UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Constellation Energy Corporation; Constellation Energy Generation, LLC; Calpine Corporation on Behalf of Its Public Utility Subsidiaries	Docket No. EC25-43-000

PUBLIC CITIZEN, PENNFUTURE, AND CLEAN AIR COUNCIL PROTEST, AND MOTIONS TO INTERVENE

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I. Introduction

Public Citizen, PennFuture, and Clean Air Council ("PPC Protestors") protest[1] the Applicants' proposed acquisition.[2] We ask the Commission to protect the public interest by blocking the transaction or imposing significant structural and behavioral conditions.

Constellation and Calpine vigorously compete.[3] Competition is good for the public. It pushes down prices, encourages innovation, and hinders market power.[4]

Mergers and acquisitions can weaken competition and impede accomplishment of the Federal Power Act's purposes. Utilities asking to consolidate power must therefore show the transaction will be consistent with the public interest.[5] The Commission must block or condition applications that come up short.[6]

The Applicants here fail to meet their burden to show the proposed transaction will be consistent with the public interest. They do not address the public's lost benefit of their competition. They are silent on the transaction's likely exacerbation of Constellation's ability, incentive, and propensity to exercise market power in PJM by withholding supply in PJM energy

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[1] 18 C.F.R. § 385.211. PennFuture and Clean Air Council move to intervene. *Id.* § 385.214(a)(3). Public Citizen is already a party. *Id.* § 385.214(c)(1).

[2] Joint Application for Authorization Under Section 203 of the Federal Power Act of Constellation Energy Corporation, et al., Docket No. EC25-43-000, at 1–2 (Jan. 24, 2025) ("Application"), Accession No. 20250124-5188 (describing Applicants and their proposed transaction).

[3] CNBC Television, *Constellation Energy CEO on the push to restart Three Mile Island at CERAWeek*, at 17:55 (Mar. 11, 2025), https://www.youtube.com/watch?v=j1RqLzl4q6kand ("And they had kicked our ass a lot, pardon my language. But they had whooped us a lot as we competed with them. And sometimes we whooped them too. But they were good people and strong competitors and I'm going to love having them as part of our team.").

[4] *See N.C. State Bd. of Dental Examiners v. FTC*, 574 U.S. 494, 502 (2015); *NCAA v. Bd. of Regents*, 468 U.S. 85, 104 n.27 (1984).

[5] *See* 16 U.S.C. § 824b(a)(4).

[6] *See id.* § 824b(a)(4), (b).

markets and by withdrawing supply entirely from PJM wholesale markets. They also ignore real-world market conditions and their own expectations; discount Constellation's likelihood of profitably insisting on uncompetitively high prices in PJM energy markets; disregard Constellation's excessive post-transaction influence in the PJM stakeholder process; and flout the Commission's requirements to file specific information, including on their would-be owners and affiliates with whom they can coordinate at consumers' expense. Meanwhile, the Applicants point to no public benefits of the transaction. Blinkering reality, the Applicants hinge their application on statistics ill-suited to identify actual dangers to competition and consumers.

PPC Protestors reveal the Applicants' failures and the dangers the transaction poses to consumers, competition, rates, and the public interest. PPC Protestors explain why harms to the public interest—including increased prices, damaged competition, jeopardized reliability, and impaired markets—are likely without safeguards on the Applicants' ability and incentive to withhold and withdraw supply in PJM, to demand uncompetitively high prices, and to coordinate with affiliates and other generators. PPC Protestors' experts Rachel Wilson and Melissa Whited, whose report is included here as Attachment A, provide further context.

A decade ago, in a different corporate form, Constellation stipulated that it made unprofitable trades that moved prices on which the company speculated.[7] Rather than defend its conduct, the company agreed to remit $245,000,000 in penalties and unjust profits.

The Commission's duty now is to prevent Constellation, other Applicants, and would-be owners and affiliates from consolidating power detrimental to the public. The Commission must block the transaction, or impose significant structural and behavioral conditions, because of the

[7] *See Constellation Energy Commodities Grp., Inc.*, 138 FERC ¶ 61,168, attach. at PP 2–14 (2012).

dangers. The Commission must also require Applicants to file required information so intervenors can be meaningfully heard and the Commission can meaningfully review the transaction.

II. Description of Intervenors

Public Citizen intervened on January 28, 2025.[8]

PennFuture is a Pennsylvania non-profit environmental organization, with approximately 1,100 members across the Commonwealth. PennFuture strives to protect our air, water and land, and to empower citizens to build sustainable communities for future generations. PennFuture has offices in five Pennsylvania cities: East Stroudsburg, Erie, Harrisburg, Philadelphia, and Pittsburgh. PennFuture's Pennsylvania members live in Pennsylvania and, like PennFuture itself, purchase electricity in the Commonwealth. The organization focuses on legal and policy work promoting the transition to renewable energy, reducing pollution burdens and electricity cost burdens, and challenging continued fossil fuel infrastructure buildout.

Clean Air Council is a member-supported, 501(c)(3) non-profit environmental organization with thousands of members in Pennsylvania and the Mid-Atlantic region. For over 50 years, the Council has dedicated its work to protecting and defending everyone's right to a healthy environment through a broad range of sustainability and public health initiatives. These initiatives include public education, community action, government oversight, and enforcement of environmental laws. One of the ways that the Council supports its members is by utilizing the law to stop air pollution that threatens public health, impairs air quality, harms the environment, and makes it more difficult for its members to live, work, go to school, and recreate. The Council has offices located in Philadelphia and Pittsburgh, Pennsylvania, and in Wilmington, Delaware.

[8] Motion to Intervene of Public Citizen, Docket No. EC25-43-000 (Jan. 28, 2025), Accession No. 20250128-5029.

III. Argument

A. Applicants Have the Burden to Show the Transaction Will Be Consistent with the Public Interest.

Section 203 of the Federal Power Act states that, after notice and hearing, the Commission shall approve a covered transaction if the Commission finds the transaction will be consistent with the public interest and will not result in cross-subsidization.[9] The Commission can impose conditions it finds necessary or appropriate to secure the maintenance of adequate service and coordination in the public interest.[10]

Section 203 puts the burden of persuasion on the applicant. Courts and the Commission have long interpreted the provision as placing the burden of persuasion on applicants.[11] And courts interpret analogous provisions as placing the burden on applicants.[12] The Administrative

[9] 16 U.S.C. § 824b(a)(4).

[10] *Id.* § 824b(b).

[11] *See, e.g.*, *Pac. Power & Light Co. v. FPC*, 111 F.2d 1014, 1016–17 (9th Cir. 1940) (explaining that section 203(a) of the Federal Power Act requires applicants to make an affirmative showing that transaction will be consistent with the public interest); *Inquiry Concerning the Commission's Merger Policy Under the Federal Power Act: Policy Statement*, Order No. 592, 61 Fed. Reg. 68,595, 68,598 (Dec. 30, 1996), FERC Stats. & Regs. ¶ 31,044 (1996) (cross-referenced at 77 FERC ¶ 61,263) ("1996 Policy Statement") ("It is the applicants' responsibility to demonstrate that the merger is consistent with the public interest."), *reconsideration denied*, Order No. 592-A, 79 FERC ¶ 61,321 (1997); *El Paso Elec. Co.*, 68 FERC ¶ 61,181, at 61,902 (1994); *Tucson Elec. Power Co.*, 44 FERC ¶ 61,441, at 62,394 (1988).

[12] Section 7 of the Natural Gas Act has an analogous structure. *Compare* 16 U.S.C. § 824b(a)(4) (providing for the Commission to approve transaction *if* the Commission finds the transaction consistent with the public interest), *with* 15 U.S.C. § 717f(e) (providing for certificate to be issued *if* certain findings are made). Section 7 of the Natural Gas Act requires the applicant to make an affirmative showing of public convenience and necessity. *See Panhandle Producers & Royalty Owners Ass'n v. Econ. Reg. Admin.*, 822 F.2d 1105, 1111 (D.C. Cir. 1987).

Procedure Act also places the burden of persuasion on the proponent of an order.[13] To the extent intervenors have any burden, it is merely a burden of production.[14]

Section 203 applicants' burden is to affirmatively show their proposed transactions will not harm the public interest.[15] The Commission must ensure against public disadvantage by requiring the showing.[16] Thus, a section 203 applicant must at least show the proposed transaction does not present a reasonable likelihood of harm to the public interest, and the Commission must determine if the showing is made.[17] The applicant must show the transaction as a whole does not present a reasonable likelihood of harm to the public interest.[18] If the applicants fail to make the necessary showing, or if the transaction is reasonably likely to harm the public interest, the Commission must block or condition the transaction.[19]

The section 203 public interest standard protects a broad range of issues.[20] The standard is not "restricted to financial considerations, with every other aspect of the public interest ignored";

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[13] 5 U.S.C. § 556(d); *Director, OWCP v. Greenwich Colleries*, 512 U.S. 267, 276 (1994).

[14] *See Greenwich Colleries*, 512 U.S. at 273–75, 278–80; *Pennzoil Co. v. FERC*, 789 F.2d 1128, 1136–37 (5th Cir. 1986); *Mkt.-Based Rates for Wholesale Sales of Elec. Energy, Capacity & Ancillary Servs. By Pub. Utils.*, Order No. 697, 119 FERC ¶ 61,295, at P 968 (2007) ("Order No. 697").

[15] *Pac. Power & Light*, 111 F.2d at 1016.

[16] *Id.*

[17] *See* 16 U.S.C. § 824b(a)(4); *Ky. Mun. Energy Agency v. FERC*, 45 F.4th 162, 166 (D.C. Cir. 2022); *Pac. Power & Light*, 111 F.2d at 1016.

[18] *See, e.g.*, *Duke Energy Carolinas, LLC v. NTE Carolinas II, LLC*, 111 F.4th 337, 354–55 (4th Cir. 2024) (explaining, in case involving section 2 of the Sherman Act, that "[i]t is foundational that alleged anticompetitive conduct must be considered as a whole"); 1996 Policy Statement, 61 Fed. Reg. at 68,598 ("We have found that the transaction taken as a whole must be consistent with the public interest.").

[19] *See* 16 U.S.C. § 824b(a)(4), (b); *Wabash Valley Power Ass'n v. FERC*, 268 F.3d 1105, 1115 (D.C. Cir. 2001) (explaining that the Commission may approve a merger only if it will be consistent with the public interest).

[20] *Gulf States Utils. Co. v. FPC*, 411 U.S. 747, 757–59 (1973).

"disapproval might be grounded in public interest considerations wholly unrelated to antitrust policies."[21] The public interest standard requires that a transaction will both preserve economic competition, as expressed in the antitrust laws of general application, and be consistent with the various policies reflected in the statutes specific to energy regulation.[22] The primary policies of the Federal Power Act include curbing abusive practices of public utility companies by bringing them under effective control; protecting consumers against excessive prices, exploitation, uneconomic realignment of utility companies, and unfair business practices; maintaining competition to the maximum extent possible consistent with the public interest; and encouraging the orderly development of plentiful supplies of electricity at reasonable prices.[23]

The ultimate purpose of section 203 is to prevent utilities from consolidating power harmful to the public interest. The Federal Power Act was enacted "in the context of, and in response to, great concentrations of economic and even political power vested in power trusts, and the absence of antitrust enforcement to restrain the growth and practices of public utility holding

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[21] *See id.* at 759; *Kan. Power & Light Co. v. FPC*, 554 F.2d 1178, 1185 n.9 (D.C. Cir. 1977); *see also S. Cal. Edison Co.*, 47 FERC ¶ 61,196, 61,676 n.25 (1989) ("It is our responsibility to make findings related to the pertinent antitrust statutes and weigh them along with other important public interest considerations.").

[22] *Gulf States Utils.*, 411 U.S. at 757–59; *Ky. Mun. Energy Agency*, 45 F.4th at 166; *Wabash Valley Power*, 268 F.3d at 1115; *N.E. Utils. Serv. Co. v. FERC*, 993 F.2d 937, 947 (1st Cir. 1993); *see California v. FPC*, 369 U.S. 482, 484–85 (1962); *Kan. Power & Light*, 554 F.2d at 1184; *N. Nat. Gas Co. v. FPC*, 399 F.2d 953, 958 (D.C. Cir. 1968).

[23] *NAACP v. FPC*, 425 U.S. 662, 670 (1976) (orderly development); *Gulf States Utils.*, 411 U.S. at 758 (curbing abusive practices); *Otter Tail Power Co. v. United States*, 410 U.S. 366, 374 (1973) (maintaining competition); *Pa. Water & Power Co. v. FPC*, 343 U.S. 414, 418 (1952) (excessive prices); *FPC v. Hope Nat. Gas Co.*, 320 U.S. 591, 610 (1944) (exploitation); *Pub. Sys. v. FERC*, 606 F.2d 973, 979 n.27 (D.C. Cir. 1979) (unfair business practices and exorbitant prices); *Duke Power Co. v. FPC*, 401 F.2d 930, 942 (D.C. Cir. 1968) (uneconomic realignment); *see also Building for the Future Through Electric Regional Transmission Planning and Cost Allocation*, Order No. 1920, 187 FERC ¶ 61,068 (2024) (Christie, Comm'r, dissenting) ("The Federal Power Act (FPA) is, at its core, a consumer protection statute.") (internal citation omitted), *on reh'g*, Order No. 1920-A, 189 FERC ¶ 61,126 (2024) ("Order No. 1920-A").

companies."[24] Congress recognized that "intensification of economic power beyond the point of proved economies not only is susceptible of grave abuse but is a form of private socialism inimical to the functioning of democratic institutions and the welfare of a free people."[25] It passed section 203 to "furnish[] an essential check upon the development of the industry along uneconomic lines."[26]

The Commission evaluates section 203 transactions for their effects on competition, rates, regulation, and other factors.[27] Regarding competition, the Commission's objective is to determine whether a transaction will result in higher prices or reduced output in electricity markets, which may occur if the applicant is able to exercise market power either alone or in coordination with other firms.[28] Market power is the ability to shift the clearing price away from a competitive level.[29] To evaluate the effect on rates, the Commission focuses on ratepayer protections designed to insulate consumers from any harm resulting from the merger.[30]

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[24] *Gulf States Utils.*, 411 U.S. at 758.

