Re: Antitrust Tools for Challenging Capacity Withholding in Wholesale Electricity Markets

Dear Assistant Attorney General Baer and Chairwoman Ramirez:

I. Introduction

Organized wholesale electricity markets handle much of the nation’s wholesale electricity supply and affect millions of U.S. consumers. These markets can deliver the benefits of competition to consumers, but only if they are properly structured and managed. This is in large part because wholesale electricity markets are conducive to the exercise of market power by market participants – acting alone or in coordination with others. Over the past several months, there have been two alleged incidents of strategic capacity withholding for the purpose of driving up wholesale electricity prices. One involved the private equity firm Energy Capital Partners (ECP) in ISO New England (ISO-NE) and the other involved Exelon Corporation in the PJM Interconnection (PJM). Such conduct can be particularly damaging to buyers of wholesale electricity and ultimately retail consumers, who pay supra-competitive prices for an essential service.

Episodes of capacity withholding in wholesale electricity markets date back to the California energy crisis of 2000-01. Merchant generators withheld capacity and significantly raised market-clearing prices simply by taking their units out of service under the pretense of maintenance. Withholding schemes arguably have become more sophisticated and frequent in organized wholesale markets. This highlights, among other things, the importance of both regulation and antitrust in policing conduct. This complementarity is essential because (1) regulation can overcome some of the limitations of antitrust law in reaching certain types of withholding, and (2) antitrust is better suited to prosecuting some of the conduct that spawns withholding, and can often obtain more effective remedies.

Given the harmful effects of capacity withholding, the American Antitrust Institute (AAI)\(^1\) encourages the Department of Justice (DOJ) and Federal Trade Commission (FTC) to investigate both incidents discussed above and – if an antitrust violation is found – use the full set of statutory

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\(^1\) The AAI is an independent Washington D.C.-based non-profit education, research, and advocacy organization. AAI’s mission is to increase the role of competition, ensure that competition works in the interests of consumers, and challenge abuses of concentrated economic power in the American and world economies. See www.antitrustinstitute.org for more information.
tools available to challenge such conduct. These tools include Section 1 of the Sherman Act, Section 7 of the Clayton Act, and Section 5 of the FTC Act. This letter briefly frames the withholding problem; summarizes recent alleged incidents of capacity withholding based on publicly available information; discusses the antitrust enforcement tools available; and explores the importance of remedies with high deterrent value in cases in which an antitrust violation is found.

II. The Enforcement Challenges Posed by Capacity Withholding

A. Electricity Markets are Conducive to Withholding

Capacity withholding in forward energy (day-ahead or real-time) or capacity (short- or long-term) markets can be accomplished by two methods. “Economic” withholding involves bidding a generating resource into an auction at higher than its cost. “Physical” withholding entails withdrawing all or part of a resource from an auction under the pretense of retirement, unplanned maintenance, or other seemingly legitimate rationale for taking the capacity off the market. Either approach has the effect of raising market-clearing prices to supra-competitive levels.

Wholesale electricity markets have a number of features that exacerbate the effects of capacity withholding. First, demand for electricity is relatively inelastic. The more insensitive consumption is to changes in price, the greater is the price increase if a seller withholds capacity. A lack of demand-side bidding in organized wholesale markets in some Regional Transmission Organizations (RTOs) limits the ability of demand to discipline price increases. In addition, some retail rate structures mask the effects of high electricity prices, reducing consumers’ incentives to cut back on consumption at times when wholesale prices are high.

Second, supply inelasticity during times when capacity is constrained contributes to supra-competitive prices from withholding, since higher-cost resources must be dispatched if marginal or infra-marginal resources are withheld. Indeed, a firm’s incentive to withhold output may not require a large share of the market. For example, when supply is tight, a seller can produce a significant price increase by withdrawing just a small amount of capacity. And because sellers often own or control a mixed portfolio of generation, they often possess both the ability and incentive to withhold. Such generators control some resources that could raise the market-clearing price if withheld and other assets that stand to profit from a price increase. A withholding strategy is profitable if the losses from withholding are exceeded by the gains from the supra-competitive price increase.

