

FOSTERING COMPETITION IN THE 21st CENTURY ELECTRICITY INDUSTRY

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INTRODUCTION

Today's electricity sector is shaped by two important trends. First, investor-owned electric utilities have been rapidly consolidating ever since repeal of the Public Utilities Holding Company Act ("PUHCA") in 2005. Second, the pace of technological innovation has increased, especially at the grid edge. Numerous firms have emerged, most notably demand response aggregators, solar power providers, and energy storage providers that seek to sell energy services to customers, to wholesale electricity markets, or to both. These firms often compete with the utilities in ways not anticipated by the existing mechanisms that allow for and regulate competition in the electricity sector. Taking this competition question seriously means reexamining the application of the law of antitrust in electricity regulation. Elsewhere, I have argued for renewed oversight of ratemaking by antitrust regulators.¹ Here, I argue for increased focus by the Department of Justice ("DOJ") in exercising its antitrust merger oversight authority.

I. CONSOLIDATION AND INNOVATION IN THE U.S. ELECTRICITY SECTOR

The last twenty-five years have seen rapid consolidation in the investor-owned electric power sector. While the power sector as a whole is still populated by a diverse set of public and private entities, most electricity demand in the United States is served by investor-owned utilities. These utilities were limited in horizontal scale for nearly seventy years by PUHCA, which was enacted in the aftermath of the Insull utility holding company's collapse during the Great Depression. PUHCA limited the degree to which utilities could combine to efficiently exploit economies of scale.² Beginning in the 1980s, federal energy regulatory policies aimed at fostering competition encouraged consolidation in

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¹ See Michael Wara, *Competition at the Grid Edge: Innovation and Antitrust Law in the Electricity Sector*, 25 N.Y.U. ENVTL. L.J. (forthcoming 2016).

² See Richard J. Pierce, Jr., *Mergers in the Electric Power Industry*, in COMPETITION POLICY AND MERGER ANALYSIS IN DEREGULATED AND NEWLY COMPETITIVE INDUSTRIES 7 (2005).

the industry. Notably, in the 1980s and 1990s, the Federal Energy Regulatory Commission (“FERC”) conditioned horizontal merger approval on adoption of pro-competitive conduct remedies at the wholesale level, opening up wholesale electricity markets to increasing competition.³ Then, in the 2005 Energy Policy Act, Congress repealed PUHCA, unleashing a decade of further mergers and significant growth of competitive wholesale markets.

Meanwhile, the evolution of technologies and business models has created new competition for electricity sales from unexpected sources. In particular, the rapid growth of demand response and distributed solar energy has created new sources of competition for the electric utility industry. Demand response, the electricity product at issue in *FERC v. Electric Power Supply Ass’n* (“*EPSA*”),⁴ is a service whereby electricity consumers can be paid by wholesale markets or utility retail programs not to consume energy during times when the electricity grid is strained. Thus, demand response avoids the need for both additional power plants to meet peak demand and transmission lines to deliver that energy. Both of these features directly threaten utilities’ bottom lines. Similarly, distributed solar energy reduces utility sales and the need for additional utility investments in infrastructure, especially when it is combined with net metering rules that allow netting of energy produced against energy consumed. These technologies and others that are just now coming to market—such as energy storage—are viewed as a serious competitive threat by the electric utility industry.⁵

The disputes in *EPSA* are but one symptom of this new era. These new technologies raise hard jurisdictional questions for the traditional regulatory model. As made clear by the Court in its decision, the new technologies blur the lines between different segments of the electricity market.⁶ Here, I argue that these innovations raise equally important questions about how to manage competition in the electric power sector. Answers to those questions involve actors not traditionally included in the electricity regulatory discussion at the state or federal level—i.e., firms that sell energy or energy services at retail and in direct competition with regulated electric utilities—but whose interests need consideration if new approaches to creating value for customers are to be realized.

³ *Id.*

⁴ 136 S. Ct. 760 (2016).

⁵ See Peter Kind, EDISON ELECTRIC INST., DISRUPTIVE CHALLENGES: FINANCIAL IMPLICATIONS AND STRATEGIC RESPONSES TO A CHANGING RETAIL ELECTRIC BUSINESS 1 (2013), <https://perma.cc/DP27-D7U9>.

⁶ See *EPSA*, 136 S. Ct. at 776.