[25] S. Rep. No. 621, at 55 (1935).

[26] *Id.* at 50.

[27] 18 C.F.R. § 2.26(b).

[28] *Revised Filing Requirements Under Part 33 of the Commission's Reguls.*, Order No. 642, 65 Fed. Reg. 70,984, 70,989, FERC Stats. & Regs. ¶ 31,111 (Nov. 28, 2000) (cross-referenced at 93 FERC ¶ 61,164) ("Filing Requirements Rule"), *order on reh'g*, Order No. 642-A, 66 Fed. Reg. 16,121, 94 FERC ¶ 61,289 (Mar. 23, 2001) (codified at 18 C.F.R. pt. 33); *see FPA Section 203 Suppl. Pol'y Statement*, 120 FERC ¶ 61,060, at P 63 (2007) ("2007 Policy Statement") ("We will continue to analyze mergers (both horizontal and vertical) and other section 203 applications by focusing on a transaction's effect on the company's ability and incentive to exercise market power, and thus harm competition."), *order on clarification and reconsideration*, 122 FERC ¶ 61,157 (2008) ("2008 Order").

[29] *PJM Interconnection, L.L.C.*, 187 FERC ¶ 61,051, at P 25 (2024) (quoting *Indep. Mkt. Monitor for PJM v. PJM Interconnection, L.L.C.*, 178 FERC ¶ 61,121, at P 83 (2022)).

[30] Filing Requirements Rule, 65 Fed. Reg. at 70,985. Applicants must propose mechanisms to protect customers from costs due to the merger and applicants have the burden of proving that their proposed ratepayer protections are adequate. 18 C.F.R. § 2.26(d); Filing Requirements Rule, 65

As part of its review on competitive effects, the Commission requires section 203 applicants to submit an analysis on market concentration.[31] This analysis, often referred to as the Appendix A screen, provides a method for measuring impacts to industry concentration using the Herfindahl–Hirschman index ("HHI").[32]

The Appendix A screen is simply one tool in the Commission's merger review. The Commission examines evidence and arguments of anticompetitive effects beyond the screen and beyond HHI.[33] A searching inquiry is required by the Commission's duty to protect the public interest,[34] as well as section 203's requirement that the Commission grapple with transaction-specific factors and the reality of the industry it regulates.[35] And a flexible inquiry is prudent

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Fed. Reg. at 71,009. There is no one-size-fits-all approach to ratepayer protections. 1996 Policy Statement, 61 Fed. Reg. at 68,596.

[31] 18 C.F.R. § 2.26(c).

[32] *See* 1996 Policy Statement, 61 Fed. Reg. at 68,606–07.

[33] *See, e.g.*, *Analysis of Horiz. Mkt. Power Under the Fed. Power Act*, 138 FERC ¶ 61,109, at PP 5, 34–38 (2012) ("2012 Order"); 2008 Order, 122 FERC ¶ 61,157, at P 7; 2007 Policy Statement, 120 FERC ¶ 61,060, at P 65; Filing Requirements Rule, 65 Fed. Reg. at 70,989, 70,993; 1996 Policy Statement, 61 Fed. Reg. at 68,600–01; *see also* 18 C.F.R. § 2.26(b) (stating that the Commission will generally consider the effect on competition, rates, and regulation, and may also consider other factors).

[34] *See Scenic Hudson Pres. Conf. v. FPC*, 354 F.2d 608, 620 (2d Cir. 1965) (explaining that, as representative of the public interest, the Commission "has an affirmative duty to inquire into and consider all relevant facts" and cannot "act as an umpire blandly calling balls and strikes for adversaries appearing before it; the right of the public must receive active and affirmative protection at the hands of the Commission"), *cert. denied*, 384 U.S. 941 (1966).

[35] 1996 Policy Statement, 61 Fed. Reg. at 68,598 ("[I]f the Commission is to fulfill its statutory responsibilities, it must determine what is consistent with the public interest in light of conditions in the electric industry in general as well as the specific circumstances presented by a proposed merger.").

practice in reviewing mergers and acquisitions.[36] The case-specific review is also, of course, necessitated by the requirement of reasoned decision-making based on substantial evidence.[37]

Section 203(a) further requires the Commission afford notice and opportunity for a hearing.[38] As such, the Commission should properly consider "theories of competitive harm raised by intervenors," including "a case-specific theory of competitive harm, which includes, but is not limited to, an analysis of the merged firm's ability and incentive to withhold output in order to drive up prices."[39]

Finally, the Commission cannot defer its protection of the public interest to a later proceeding.[40] The Commission's finding on whether a transaction will be consistent with the

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[36] *Brown Shoe Co. v. United States*, 370 U.S. 294, 321-22 (1962) (stating that a merger must be "functionally viewed, in the context of its particular industry"); 2012 Order, 138 FERC ¶ 61,109, at P 36 (declining to expressly adopt revised merger guidelines because "the current approach is flexible enough to incorporate theories set forth in the 2010 Guidelines"); Filing Requirements Rule, 65 Fed. Reg. at 70,989 ("The Commission must be flexible when evaluating section 203 applications and must be able to obtain any information necessary to determine that an application is consistent with the public interest."); 1996 Policy Statement, 61 Fed. Reg. at 68,596 (explaining that the Commission "must account for changing market structures and pay close attention to the possible effect of a merger on competitive bulk power markets and the consequent effects on ratepayers."); U.S. Dep't of Justice & Fed. Trade Comm'n, *Merger Guidelines*, at 4 (Dec. 18, 2023) ("2023 Merger Guidelines") ("Merger review is ultimately a fact-specific exercise. The Agencies follow the facts and the law in analyzing mergers as they do in other areas of law enforcement."); U.S. Dep't of Justice & Fed. Trade Comm'n, *Merger Guidelines*, at 3 (1992) ("1992 Merger Guidelines") (stating that "the ultimate inquiry in merger analysis" is "whether the merger is likely to create or enhance market power or to facilitate its exercise").

[37] *See Allentown Mack Sales & Serv., Inc. v. NLRB*, 522 U.S. 359, 374–75 (1998); *Motor Vehicle Manufs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983); *Universal Camera Corp. v. Nat'l Labor Rels. Bd.*, 340 U.S. 474, 488 (1951).

[38] 16 U.S.C. § 824b(a)(4); Filing Requirements Rule, 65 Fed. Reg. at 70,990 n.27 (explaining that in section 203 proceedings "adequate public notice, public participation and administrative due process are required"); *id.* at71,002 n.78.

[39] 2012 Order, 138 FERC ¶ 61,109, at P 36.

[40] *See Miami v. FERC*, 22 F.4th 1039, 1043 (D.C. Cir. 2022) (holding that the Commission cannot resolve a claim that a party is violating the law by promising to consider the issue in a prospective legal framework, an "administrative law shell game" (quoting *AT&T v. FCC*, 978 F.2d 727, 731–

public interest is just as critical as the Commission's post-review oversight.[41] Moreover, the inquiry in *ex post* oversight is different from *ex ante* protection of the public interest.[42] And deferral of protecting the public interest is problematic because market power can be difficult to detect and prove after the fact.[43] The Commission "need not wait passively until market power is exercised. Rather, it is incumbent on the Commission to set policies that will ensure that rates remain just and reasonable under section 205 of the FPA."[44]

In sum, when presented with a section 203 transaction, the Commission must hold applicants to their burden; provide intervenors a meaningful opportunity to be heard; meaningfully consider transaction-specific details and market conditions; and determine if the transaction

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32 (D.C. Cir. 1992)); *Port of Seattle v. FERC*, 499 F.3d 1016, 1035 (9th Cir. 2007) ("FERC's prosecutorial investigations cannot justify the denial of relief in contested adjudications before the Commission"); *Md. People's Counsel v. FERC*, 761 F.2d 768, 778 (D.C. Cir. 1985) (rejecting Commission's "Fabian approach" and explaining that the Commission cannot defer to a later proceeding an "objection [that] goes to the heart of the public interest determination immediately to be made"); *PJM Interconnection*, 187 FERC ¶ 61,051, at P 25 (explaining that a proposal is unjust and unreasonable if it creates the ability for market participants to exercise market power).

[41] *See Pub. Citizen v. FERC*, 7 F.4th 1177, 1193 (D.C. Cir. 2021).

[42] For instance, the Commission must prove scienter in a market manipulation proceeding. 16 U.S.C. § 824v(a); 18 C.F.R. § 1c.2; *Prohibition of Energy Market Manipulation*, 114 FERC ¶ 61,047, at P 49 (2006).

[43] Steven Stoft, *Power System Economics: Designing Markets for Electricity* 322, 324 (2002) ("Stoft, *Power System Economics*") (noting difficulties in detecting withholding strategies). Enforcement Staff recently closed an investigation into withholding. Commission Staff, *2024 Annual Report: A Staff Report to the Commission*, Docket No. AD07-13-018, at 39 (Nov. 21, 2024), https://www.ferc.gov/news-events/news/ferc-issues-fiscal-2024-enforcement-report.

[44] Order No. 697, 119 FERC ¶ 61,295, at P 70; *see also See Gulf States Utils.*, 411 U.S. at 760 ("Consideration of antitrust and anticompetitive issues by the Commission, moreover, serves the important function of establishing a first line of defense against those competitive practices that might later be the subject of antitrust proceedings."); Filing Requirements Rule, 65 Fed. Reg. at 71,001 (noting that Commission "do[es] not intend to rely on post-merger review or on new remedies imposed after a merger is approved"); 1996 Policy Statement, 61 Fed. Reg. at 68,601–02 ("We do not intend to rely on post-merger review or on new remedies imposed after a merger is approved. We must find that a merger is consistent with the public interest before we approve a merger.").

presents, and if applicants fail to show it does not present, a reasonable likelihood of harm to competition, consumers, rates, and the public interest.

B. Applicants Fail to Present a Prima Facie Case.

Applicants' argument for section 203 approval rests on an affidavit from their consultants on market concentration effects.[45] According to Applicants, since their consultants do not identify a market concentration problem, the transaction does not raise competitive concerns.[46]

Applicants fail to present even a *prima facie* case for two independent reasons. First, their market concentration analysis is flawed. Second, their market concentration analysis is inadequate to reveal competition concerns in wholesale electric markets.

1. Applicants' Market Concentration Analysis Is Flawed.

In a market concentration analysis, applicants must identify relevant products, including product markets in which they may be reasonably perceived as competitors or potential competitors.[47] The Commission bases the requirement on its "[r]ecogni[tion] that energy companies are entering new product markets and that the effect of a merger could be to eliminate one of the merged companies as a perceived potential competitor in such new product markets."[48] Moreover, relevant product markets "depend on the specific characteristics of the merger applicants and the products and markets in which they potentially trade."[49]

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[45] *See* Application at 12 (stating that the Application addresses horizontal market power by describing the consultants' affidavit).

[46] *Id.*

[47] 18 C.F.R. § 33.3(c)(1); Filing Requirements Rule, 65 Fed. Reg. at 70,991–92.

[48] *Id.*

[49] 1996 Policy Statement, 61 Fed. Reg. at 68,600; *see generally United States v. Falstaff Brewing Corp.*, 410 U.S. 526, 532 (1973) (discussing potential competition); *United States v. El Paso Nat. Gas Co.*, 376 U.S. 651, 655–62 (1964) (similar).

The Applicants' consultants do not examine the transaction's effect on market share and concentration in the market to sell power to large loads like data centers.[50] Yet Constellation and Calpine are reasonably perceived as competitors or potential competitors in the market to sell power to data centers. Constellation has been clear about its desire to sell power to data centers from its nuclear generators,[51] though the structure for those sales remains undecided. Calpine owns a number of large generators across the country from which it could sell power to data centers.[52] Meanwhile, Constellation's CEO suggests reasons that the number of potential suppliers to data centers is limited, implying the possibility of a concentrated market.[53] Thus, the proposed transaction could exacerbate Constellation's ability to exercise market power or eliminate a competitor. Intervenors must be afforded a meaningful opportunity to be heard and the Commission must determine whether there are competition concerns. As such, Applicants must analyze and disclose the concentration impacts of the proposed transaction on the market to serve large loads like data centers.

In addition, the peaking segment of the supply curve in PJM energy markets is highly concentrated.[54] Constellation and Calpine both own a number of peaking resources in eastern PJM states.[55] They are thus currently competitors in the product market to serve peak demand.

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[50] *See* Application, Ex. J.

[51] *See infra* notes 136 to 145 and accompanying text.

[52] *See* Calpine, *Table of Operating Power Plants and Projects Under Construction as of: June 30, 2024*, https://www.calpine.com/wp-content/uploads/2024/07/Calpine_Portfolio_06.30.2024-1.pdf (June 30, 2024).

[53] CNBC Television, *supra* note 3, at 4:00 to 4:50 (explaining that data centers' most important factors in choosing electric service providers are certainty and speed, and further noting environmental commitments give rise to a preference for proximity to 24/7 clean energy).

