

Potential Competition and the Analysis of Wholesale Electricity Markets

By Richard Benjamin, FERC¹

Section I: Introduction

There has been a substantial history before the courts and federal regulatory agencies spelling out the potential competition doctrine. These cases successfully applied the potential competition doctrine in mergers of both natural gas and oil companies, but never in the electricity industry. This lack of legal precedent has compelled the Federal Energy Regulatory Commission (FERC or Commission) to arrive at its own conclusions as to the relevance of potential competition in its review of mergers under section 203 of the Federal Power Act (FPA).²

FERC's Merger Policy Statement³ outlines the methodology the Commission uses to evaluate the impact of a merger on horizontal competition. While the Merger Policy Statement allows for consideration of potential competition, FERC's primary tool in analyzing horizontal competition is found in Merger Policy Statement, Appendix A. In fact, until the repeal of the integration requirement of PUHCA 1935,⁴ interveners rarely (if ever) brought claims of harm via the potential competition doctrine before FERC. This begs the question of how the potential competition doctrine fits in FERC's merger analysis under FPA section 203.

This paper will suggest options for the Commission's consideration of this issue base on both the economic and legal aspects of the potential competitor doctrine. Section II provides background on the potential competitor doctrine, going back to the concept of limit pricing introduced by Bain (1949) and (1956). Section III discusses Supreme Court (the Court's) jurisprudence on the matter. Section IV provides a brief discussion of FERC merger review, explaining the relevance of the repeal of the Public Utilities Holding Company Act of 1935 to this issue. Section V provides an analysis of the role of the potential competition doctrine in FERC merger analysis. Section VI concludes.

Section II: Background

There are two variants of the potential competitor doctrine—the perceived potential competitor and the actual potential competitor doctrines. Under the perceived potential competitor doctrine, a firm is a potential competitor if its presence on the fringe of a market tempers the market power of those firms in the marketplace. As an example, firms may practice limit pricing in order to deter a perceived potential competitor from entering the market. Under

¹ The opinions and conclusions of the author do not necessarily reflect those of the Federal Energy Regulatory Commission, its Staff, or any of its Commissioners.

² 16 U.S.C. § 824b (2000), as amended by Energy Policy Act of 2005, Pub. L. No. 109-58, § 1289, 119 Stat. 594 (2005).

³ *Inquiry Concerning the Commission's Merger Policy Under the Federal Power Act: Policy Statement*, Order 592, 61 FR 68,595 (Dec. 30, 1996), FERC Stats. & Regs. ¶ 31,044 (1996), *reconsideration denied*, Order 592-A, 62 FR 33,340 (June 19, 1997), 79 FERC ¶ 61,321 (1997).

⁴ 15 USC Chapter 2c (PUHCA 1935).

that actual potential competitor doctrine, a firm need not have a tempering effect on the market in order to be considered a potential competitor. The firm is a potential competitor if there is sufficient evidence that it plans to enter the market, and its entry would produce significant procompetitive effects in that market.⁵

Bain (1949) led the way for development of the perceived potential competitor doctrine. He discussed the current price being a signal to entering firms of the character of industry demand and the probable character of rival policy after entry. That is, he recognized the importance of informational asymmetries in driving price signals. He defined the “limit price” as the highest common price which the established sellers believe they can charge without inducing at least one increment to entry.⁶ Bain understood potential entrants to decide on entering an industry based on its expected future profit. He conjectured that a potential entrant’s expectation of the stream of future prices would be influenced by the price charged by industry incumbents to the extent that they did not know industry demand with reasonable certainty, so that they saw current price as an indicator of industry demand and the probable price response of incumbents to entry. He thus concluded that there would be a trigger price inducing entry, with the potential competitor choosing not to enter for all observed prices below that level.⁷

Friedman (1979) noted that pre-entry prices say nothing about the profitability of entering when demand and cost functions are known with certainty. Provided that demand will permit new entry, a limit pricing strategy will never deter a rational entrant. Milgrom and Roberts (1982a) showed that if information is not complete, though, that is, the entrant does not know the incumbent’s cost with certainty; under certain assumptions limit pricing is an equilibrium strategy.⁸ Milgrom and Roberts (1982b) and Kreps and Wilson (1982) go further, showing that under certain assumptions predation—where an established firm responds aggressively to entry to frustrate continued entry—is also an equilibrium strategy.⁹ Bagwell and Ramey (2001) expanded Milgrom and Roberts’ model to allow for multiple incumbents.

