be the major encouragement for future cogeneration and small power production.

The Commission recognizes two options for QFs that want wheeling: 1) QFs may retain their QF status and seek voluntary transmission from receptive utilities, or 2) QFs may waive their PURPA rights by electing to be an electric utility and thereby obtain the ability to seek involuntary wheeling under the Federal Power Act. The Commission has recognized the Congressional intent which gave the Commission a significant role in developing the QF industry. It can satisfy this role by rulemaking as it has in the present case. In fact, the Commission may exempt certain facilities from all or part of the FPA, the Public Utility Holding Company Act and relevant state laws. The FERC could conceivably establish such a permissive QF wheeling regime. No

104. See supra note 8.
106. See id. at 62,191.
107. Id.
108. Transmission costs must be figured in as well. See generally Wallace, supra note 53.
109. See also Wallace, supra note 53, at 100.
111. Id. at 62,189.
112. Id. at 62,187.
industry can be promoted without a sustainable market; the QF industry is no exception.

IV. CONCLUSION

New anticompetitive or, more accurately, anti-market trends face the QF industry. Difficulties in siting new facilities and a monopsonistic market may lead to a slowdown in cogeneration and small power production. Congress has recognized this difficulty and has passed new legislation which seeks to permit greater transmission access.

The Commission’s exclusion of QFs access is a reasonable reading of the relevant statutory framework. However, the Commission could still be within its broad section 210 mandate if it allows a permissive QF wheeling market to exist, more so now because appropriate legislation has been passed. The FERC’s discretion is permitted in the statutory framework.

Consumer savings can form an alternative basis for a permissive non-native wheeling scheme. The permissive wheeling scheme requires a showing of efficient generation and transmission in the QF and a high marginal cost in the “target” utility using a standardized full-avoided cost calculation. In the long-term, the “target” utility will be under pressure to reduce its marginal costs in order to lessen the required full-avoided cost pay-out. However, states which set minimum rates may distort such results.

With the changes in the QF market, the Commission may focus on introducing vital competition into the electric utility industry by allowing cogenerators greater transmission access. By doing so the FERC will fulfill its broad mandate from section 210, that is, to develop the cogeneration and small power production industry.

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