The DOJ and Federal Trade Commission's ("FTC") 2010 Horizontal Merger Guidelines provide a useful basis for examining how the DOJ might steer a consolidating industry that has a natural interest in preventing entry by newcomers toward greater openness to innovation. In particular, conduct remedies in the merger review process have played an important role in fostering wholesale competition in the electricity industry. They also have potential to facilitate innovation in and the development of robust and fair retail markets for energy services. Merger enforcement is a neglected tool for the federal government to help ease the transition to a clean electricity future. It is a tool that should be picked up and put to work.

II. FROM COMCAST-TIME WARNER TO PEPSCO-EXELON

In 2015, Comcast announced that it had come to an agreement with Time Warner Cable's management to merge the two largest cable and broadband Internet providers in the country.⁷ At first, regulators appeared amenable to the deal, and Comcast and Time Warner management expected that, consistent with previous cable mergers, the DOJ Antitrust Division's merger review would be secured, largely because Comcast and Time Warner Cable do not compete against each other in major markets.⁸ However, they completely failed to anticipate the outpouring of opposition to the deal based on the belief that the combined firm would act to reduce the rate of innovation—of products and services that consumers might purchase or use over their broadband networks—and of opportunities for new firms to enter the market for broadband content.⁹ Ultimately, the deal fell apart because these concerns about innovation led to DOJ opposition.¹⁰

Today, a hard fought merger battle in the electric power industry mirrors, to a surprising degree, the concerns that led to the demise of the Comcast-Time Warner Cable tie up. In 2014, Exelon proposed purchasing Pepco

⁷ David Gelles, *In Matter of Weeks, Meeting of Minds on Cable Giants' Deal*, N.Y. TIMES (Feb. 13, 2014), <https://perma.cc/WX2L-A7WK>.

⁸ Sam Gustin, *Comcast Exec Says Time Warner Cable Deal Will Be Great for America*, TIME (Apr. 1, 2014), <https://perma.cc/SHJ6-KTPU>.

⁹ *See More than 50 Public Interest Groups Speak Out Against the Comcast-Time Warner Cable Merger*, FREE PRESS (Apr. 8, 2014), <https://perma.cc/GZD4-TBAS>.

¹⁰ Press Release, Dep't of Justice, Office of Pub. Affairs, *Comcast Corporation Abandons Proposed Acquisition of Time Warner Cable After Justice Department and Federal Communications Commission Informed Parties of Concerns* (Apr. 24, 2015), <https://perma.cc/26NM-6R6J>.

Holdings to form the largest electric utility in the United States.¹¹ The merger has been approved by most of its regulators, including FERC and the DOJ.¹² However, it has been strenuously opposed by advocates for distributed solar energy because of the fear that the combined firm would implement a set of policies that Exelon has pursued in other jurisdictions to block this and other innovative energy technologies that compete with utility-supplied energy at the grid edge.¹³ In other words, rooftop solar advocates are afraid that a merger will allow the spread of anticompetitive practices. Practices that lead to the creation of barriers to entry for innovative energy technologies that either reduce consumer demand for energy or allow consumers to self-generate.

Merger review by FERC is limited by its jurisdiction under the Federal Power Act to competition in interstate wholesale electricity markets.¹⁴ But review by federal antitrust regulators of electric utility mergers, although historically unexercised in the interstate retail electricity context, bears no such jurisdictional limitation. The DOJ and FTC, in exercising their authority to review mergers under the antitrust statutes, are obligated to consider if a merger might negatively impact competition between electric utilities and other firms that sell energy products and services to end use consumers at retail. Because of the jurisdictional grant in the Federal Power Act, these markets are typically—although not completely—the preserve of state public utility commissions. The next section briefly reviews the evolution of the key doctrines that might support DOJ action to condition electric utility mergers that have the potential to harm nascent grid-edge competition.

III. THE DOJ AND FTC'S MOVE TO INNOVATION-FOCUSED MERGER REVIEW

The Department of Justice, jointly with the Federal Trade Commission, has authority to enjoin mergers that, if consummated, tend “substantially to lessen competition, or tend to create a monopoly.”¹⁵ The two agencies divide

¹¹ See Energy Info. Admin., *Exelon-Pepco Merger Could Create Largest U.S. Electric Utility*, TODAY IN ENERGY (Oct. 21, 2015), <https://perma.cc/P3GG-7Q7E>.

¹² Order Authorizing Proposed Merger, 149 FERC ¶ 61,148, para. 1 (Nov. 20, 2014); Pepco Holdings, Inc., Current Report (Form 8-K) (Dec. 22, 2014), <https://perma.cc/23P9-9RFR>.