B. Capacity Withholding Often Flies Under the “Radar”

The withholding problem is complicated by additional factors that potentially make it more difficult to detect and challenge. First, most organized electricity market employ single-price auctions, in which all accepted bidders receive the market-clearing price. Capacity withholding benefits all infra-marginal capacity owners in the “market,” i.e., those units that have cleared an auction with marginal

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costs at or below the market-clearing price. Wholesale buyers and retail consumers are likely to complain about withholding, if it is detected, since they bear the brunt of higher prices. In many industries, complaints by rivals are a powerful impetus for investigation and enforcement action. In contrast to when a competitor's conduct has exclusionary effects, rival generators profit from withholding and are unlikely to complain about it.

Second, withholding can be accomplished by a firm acting unilaterally, or in coordination with other market participants as part of a collusive agreement. Withholding schemes that are embedded in underlying agreements, however, are different than a lone generator simply taking a unit down under the pretense of unplanned maintenance. As discussed later, detection of complex “swap” agreements between physical and financial market participants, or between input and output suppliers, can be difficult and hidden by an overlay of regulation and market rules.

C. Regulation and Antitrust are Complementary Enforcement Tools

Antitrust and regulation occupy unique roles in policing capacity withholding in wholesale electricity markets. While this letter focuses primarily on the application of antitrust, it is useful to note that the Federal Energy Regulatory Commission (FERC) enforces rules prohibiting market manipulation and deceptive practices. In cases in which a violation of FERC rules or a tariff is found, the Commission has civil penalty authority to seek relief for misconduct. Most wholesale markets operated within RTOs utilize market monitoring for detecting potential withholding and complex mechanisms and rules for remedying it. FERC has relied – at least historically – on the RTOs and monitors to determine whether market participants engaged in impermissible strategic withholding.

While federal regulation ostensibly reaches any form of withholding (unilateral or coordinated), antitrust is more limited. Unlike regulation, for example, the Sherman Act does not proscribe unilateral withholding alone. The California energy crisis in 2000-01 may be the best example: unilateral withholding by merchant generators raised wholesale and retail electricity prices, extracting enormous wealth from consumers and imperiling the financial stability of a number of utilities. While relief was obtained under federal regulation, antitrust played no role. Former Assistant Attorney General Donald Turner explained this limitation on the reach of the Sherman Act: “[T]o hold unlawful the charging of a monopoly price by a monopolist, or the maintaining of noncompetitive prices by oligopolists, would be to invoke a purely public utility interpretation of the Sherman Act. Congress [did not intend the courts] to act much like public utility commissions in order to cure the ill effects of noncompetitive oligopoly pricing.”

Turner's observations highlight the fact that the Sherman Act thus does not police the exercise of market power that results in supra-competitive prices, unless it is accompanied by “bad acts.” Such acts include a conspiracy (Section 1) or exclusionary conduct designed to leverage or maintain a monopoly (Section 2). Generation capacity withholding, however, is unlikely to be explained by exclusionary conduct. For example, a Section 2 concern in wholesale electricity might revolve

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around predatory behavior that excludes rivals, but with associated price decreases that would not arise from generation capacity withholding. Section 2 could also address the withholding of transmission capacity to restrict market access. Artificial transmission constraints and the small geographic markets they create have the effect of foreclosing rival generators, or raising their costs. Neither of the foregoing Section 2 theories of harm proscribes the unilateral generation capacity withholding problem we see in wholesale electricity markets.5

On the other hand, antitrust has played an important role in policing capacity withholding that is the product of an anticompetitive agreement or the likely result of a prospective merger. And while there have been no cases to date, antitrust can also address withholding that follows a consummated merger. Section 1 of the Sherman Act and Section 7 of the Clayton Act are therefore potent tools for addressing the harmful effects of some types of capacity withholding. This is particularly salient in light of the fact that FERC found no evidence of market abuse in one major withholding case that involved an anticompetitive agreement, while the DOJ successfully prosecuted such conduct under Section 1.