[54] Monitoring Analytics, LLC, *2024 State of the Market Report for PJM*, Vol. II at 9 (Mar. 13, 2025) ("2024 PJM State of the Market").

[55] *See* Attachment A at 5–6 (citing Application, Ex. J at exhs. SEC-3 & SEC-4).

Combining the two companies will further increase concentration in a product market or service in which they are reasonably perceived as competitors. The increased concentration presents market power concerns in the peaking segment of the supply curve. Therefore, Applicants must analyze the concentration implications of their proposed transaction of combining the peaking resources. The Commission needs this information to meaningfully review the transaction, and intervenors need the information for a meaningful opportunity to be heard.

Public materials suggest that Constellation and Calpine, along with their owners, affiliates and subsidiaries, are actual or potential competitors in other markets too. These include markets to serve industrial and commercial retail customers in California, and markets to serve industrial, commercial, residential, and default service retail customers in states like Illinois and Pennsylvania.[56]

The consultants do not analyze concentration impacts or lessening of competition in those markets.[57] Instead, Applicants state in their transmittal that the transaction will not abridge existing contracts with retail customers.[58] They provide no analysis on wholesale customers rates

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[56] *See* Protest of Pa. Office of Consumer Advocs., Docket No. EC25-43-000, at 5 (Mar. 24, 2025), Accession No. 20250324-5258 (discussing Applicants' failure to examine related issues in Pennsylvania); Ill. Comm. Comm'n, *Public Notice of Successful Bidders and Average Prices* (Sept. 12, 2024), https://icc.illinois.gov/api/web-management/documents/downloads/public/Public%20Notice%20of%20Fall%202024%20Standard%20Energy%20Products%20Procurement%20Results%202024-09-12.pdf (identifying Constellation as winning bidder); State of Illinois, *List of Suppliers*, https://plugin.illinois.gov/your-available-choices/list-of-suppliers.html (last visited Mar. 25, 2025) (identifying Constellation NewEnergy and Champion Energy, a Calpine subsidiary or affiliate, as suppliers in the alternative retail electric supply market); Pa. Pub. Util. Comm'n, *PA Power Switch: Shop for Rates Results*, https://www.papowerswitch.com/shop-for-rates-results/?zip=15120&servicetype=residential&distributor=1180&distributorrate=RS+-+Regular+Residential+Service&usage=2%2C000 (last visited Mar. 25, 2025) (identifying Constellation as an alternative retail supplier in Pittsburgh).

[57] *See* Application, Ex. J.

[58] *Id.* at 31.

on the grounds that "the Commission has ruled that market-based rate sales do not raise concerns about any adverse impact on rates."[59]

But the section 203 review is forward-looking.[60] The concern extends beyond existing contracts. It also extends beyond whether there exists a historical market-based rate authorization. Section 203 demands a reality-based review, not the cribbed discussion Applicants offer. Constellation puts well the danger to consumers, competitors, competition, and rates of allowing these two companies to merge, stating the transaction

> [c]ombines best-in-class retail and commercial businesses with a premier customer solutions platform, establishing a coast-to-coast presence and providing opportunities to serve more customers with a broader array of energy and sustainability products to meet increasing demand. The transaction will expand Constellation's industry-leading customer solutions business to position the combined company as the leading U.S. retail electricity supplier, helping 2.5 million homes and businesses nationwide achieve their energy and sustainability needs.[61]

That behemoth is worth more discussion than the couple pages Applicants devote in their Application.[62] It certainly requires Commission review and meaningful intervenor participation. The Commission must require Applicants to identify all states and localities in which Applicants (and their owners, affiliates, and subsidiaries) are competitors or may reasonably be perceived to be competitors in markets to serve industrial, commercial, residential, and default service retail customers. Applicants must provide information—including but not limited to concentration

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[59] *Id.*

[60] 16 U.S.C. § 824b(a)(4); *see also* Filing Requirements Rule, 65 Fed. Reg. at 70,993, 71,012; *see* Order No. 697, 119 FERC ¶ 61,295, at P 300.

[61] Constellation, *Constellation to Acquire Calpine; Creates America's Leading Producer of Clean and Reliable Energy to Meet Growing Demand for Customers and Communities* (Jan. 10, 2025), https://www.constellationenergy.com/newsroom/2025/constellation-to-acquire-calpine-creates-americas-leading-producer-of-clean-and-reliable-energy-to-meet-growing-demand-for-customers-and-communities.html.

[62] Application at 31–32.

measures—sufficient for intervenors and the Commission to examine the transaction's impact on competition and rates.

The consultants' analysis omits another important factor: the PJM Reliability Resource Initiative ("RRI").[63] In December 2024, PJM proposed tariff revisions enabling it to expand its interconnection queue to accommodate up to 50 additional projects.[64] The Application was filed more than a month later.[65] The Commission accepted PJM's proposed revisions on February 11, 2025.[66] It is now March 25, 2025. The PJM initiative would affect the amount of near-term generation in PJM. But the consultants' concentration analysis does not reflect impacts to concentration from the initiative.

Section 203 applicants' concentration analysis must be as forward-looking as possible.[67] "[I]f changes that would affect the analysis occur after the date a filing is made with the Commission, but before final Commission action, the applicant must supplement its application promptly, describing such changes and explaining their effect."[68]

To the extent Constellation, Calpine, ECP, or another affiliate was selected, or may be selected, for a project in the initiative, there is a likely change to the market concentration analysis (and to Applicants' ability, incentive, and propensity to exercise market power). The Applicants must therefore supplement their application and identify any RRI project that they, their post-

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[63] *See generally PJM Interconnection, L.L.C.*, 190 FERC ¶ 61,084, at P 1 (2025), *reh'g pending*.

[64] *Id.*

[65] Application at 1.

[66] *PJM Interconnection*, 190 FERC ¶ 61,084, at P 1.

[67] 16 U.S.C. § 824b(a)(4); Filing Requirements Rule, 65 Fed. Reg. at 70,993, 71,012; *see* Order No. 697, 119 FERC ¶ 61,295, at P 300.

[68] Filing Requirements Rule, 65 Fed. Reg. at 70,990.

transaction owners, or their affiliates have been or may be selected to own, operate, or finance.[69] The Appendix A analysis must be supplemented too. Although the Commission's RRI order is subject to rehearing and potential judicial challenge, and PJM may still be finalizing aspects of the initiative, Applicants can measure the impacts to concentration in the face of uncertainty through scenario or sensitivity analyses. There is no reasonable basis to distinguish Applicants' interests in the initiative from Energy Capital Partners' potential ownership of new generation in PJM, the latter of which Applicants included in their Appendix A analysis. And because Applicants did not reflect the initiative in their initial filing and did not update the analysis after the Commission's February order, intervenors must be provided an opportunity to be heard on any update.

2. Applicants' Market Concentration Analysis Is Insufficient to Identify Competition Concerns in Wholesale Electric Markets.

The consultants' analysis is insufficient to identify concerns with the transaction's effect on competition, consumers, and the public interest. In most cases, the relationship between a concentration statistic and market power "is essentially nonexistent."[70] The insufficiency of the consultants' market concentration analysis is well-known and fairly straightforward: the characteristics of wholesale power markets—including inelastic demand, inelastic supply, limited storage availability, finite transmission capacity, entry barriers caused by fixed costs and interconnection queues, as well as fossil-burning generators' high marginal costs and stepwise supply curves—enable a market participant to exercise market power via withholding or high-priced offers even if the utility does not have market share or concentration beyond some arbitrary

[69] PJM may work through the applications and select projects over the next month. PJM Inside Lines, *Reliability Resource Initiative Draws 94 Applications* (Mar. 21, 2025), https://insidelines.pjm.com/reliability-resource-initiative-draws-94-applications/.

[70] Stoft, *Power System Economics* at 343.

threshold.[71] Market concentration says little, if anything, about a firm's ability to cause congestion or take advantage of it because of either resources' particular locations or financial trading. In fact,

[71] *See, e.g.*, *Cal. Pub. Utils. Comm'n v. FERC*, 462 F.3d 1027, 1039 (9th Cir. 2006) ("As became clear in hindsight, even those who controlled a relatively small percentage of the market had sufficient market power to skew markets artificially."); 2024 PJM State of the Market at 222, 256–57 ("Given the low responsiveness of consumers to prices (inelastic demand), it is possible to have high markup even when HHI is low. It is possible to have an exercise of market power even when the HHI level does not indicate a highly concentrated market structure."); 2023 Merger Guidelines at 7 ("[A]n analysis of the existing competition between the merging firms can demonstrate that a merger threatens competitive harm independent from an analysis of market shares."); Mark J. Niefer, *Explaining the Divide Between DOJ and FERC on Electricity Power Merger Policy*, 32 Energy L.J. 505, 531–32 (2012) ("[E]conomic theory and empirical work suggests that generators can exercise market power with relatively small market shares, i.e., at low market concentration levels. This suggests that a policy based primarily on traditional presumptions regarding market concentration may be inappropriate for electric power mergers, and that incorporating more information into a merger analysis is desirable. The available evidence also suggests that an exercise of market power can be very costly to consumers."); Frank A. Wolak, *Using Restructured Electricity Supply Industries to Understand Oligopoly Industry Outcomes*, 18 Util. Pol'y 227, 227, 245–46 (2010) ("Wolak, *Oligopoly*") (explaining that in wholesale power markets, "highly concentrated industry structures and unexpected high levels of demand are unnecessary for the occurrence of market outcomes that reflect the exercise of substantial unilateral market power" via "withhold[ing] output to raise market prices through higher offer prices or less output made available"); Darren Bush, *Electricity Merger Analysis: Market Screens, Market Definition, and Other Lemmings*, 32 Rev. Indus. Org. 263, 263, 287 (2008) (explaining reasons that a screen "will not capture certain types of conduct, particularly if the screen is slavishly applied such that facts indicating that a different market analysis ought to be undertaken are ignored," and counseling that "FERC should be wary of using screens that will be unable to detect many instances of exercises of market power"); Dennis W. Carlton, *Mergers in Regulated Industries: Electricity*, Dep't of Justice Econ. Analysis Grp. Discussion Paper EAG 07-16, at 1 (2007), https://www.justice.gov/sites/default/files/atr/legacy/2007/12/19/228709.pdf ("The usual HHI or market share analysis can be misleading as a predictor of market power in wholesale generation."); Paul Twomey, et al., *A Review of the Monitoring of Market Power: The Possible Role of TSOs in Monitoring for Market Power Issues in Congested Transmission Systems*, MIT Ctr. for Energy and Envtl. Pol'y Res., at 17 (2005) (collecting research showing that, even as generators exercised market power during the California Energy Crisis, statistical screens would not have flagged concern, and explaining that "[a] major criticism of market share and HHI analysis for electricity markets is that even where the most dominant net seller has a relatively small market share (say less than 10%) they may still be able to exercise market power"); Mark S. Hegedus, *Points Well-Taken: Comments on Professor Peter Carstensen's Paper "Creating Workably Competitive Wholesale Markets in Energy"*, 1 Envt'l & Energy L. & Pol'y J. 145, 153 (2005) ("The metrics used to analyze market power—variations on pivotal supplier analyses and market share/concentration analyses—are not up to the task. While I disagree with the argument that the

the HHI is not even necessarily comparable across RTOs, as two markets with the same HHI can have different levels of market power if they differ in their demand elasticity or mode of competition.[72]

The consultants' analysis is, they report, an instance of the Commission's "Appendix A" screening analysis first adopted in 1996.[73] But as discussed above, the Commission's section 203 review extends beyond the screen.[74] The Commission knows, for instance, that the screen is

existing concentration metrics have limited value, I do think they need to be complemented with supply curve analyses that help to assess the risk of market harm from small players that might be missed by Herfindahl-Hirschman Index (HHI)."); Stoft, *Power System Economics* at 356–58 (explaining that a concentration statistic "provides almost no guidance when used in a power market" and identifying factors it fails to consider, including demand elasticity, the style of competition, and forward contracting); Severin Borenstein & James Bushnell, *Electricity Restructuring: Deregulation or Reregulation*, 23(2) Regul. 46, 49 (2000) ("The result [of specified electricity industry characteristics] is that the ability of firms with even modest market shares to exercise market power is greater than in most markets. That is why concentration measures that are widely used to diagnose the potential for market power are not very informative when applied in electricity markets."); Severin Borenstein, James Bushnell, & Christopher R. Knittel, *Market Power in Electricity Markets: Beyond Concentration Measures*, 20(4) Energy J. 65, 68 (1999) ("Borenstein et al., *Beyond Concentration Measures*") ("Concentration measures indicate the current distribution of sales or capacity, but cannot tell you what will happen to prices when one firm reduces its output. This is a critical question in the electricity industry where the product is, with some exceptions, not storable and short-run demand is relatively inelastic. Because of these factors, concentration measures can often be an inappropriate 'screen' in the electricity industry. Even though one firm may have a relatively small market share at a given demand level, it may be the case that if that firm reduced output, no other firm would be able to replace that supply because of cost, capacity or transmission constraints."); *see also* Attachment A at 1–2 ("[T]he HHI is a simplistic metric and is inadequate to determine whether a transaction is consistent with the public interest, in part because it does not account for the structure and complexities in regional energy markets, nor does it account for ownership of generation along the supply stack.").

[72] Stoft, *Power System Economics* at 342.

[73] Application, Ex. J at 13–14.