Strategic investment is a variant on limit pricing. Judge Learned Hand sowed this approach’s seeds in his famous ruling on *Alcoa*,¹⁰ where he argued that “no more effective exclusion than progressively to embrace each new opportunity as it opened, and to face every newcomer with new capacity.”¹¹ Spence (1977) and Dixit (1980) provided the earliest models of entry-detering investment. They considered the question of whether an incumbent can strategically invest in capacity to signal aggressive quantity response to entry (i.e. produce at or above the “limit output,” as formulated by Modigliani (1958)).¹² Gilbert (1986) found that the

⁵ While there are several theories explaining the perceived potential competitor doctrine, which this section analyzes, the actual potential competitor doctrine is simply a testable hypothesis that the reduction in concentration brought by additional competitors has a salutary effect on the price in the industry.

⁶ Bain (1949), p. 454. See also Bain (1956).

⁷ *Id.* pp. 452-453.

⁸ See also Salop (1979).

⁹ These works employ game theory to illustrate limit-pricing Equilibria. Tirole (1988) introduced what is now the standard textbook game-theoretic model. Church and Ware (2000) employ a reputation model of predation.

¹⁰ *U.S. v. Aluminum Co. of America*, 148 F.2d 416 (1945)

¹¹ *Id.* at 431.

¹² If the incumbent’s profit-maximizing strategy is at or above the limit output (output at or above which output is unprofitable), entry is said to be “blockaded.”

technological characteristics of most industries do not allow firms to commit to a production level that prevents entry. He concluded that credible entry deterrence is feasible only if potential competitors anticipate vigorous competition, post entry.¹³ Firms may also engage in strategic entry-detering behavior through research and development (Gilbert and Newberry, 1982), brand proliferation (Schmalensee, 1978), and locational choice (West, 1980), *inter alia*..

Contestability theory, pioneered by Baumol *et al.* (1982) argues that potential competition is as effective as actual competition in restricting market power.¹⁴ They assert that when no barriers to entry are present, new firms will practice “hit-and-run” entry whenever price is above marginal cost. Thus participants in a perfectly contestable markets earn zero economic profits. Gilbert (1989), though, asserted that potential competition should not be as effective as actual competition in moderating the price of an industry’s output.

Empirical studies of the potential competitor doctrine verify Gilbert’s assertion. The most basic method is to compare prices in markets with different numbers of actual and potential competitors. Alternatively, one may study the behavior of price in a single market over time, as the number of actual and potential competitors changes. The airline industry is the subject of many studies, because of the relative ease of identifying potential competitors. These studies usually define potential entrants as those not currently serving a pair of cities, but serving either endpoint. In a survey of twelve studies of airlines, Kwoka (2001) found that potential competition had an effect on incumbents’ prices, but that the effect was smaller than that of actual competition.¹⁵ Studies on the pharmaceutical industry have analyzed the effect of potential competition by examining the price of incumbents before and after patent expiration.¹⁶ Cool, *et al.* (1999) measures the characteristics of potential entrants that approximate their “closeness” to the market in question.¹⁷

Section III: Supreme Court Jurisprudence

While potential competition issues arose in early case law of the Sherman Antitrust Act,¹⁸ the Supreme Court did not explicitly recognize the perceived potential competitor doctrine until 1964, in *United States v. El Paso Natural Gas Co.*¹⁹ This case involved a civil suit charging a violation of § 7 of the Clayton Act,²⁰ through the acquisition of Pacific Northwest Pipeline Corp. (Pacific Northwest) by El Paso Natural Gas Co. (El Paso).

¹³ Gilbert (1986), p. 107.

¹⁴ Gilbert (1989) argues that actual competition is more effective, however. Studies in the airline industry (discussed below) confirm Gilbert’s conjecture.

¹⁵ Kwoka (2001), p. 194.

¹⁶ See, *e.g.* Bergman and Rudholm (2003).

¹⁷ Other authors have studied the question of other strategic entry-detering behavior. Hall (1990) found that DuPont used strategic investment to preempt competition in Titanium Dioxide production in the 1970s and 1980s.

¹⁸ See N. 7, Bush and Massa (2004).

¹⁹ *United States v. El Paso Natural Gas Co.*, 376 U.S. 651 (1964).

²⁰ The relevant passage of which reads “No corporation engaged in commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital and no corporation subject to the jurisdiction of the Federal Trade Commission shall acquire the whole or any part of the assets of another corporation engaged also in commerce, where in any line of commerce in any section of the country, the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly.”