As discussed later, Section 5 of the FTC Act, which prohibits unfair practices, should also be considered a tool for challenging instances of withholding that Section 1 or Section 7 do not cover. This includes unilateral withholding that may not be adequately addressed by federal regulation but that nonetheless harms consumers, results in huge wealth transfers from ratepayers to physical and financial market participants in very short periods of time. The importance of regulatory-antitrust complementarity, and vigorous government antitrust enforcement involving capacity withholding, is heightened by the fact that private action is presently limited by the filed rate doctrine.

III. Recent Allegations of Withholding

A. Energy Capital Partners in ISO-NE

In August 2013, private equity firm ECP acquired the Brayton Point power plant, along with four generation assets in Illinois, from Dominion Resources. Brayton Point is a 1,557 MW fossil fuel facility located in Somerset, Massachusetts, consisting of four coal units and one oil and gas unit. Following the acquisition, ECP owned almost 3,400 MW of generation in New England, including plants in Massachusetts and Connecticut.6

Shortly after its acquisition of Brayton Point, ECP signaled to ISO-NE that it intended to close the plant. In October 2013, ECP filed a “non-price retirement request” after the ISO-NE’s eighth forward capacity auction (June 1, 2017 - May 31, 2018) had closed. ISO-NE rejected ECP’s request in December 2013 and began negotiating a cost-of-service contract for Brayton Point. ECP announced in January 2014 that it would not accept a cost-of-service contract and that it would close Brayton Point by June 1, 2017.

5 FERC’s open access regulations and RTOs were formed ostensibly to address these types of competitive issues.
The announced closure of Brayton Point had a dramatic effect on the capacity auction, resulting in a capacity shortfall of approximately 1,000 MW. In contrast, the first seven forward capacity auctions had had excess capacity. The capacity deficit triggered ISO-NE’s “insufficient competition rule.” Due to the application of default pricing, the market-clearing price for existing generation more than doubled from $3.47/kW-month to $7.025/kW-month. Total capacity costs increased by more than $1.7 billion relative to the previous auction.8 Other ECP plants in New England will earn an estimated $77 million in incremental revenues from capacity sales as a result of the withdrawal of Brayton Point. This figure does not account for an estimated $30 million in increased energy market and ancillary service revenues due to the closure.10 ECP may earn as much as $100 million more in revenues than it would have if Brayton Point remained operational through the middle of 2018.

B. Exelon in PJM

In 2012, Exelon completed its acquisition of Constellation. As a result of the transaction, Exelon’s generation portfolio in the Mid-Atlantic region grew by approximately 3,000 MW,11 increasing to more than 13,000 MW.12 In this region that accounts for most of PJM’s geographic footprint, Exelon owns a mix of coal, gas, hydro, nuclear, oil and solar generating resources. Exelon also owns more than 12,000 MW of (mostly nuclear) capacity in Illinois, a portion of which is covered by PJM West.13

The bids on three Exelon nuclear plants – the Byron and Cordova plants in Illinois and the Oyster Creek plant in New Jersey with capacity totaling 4,225 MW – were not accepted in the PJM capacity auction for 2017-2018.14 Exelon’s bids for these units exceeded the market price that was required to attract sufficient capacity to meet total demand. As a result, the plants will not provide capacity reserves in 2017 and 2018. The effects on the PJM capacity market were significant. Due to the unavailability of the three Exelon plants, the capacity auction cleared at $120/MW-day, as compared to the 2016-17 auction’s market price of $59/MW-day, increasing capacity market revenues from the 2016-17 to the 2017-18 auction by over a 100% ($3.7 billion).15