[74] *See supra* notes 31 to 37 and accompanying text.

fallible, that factors external to the screen can put the screen analysis in doubt, and that "the size of a merger does not indicate the level of competitive concern it may raise."[75]

Close scrutiny of market realities here is warranted by policy as well as law. After 1996, industry realignments significantly increased.[76] The realignments then magnified utilities' ability and incentive to exercise market power during the California Energy Crisis.[77] Billions of dollars were transferred from consumers to generators.[78] Utilities are now seeking to consolidate power in PJM, including would-be owners of Constellation.[79] Meanwhile, the industry continues to undergo dramatic change. As utilities press for consolidation amid a changing industry, the Commission must be vigilant in protecting the public interest.

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[75] 2012 Order, 138 FERC ¶ 61,109, at P 5; Filing Requirements Rule, 65 Fed. Reg. at 70,990; 1996 Policy Statement, 61 Fed. Reg. at 68,601.

[76] *Regional Transmission Orgs.*, Order No. 2000, 65 Fed. Reg. 810, 811 (Jan. 6, 2000), FERC Stats. & Regs. ¶ 31,089 (1999) (discussing mergers); *e.g.*, *Enron Corp.*, 78 FERC ¶ 61,179, at 61,736 (1997) (examining HHI in determining merger will not adversely affect competition).

[77] Lina Khan & Sandeep Vaheesan, *Market Power and Inequality: The Antitrust Counterrevolution and Its Discontents*, 11 Harv. L. & Pol'y Rev. 235, 263–64 (2017); Darren Bush & Carrie Mayne, *In (Reluctant) Defense of Enron: Why Bad Regulation Is to Blame for California's Power Woes (or Why Antitrust Law Fails to Protect Against Market Power When the Market Rules Encourage Its Use)*, 83 Or. L. Rev. 207, 262–66 (2004); Timothy P. Duane, *Regulation's Rationale: Learning from the California Energy Crisis*, 19 Yale J. on Reg. 471, 514–15 (2002).

[78] Sandeep Vaheesan, *Market Power in Power Markets: The Filed-Rate Doctrine and Competition in Electricity*, 46 U. Mich. J.L. Ref. 921, 937 (2013) (citing Severin Borenstein, James B. Bushnell & Frank A. Wolak, *Measuring Market Inefficiencies in California's Restructured Wholesale Electricity Market*, 92 Am. Econ. Rev. 1376, 1398 (2002)); *see generally* Stoft, *Power System Economics* at 323, 331–334, 349–50 (explaining that the social consequences of profitable exercises of market power include wealth transfer and deadweight loss).

[79] *See, e.g.*, *Chalk Point Power, LLC*, 189 FERC ¶ 61,042, at PP 28–32 (2024); *ECP ControlCo, LLC*, 188 FERC ¶ 61,109, at PP 25–28 (2024); *Energy Harbor Corp.*, 186 FERC ¶ 61,129, at PP 71–72, 93–97, 126–29 (2024); Joint Appl. for Authorization Under Section 203 of the Fed. Power Act of Darby Power, LLC, et al., Docket No. EC24-125-000, at 1 (Sept. 27, 2024), Accession No. 20240927-5296 ("Darby Application").

The Application, bereft of argument and evidence on competition effects beyond concentration measures, is little more than a cover letter for the consultants' affidavit.[80] The affidavit provides scant evidentiary support to Applicants because of its authors' analytical mistakes and inconsequential analysis. The Application does not come close to the necessary affirmative showing of consistency with the public interest. For that reason, it must be blocked or conditioned. Additionally, as PPC Protestors discuss next, the transaction must be blocked or conditioned because it is likely to harm the public interest.

C. The Transaction Is Likely to Harm the Public Interest.

Applicants fail to address grave dangers of their proposed transaction. These dangers threaten competition, consumers, rates, reliability, and decision-making in PJM. The public interest is likely to suffer harm in the short term—including by the transfer of consumers' wealth to generators, the creation of deadweight losses, and the lessening of competition in PJM markets and stakeholder processes—as well as in the long term—including by the perversion of price signals that attract the wrong amount, type, and location of capacity, and the distortion of expectations used to price bilateral contracts and other deals.[81] To protect the public interest, the Commission must block the transaction or impose significant structural and behavioral conditions.

1. The Transaction is Likely to Exacerbate Constellation's Ability, Incentive, and Propensity to Withhold Supply from PJM Energy Markets.

As discussed below, the proposed transaction exacerbates the risk that Constellation exercises market power. By withholding supply from a newly-acquired gas-burning generator or

[80] *See* Application at 12 (stating that the Application addresses horizontal market power by describing the consultants' affidavit).

[81] *See generally* Stoft, *Power System Economics* at 323, 331–34, 349–50 (discussing consequences of market power exercises).

fossil-burning peaker in the energy markets, Constellation can raise market prices that benefit all of Constellation's resources selling in the market and increase the value of Constellation's bets on financial transmission rights ("FTRs") and virtual trading.

Commission-regulated energy markets, like those in PJM and other RTOs, use a "single clearing price" approach.[82] Each generator submits an offer curve with associated parameters (that is, quantity-price pairs for different segments of the generator's production ability), and the market operator (*e.g.*, PJM) identifies the set of generators that meet demand at least cost. All generators selected to produce power are generally paid the same price. [83] The price is usually based on the offer price of the most expensive generator selected.[84]

Consider the very stylized example below in Figure 1.[85] There are three generators. Each generator offers to supply its full capacity at its marginal cost. Plant A offers to produce up to 600 MW at a flat offer of $50 per MW. Plant B offers to produce up to 300 MW at a flat offer of $100 per MW. Finally, Plant C offers to produce up to 150 MW at a flat offer of $150 per MW. The market operator arranges the offers from lowest price to highest price. Market demand is 825 MW, shown in the figure with a vertical gray dashed line. The optimal dispatch of generators is to procure 600 MW from Plant A and 225 MW from Plant B. Plant C is not selected. Plant B's offer sets the market-clearing price at $100. Both Plant A and Plant B are paid $100 per MW for each

[82] FERC Office of Public Participation, An Introductory Guide to Electricity Markets Regulated by the Federal Energy Regulatory Commission ("OPP Guide"), https://www.ferc.gov/introductory-guide-electricity-markets-regulated-federal-energy-regulatory-commission (last updated Jan. 23, 2025); *see also* Attachment A at 2.

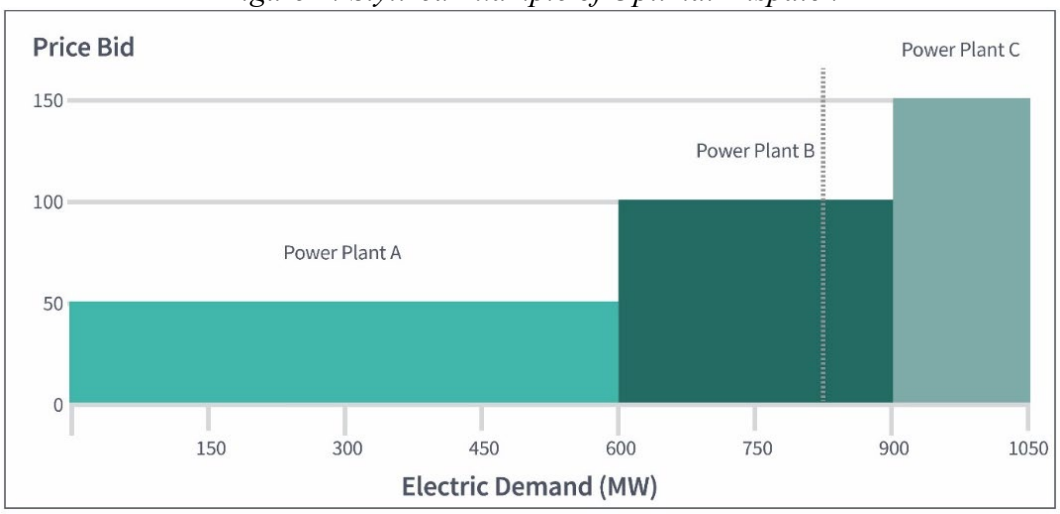
[83] *See* Commission Staff, *Energy Primer: A Handbook for Energy Market Basics*, at 70 (Dec. 2023) ("Energy Primer").

[84] *See id.*

[85] The stylized example is derived from the OPP Guide.

MW they produce. Plant A earns $60,000 ($100 per MW × 600 MW). Plant B earns $22,500 ($100 per MW × 225 MW).

Figure 1: Stylized Example of Optimal Dispatch



Now consider the example shown in Figure 2. In this example, Plant B removes 100 MW of capacity from its offer. To meet the same 825 MW of demand, the market must rely on Plant C to produce 25 MW. Plant C's offer price of $150 per MW sets the market-clearing price paid to all generators. All generators make more money than in the first example. Plant A earns $90,000 ($150 per MW × 600 MW). Plant B earns $30,000 ($150 per MW × 200 MW). Plant C earns $3,750 ($150 per MW × 25 MW).

Figure 2: Stylized Example of Physical Withholding

Notice that, because Plant B restricted the quantity it made available to the market, it sold less quantity than in the first example but made more money. When a utility restricts the quantity it makes available to the market in order to raise the market-clearing price, the practice is known as physical withholding.[86]

Alternatively, Plant B could accomplish a similar outcome by changing the pricing terms in its offers. This is an example of economic withholding.[87] In this iteration, imagine Plant B continues to offer the first 200 MW of its capacity for $100 per MW. But, to produce additional amounts, Plant B insists on receiving $170 per MW. Plant B's higher-priced offer segment is not selected and effectively the same result occurs as in the prior example. All generators earn the same elevated revenues. See Figure 3.

Figure 3: Stylized Example of Economic Withholding

[86] *See Exelon Corp. v. FERC*, 911 F.3d 1236, 1238 (D.C. Cir. 2018) (explaining perceived risk that a supplier could exercise market power via physical withholding by "prematurely withdraw[ing] a unit from participation in the [market], thereby dampening supply, driving up prices, and enjoying higher returns").

[87] *See Pub. Citizen*, 7 F.4th at 1198 ("Economic withholding is a type of market manipulation in which a utility offers electricity (or capacity) at auction at uncompetitively high prices, which artificially inflates the market-clearing price.").

Finally, imagine in those stylized examples that the same utility owns Plant A and Plant B. By employing Plant B to raise the market-clearing price, the utility increases its revenues on both plants. Owning Plant A increases the utility's incentive to exercise market power with Plant B.[88]

Following its proposed transaction, Constellation would have a larger and more diverse mix of resource technologies along the supply stack in the PJM footprint. Constellation already owns nuclear generators in Illinois, Maryland, New Jersey, and Pennsylvania, and fossil-burning generators in Maryland and Pennsylvania.[89] After the transaction, Constellation would add approximately 5,000 MW of gas-burning intermediate generators and fossil-burning peakers in Delaware, Illinois, Maryland, New Jersey, Pennsylvania, and Virginia.[90] Constellation plans to divest four of the five largest Calpine generators within a year of consummating the transaction,[91] after which it will have approximately 1,800 MW of additional capacity compared to its current resource mix. Changes in the resource mix are shown in Figure 4.[92]

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[88] *See Indep. Mkt. Monitor for PJM*, 178 FERC ¶ 61,121, at P 83 ("[A] seller with market power that exercises its market power could price itself out of the auction yet still impact the clearing price, and therefore its actions would still constitute an exercise of market power. For example, a seller with market power and a portfolio of resources could offer one or more of those resources above the competitive level in an attempt to drive up the clearing price for the portion of its fleet that clears. Such a strategy would be an exercise of market power even if certain resources in the supplier's fleet did not clear the auction."); *see also* Attachment A at 2 ("A merger or acquisition can increase market power if it enhances a supplier's ability and incentive to withhold generation from the market, thereby raising market clearing prices.").

[89] *See* Attachment A at 5 (citing Application, Ex. J at exh. SEC-3).

[90] *Id.* at 6 (citing Application, Ex. J at exh. SEC-4).

[91] *See* Application at 3.

[92] The transaction may have deviations in resources or capacity values from Figure 4. The Application states that the combination of Constellation's and Calpine's resources sums to 25,544 MW. Application at 13.

Figure 4: Constellation's Post-Transaction Resource Mix

State	Plant Name	Capacity (MW)	New?	Divest?
Delaware	Delaware City	18	✓	
Delaware	Edge Moor	707	✓	✓
Delaware	Hay Road	1,136	✓	✓
Delaware	West Station	15	✓	
Delaware	Christiana	50	✓	
Illinois	Zion	546	✓	
Illinois	Byron	2,300		
Illinois	LaSalle	2,264		
Illinois	Dresden	1,779		
Illinois	Braidwood	2,337		
Illinois	Quad Cities	1,364		
Maryland	Crisfield	10	✓	
Maryland	Calvert Cliffs	1,708		
Maryland	Conowingo	528		
Maryland	Criterion Wind	70		
Maryland	Fair Wind	30		
Maryland	Perryman	294		
Maryland	Philadelphia Road	60		
New Jersey	Cumberland	187	✓	
New Jersey	PSEG Salem	1008		
New Jersey	Sherman Avenue	87	✓	
New Jersey	Vineland Solar	4	✓	
Pennsylvania	Bethlehem Units 1–8	1,134	✓	✓
Pennsylvania	Chester	39		
Pennsylvania	Croydon	391		
Pennsylvania	Delaware	56		
Pennsylvania	Eddystone	60		
Pennsylvania	Falls	51		
Pennsylvania	Moser	51		
Pennsylvania	Muddy Run	1,063		
Pennsylvania	Peach Bottom	1,254		
Pennsylvania	Richmond	98		
Pennsylvania	Schuylkill	30		
Pennsylvania	Southwark	52		
Pennsylvania	York Unit 1	569	✓	✓
Pennsylvania	York Unit 2	835	✓	
Pennsylvania	Handsome Lake	268		
Pennsylvania	Limerick	2,242		
Pennsylvania	Crane	835		

Ohio	Clinton Battery	5		
Virginia	Tasley	30	✓	
Virginia	Bayview	13	✓	
Total		**25,578**	**5,341**	**3,546**

Capacity values rounded to nearest MW.
Source: Attachment A.