¹³ See Anya Schoolman, *Why I Oppose the Exelon Merger*, D.C. SUN (Aug. 2, 2014), <https://perma.cc/Y562-8DBV>; Letter from Diana Moss, President, American Antitrust Institute, to William Baer, Assistant Attorney General, U.S. Department of Justice (Feb. 25, 2015), <https://perma.cc/5HNE-FJSF>.

¹⁴ See 16 U.S.C. §§ 824(a)–(b) (2012).

¹⁵ See 15 U.S.C. § 18 (2012).

oversight of mergers by industrial sector, but the DOJ and FTC jointly oversee many network industry mergers—including telecommunications and electric power—in collaboration with the federal agencies that regulate them.¹⁶

At least in the recent past, the DOJ has exercised antitrust merger review authority over the electric power industry. If the DOJ concludes that a proposed merger would violate section 7 of the Clayton Act, it may seek an injunction to block the merger.¹⁷ The DOJ and FTC periodically update guidelines for oversight of horizontal mergers, such as between two electric utilities.¹⁸ These guidelines have evolved substantially over time in response to court review of proposed mergers that the DOJ and FTC sought to block on competition grounds. In general, the Horizontal Merger Guidelines have moved away from formulaic inquiry into market concentration and towards fact-specific evaluation of many factors that may lessen competition.¹⁹

One of the most significant dimensions of the Horizontal Merger Guidelines' evolution has been the growing importance of impacts on dynamic competition. A merger might affect dynamic competition if the combination of two companies creates a firm that can act to stifle innovation in a relevant market.²⁰ This potential harm contrasts with the traditional concern of merger review on the ability of the combined firms to exert market power with the goal of extracting monopoly rents.²¹ Evaluation of dynamic competitive effects of a merger involves a context-specific analysis of foreseeable impacts on innovation by other firms, while evaluation of static competitive effects is usually conducted via a more standardized analysis where key questions involve market definition and degree of product differentiation. It is very difficult to predict the future path of innovation in most contexts. Nevertheless, the growing emphasis on innovation effects of mergers—as reflected in the 2010 Merger Guidelines and the DOJ analysis of the Time-Warner deal—indicates the increasing importance of considering both the short- and long-term impacts on innovation in relevant product markets during DOJ antitrust review.

¹⁶ INT'L COMPETITION POLICY ADVISORY COMM., DEP'T OF JUSTICE, FINAL REPORT annex 3-B (1999), <https://perma.cc/Q6GQ-ZU2G>.

¹⁷ See 15 U.S.C. § 18–18a.

¹⁸ See U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, HORIZONTAL MERGER GUIDELINES (2010) [hereinafter, "2010 MERGER GUIDELINES"], <https://perma.cc/P7V2-AVX4>; Carl Shapiro, *The 2010 Horizontal Merger Guidelines: From Hedgehog to Fox in Forty Years*, 77 ANTITRUST L.J. 701, 702 (2010).

¹⁹ Carl Shapiro, *supra* note 18, at 702–04.

²⁰ 2010 MERGER GUIDELINES, *supra* note 18, at 2.

²¹ 2010 MERGER GUIDELINES, *supra* note 18, at 18–19.

IV. ANTICOMPETITIVE CONDUCT?

Today, in response to both current and foreseeable threats from new distributed energy technologies, many utilities are acting to make changes in electricity rate structures that erect or increase barriers to entry for grid-edge technologies, principally distributed rooftop solar.²²

The most common proposal to date has been to institute or dramatically increase fixed charges or minimum bills for customers on a solar net-metering rate. These fees have the effect of reducing the returns to installing distributed solar power for residential or commercial customers subject to the charge. They also have the effect of reducing incentives to install any other technology that might serve to reduce energy consumption or, where time-of-use rates are offered, shift consumption into periods of the day when energy charges (per kWh) are lowest. A recent survey by the author found such rate structure changes to have been proposed by at least thirty-three electric utilities located in nineteen states from 2013 through 2015.²³

It must be emphasized that some of the proposed changes may be justified by a need to fully recover the costs of the fixed assets the utility uses to supply power to distributed energy customers when they are not self-generating (i.e., at night). But the pattern and magnitude of proposed changes suggests that this rationale is being championed by utilities as a cover for efforts to stifle competition from distributed solar. Other technologies, such as novel energy service companies or the small but explosively growing energy storage market, may simply be caught in the crossfire between utilities and solar.