The economic benefit to Exelon from keeping three nuclear plants off the market is substantial. Financial analysts estimate that Exelon will earn $148 million more in capacity revenues because of the nuclear capacity that was not accepted in the capacity auction.16 A journalist describes the economic logic of Exelon’s apparent withholding: “The math is simple: collecting $120 for 83

8 Id.
10 Id.
13 Id.
16 Id.
percent of your fleet of electric power plants produces 99 percent more revenue than getting $50 for 100 percent of the fleet."\textsuperscript{17} Notably, Exelon’s share price jumped 3.6\% the day after the auction results were announced.\textsuperscript{18} This market reaction contradicts popular press reports that Exelon “lost” because three of its nuclear facilities did not clear the auction.\textsuperscript{19}

IV. Antitrust Enforcement Tools for Capacity Withholding

A. Section 7 – Prospective and Consummated Mergers

The AAI encourages the vigorous use of Section 7 in challenges to proposed mergers that raise the threat of capacity withholding. This has been the central theory of harm in contested mergers of electricity generators, including: U.S. v. Exelon Corp. and Public Service Enterprise Group, Inc. and U.S. v. Exelon Corporation and Constellation Energy Group, Inc.\textsuperscript{20} The DOJ challenged these mergers – and successfully obtained divestitures under consent decrees – because the combination of capacity enhanced the ability or incentive for the merged company to raise market-clearing prices through capacity withholding.\textsuperscript{21}

Section 7 is also a potent tool for challenging consummated mergers or acquisitions in which the parties have engaged in illegal post-merger conduct. This authority is independent of whether the transaction was reportable under the Hart-Scott-Rodino pre-merger filing requirements. And while most challenges to consummated mergers involved transactions that did not require pre-merger notification, there have been some notable exceptions.\textsuperscript{22} Enforcement against consummated mergers accounted for 20\% of all FTC merger challenges between 2009 and 2012.\textsuperscript{23} The harmful effects of capacity withholding schemes that would not have been possible or profitable – but for the consummated transaction – can be the basis for a Section 7 challenge. Moreover, Section 7 claims may be based not so much on a structural case, but on direct evidence of harmful effects, such as post-merger price increases in energy or capacity auctions.\textsuperscript{24}

\textsuperscript{17} Johnston, supra note 16.
\textsuperscript{18} Id.
\textsuperscript{19} See, e.g., Julie Wernau, \textit{Auction Results Place Exelon Power Plants in Jeopardy}, CHI. TRIB., May 27, 2014.
\textsuperscript{21} In both cases, the concern was over consolidation of base load and/or mid-merit (intermediate) capacity. See Complaint, U.S. v. Exelon Corp. and Constellation Energy Group, 1:11-cv-02276 (D.D.C. December 21, 2011), available at http://www.justice.gov/atr/cases/f278400/278475.pdf and Complaint, U.S. v. Exelon Corp and Public Service Enterprise Group, Inc., 1:06CV101138 (June 22, 2006), available at http://www.justice.gov/atr/cases/f216700/216785.htm. FERC conditionally approved both mergers with a variety of applicant-proposed remedies, including physical and “virtual” divestitures.
\textsuperscript{24} See, e.g., Complaint, in the Matter of Evanston Northwestern Healthcare Corp. and ENH Medical Group, Inc., Federal Trade Commission, Docket No. 9315 (February 10, 2004), available at
For example, Brayton Point substantially expanded ECP’s existing portfolio of generation in ISO-NE. A dramatic increase in capacity prices pre- to post-withholding of the Brayton Point capacity is evident, as are significant profits for other capacity owned by ECP in ISO-NE. Moreover, the Brayton Point unit could reportedly have operated profitably under a reliability “must-run” contract based on regulated cost-of-service pricing. While this information appears compelling, direct effects analysis in electricity markets may be more complex than in other merger cases. This is, in part, because geographic markets for electricity are defined by transmission constraints and production cost differentials, which can produce small regional markets at certain times. Among the questions that would arise in a Section 7 challenge therefore are: (1) whether a price increase occurred in a market containing the parties’ pre-existing and acquired generation capacity; and (2) if so, whether the transaction enhanced the ability or incentive of the companies to withhold capacity. Detailed analysis and modeling based on proprietary data are necessary to answer these questions.