The post-transaction resource mix likely exacerbates Constellation's ability and incentive to profitably exercise market power in PJM. After the transaction, for instance, Constellation will have more generators from which it can withhold supply and more generators that benefit from associated price increases. The Commission explains:

> For example, in a horizontal merger combining a company with significant baseload capacity with a company owning capacity on the margin under many season/load conditions, the theory of competitive harm would be that the combination of the "ability" assets with one company's existing "incentive" assets would increase the likelihood of the company exercising market power. Proper mitigation would address the harm to competition by reducing the merged firm's "ability" assets or its "incentive" assets through divestiture or some other method.[93]

Here, the problem is worse than in the Commission's example because, depending on their characteristics, inframarginal generators in PJM can be both "incentive assets" and "ability assets."[94] The fossil-burning generators Constellation would add in Illinois and eastern PJM states, along with its existing fossil-burning generators in eastern PJM states, can serve either role.

To be sure, real-world energy markets like those in PJM are much more complex than the very stylized examples. For starters, prices vary at different locations within the market because of transmission congestion and because energy is lost as it moves along transmission lines.[95] The

[93] 2007 Policy Statement, 120 FERC ¶ 61,060, at P 60.

[94] *See* Stoft, *Power System Economics* at 332–33 (explaining that inframarginal generators can withhold supply and raise the market price); Attachment A at 3–4 (same).

[95] Energy Primer at 70.

price at a given location in PJM and other RTOs is known as the locational marginal price, or LMP.[96]

Thus, it is important to consider the market context. The market context significantly affects whether, how, and to what extent a utility may profitably withhold supply and otherwise exercise market power in the energy market detrimental to the public interest.[97] Primary considerations include the elasticity of demand, the elasticity of supply, barriers to entry, storage availability, and transmission conditions.[98]

The PJM energy markets are ripe for the exercise of market power by a utility controlling generators at the baseload, intermediate, and peaker levels. The supply curve is inelastic, meaning that a small reduction in quantity offered will have an outsized effect on price.[99] Thus, Constellation can withhold a small quantity from a generator and cause an outsize impact on the

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[96] *Id.*; *see* PJM, *Manual 11: Energy & Ancillary Servs. Mkt. Ops.*, at § 2.2 (Dec. 17, 2024) ("PJM Manual 11"), https://www.pjm.com/-/media/DotCom/documents/manuals/m11.ashx.

[97] *See* Wolak, *Oligopoly* at 227; *supra* notes 70–72, 76–78, and accompanying text; Attachment A at 7–10; *see, e.g.*, *Pub. Citizen*, 7 F.4th at 1188, 1198 (discussing withholding allegations); *Cal. Pub. Utils. Comm'n*, 462 F.3d at 1039 (same); *FERC v. City Power Mktg., LLC*, 199 F. Supp. 3d 218, 235–36 (D.D.C. 2016) (discussing Commission's manipulation allegations); *FERC v. Barclays Bank PLC*, 105 F. Supp. 3d 1121, 1127–28 (E.D. Cal. 2015) (same); Stoft, *Power System Economics* at 327, 329, 332–33 (describing how a utility with a stepwise supply curve can force another supplier to withhold and how inframarginal generators can exercise market power); David W. Savitski, *LMPs for (Technically-Inclined) Dummies*, 40 Energy L.J. 165, 192–200 (2019) (showing with simplified examples how, because of transmission congestion, a generator can exercise market power by decreasing output and by increasing output); *see generally* 2023 Merger Guidelines at 2 (discussing the importance of market context); 1992 Merger Guidelines at 17 (same). A simple measure of industry concentration does not capture these dynamics. And while a concentration analysis of the stylized examples above would indicate a highly concentrated industry, it would be elementary to reconstruct the stylized examples so that they pass the Commission's market screen while still presenting market power concerns.

[98] *See* Wolak, *Oligopoly* at 227; *supra* notes 70–72 and accompanying text.

[99] *See* 2024 PJM State of the Market at 141.

price paid to its other generators. The transaction would increase the number of intermediate and peaker generators with which Constellation can do so.

The demand curve in PJM energy markets is inelastic too, reflecting consumers' low responsiveness to price changes.[100] This matters because Constellation can withhold supply from its post-transaction expanded portfolio of generators, knowing customers are unlikely to meaningfully reduce the quantity demanded in response to a price change.[101]

Battery storage in PJM is hardly a blip.[102] Storage can dampen the ability and incentive to exercise market power by shifting supply from low-priced hours to high-priced hours. Following the transaction, Constellation need not worry that storage will act as much of a bulwark to its ability to affect market prices.

Meanwhile, entry barriers and regulatory interventions in PJM are disrupting the integration of renewable generators, whose very low and relatively flat marginal costs would add elastic supply and provide additional capacity.[103] Constellation agrees there are entry barriers,[104] but its consultants apparently do not.[105] Barriers to entry are important considerations in assessing

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[100] *Id.* at 222.

[101] *See* Borenstein et al., *Beyond Concentration Measures* at 68.

[102] 2024 PJM State of the Market at 197, Tb. 3-64 (reporting that, in 2024, battery storage supplied less than 0.1% of the gigawatt hours and pumped storage supplied 0.8%).

[103] *See PJM Interconnection*, 190 FERC ¶ 61,084, at P 14 (finding that PJM is experiencing delayed new entry); *see also Improvements to Generator Interconnection Procs. & Agreements*, Order No. 2023, 184 FERC ¶ 61,054, at PP 3, 50–53, *order on reh'g*, 185 FERC ¶ 61,063 (2023), *order on reh'g*, Order No. 2023-A, 186 FERC ¶ 61,199 (2024).

[104] Comments of Constellation Energy Generation, LLC, Docket No. ER25-712-000, at 1, 4, 13 (Jan. 8, 2025), Accession No. 20250108-5145.

[105] Application, Ex. J at 44 ("The entry of new generation in PJM and elsewhere and its ownership by numerous independent entities shows that entry is not constrained. There was more than 200,000 MW of generation in the active PJM interconnection queue as of March 31, 2024.").

market power because they allow market power to exist and persist.[106] Because of the barriers, entry is not timely, likely, and sufficient to counteract concerns regarding Constellation's increased market power from the transaction.[107]

Finally, transmission conditions can aggravate market power issues by preventing lower-cost or price-responsive suppliers from competing with a supplier.[108] The transmission network in PJM, like much of the country, is inadequate.[109] Congestion is occurring in PJM energy markets, and its costs in 2024 were more than $1.7 billion.[110] Because of congestion, Constellation will likely have increased ability and incentive after the transaction to deploy and offer its expanded generation fleet in a manner that increases the prices paid to its generators and to any of its financial bets, such as FTRs and virtual bids.[111]

Not surprisingly, in light of all those and other factors, utilities are already exercising aggregate market power in the energy markets, including by withholding.[112] "When there is

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[106] *See Cincinnati Gas & Elec. Co. & PSI Energy, Inc.*, 64 FERC ¶ 61,237, at 106 (1993) (pincite to slip opinion page at Accession No. 19930817-3045); Stoft, *Power System Economics* at 329–31, 335.

[107] *See* 1996 Policy Statement, 61 Fed. Reg. at 68,596; 2023 Merger Guidelines at 12, 31–32.

[108] Borenstein et al., *Beyond Concentration Measures* at 68.

[109] *See* Order No. 1920-A, 189 FERC ¶ 61,126, at PP 34, 38–40.

[110] 2024 PJM State of the Market at 607–08.

[111] The incentive and ability is likely to be particularly acute in locations that have historically experienced congestion, like locations in the eastern PJM states. But the incentive and ability are not limited to those locations, especially if, as discussed in section III.C.2, Constellation withdraws nuclear generators from PJM wholesale markets. This is because the withdrawal will change energy flows.

[112] 2024 PJM State of the Market at 9, 24–25, 30–32; *see generally PJM Interconnection. L.L.C.*, 155 FERC ¶ 61,282, at P 37 & P 37 n.54 (2016) ("The IMM defines 'aggregate market power' as 'the ability to exercise market power in the aggregate market when no constraint is binding or in the balance of the market when a constraint creates a local market.' . . . The IMM states that local market power is the ability to exercise market power in a local market created by a binding

aggregate market power, sellers have the ability to set the market price above the competitive level because competitive forces are not adequate."[113] Markups and market power in the aggregate market are affecting energy prices.[114] Meanwhile, the independent market monitor has not been provided system-wide mitigation authority, and utilities can exercise local market power despite mitigation.[115] To protect Pennsylvanians, the Governor has considered exiting PJM.[116]

And that is just the present context. Merger analysis should consider reasonably foreseeable developments and be as forward-looking as possible.[117] According to some utilities and regulators, demand is likely to grow rapidly.[118] If accurate, the trend will aggravate the opportunity and incentive to exercise market power as demand increasingly occurs at more inelastic parts of the supply curve and suppliers become pivotal more frequently. Meanwhile, because fossil-burning generators tend to have high, upward-sloping marginal costs, policies to add more such generators, if pursued, will likely aggravate supply curve inelasticity and raise

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constraint." (quoting Protest of the Indep. Mkt. Monitor for PJM, Docket No. ER16-372-000, at 6 (Dec. 14, 2015), Accession No. 20151214-5289)).

[113] Comments of the Indep. Mkt. Monitor for PJM, Docket No. ER16-372-001, at 9 (Mar. 29, 2016), Accession No. 20160329-5033.

[114] 2024 PJM State of the Market at 9–10, 24–25 (noting pivotal suppliers in the aggregate market set real-time market prices with markups over $100/MWh on 88 days, and noting problems with local market power mitigation).

[115] *Id.*

[116] Letter from Josh Shapiro, Governor, Pennsylvania, to Mark Takahashi, Chair, PJM Bd. of Managers (Jan. 13, 2025), https://www.pjm.com/-/media/DotCom/about-pjm/who-we-are/public-disclosures/2025/20250113-pa-gov-shapiro-letter-re-capacity-market-price-cap.pdf.

[117] *See* 16 U.S.C. § 824b(a)(4); Filing Requirements Rule, 65 Fed. Reg. at 70,993, 71,012; *see* Order No. 697, 119 FERC ¶ 61,295, at P 300.

[118] *See, e.g.*, Order No. 1920-A, 189 FERC ¶ 61,126, at P 40; Constellation, *Constellation Acquisition of Calpine: Creating the Right Company at the Right Time*, at 8 (Jan. 10, 2025), https://investors.constellationenergy.com/static-files/e9b4442f-2109-4082-bb18-5d6d56926a89 ("Constellation-Calpine Acquisition Deck").

prices, heightening the ability and incentive to exercise market power. Utilities with dispatchable resources (like the generators Constellation would acquire from Calpine) may increasingly find a market they can exploit to benefit their bottom line, with consumers paying the price.

Applicants put forward argument and evidence that magnifies those market power concerns. Applicants strenuously argue that the PJM East and 5004/5005 submarkets rarely experience binding constraints.[119] If true, that means Constellation's generators in those zones will usually be in the aggregate PJM market, where the market monitor lacks the ability to mitigate Constellation's market power.

The Commission looks to transaction-specific facts and the market context to determine whether a merger exacerbates the ability, incentive, and likelihood of withholding.[120] For instance, in *Commonwealth Edison*, the Commission finds a merger does not raise generator withholding concerns where "market demand falls well within the critical region of market supply" occupied by the merged firm's largely nuclear capacity.[121] The Commission also performs "[a]n examination of market supply conditions" and identifies three reasons why a profitable withholding would be unlikely: (1) the supply curve is elastic, so withholding would not significantly raise the price; (2) the nuclear plants are cheaper than other units, detracting from the firm's incentive to withhold; and (3) the nuclear plants are difficult to ramp up and down,

[119] Application at 3–4, 11, Ex. J at 16–20.

[120] *See, e.g.*, 2007 Policy Statement, 120 FERC ¶ 61,060, at P 60 (discussing Commission practice); Filing Requirements Rule, 65 Fed. Reg. at 70,999 n.63 (same).

[121] *Commonwealth Edison Co.*, 91 FERC ¶ 61,036, at 61,133 (2000).

detracting from the firm's ability to withhold.[122] The Commission employed similar analysis in *FirstEnergy*.[123]

The transaction and market context here are unlike the situations in *Commonwealth Edison* and *FirstEnergy*. Constellation is adding a number of peakers and intermediate generators in Delaware, Illinois, Maryland, New Jersey, Pennsylvania, and Virginia. The supply curve in the PJM energy markets is inelastic throughout.[124] Demand regularly occurs in portions of the supply curve where intermediate and fossil-burning generators are dispatched.[125] And according to Constellation's own expectations, this frequency will increase as demand grows.[126] There are also other factors the Commission does not discuss in *Commonwealth Edison* and *FirstEnergy* that intensify Constellation's post-transaction ability and incentive to withhold supply in present-day PJM energy markets, including

- demand inelasticity,
- the absence of significant storage capacity,
- entry barriers,
- generator locations in historically congested areas,
- utilities' current exercise of market power,
- the independent market monitor's lack of mitigation authority in the aggregate market,
- utilities' ability to exercise market power in local markets despite mitigation,
- financial transmission rights,
- virtual bidding, and

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[122] *Id.* at 61,333 n.42.