In 1956, Southern California Edison (Edison) negotiated a tentative agreement for purchase of natural gas from Pacific Northwest. At that time, Edison had a contract for interruptible service from El Paso. When El Paso responded by offering Edison firm service, at a reduced price, the latter terminated its agreement with Northwest. El Paso soon thereafter acquired the stock and assets of Northwest, but in July 1957, the Department of Justice filed suit charging that the stock acquisition violated § 7 of the Clayton Act.

In judging whether the acquisition of Pacific Northwest by El Paso violated section 7 of the Clayton act, the Court decreed that the deciding factor was “whether the acquisition substantially lessened competition in the sale of natural gas” in the relevant market (California). More specifically, the Court decided that the sole question was “whether on undisputed facts the acquisition had a sufficient tendency to lessen competition.” In deciding this issue, the Court clarified that § 7 addressed the probability, not the certainty, that a merger would lessen competition. It decreed this section to ban mergers “with a probable anticompetitive effect.”

Here though, the Court merely planted the seeds for the perceived potential competition doctrine. In neither relied on it nor even stated it. The Court started its discussion by referencing Pacific Northwest’s influence with respect to the perceived potential competition doctrine. It argued that Pacific Northwest had “been a substantial factor in the California market at the time it was acquired by El Paso,”²¹ noting that Edison’s efforts to obtain gas from Pacific Northwest caused El Paso to respond by giving Edison substantial concessions (firm supply at a lower price) in order to keep Edison’s business.

The Court did not argue that Pacific Northwest’s presence on the fringe of the market was enough to constitute a § 7 violation, though. It used this argument more as a preface to its main argument regarding the actual potential competition doctrine, that the “effect on competition in a particular market through acquisition of another company is determined by the nature or extent of that market and by the nearness of the absorbed company to it, that company’s eagerness to enter that market, its resourcefulness, and so on.”²²

Shortly after *El Paso*, the Court explicated on the perceived potential competitor doctrine in *Penn-Olin*.²³ Pennsalt Chemicals Corporation (Pennsalt), had produced sodium chlorate and other chemicals throughout the United States, but had no presence in the relevant market, the southeastern United States. Olin, meanwhile, owned a patented process which required sodium chlorate for bleaching pulp with chlorine dioxide. In 1960 these two companies signed a joint venture agreement, each acquiring 50 percent of the newly formed Penn-Olin Chemical Company, which started production of sodium chlorate in Kentucky in 1961. The United States charged that the joint venture violated § 7 of the Clayton Act and § 1 of the Sherman Antitrust Act.

In its decision, the Court affirmed its finding that a violation of § 7 of the Clayton Act occurs when a “tendency” toward monopoly or the “reasonable likelihood” of a substantial

²¹ *El Paso* at 658.

²² *El Paso* at 660.

²³ *United States v. Penn-Olin Chemical Co.*, 378 U.S. 158 (1964).

lessening of competition in the relevant market is shown, and that § 7 dealt with probabilities, not certainties. The Court reversed the lower court's ruling that § 7 stood on the probability that both companies would have entered the market. Rather, the Court concluded that "There still remained for consideration the fact that Penn-Olin eliminated the potential competition of the corporation that might have remained at the edge of the market, continually threatening to enter."²⁴ The Court borrowed from *Wilcox* (1940), in remarking that "potential competition as a substitute for actual competition, may restrain producers from overcharging those to whom they sell or underpaying those from whom they buy. Potential competition, insofar as the threat survives...may compensate in part for the imperfection characteristic of actual competition in the great majority of competitive markets."²⁵ The Court also clarified its interpretation of a potential competitor as "an aggressive, well equipped and well financed corporation engaged in the same or related lines of commerce waiting anxiously to enter an oligopolistic market."²⁶ Further, it argued that the number and power of the competitors in the relevant market is a determining factor in the probability of a substantial lessening of competition in a § 7 case.²⁷

In the *Clorox* case,²⁸ the court added conditions to its analysis of the perceived potential competition. In finding the merger of Clorox and Procter & Gamble (Procter) violated § 7, the Court argued that "absent the merger [Procter] would have remained on the periphery, restraining Clorox from exercising its market power."²⁹ It argued that the presence of Procter on the periphery of the market was significant because "market behavior of the liquid bleach industry was influenced by each firm's predictions of the market behavior of its competitors, actual and potential."³⁰ With respect to its ruling in *Penn-Olin*, that the number and power of the competitors in the relevant market is a determining factor in the probability of a substantial lessening of competition in a § 7 case, it concluded that "the number of potential entrants was not so large that the elimination of one would be insignificant."³¹

²⁴ *Id.* at 173.