Based on typical marginal cost profiles, the coal-fired Brayton Point plant is likely in the same relevant market as ECP’s pre-existing combined-cycle generation in ISO-NE. In the case of Exelon, it is important to note that the DOJ’s challenge to the company’s merger with Constellation resulted in divestitures in the PJM Mid-Atlantic region. Whether Exelon retained some incentive or ability to withhold capacity in the PJM capacity auction after the divestitures is an open question. The answer depends on a number of factors, including how capacity markets – as opposed to the day-ahead and real-time energy markets that were the subject of the DOJ’s concern – are defined for antitrust purposes.25

B. Section 1 – Anticompetitive Agreements

A variety of factors have increased the complexity of relationships and agreements involving wholesale electricity market participants. For example, markets have developed into sophisticated trading fora, subject to myriad rules. Nontraditional players such as financial institutions have also entered, creating complex linkages between the physical and financial markets. Physical-financial swap agreements involve hedging the financial risk associated with competitive bidding in physical power markets. Total-return swaps, for example, generate income from an asset without the liabilities and risks of actual ownership. Other arrangements, such as tolling agreements that exchange fuel for power, can also be complex and elude detection.

The DOJ has been successful in using Section 1 to prosecute capacity withholding that is the product of an underlying anticompetitive agreement. In 2011, the agency successfully brought suit against KeySpan and Morgan Stanley for engaging in a swap agreement designed to hedge revenue risks from competitive bidding and entry of new generators in the New York ISO (NYISO). Capacity prices in NYISO were at risk of erosion due to new entry. KeySpan had engaged in economic withholding to keep capacity prices high but faced the prospect of losing enough sales to make the strategy unprofitable. Instead of abandoning the scheme, KeySpan entered into a swap agreement with Morgan Stanley, which in turn had a financial interest in a competing generator, and guaranteed the profitability of withholding. Via the agreement, KeySpan had a larger base of sales


25 Divestitures were primarily coal-fired capacity in the PJM Mid-Atlantic region. We note that only one of the three nuclear units withheld by Exelon in the recent capacity auction were located in this region.
upon which to profit from its withholding strategy. DOJ obtained disgorgement of approximately $17 million – about a quarter of the parties’ estimated ill-gotten profits.

A similar set of circumstances surrounding ECP’s withholding of capacity could potentially support a Section 1 case. For example, publicly available information indicates that a total return swap agreement with Deutsche Bank may give ECP an equity stake and controlling interest in another generator in Massachusetts. Such a financial arrangement could give ECP “virtual” control over an additional generation resource and enhance the incentive to withhold Brayton Point from the ISO-NE’s capacity auction.

C. Section 5 – The Antitrust Solution to Unilateral Withholding?

Section 5 of the FTC Act can reach conduct that the Clayton and Sherman Acts do not prohibit. In FTC v. Sperry & Hutchinson Trading Stamp Co., for example, the Supreme Court held that the Commission has the authority “to define and proscribe an unfair competitive practice, even though the practice does not infringe either the letter or the spirit of the antitrust laws.” The Court affirmed this principle in a 1986 decision, stating “[t]he standard of ‘unfairness’ under the FTC Act is, by necessity, an elusive one, encompassing not only practices that violate the Sherman Act and other antitrust laws but also practices that the Commission determines are against public policy for other reasons.” While being broader in substantive scope, the FTC Act is more limited than the Clayton Act and Sherman Act in that only the FTC can enforce Section 5 – private plaintiffs cannot bring Section 5 claims.