[123] *FirstEnergy Corp.*, 133 FERC ¶ 61,222, at PP 50–51 (2010).

[124] 2024 PJM State of the Market at 222; *see* Attachment A at 11 (concluding that Constellation's acquisition of Calpine leads to market power concerns because of the changed resource mix and the market context).

[125] *Id.* at 202–03 (reporting that in over 70% of instances the marginal unit in the real-time energy market was a combined cycle or combustion turbine gas-burning unit).

[126] Constellation-Calpine Acquisition Deck at 8; CNBC Television, *supra* note 3, at 7:20 (suggesting that "we have a really peakish system" and "most of the time we don't use nearly all of its capacity," so "we could add data centers for most hours").

- some policymakers' push to add fossil-burning dispatchable resources that will likely worsen supply curve inelasticity.

Additionally, Constellation's prior settlement of market manipulation allegations is a relevant factor in gauging Constellation's propensity to exercise market power.[127] As a result, the addition of intermediate and peaking generators via the transaction gives Constellation additional "ability assets" and "incentive assets" to go along with the resources it already has. In short, unlike in *Commonwealth Edison* and *FirstEnergy*, Constellation will likely find withholding profitable.

Moreover, Constellation's ability and incentive to withhold extends beyond its generation resources. To the extent Constellation has FTR positions or engages in virtual bidding, or will have such practices and positions, its ability and incentive to withhold following the transaction may increase. FTR positions can benefit from price changes or, conversely, provide a disincentive to generate power. Virtual bidding can move prices in the PJM energy markets or benefit from price moves. PPC Protestors are unaware of Applicants' positions and practices,[128] but this information is accessible to the Commission through Order No. 760 and through information requests to Applicants. So is information on actual and likely transmission flows and congestion.

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[127] *Constellation Energy Commodities Grp., Inc.*, 138 FERC ¶ 61,168, at P 1; *cf. Enforcement of Statutes, Orders, Rules, and Regulations*, 132 FERC ¶ 61,216, at PP 162–64 (2010) (holding that the Commission's culpability factors consider prior history of violations, including when resolved by settlement); 2023 Merger Guidelines at 23 (noting relevance in merger review of firm's history of anticompetitive acquisitions).

[128] The positions and practices might be included in the non-public portion of Applicants' submittal, *see* 18 C.F.R. § 33.3(d)(9) (requiring submittal of information on physical and financial transmission rights), but the issues are not discussed in the Applicants' consultants' affidavit, *see* Application, Ex. J. Because these positions and practices can provide strong incentive and ability to exercise market power, the Commission must ascertain the Applicants' present and intended positions and practices to meaningfully review the proposed transaction. PPC Protestors request an opportunity to review and be meaningfully heard on any such information Applicants henceforth provide.

The Commission must incorporate FTRs and virtual bidding into its review of the proposed transaction.

In the past, Constellation acknowledged that its ability and incentive to exercise market power called for prophylactic measures. When it merged with Exelon Corporation in 2012, Constellation agreed to must-offer requirements and pricing limitations for the express purpose of addressing potential withholding.[129] The Commission conditioned its merger approval on the companies' compliance with those terms, behavioral commitments, and the companies' agreement with the PJM independent market monitor.[130]

The transaction here presents similar or greater concerns about withholding supply. Yet in the instant application, the Applicants and their consultants (including Julie R. Solomon, the same consultant Constellation used in 2012[131]) are *silent* about withholding.

Constellation's agreement with the PJM independent market monitor does not allay the dangers.[132] The agreement arguably lacks a must-offer requirement in the energy markets for the full capacity of non-nuclear units, allowing for physical withholding, and arguably does not restrict Constellation's pricing in energy markets of non-peaker and non-nuclear generators, allowing for

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[129] Joint Application for Authorization of Disposition of Jurisdictional Assets and Merger Under Section 203 of the Federal Power Act of Constellation Energy Group, Inc. and Exelon Corporation, Docket No. EC11-83, Ex. J-1, at 15 (May 20, 2011) ("Constellation–Exelon 2011 Merger Application"), Accession No. 20110520-5165. In 2022, Constellation and Exelon split, and the generation assets held by the merged companies went to Constellation. *See* Constellation, *About Constellation*, https://www.constellationenergy.com/our-company/our-story/about-constellation.html (last visited Mar. 25, 2025).

[130] *Exelon Corp.*, 138 FERC ¶ 61,167, at PP 93–94, 100 (2012).

[131] Application, Ex. J; Constellation–Exelon 2011 Merger Application, Ex. J-1.

[132] *See In the Matter of the Merger of Exelon Corporation and Constellation Energy Group, Inc.*, Settlement Agreement between Exelon Generation Company, LLC and the Market Monitor, Case No. 9271 (Md. Pub. Serv. Comm'n Dec. 30. 2021), https://webpscxb.psc.state.md.us/DMS/case/9271 ("Constellation-IMM Agreement").

economic withholding of generators like gas-burning intermediate generators.[133] Moreover, the agreement ends in May 2032, and may prevent the market monitor from seeking renewal of the agreement.[134] Additionally, as a behavioral remedy, the agreement requires monitoring to ensure compliance and is subject to both gaming and good-faith disagreements over the meaning of its terms (*e.g.*, whether a resource is properly classified as a peaker).[135]

In sum, the proposed transaction presents the dangerous risk of harm to competition, consumers, rates, and the public interest from withholding. The Commission must block the transaction or impose significant structural conditions to prevent the harm.

2. The Transaction Is Likely to Exacerbate Constellation's Incentive and Propensity to Withdraw Supply from PJM Wholesale Markets.

Constellation wants to sell power to data centers. Its "entire team is focused on executing transactions and supporting data center development anywhere in PJM."[136] It discusses the issue in earnings calls.[137] In media.[138] At industry conferences.[139] In litigation.[140] In glossy

[133] *See id.* § 1(b).

[134] *See id.* § 2.

[135] Utilities regularly attempt to game must-offer requirements in RTO tariff. *See* FERC, *All Civil Penalty Actions – 2024*, https://ferc.gov/all-civil-penalty-actions-2024 (last visited Mar. 25, 2025) (collecting Commission enforcement decisions and settlements in 2024, and including links for other years).

[136] EARNMOAR, *$CEG Constellation Energy Q3 2024 Earnings Conference Call*, at 10:55 (Nov. 4, 2024), https://www.youtube.com/watch?v=39vefPmjvB8.

[137] *Id.* at *passim*.

[138] CNBC Television, *Constellation Energy CEO on acquisition of Calpine*, at 1:30 (Jan. 10, 2025), https://www.youtube.com/watch?v=x_ouXGGW6mc.

[139] CNBC Television, *supra* note 3, at 1:30.

[140] Complaint of Constellation Energy Gen., LLC v. PJM Interconnection, L.L.C., Docket No. EL25-20-000, Ex. 5, at PP 3–4 (Nov. 22, 2024), Accession No. 20241122-5285 ("Constellation Complaint") (identifying generators).

brochures.[141] In press reports specifically pointing to the Commission on the same day it files the Application.[142] Yet the Application makes no mention of these near-term plans. The omission is striking.

As glaring is the Applicants' failure to discuss Constellation's potential withdrawal of its nuclear generators from PJM wholesale markets to sell power to the data centers. To be sure, Constellation is undecided on whether and how it will do so.[143] Thus far, it has identified as candidates for withdrawal nuclear generators in Illinois, Pennsylvania, and Maryland.[144] While it litigates and decides, Constellation puts out sales pitches with dedicated websites[145] and more glossy brochures.[146] And yet the analysis it offers to the Commission—pursuant to a law enacted "in response to[] great concentrations of economic and even political power vested in power trusts, and the absence of antitrust enforcement to restrain the growth and practices of public utility holding companies,"[147] under a statutory provision enacted to "furnish[] an essential check upon

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[141] Constellation, *Data Centers: Addressing the Energy Needs for Today and Tomorrow*, https://www.constellation.com/content/dam/constellation/for-your-commercial-business/pdfs/CON_13223_Data_Center_Brochure.pdf (last visited Mar. 25, 2025).

[142] Constellation, *Constellation Applauds President Trump's Comments on AI and Energy* (Jan. 24, 2025), https://www.constellationenergy.com/newsroom/2025/constellation-applauds-president-trumps-comments-on-ai-and-energy.html.

[143] *See, e.g.*, Constellation Complaint, Ex. 5, at P 3 ("Constellation is considering selling power to load co-located at various of its nuclear generating stations, including at LaSalle.").

[144] *Id.* at PP 3–4.

[145] Constellation, *Data Centers*, https://www.constellation.com/solutions/for-your-commercial-business/emerging-technology/data-centers.html (last visited Mar. 25, 2025); Constellation, *Applied Technology*, https://www.constellationenergy.com/our-work/innovation-and-advancement/applied-technology.html (last visited Mar. 25, 2025).

[146] Constellation, *The Benefits of Co-Locating Data Centers at Nuclear Energy Facilities*, https://www.constellationenergy.com/content/dam/constellationenergy/landing-pages/public-policy/CEGDataCenterFactSheet.pdf (last visited Mar. 25, 2025).

[147] *Gulf States Utils.*, 411 U.S. at 758.

the development of the industry along uneconomic lines"[148]—ignores the issue entirely. The danger to consumers and competition demands more from a public utility in "the business of transmitting and selling electric energy for ultimate distribution to the public [that] is affected with a public interest."[149]

The transaction likely magnifies Constellation's incentive to withdraw its nuclear generators from PJM wholesale markets to sell electricity directly to new data centers.[150] Such withdrawal would likely harm the public interest by raising prices, harming competition, worsening reliability, and increasing pollution caused by generators dispatched in PJM energy markets. And it gets worse: the nuclear plants' withdrawal would make the supply curve in PJM energy markets even more inelastic and reduce excess supply. The increased inelasticity and reduced supply would heighten the ability and incentive of all utilities—including Constellation, with the assets it currently owns and those it seeks to acquire—to profitably withhold, to demand uncompetitively high prices, and to coordinate conduct. The independent market monitor has been warning of the dangers to the public interest since well before Constellation filed its Application.[151] Yet Constellation presents no evidence or argument on the transaction's exacerbation of its

[148] S. Rep. No. 621, at 50 (1935).

[149] 16 U.S.C. § 824(a).

[150] Of course, there are additional considerations that will also affect Constellation's decision on whether and to what extent to withdraw its generators from PJM wholesale markets. For instance, the Commission's decision in the currently pending co-location proceeding, Docket No. EL25-49, will likely impact Constellation's decision. PPC Protestors do not assert, and the Commission need not find, that the proposed transaction is the sole incentive. As discussed herein, the transaction likely provides a meaningful incentive for the withdrawal. And, for the reasons also discussed herein, Constellation's withdrawal of nuclear generators likely harms the public interest.

[151] *See, e.g.*, Monitoring Analytics, LLC, *State of the Market Report for PJM: January Through September*, at 2–4 (Nov. 14, 2024) (explaining, *inter alia*, that "[i]f the co-located load model were extended to all the nuclear plants in PJM, the impact on the PJM grid and markets would be extreme").

incentive and propensity to withdraw the nuclear generators, or on the likely public harms that would follow.

Constellation's magnified incentive to withdraw the nuclear generators is likely for at least two reasons. First, Constellation's newly acquired resources still selling in wholesale markets benefit from increased market prices following the drawdown in supply. This magnified incentive occurs at the system-wide level, as withdrawal of one or more nuclear generators will tend to push up capacity and energy prices across PJM, benefitting all of Constellation's resources selling in the wholesale markets.

The likely magnified incentive also applies in more local areas near the nuclear generators. Through the transaction, Constellation would acquire large generators in the same transmission zones as nuclear generators Constellation is considering withdrawing from PJM. These include the ComEd zone and the PECO zone. The new assets will likely benefit from higher LMPs caused by congestion and other changes precipitated by the withdrawal.[152]

The second reason for the magnified incentive regards the planned divestiture. The nuclear plants' withdrawal, or an announcement by Constellation of firm plans to withdraw the plants, would raise market participants' expectations of going-forward prices. This would enable Constellation to obtain a higher price for the generators it later divests. Thus, withdrawal increases Constellation's earnings and, as a consequence, the transaction magnifies Constellation's incentive to withdraw nuclear generators. According to one industry advisor, permanent and temporary mitigation measures are "key" to assuring that divestiture counterparties will not "rationally anticipate higher market prices going forward" and assuring that divestitures "are not infected by any market power the merged company otherwise may be presumed to have." That was the

[152] *See* Attachment A at 6–7.

opinion of Constellation's consultant in its 2011 merger with Exelon.[153] The same consultant says nothing on the subject here.[154]

And the market context described above in section III.C.1 magnifies Constellation's incentive to withdraw as it did for Constellation's incentive to withhold. For instance, supply curve inelasticity will result in greater price increases, while demand inelasticity and barriers to entry will make these more durable.

The consequences detrimental to the public interest are likely because of the nuclear generators' characteristics. The generators have low, generally flat marginal costs. They are therefore typically in a lower part of the supply curve and, if not on outage, typically are constantly generating power. They do not generally cause emissions of air pollutants. And they provide reliability benefits, including inertia.[155]

Withdrawal of nuclear generators will take those attributes from the PJM market. Reliability metrics in PJM may worsen.[156] In at least the near- to mid-term, PJM will likely need to more frequently use higher-cost resources to meet demand. And because those higher-cost resources are typically fossil-burning resources with stepwise supply curves, the portions of the PJM supply curve frequently used to meet demand will likely become more inelastic, exacerbating

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[153] Constellation–Exelon 2011 Merger Application, Ex. J-1 at 12–16.