²⁵ *Id.* at 174.

²⁶ *Id.*

²⁷ *Id.* at 177.

²⁸ Federal Trade Commission v. Procter & Gamble Co., 386 U.S. 568 (1967)

²⁹ *Id.* at 575.

³⁰ *Id.* at 581.

³¹ *Id.* at 581. It is interesting to note that the Court's economic analysis of the impact of Procter as a perceived potential competitor is weak in this case. The court notes, at 572, that Clorox had, in fact, been successful in exercising market power across the nation. By spending large sums of money on advertising and other promotional activities, Clorox was already exercising market power—selling its product for a price higher than its competitors. Therefore, the assertion that Procter's presence on the periphery of the market was "restraining Clorox from exercising its market power" is questionable. Further, the Court later acknowledges that "There is no indication that the barriers were so high that the price Procter would have to charge would be above the price that would maximize the profits of the existing firms....Procter was found by the Commission to be the most likely entrant." (at 581). Exactly what impact on competition Procter may have had is thus unclear. It is much more likely that Clorox's ability to raise prices was limited more by the ability of its advertising to convince consumers not to switch to lower-priced alternatives, not potential competition.

The real competitive harm to this merger is told at 574, in the final report given by Procter's promotion department, that "Procter could make more effective use of Clorox's advertising budget and that the merger would facilitate advertising economies," and, also in 574, in the Court's note that "the substitution of Procter with its huge assets and advertising advantages for the already dominant Clorox would dissuade new entrants and discourage active competition from the firms already in the industry due to fear of retaliation by Procter." Even the latter statement requires clarification, however. It is true that the national dominance of Clorox would have been increased by merger into Procter. One can easily argue that a firm would have been less likely to enter the *national*

The two cases that clarified the Court's interpretation of the perceived potential competitor doctrine were *Falstaff* and *MarineBancorporation*.³² In *Falstaff*, the Court defines a perceived potential competitor as a firm positioned on the edge of the market that exerted beneficial influence on competitive conditions in the market.³³ The Court also argued that the factor(s) determining whether the market perceives a firm to be a potential competitor is not internal company decisions, but rather the firm's financial capability and known interest in entering the market. The Court concluded that an appraisal of the economic facts about *Falstaff* and the New England Market was necessary to determine whether *Falstaff* may have been considered a perceived potential competitor.³⁴ In *MarineBancorporation*, the Court synthesized its discourse on the perceived potential competitor doctrine into a three-part test. It stated that a merger may be unlawful if (1) the target market is substantially concentrated, (2) the acquiring firm has the characteristics, capabilities, and economic incentive to render it a perceived potential *de novo* entrant, and (3) the acquiring firm's pre-merger presence on the fringe of the target market in fact tempered oligopolistic behavior on the part of existing participants in that market.³⁵

While *Falstaff* and *MarineBancorporation* clarified the perceived potential competition doctrine as a factor in deciding legality of a merger under § 7, they did not rule regarding the validity of the actual potential competition doctrine. In *Falstaff*, the Court decided to "leave for another day the question of the applicability of § 7 to a merger that will leave competition in the marketplace exactly as it was, neither hurt nor helped, and that is challengeable under § 7 only on grounds that the company could, but did not, enter *de novo* or through 'toe-hold' acquisition and that there is less competition than there would have been had entry been in such a manner."³⁶

In *MarineBancorporation*, the Court concluded that in order to make a determination based on the actual potential competitor doctrine, it must be determined (1) that a company has "available feasible means" for entering a market, other than by acquisition, and (2) that those means offer a substantial likelihood of ultimately producing deconcentration of that market or other significant procompetitive effects. Unfortunately (for the resolution of the theory) the Court determined that these preconditions were not present, and therefore, it expressed no view on the appropriate resolution of the question reserved in *Falstaff*. Kwoka (2005) though, argues that the Court's statement that "unequivocal proof that an acquiring firm actually would have

market due to the merger. However, the court's argument that Clorox might drive out competition by underpricing Clorox in order to drive out competition is much more speculative, especially given the fact that Procter had not used this policy in the four years that it controlled Clorox. We therefore find it implausible that the merger would have dissuaded tiny firms from entering local markets and competing with Clorox on the basis of price.