As part of a comprehensive competition enforcement policy that draws upon all statutes and both antitrust agencies, the FTC might consider using its Section 5 authority to challenge unilateral capacity withholding that is not actionable under Section 1 or Section 7. Intent evidence could be informative in a Section 5 inquiry. For example, business documents may reveal whether a plant, during a period of tight market conditions (e.g., demand inelasticity and capacity constraints), was shut down to perform legitimate maintenance, or to raise market prices. By pressing more expensive generation units into service, and thereby distorting price signals, unilateral withholding of generation capacity transfers wealth from consumers and also impairs short- and long-term efficiency.

A structured approach would ensure that the exercise of market power alone is generally not a Section 5 violation. But it would also allow the FTC to challenge unilateral strategic withholding in markets for essential services, including electricity, in which it can be shown that the exercise of market power inflicts significant harm on consumers. A Section 5 inquiry could consider whether strategic withholding is not likely to be justified by a legitimate business practice, undermines efficiency in the market, and is unfair in that it is opportunistic or coercive.

V. Remedial Approaches to Capacity Withholding

Antitrust and regulation provide for an assortment of remedies, some of which are more likely to be effective than others. FERC itself is limited to levying civil penalties and enforcement actions can be protracted (e.g., California), delaying relief to consumers. As discussed above, antitrust enforcers have pursued several cases involving withholding, including two merger cases (in which divestitures were required) and one agreement (in which disgorgement was obtained). To date, the DOJ has not pursued criminal sanctions in the case of Section 1 violations involving capacity withholding.

In applying Section 7 to consummated mergers, the DOJ has authority to seek equitable remedies and should pursue full disgorgement of any and all gains from an illegal acquisition. Capacity divestitures to restore the competition that existed before the anticompetitive acquisition that facilitated withholding are the best tool to ensure that violations do not recur in the future. Notably, the DOJ and FTC have been willing to seek divestitures in challenges to consummated mergers in recent years.31

Given the widespread consumer harm associated with higher electricity prices from withholding, the DOJ might consider pursuing criminal sanctions against offending companies in Section 1 cases. Criminal enforcement would bolster deterrence. Because the agency would be breaking new ground in this area, the DOJ might forego criminal enforcement against implicated individuals in the case of first instance. Instead, it might put the industry “on notice” that future Section 1 offenses will result in the criminal prosecution of individual conspirators. This notice might take the form of a speech by the Assistant Attorney General or a policy statement issued by the Antitrust Division.

In civil Section 1 cases, DOJ should seek disgorgement of the entire amount of gains from the violation. Partial disgorgement provides inadequate deterrence because illegal conduct would, on net, still be profitable. Full disgorgement is particularly important given the lower courts’ indiscriminate application of the filed rate doctrine in wholesale power markets, whereby injured parties are unlikely to obtain redress through private litigation.32 Unless the courts scale back the filed rate doctrine, the government bears the full responsibility of deterring future misconduct and should insist on the disgorgement of all gains from an illegal agreement.

Finally, Section 5 provides for equitable remedies, including cease-and-desist orders, disgorgement, and divestitures. We note that the FTC has broad authority to craft appropriate equitable remedies. If it finds a Section 5 violation, it should seek disgorgement of all gains and divestiture of the capacity that gives rise to the ability and/or incentive to withhold supply.33 Following the withdrawal of a restrictive FTC policy statement on remedies in 2012, the Commission now appears more willing to pursue disgorgement and other monetary remedies in competition matters. Indeed, the Supreme Court has ruled that the FTC is “the expert body to determine what remedy is necessary to

eliminate the unfair or deceptive trade practices which have been disclosed.”34 And in a subsequent decision, the Court stated that FTC remedies could be fashioned to “close all roads to the prohibited goal, so that its order may not be by-passed with impunity.”35

Sincerely,

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34 Jacob Siegel Co. v. FTC, 327 U.S. 608, 612 (1946).