[154] Application, Ex. J.

[155] *See, e.g.*, Paul Denholm et al., Nat'l Renewable Energy Lab., NREL/TP-6A20-73856, *Inertia and the Power Grid: A Guide Without the Spin*, at v (May 2020), https://www.nrel.gov/docs/fy20osti/73856.pdf.

[156] *See, e.g.*, *PJM Interconnection, L.L.C.*, 190 FERC ¶ 61,115, at PP 30–36 (2025) (discussing comments on potential reliability impacts from co-location of large loads with generators); Statement of Howard Gugel, N. Am. Elec. Reliability Corp., Docket No. AD24-11-000, at 1 (Nov. 1, 2024), Accession No. 20241104-4014 (discussing potential reliability risks and benefits).

market participants' ability to exercise market power and commit market abuses. For the same reason, emissions from the PJM grid will likely increase.

Moreover, those impacts will affect local markets in different ways. Populations located near fossil-burning peakers will suffer even greater emissions and harms to human health as these generators are more frequently dispatched. Congestion and other transmission constraints will change, affecting local reliability, local prices, and competition and concentration among utilities in local markets.[157] Local, regional, and interregional transmission infrastructure will likely need to change, further increasing the cost burden on consumers.

It is not consistent with the public interest to provide Constellation a financial incentive to take actions that cause those consequences, yet that is what the proposed transaction likely does. The value in capacity, energy, and ancillary services markets of Constellation's remaining generators on the PJM grid—including generators seeks to acquire in the proposed transaction—will likely increase after withdrawal. That applies to the generators Constellation intends to hold and the generators Constellation plans to divest.

Constellation's agreement with the independent market monitor does not allay the concern. The agreement arguably does not prevent withdrawal of nuclear generators from PJM, as it provides for Constellation to be subject to the same terms as any other PJM market participant

[157] PPC Protestors do not have access to non-public data necessary to fully study these effects. But PPC Protestors' burden is not to demonstrate with specificity the harms. It is the Applicants' burden to demonstrate the transaction will be consistent with the public interest. And it is the Commission's duty to decide the statutory question. The Commission has access to data through Order No. 760 and via data requests. Other entities, like the independent market monitor for PJM, can also model these and related issues upon Commission request. In addition, the Commission can hold a technical conference to develop the issue.

regarding co-location of load with generation.[158] And utilities co-locating their generator with data centers require oversight because they can try to game the requirements.[159]

Moreover, in approving the Constellation-Exelon merger, the Commission specifically highlights that concerns about withholding-by-retirement were allayed by the agreement.[160] Those concerns are similar to the increased risk here of withdrawing the nuclear generators because of the transaction. But unlike the prior merger, Constellation leaves the issue unaddressed.

Also, other utilities are not subject to Constellation's agreement with the independent market monitor. As excess capacity tightens and the supply curve gets more inelastic following a withdrawal by Constellation of the nuclear generators, other utilities can offer to supply needed power at increasingly high prices. Market-clearing prices will likely rise, whether or not caused by exercises of market power. Because of these higher prices, Constellation's generators will tend to more frequently be marginal and inframarginal. Constellation's earnings in PJM markets will thus likely increase by withdrawing the nuclear generators. Those earnings will be greater if the transaction is approved, because Constellation will have more marginal and inframarginal generators. Consequently, the proposed transaction exacerbates Constellation's incentive to withdraw the nuclear generators regardless of the agreement with the market monitor.

Constellation has sometimes justified the harmful consequences of withdrawing the nuclear generators by arguing that the consequences will occur whether the data centers become part of the PJM grid or Constellation withdraws the nuclear generators.[161] That argument is wrong

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[158] Constellation-IMM Agreement at § 1(d).

[159] *See, e.g.*, *Stronghold Digital Mining Inc.*, 190 FERC ¶ 61,059, at P 18 (2025) (noting that utility admits breaching its coal-burning plant's must-offer obligation in PJM in connection with operating a co-located Bitcoin mining facility).

[160] *Exelon*, 138 FERC ¶ 61,167, at PP 93–94, 100.

[161] *See, e.g.*, Constellation, *supra* note 146, at 2.

because it ignores, at minimum, the local incentives to withdraw brought about by the transaction discussed above. That is a competition concern. It also ignores the local impacts caused by withdrawal. Even if Constellation were to know that the data centers will become part of the PJM grid, the local consequences described above will differ based on where the data centers locate. That is a rates concern.

The local impacts of Constellation's post-transaction incentive to withdraw the nuclear generators implicate the Commission's duty to protect competition, consumers, rates, and the public interest. These impacts are a sufficient basis on which to block the transaction. Alternatively, to address these impacts, the Commission could investigate the local impacts on rates and competition, then seek to impose a variety of structural and behavioral conditions to guard against harm to the public interest. Such an approach, however, is complex, and there is an easier, more effective way: as discussed further in section III.D, if the Commission does not block the transaction, the Commission should condition its approval on Constellation not withdrawing the nuclear generators from PJM markets until Constellation adds sufficient generation of similar or lower marginal cost. This would help to counteract the worsening of prices and of supply curve inelasticity caused by the nuclear plants' withdrawal. It would also ensure the divestiture is not "infected" with market participants' expectations of higher going-forward prices, as Applicants' consultant once recommended.[162]

"Antitrust laws . . . are the Magna Carta of free enterprise."[163] Constellation may want to sell power to data centers (or maybe not), and some policymakers consider rapid data center growth salutary (and others do not). But businesses' freedom to compete in PJM, and consumers'

[162] Constellation–Exelon 2011 Merger Application, Ex. J-1 at 12–16.

[163] *United States v. Topco Assocs., Inc.*, 405 U.S. 596, 610 (1972).

protection from monopoly rents in the PJM footprint, "cannot be foreclosed with respect to one sector of the economy because certain private citizens or groups believe that such foreclosure might promote greater competition in a more important sector of the economy."[164] The Commission must block or condition the transaction to prevent harm to the public caused by the transaction's increased incentive to withdraw nuclear generators from PJM markets.

3. The Transaction Is Likely to Increase Constellation's Ability, Incentive, and Propensity to Insist on Uncompetitively High Prices as a Pivotal Supplier.

The transaction is likely to increase Constellation's ability and incentive to insist on uncompetitively high prices as a pivotal supplier. A pivotal supplier is an entity whose supply is required in order to meet demand.[165] When it is a pivotal supplier in the aggregate energy market, Constellation can demand uncompetitively high prices to produce electricity from one of its new generators, raising prices that benefit its resources and financial bets. And in local markets, the market monitor observes unit owners can exercise market power even when they should be mitigated.[166]

Top suppliers are frequently pivotal in the aggregate PJM energy markets, where the market monitor has not been provided the ability to mitigate.[167] The aggregate day-ahead market in PJM was not competitive on roughly half (49.5%) of days in 2024, with high concentration among peaking units, moderate concentration among intermediate units, and the possibility of pivotal

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[164] *Id.*

[165] *See* PJM Manual 11 at § 3.2.7.6; Howard Haas, Monitoring Analytics, *Overview of Three Pivotal Supplier Test*, at 3 (Dec. 4, 2015), https://www.monitoringanalytics.com/company/docs/IMM_MMUAC_Overview_of_Three_Pivotal_Supplier-Test_20151204.pdf.

[166] 2024 PJM State of the Market at 9–10, 24–25.

[167] *Id.*

suppliers in the aggregate market even when the statistical screen does not show high concentration.[168] In fact, in the aggregate market, all of the top ten pivotal suppliers were jointly pivotal with two other suppliers on at least 79 days in 2024, and the number rises to 145 days for the top five pivotal suppliers.[169] The number of jointly pivotal suppliers in the aggregate market rises rapidly on days with peak load above 100 GW.[170]

The pivotal supplier issue in the aggregate PJM market is not some academic issue the Commission can ignore in this proceeding. In 2024, pivotal suppliers in the aggregate market set real-time market prices with *markups over $100/MWh on 88 days*.[171]

In these circumstances, and in light of the present and foreseeable market context discussed in section III.C.1 and Constellation's potential withdrawal of nuclear generators discussed in section III.C.2, the proposed transaction likely magnifies Constellation's ability and incentive to insist on uncompetitively high prices as a pivotal supplier. The transaction would add a number of peaking and intermediate resources to Constellation's portfolio, most of which are in eastern PJM states that have historically experienced congestion.[172]

Constellation's agreement with the PJM market monitor does not allay the concerns. The agreement arguably lacks a must-offer requirement in the energy markets for the full capacity of non-nuclear units, allowing for physical withholding, and arguably does not restrict Constellation's pricing in energy markets of non-peaker and non-nuclear generators, allowing for economic

[168] *Id.* at 9.

[169] *Id.* at 226, Tb. 3-94.

[170] *Id.* Fig. 3-57

[171] *Id.* at 25.

[172] Attachment A at 5–6.

withholding of generators like gas-burning intermediate generators.[173] Moreover, the agreement ends in May 2032, and may prevent the market monitor from seeking renewal of the agreement.[174] Additionally, as a behavioral remedy, the agreement requires monitoring to ensure compliance and is subject to both gaming and good-faith disagreements over the meaning of its terms (*e.g.*, whether a particular resource is properly classified as a peaker).[175]

The Commission must block or condition the transaction to prevent harm to the public interest.

4. The Transaction Is Likely to Increase the Risk of Coordination.

Market participants can harm competition and consumers by coordinating their activities.[176] Coordination can be active or tacit.[177] And partial, even non-controlling ownership interests in competitors heightens the concern.[178] Section 203 specifically, and the Federal Power Act generally, are concerned with such conduct.[179] Where coordination is reasonably likely following a merger or acquisition, or where the applicant fails to show it is not reasonably likely, the Commission must block the transaction or impose conditions to prevent the coordination.[180]

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[173] *See* Constellation-IMM Agreement § 1(b).

[174] *See id.* § 2.

[175] *See* FERC, *supra* note 135 (collecting enforcement actions).

[176] *See, e.g.*, 2023 Merger Guidelines at 3, 8–10; 1992 Merger Guidelines at 17–21.

[177] 2023 Merger Guidelines at 8; 1992 Merger Guidelines at 17.

[178] *See* 2023 Merger Guidelines at 28–29; Reply Comment of U.S. Dep't of Justice Antitrust Div. & Fed. Trade Comm'n, Docket No. AD24-6-000, at 7 n.35 (Apr. 25, 2024) (discussing potential anticompetitive effects from common ownership due to incentives alone and collecting recent legal and economic scholarship).

[179] Filing Requirements Rule, 65 Fed. Reg. at 70,989; Order No. 697, 119 FERC ¶ 61,295, at P 69 ("[T]he Commission believes that the ability of market participants to exercise market power through "coordinating behavior" is a legitimate concern under the FPA, in addition to the fact that it has long been recognized by the antitrust authorities.").

[180] 16 U.S.C. § 824b(a)(4), (b).

Applicants do not meet their burden to affirmatively show such coordination is not reasonably likely. Applicants present concentration statistics and make arguments about which corporate entity can control the other.[181] The Applicants do not, however, address whether the proposed transaction would change the incentives of Constellation, its post-transaction owners, and other utilities to coordinate or compete. Applicants also do not address their access to competitively sensitive information. And instead of providing required information that would allow the Commission and intervenors to assess this issue, Applicants ask the Commission to waive its requirements, again without providing the requisite argument or evidence for such waiver.

Following the transaction, Constellation would be partially owned by two new entities: Energy Capital Partners (ECP) and Access Industries Holdings (AI Holdings).[182] According to Applicants, ECP and AI Holdings will each own up to 9.99% of Constellation.[183] Both ECP and AI Holdings would be locked in to their stake in Constellation until June 30, 2026, at which half the shares remain locked up for yet another year.[184]

Applicants assert that Constellation will not be affiliated with those new owners.[185] Applicants ground this assertion on the propositions that each new owner will hold less than 10%

[181] Application at 4–8, 37–39.

[182] *Id.* at 4.

[183] *Id.*

[184] Constellation Energy Corp., Current Report (Form 8-K), item 1.01 (Jan. 10, 2025), https://www.sec.gov/ix?doc=/Archives/edgar/data/0001868275/000186827525000011/ceg-20250110.htm.

[185] Application at 4.

of voting securities, that neither will have the right to appoint a board member, and that neither will be able to control Constellation.[186]

Applicants' assertion of a lack of affiliation between Constellation and its owners cannot, of course, rely on the ordinary meaning of the term affiliate. The assertion relies on a legal fiction.

However, the Commission's section 203 review must turn on fact. ECP and AI Holdings will have an interest in Constellation's earnings. Constellation's stock price directly reflects its financial performance—and expectations of its financial performance—in Commission-jurisdictional markets. For example, Constellation's stock price closed at $168.69 on July 30, 2024.[187] PJM released its record-setting 2025–2026 capacity auction results that day[188] and, when the stock opened for trading on July 31, the price jumped to $193.28, a 15% rise.[189] Allowing Energy Capital Partners to hold the Constellation voting shares aligns ECP's financial interest in Constellation's ongoing financial performance, which raise fundamental market power and market competition concerns.

Indeed, ECP reports that its stake in Constellation is an important part of the deal and is "in this case very excited to take a lot of stock here."[190] Consequently, ECP and AI Holdings will have

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[186] *Id.*

[187] Yahoo! Finance, *Constellation Energy Corporation (CEG)*, https://finance.yahoo.com/quote/CEG/history/ (last visited Mar. 25, 2025).