³² United States v. *Falstaff* Brewing Corp. *et al.* 410 U.S. 526, and United States v. *Marine Bancorporation, inc., et al.*, 418 U.S. 602, respectively.

³³ *Falstaff* at 532-533.

³⁴ *Id.* at 533-534. In this case, the Court (Marshall concurring) coined the phrase, "actual potential entrant." It defined such as a firm that enters the market by acquiring a strong company within the market and assumes the position of that company without necessarily increasing competitive pressures. The Court stressed that the anticompetitive effect of such an acquisition depends on the possibility that the firm would have entered *de novo* had it not entered by acquisition.

³⁵ Kwoka (2005), p. 18, argues that the standard that a firm *in fact* tempered oligopolistic behavior of existing market participants is quite high, making potential competition cases "substantially more difficult to establish and hence much less frequent in actual enforcement practice."

³⁶ *Falstaff* at 537.

entered *de novo* but for a merger is rarely available...left little doubt as to the prospects of success of such cases.”³⁷

Section IV: FERC Merger Review and Potential Competition

Section 203 of the Federal Power Act (FPA) provides that the FERC shall approve a proposed merger if it finds it to be consistent with the public interest. Applicants need not show that a merger positively benefits the public interest, but rather that it does not harm the public interest.³⁸ In determining whether a proposed merger is consistent with the public interest, FERC evaluates the effects of the prospective merger on competition, rates, and regulation.³⁹ Prior to the repeal of PUHCA 1935, no merger applicant before the Commission was allowed to acquire utility assets of a public-utility or holding company unless such acquisition fostered the development of an integrated public-utility system.⁴⁰

In the context of this requirement, FERC adopted the DOJ/FTC Merger Guidelines⁴¹ as the analytical framework in its Merger Policy Statement for analyzing the effect of a merger on competition. According to (and as described in Appendix A of) the guidelines, a merger that results in a Herfindahl-Hirschman Index (HHI) value of less than 1,000 is unlikely to have adverse competitive effects. A merger resulting in a moderately concentrated market ($1,000 \leq \text{HHI} \leq 1,800$) and inducing an HHI change greater than 100 potentially raises significant competitive concerns. A merger resulting in a concentrated market ($\text{HHI} > 1,800$) and inducing an HHI change between 50 and 100 points potentially raises significant competitive concerns. A merger resulting in a concentrated market and inducing an HHI change exceeding 100 points is presumed to likely create or enhance market power.⁴² Under the Merger Policy Statement, FERC will not set the issue of the competitive impact of a merger for hearing if an adequately supported HHI analysis “shows that the merger would not significantly increase concentration, and there are no interventions raising genuine issues of material fact that cannot be resolved on the basis of the written record.”⁴³

FERC explicitly recognizes the perceived potential competitor doctrine in Order 642,⁴⁴ and implicitly, in its adoption of the DOJ/FTC Merger Guidelines. With respect to potential competition, the 1984 Merger Guidelines state that the DOJ is unlikely to challenge mergers

³⁷ Kwoka (2005), p. 17.

³⁸ See, e.g. *Texas-New Mexico Power Co.*, 105 FERC ¶ 61,028 at p. 23 & n. 14 (2003).

³⁹ In addition, under the revisions to section 203 implemented by the Energy Policy Act of 2005 (EPA Act 2005), Pub. L. No. 109-58, § 1289, 119 Stat. 594 (2005), FERC must also determine that a proposed transaction will not result in cross-subsidization of a non-utility associate company by a traditional utility company, or the pledge or encumbrance of utility assets for the benefit of an associate company, unless that cross-subsidization, pledge, or encumbrance will be consistent with the public interest.

⁴⁰ See the integration requirement, § 79k(b)(1) of PUHCA.

⁴¹ Antitrust Division, U.S. Department of Justice, Merger Guidelines 4.131 (1984) (1984 Merger Guidelines), and U.S. Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines*, 57 FR 41,552 (1992) (1992 Merger Guidelines) (jointly, the Guidelines).

⁴² For an explanation of the Delivered Price Test, as used in Appendix A analysis, see Hunger (2002).