This recent move to restructure rates interacts strongly with the ongoing consolidation of the electric power industry. The Exelon-Pepco merger is one example of this phenomenon. There, local solar advocates are fighting the takeover of their incumbent utility by a larger entity with a history of anti-solar policies. Another example is the recent struggle in Nevada between rooftop solar advocates and NV Energy, a subsidiary of Berkshire-Hathaway Energy, a firm that owns numerous regulated utilities spread over the western United States.²⁴ There are many others.

²² See Wara, *supra* note 1, at 19–26.

²³ *Id.*

²⁴ See Nichola Groom, *Nevada Will Move All Solar Customers to New Rates*, REUTERS (Feb. 12, 2016), <https://perma.cc/HQ2E-YQ5F>.

V. TOWARD ANTITRUST REMEDIES IN THE RETAIL ELECTRICITY
MARKETS

When an electric utility with a history of proposing (or actually) pricing its electricity in ways that stifles innovation seeks to acquire another electric utility, can and should the DOJ intervene to block the merger? Given that such a horizontal merger would create a new entity with a larger footprint that is likely to continue to try to lessen competition from distributed energy resources and that would likely seek to increase barriers to entry in its newly enlarged footprint for emerging energy technologies, it seems like a worthy target for DOJ oversight.

But what can a DOJ settlement actually accomplish when a utility's prices are an outcome of regulatory proceedings before state utility commissions? One approach, taken by FERC in its antitrust reviews of proposed utility mergers in the 2000s was to condition merger approval on receipt of permission from state utility commissions to adopt specified conduct remedies—in that case joining organized wholesale markets with more active competition.²⁵

Perhaps the DOJ could take a card from FERC's merger review playbook and condition merger approval on the combined entity receiving permission from its various state commissions to adopt retail and commercial rate structures that increase competition and innovation at the grid edge? At a minimum, the DOJ might require that the merged utility eschew particular rate structures that are *prima facie* anti-competitive.

Such a conduct remedy would likely forbid recovery of grid costs via fixed charges. Fixed charges, as discussed above, discriminate against all distributed energy technologies that reduce consumption of electricity from the grid including solar, storage, and a variety of other energy services. Such a conduct remedy might still allow for grid cost recovery via methods that estimate a customer's actual use of the grid. These so-called demand charges measure the maximum instantaneous demand from a customer, usually at the time of peak demand for electricity in the system as a whole. Demand charges have long been a feature of industrial and large commercial rates and have recently become feasible for small customers because of the roll-out of smart meters.²⁶

Similarly, a conduct remedy aimed at preventing anticompetitive actions by firms involved in a proposed merger might specify that changes to rate structures should be agnostic to distributed energy technologies. That is,

²⁵ Pierce, *supra* note 2, at 18–19.

²⁶ See Wara, *supra* note 1, at 27–28.

utilities would be forbidden from charging customers for their electricity in different ways as a function of whether or not the customer had installed distributed energy technologies on their premises. This would forbid, for example, imposing discriminatory charges on customers who install solar but not on customers who do not—a common utility proposal over the past three years.²⁷

Conduct remedies of the sort I suggest would have to be designed with care. In particular, the DOJ would have to ensure that any remedies imposed did not unduly impair a utility's ability to recover its costs plus a reasonable rate of return as determined by its regulatory commission. But avoiding such an adverse outcome shouldn't be too difficult since rate design concerns not the overall recovery of revenues sufficient to cover costs but rather the distribution of those costs over various customer classes.²⁸ In essence, these remedies would be constraining a merged firm's ability to allocate its costs between or within rate classes in ways that stifle market competition and technological innovation.

CONCLUSION

The electricity industry in the United States is in the midst of two titanic shifts. First, a balkanized ownership structure is undergoing rapid consolidation. Second, a wave of technological innovation is overtaking the industry, providing customers with much greater choice about how and from whom they purchase their electricity.

The DOJ has an important role to play in these transformations by encouraging innovation, or at least ensuring that utilities don't quash it, via its antitrust review authority. This role is unique in that FERC lacks authority to review retail market impacts of mergers. The DOJ should build on its experience in the telecommunications and Internet sectors and seek to foster more open competition and innovation in electricity services. By doing so, it will ensure a more vibrant, innovative, and productive national electricity sector.

²⁷ See *id.* at 19–26, 28.

²⁸ See Inara Scott, *Teaching an Old Dog New Tricks: Adapting Public Utility Commissions to Meet Twenty-First Century Climate Challenges*, 38 HARV. ENVTL. L. REV. 371, 380–83 (2014).