⁴³ Merger Policy Statement at 30,120. For a critique, see Bush (2007)

⁴⁴ *Revised Filing Requirements Under Part 33 of the Commission's Regulations*, Order No. 642, 65 FR 70,982 (November 28, 2000), FERC Stats. & Regs. ¶ 31,111 (2000), *order on reh'g*, Order No. 642-A, 65 Fed. Reg. 16,121 (Mar. 23, 2001), 94 FERC ¶ 61,289 (2001) (codified at 18 C.F.R. Part 33).

when entry into a market is easy enough to constrain market power of existing firms, that is to say, there exist sufficient actual potential competitors. The 1984 Guidelines continue that when entry is not easy, a merger that eliminates a perceived potential competitor could cause market performance to decline and that elimination of a firm with unique entry advantages may allow incumbents to exercise market power. The DOJ states that if such an entry advantage is shared by three or more other firms, it is unlikely to challenge the merger. The 1984 Guidelines also acknowledge the significance of actual potential competitors, noting that elimination of such firm could result in a lost opportunity for improvement in the market. The DOJ concludes that both of these doctrines are important for consideration of competitive harms due to a merger, but it will consider any appertaining evidence only if the market is highly concentrated ($HHI > 1,800$).

The 1992 Guidelines refine the 1984 Guidelines by placing potential competitors into two categories. They define an uncommitted entrant as a firm that can profitably enter the market rapidly (within one year) in response to a “small but significant and nontransitory” price increase without incurring substantial sunk costs. The uncommitted entrant presumably borrows from Baumol *et al.*’s (1982) contestable markets theory. In the case where entry would entail significant sunk costs, the 1992 Guidelines consider as actual potential competitors those firms that can enter within two years from initial planning to significant market impact.⁴⁵

Because FERC adopted the 1984 and 1992, it did not need to go into great detail on the potential competitor doctrine in Order 642. For our purposes, it is sufficient to note that Order 642 recognizes that a merger may eliminate one of the merged companies as a perceived potential competitor. The Order thus requires merger applicants to identify product markets in which they might reasonably be perceived as potential competitors.

As long as the integration requirement of PUHCA 1935 held, the perceived potential competitor issue was hard pressed to find its way into a section 203 filing.⁴⁶ FERC interpreted the integration requirement as requiring applicants, at a bare minimum, to establish a contract path between the merging utilities. All merger applications therefore registered *some* HHI change, and FERC was able to evaluate a merger’s competitive ramifications based on applicants “Appendix A” analysis—that is, based on the HHI change induced by the merger. Mergers between geographically noncontiguous entities would invariably show a slight HHI change, due to reserved capacity on the contract path, and would thus easily pass FERC’s Appendix A screens. The integration requirement thus made the merging parties nominal competitors in a common market, validating Appendix A analysis at the expense of arguments concerning potential competition.

The Energy Policy Act of 2005 repealed PUHCA 1935, though. With the repeal of PUHCA 1935’s integration requirement, there no longer need be any horizontal overlap between

⁴⁵ In the case of durable goods, the 1992 Guidelines will consider entry to be timely so long as it would deter or counteract competitive effects of the merger within the two year period and following.

⁴⁶ To the authors’ knowledge, no intervener ever protested a merger application using the perceived potential competitor doctrine prior to the repeal of PUHCA 1935. However, see Bush and Massa (2004) for a discussion of court cases regarding the potential competition doctrine in the electricity industry.

merging firms.⁴⁷ With no traditional Appendix A analysis to critique, interveners in both Duke-Cinergy and Constellation-FPL⁴⁸ both utilized the potential competitor doctrine in questioning the consistency of the transactions with the public interest. These challenges themselves beg the question as to whether the potential competition doctrine jibes with the Commission's analysis of mergers under FPA section 203.

Section V: Applying the Potential Competitor Doctrine to FERC Merger Analysis

Comparing the Court's view of potential competition with that of the Guidelines, we find sufficient similarities upon which to apply the potential competition doctrine to FERC merger analysis under FPA section 203. Both approaches agree that the target market must be sufficiently concentrated before potential competition comes into play. Likewise, they both agree that the acquiring firm must have the economic incentive to enter a market in order to be a potential competitor. The Court's determination in *Clorox* also jibes with the 1984 Guidelines' finding that elimination of a firm with unique entry advantages may allow incumbents to exercise market power. Therefore, without loss of generality, this section applies the Court's three-part test for the perceived potential competitor doctrine electricity mergers. Doing so involves both objective and subjective evaluations. As for the first element, market concentration, FERC uses the DOJ benchmark of an HHI value of 1,800 in determining a market to be concentrated.

The second element—that the acquiring firm must have the characteristics, capabilities, and economic incentive to render it a perceived entrant—is clearly more subjective. One might use public announcements of plans to enter a market to gauge a firm's interest in doing so. One might also collect anecdotal evidence regarding a firm's recent merger and acquisition activity to judge a firm's capability to enter a market.⁴⁹ Finally, distinguishing between different firms' economic incentives to enter a market is a speculative venture. One might conjecture that a firm may want to expand its presence regionally, giving it a greater incentive than other firms to enter a market contiguous to it, but numerous examples exist of firms operating or having operated in pockets across the country.

As for the third element, it is improbable that one can develop a definitive test for the tempering behavior of a potential competitor on the oligopolistic behavior on the part of existing participants in that market. Unlike Proctor & Gamble in *Clorox*, there is no one dominant firm in electricity to whom one might attribute restraint on the part of competitors.

At present there is little need to test the perceived potential competitor doctrine in electricity, however. Several studies of different restructured electricity markets reveal the exercise of market power by market participants.⁵⁰ These studies imply that firms are not

⁴⁷ This is no more apparent than in the Duke-Cinergy merger (EC05-103), where the two firms initially proposed a 50 MW "bridge" between the two systems, then withdrew the proposal after the passage of EPAct 2005.

⁴⁸ *Duke Energy Corp.*, 113 FERC ¶ 61,297 (2005), and FPL Group, Inc. and Constellation Energy Group, Inc., Merger Application, Docket EC06-77. Applicants withdrew that latter application due to concerns about the state of Maryland denying approval of the merger.

⁴⁹ Such evidence could cut both ways, however. Recent acquisition activity is indicative of a healthy firm, but such activity can also strain the firm's liquidity, making it less likely to expand in the near future.

⁵⁰ See, e.g. Borenstein *et al.* (1997), (2000) and (2002), Bushnell and Saravia (2002) Bushnell *et al.* (2004),

bidding so as to discourage entry. Studies by Talukdar (2002) and Rassenti *et al.* (2003) show that firms interacting in repeated, hourly auctions are able to exercise implicit collusion even in relatively unconcentrated markets.⁵¹

As for traditional electricity markets, vertical foreclosure has long been the tool of choice for limiting competition. *Entergy Gulf States*⁵² is telling here. In this case applicants argued that the acquisition of the Calcasieu generating facility would pose no harm to competition. Occidental Chemical Corporation intervened, arguing that Entergy's practice of vertical foreclosure, through deficiencies in its transmission grid, "had the effect of suppressing competition by preventing IPPs [Independent Power Producers] from reaching within and outside the Entergy region, causing many of those IPPs to suffer competitive distress."⁵³ In this case, the Commission reminded Occidental that the "Commission conditions section 203 authorizations only when needed to address specific, transaction-related harm."⁵⁴ FPA section 203 does not require applicants to redress any *preexisting* competitive harms when acquiring facilities or in merger cases. This fact, combined with the fact that traditional utility transmission systems were not built with the intention of facilitating wholesale competition⁵⁵ allows utilities to strategically underbuild their transmission network in order to frustrate competition without fear of reprisal. The sole tool the Commission has at its disposal when a utility has a competitive advantage in its home market is to refuse its request for, or take away, its market-based rate authority. Even at the cost of no market based authority in its home market, though, Entergy has still failed to upgrade its transmission system to facilitate competition.⁵⁶

The relevance of the actual potential competitor doctrine to electricity mergers is dependent on how one interprets the Merger Policy Statement's requirement that merger analysis be "forward looking."⁵⁷ The crux of the matter is that the actual potential competitor doctrine speaks of the ability of a new entrant to improve the competitiveness of a market. Under a barebones interpretation, the actual competitor doctrine is irrelevant to the assessment of the competitive impact of a merger. As discussed in Section IV above, applicants need not show that a merger positively benefits the public interest, but rather that it does not harm the public interest. Thus, "small" increases in industry concentration, as measured by the HHI change due to a transaction, are permissible. Likewise, one might argue that a merger's elimination of an actual potential competitor does not harm the public interest, because doing so results in no competitive change *as compared with the status quo*. An actual potential competitor, by definition, has no presence in an electricity market and has no impact on that market. Therefore, removing the actual potential competitor has no affect on the wholesale electricity market in

Joskow and Kahn (2002), and Wolfram (1999).

⁵¹ In Talukdar's simulation, 10 firms each had market shares of 10 percent, for an HHI of 1,000. Yet these firms were still able to raise the price to monopoly levels, even when capacity was twice the amount of electricity needed to meet demand..

⁵² *Entergy Gulf States, Inc. and Calcasieu Power LLC*, 121 FERC ¶ 61,182.

⁵³ Motion to Intervene and protest of Occidental Chemical Corporation, April 30, 2007, pp. 15-16.

⁵⁴ *Entergy Gulf States, supra note 50*, at 71.

⁵⁵ See, *e.g.* Hirst and Kirby (2001) and Apt and Lave (2003).

⁵⁶ In spite of these arguments, Benjamin and Nail (2008) will empirically test for the impact of potential competitors in traditional wholesale electricity markets.

⁵⁷ Order No. 642 at 31,887.

question.

But FERC's Order 642⁵⁸ requires that merger analysis be forward looking. One might interpret this requirement as looking at the electricity market *after* the competitor has (hypothetically) entered the market in the future. The 1984 Merger Guidelines are amenable to this interpretation. As per the guidelines:

In assessing the ease of entry into a market, the Department will consider the likelihood and probable magnitude of entry in response to a "small but significant and nontransitory" increase in price. Both the price to be increased and what constitutes a "small but significant and nontransitory" increase in price will be determined as they are in product market definition, except that a *two-year time period* generally will be used.⁵⁹

It thus seems logical to use a two-year window for an actual potential competitor in FERC merger analysis. Thus, we might include in the market any generating facility slated for start-up in a two-year time frame, as consistent with both the 1984 Guidelines and the forward-looking requirement of the merger policy statement. We would incorporate the actual potential competitor doctrine into section 203 analysis by incorporating the capacity of facility the potential competitor is building, that will be completed within that two-year time frame, into the HHI analysis of Appendix A. Since the actual potential competitor has no presence in the market, the HHI change in the relevant market would be that due only to the change in ownership of the plants the potential competitor that would be completed within two years.

Here too, though, the actual potential competitor doctrine may still run afoul of section 203. An intervener may well argue that a new plant will have a beneficial impact on competition, even if its capacity is insufficient to trigger a screen failure. In this case, section 203 must trump the actual potential competitor doctrine. If this were not the case, then we would have the perverse result that the change of a plant currently in operation would not trigger an Appendix A screen failure, but the same change in ownership of an equal-sized plant in the building stage would result in rejection of the merger by the actual potential competitor doctrine. We are left to conclude that although the actual potential competitor doctrine has some theoretical application to section 203, its practical value is limited.

Section VI Conclusion

FERC has the statutory obligation to determine the impact of a merger or acquisition on competition in the affected markets under FPA section 203. While the 1984 and 1992 Merger Guidelines, as well as the Merger Policy Statement give the Commission license to examine the actual and perceived potential competitor doctrine in merger analysis, this license was moot until

⁵⁸ Federal Energy Regulatory Commission, *Revised Filing Requirements Under Part 33 of the Commission's Regulations*, Order No. 642, 65 FR 70,984 (November 28, 2000), FERC Stats. & Regs. ¶ 31,111 (2000), *order on reh'g*, Order No. 642-A, 65 Fed. Reg. 16,121 (Mar. 23, 2001), 94 FERC ¶ 61,289 (2001) (codified at 18 C.F.R. Part 33).

⁵⁹ 1984 Merger Guidelines, Section 3.3.

the repeal of the integration requirement of PUHCA 1935. Since then, interveners in two merger cases have made arguments based on both of the doctrines, asserting competitive harms due to the mergers. Economic theory and empirical work, and Supreme Court jurisprudence both provide some general justification for these two doctrines. This paper argues that the relevance of these doctrines for merger analysis under FPA section 203 is, at present, limited. It is hard to justify application of the perceived potential competitor doctrine to current electricity markets, as these markets do not exhibit the moderating effects of perceived potential competitors. Empirical and theoretical economic analysis explains and demonstrates high prices in restructured electricity markets. In traditional electricity markets, firms may find vertical foreclosure a more profitable strategy than limit pricing. While limit pricing results in lost profits, vertical foreclosure can allow the firm to pick up distressed assets at “fire-sale” prices as well as buoying current prices. One can argue that the actual potential competitor doctrine currently has a niche in Appendix A analysis, given the latter’s forward-looking nature. However, due to the need for consistency in evaluating potential and actual competition, and the limitation on how far forward one may look, this effectiveness of this doctrine in an intervener’s argument in a merger case is necessarily limited.

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