[188] PJM Interconnection, L.L.C., *PJM Capacity Auction Procures Sufficient Resources to Meet RTO Reliability Requirement: Tighter Supply/Demand Balance Drives Higher Pricing Across the Region* (July 30, 2024), https://www.pjm.com/-/media/DotCom/about-pjm/newsroom/2024-releases/20240730-pjm-capacity-auction-procures-sufficient-resources-to-meet-rto-reliability-requirement.ashx.

[189] Yahoo! Finance, *supra* note 187.

[190] Sam Hillier, Transacted, *Energy Capital Partners Nets 4x Return on Calpine Sale to Constellation* (Jan. 22, 2025), https://www.transacted.io/energy-capital-partners-nets-4x-return-on-calpine-sale-to-constellation.

an incentive to take actions *separate from Constellation* to benefit their Constellation stake, including capacity withholding or other anti-competitive actions that would lift Constellation's share price. And Constellation will have reason to act for the benefit of its owners, whether or not those owners can directly control Constellation. Moreover, because of the proposed transaction, it is possible both Constellation and its owners may obtain access to nonpublic and competitively sensitive information from each other; Applicants omit whether this will occur from their arguments about affiliation. The Commission must incorporate the firms' interests and abilities into its review of the proposed transaction.

ECP may be able to exercise horizontal market power by withholding or withdrawing generation. ECP, which already owns energy storage assets in PJM through its Convergent Energy and Power subsidiary, is seeking Commission approval to acquire a controlling stake in four generators in PJM.[191] The generators are coal-burning and gas-burning generators located in Ohio and Indiana.[192] If the transaction is approved, Applicants report, ECP will control 5,248 MW of generation capacity in PJM.[193] Consequently, for instance, ECP may physically or economically withhold the gas-burning generators to raise prices that benefit generators owned by Constellation (and generators ECP owns). Or, alternatively, ECP may attempt to withdraw some generators from PJM to sell power to large loads, another step that would raise prices and benefit its stake in Constellation. Applicants present no evidence or argument that these are not reasonable likelihoods. The Commission must review these possibilities to determine whether they are likely

[191] Darby Application at 1.

[192] *Id.* at 9–11.

[193] Application at 13.

to threaten the public interest for the same reasons it must examine Constellation's ability to withhold and withdraw Constellation's own generation.

The Commission must also examine potential lessening of competition based on vertical market power and vertical integration. AI Holdings has investments and ownership in technology firms that purchase or seek to purchase large amounts of power for data centers, including Amazon, Facebook, and others.[194] Moreover, the Vanguard Group, Inc. (Vanguard) owns more than 10% of Constellation and could own up to 20%.[195] Vanguard is a large asset manager, with funds focused on technology and data centers.[196] Applicants, however, do not address their owners' affiliation with large loads, or the possibility that their owners or affiliates hold interests in upstream energy firms. Instead, Applicants disclaim the need to reveal their potential owners' involvement beyond electric generation, electric transmission, inputs to electric power production, and franchised public utilities in the United States.[197] But the owners' affiliation with large loads, for instance, may provide incentive and ability for Constellation to withdraw its nuclear generators from PJM to sell power to large loads owned by firms that themselves are owned, in whole or in part, by Constellation's owners. As discussed above in section III.C.2, such withdrawal is likely to harm competition in PJM. Moreover, even if the owners cannot control Constellation, they can exert influence. To protect the public interest, the Commission's review should extend beyond the confines Applicants seek to impose. The Commission should ascertain whether, following the

[194] Access Technology Ventures, https://www.accessindustries.com/technology-ventures (last visited Mar. 25, 2025).

[195] Application at 5.

[196] *See, e.g.*, Vanguard, DTCR, https://investor.vanguard.com/investment-products/etfs/profile/dtcr (last visited Mar. 25, 2025).

[197] Application at 7 n.10.

transaction, Constellation's post-transaction owners' interests will threaten the public interest, and incorporate its findings into blocking or conditioning the proposed transaction.

Additionally, certain factors point toward a reasonable likelihood that the transaction will magnify active or tacit coordination among Constellation and other utilities, whether or not the utilities are affiliated with Constellation. Factors that demonstrate whether a transaction is likely to meaningfully increase the risk of coordination include a trend toward increasing market concentration, the market observability, information sharing among competitors, the homogeneity of products, the costs to switch suppliers, and the profitability of coordination.[198] All of those factors are present in the PJM energy market: market participants are consolidating with Commission approval;[199] the PJM energy market is essentially a repeated game (in the game theory sense) in which participants can observe and infer many details facilitating coordination; generators participate in trade associations and stakeholder discussions; electric energy is homogenous; there are no switching costs in the centrally dispatched market; and congestion and even small price increases can benefit a wide swath of generators supplying electric energy at the price. There are, to be sure, factors in the energy market that may cut against such coordination, like the interests of an FTR holder harmed by congestion, or a generator on the cheaper side of a congested line. Applicants, however, address none of these issues, relying solely on their concentration statistics. Indeed, as already noted, Applicants argue that congestion in eastern PJM is infrequent. Applicants' concentration statistics do not meaningfully address the likelihood of

[198] 2023 Merger Guidelines at 8–10.

[199] *Chalk Point Power*, 189 FERC ¶ 61,042, at PP 28–32; *ECP ControlCo*, 188 FERC ¶ 61,109, at PP 25–28; *Energy Harbor*, 186 FERC ¶ 61,129, at PP 71–72, 93–97, 126–29. Moreover, Energy Capital Partners, a would-be partial owner of Constellation after the proposed transaction, is currently seeking approval for further consolidation on top of its 2024 approval. Darby Application at 1.

coordination in light of these factors, and they do not propose mitigating conditions to address the risk.

So that the Commission and intervenors may assess those and other risks, section 203 applicants must file a "*complete* application."[200] Commission regulations specify the information that must be included in section 203 applications.[201] Applicants must, among other things, submit a "complete list" of all energy subsidiaries and all energy affiliates; identify the percentage ownership in each such subsidiary and affiliate; provide pre- and post-transaction organizational charts showing all parent companies, all energy affiliates, and all energy subsidiaries, unless the applicants demonstrate that the transaction affects no party's corporate structure; describe all current and planned joint ventures, strategic alliances, and business arrangements, unless the applicants demonstrate that the transaction does not affect the applicants' business interests; and describe wholesale power customers served by the applicants and their parent companies, subsidiaries, affiliates, and associate companies.[202] The information is meant to add accuracy, certainty, efficiency, and focus to the Commission's review, increase transparency to utilities' combination efforts, and provide intervenors notice and a meaningful opportunity to be heard.[203]

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[200] 1996 Policy Statement, 61 Fed. Reg. at 68,605 (emphasis in original).

[201] 18 C.F.R. § 33.2.

[202] *Id.* § 33.2(c)–(d); Filing Requirements Rule, 65 Fed. Reg. at 70986–88.

[203] *See* Filing Requirements Rule, 65 Fed. Reg. at 70,985–86; 1996 Policy Statement, 61 Fed. Reg. at 68,596; *Refinements to Policies & Procs. for Mkt.-Based Rates for Wholesale Sales of Elec. Energy, Capacity and Ancillary Servs. by Pub. Utils.*, Order No. 816, 153 FERC ¶ 61,065, at PP 324, 332 (2015); *see generally* U.S. Dep't of Just. & Fed. Trade Comm'n, *Commentary on the Horizontal Merger Guidelines*, at 3 (Mar. 2006), http://www.justice.gov/atr/public/guidelines/215247.pdf (explaining that merger analysis requires "using data, documents, and other information obtained from the parties, their competitors, their customers, databases of various sorts, and academic literature or private industry studies").

Applicants have not provided the information required by regulation and necessary for the Commission and the public to review the proposed transaction. Rather, they ask the Commission to waive its regulations regarding, *inter alia*, affiliates, subsidiaries, organizational charts, joint ventures, strategic alliances, business arrangements, and jurisdictional facilities.[204]

The Commission generally applies the "good cause shown" standard to requests for waiver of Commission regulations.[205] An applicant fails the standard, for instance, when it does not explain why it is unable to provide information other applicants provide and does not cite Commission precedent supporting its request.[206] In the section 203 context, the Commission specifically emphasizes the limited situations in which waiver is appropriate and stresses the need for applicants to support why they do not believe the Commission needs the information.[207]

Applicants offer little-to-no supporting argument and evidence for the requested waivers. They state that Energy Capital Partners and AI Holdings—two would-be owners of Constellation following the transaction—will not hold a controlling interest in Constellation.[208] They also state that neither of the would-be owners will be affiliated with Calpine after the transaction.[209] And they aver that the information required by Commission regulations is not relevant to the Commission's review.[210]

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[204] Application at 4–8, 37–39.

[205] *See, e.g.*, *S. Nat. Gas Co., L.L.C.*, 187 FERC ¶ 61,122, at P 21 (2024).

[206] *Id.*

[207] Filing Requirements Rule, 65 Fed. Reg. at 70,988 (providing as an example of a waiver request "a demonstration that the proposed transaction does not affect the corporate structure of any party to the transaction").

[208] Application at 4–8, 37–39.

[209] *Id.*

[210] *Id.*

This is insufficient to meet the Commission's good cause standard. The Applicants do not adequately explain or provide sufficient evidence to support the assertion that neither Energy Capital Partners nor AI Holdings will hold a controlling interest.

The Commission needs the information to understand the ability, incentive, and propensity to exercise market power of the Applicants, Energy Capital Partners, AI Holdings, and other identified and unidentified affiliates. Similarly, the Commission needs the information on strategic alliances and business arrangements to determine whether the transaction will have an adverse impact on competition, rates, and the public interest. And without the information, intervenors are denied adequate notice and a meaningful opportunity to be heard. For instance, in light of Energy Capital Partners' attempt to obtain a controlling interest in generators in the PJM footprint, intervenors and the Commission cannot adequately review the potential anticompetitive effects of Energy Capital Partners' interest in the proposed transaction without the information for which Applicants seek waiver. Moreover, as Constellation is engaged in efforts to sell power to large loads like data centers, the Commission and public must be able to ensure that the transaction does not harm rates, competition, and the public interest. Additionally, examination of the business arrangements may reveal that the proposed transaction lessens competition in California by disincentivizing Constellation from entering a market where Calpine is a participant.

The Commission should require Applicants to provide the information.[211] And the Commission should block or condition the transaction to prevent Constellation, its would-be owners, and other utilities from harming the public interest through coordination.

[211] 18 C.F.R. § 33.2(c)–(d). The Commission adopted the section 203 filing requirements pursuant to notice-and-comment procedures. *See* Filing Requirements Rule, 65 Fed. Reg. at 70,984. Applicants cannot avoid the requirements through a Commission adjudicatory decision. 5 U.S.C. § 551(5); *Perez v. Mortg. Bankers Ass'n*, 575 U.S. 92, 101 (2015).

5. The Transaction Is Likely to Provide Constellation Too Much Influence Over the PJM Stakeholder Process.

The public interest standard in section 203 is not limited to financial considerations and allocational efficiency.[212] Congress passed section 203 and the Federal Power Act to guard against utility concentrations "inimical to the functioning of democratic institutions and the welfare of a free people."[213]

The proposed transaction would likely increase Constellation's bargaining power in, among other places, the stakeholder process in PJM and other organized markets. "[S]takeholder voting and participation are primary ways that PJM's market rules are developed and revised."[214] With increased control of resources in the PJM footprint and more resource-owning subsidiaries, Constellation will likely be better able to shape decisions at PJM in its favor. For example, Constellation may gain voting power in lower-level standing committees and senior task forces meetings,[215] which influence what issues are ultimately brought before the Members Committee

[212] *See, e.g.*, *Gulf States Utils.*, 411 U.S. at 757–59 (explaining that the public interest standard in section 204 and adjacent sections is broad and not restricted to financial considerations).

[213] S. Rep. No. 621, at 55 (1935); *see Gulf States Utils.*, 411 U.S. at 758.

[214] FERC Office of Public Participation, *An Introductory Guide for Participation in PJM Processes*, https://www.ferc.gov/introductory-guide-participation-pjm-processes (last visited Mar. 25, 2025).

[215] *See* PJM Interconnection, L.L.C., *Membership in PJM* (Jan. 7, 2025), https://www.pjm.com/-/media/DotCom/about-pjm/newsroom/fact-sheets/pjm-membership-fact-sheet.pdf ("Affiliate Members also can participate in the competitive wholesale electricity market. They are in the same corporate family of companies as Voting Members and have voting rights at senior task force and lower-level standing committee meetings. However, Affiliate Members do not have voting rights at Members Committee and Markets and Reliability Committee meetings.").

and Markets and Reliability Committee.[216] The probable result is harm to other generators competing with Constellation and harm to buyers of wholesale electric power.

The Commission "must be chary about permitting corporate agreements which limit the nature of the proposals submitted to the Commission."[217] The Commission has previously conditioned mergers to prevent a utility from wielding too much influence in a stakeholder process.[218] As in that case, the additional power Constellation would obtain in the stakeholder process is inconsistent with the public interest. The Commission must therefore block or condition the transaction to prevent Constellation from wielding too much influence over the PJM stakeholder process.

D. The Commission Must Block the Transaction, or Impose Significant Structural and Behavioral Conditions.

In light of the transaction's dangers to consumers, competition, and the public interest, the Commission must block the transaction insofar as the transaction pertains to the PJM footprint. And once Applicants provide the necessary information discussed above, it may be apparent that additional aspects of the transaction must be blocked.

If the Commission does not block the transaction, the Commission must at least impose significant conditions. PPC Protesters identify here the necessary conditions known today, again subject to the possibility that additional information will reveal the need for additional conditions.

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[216] *See* PJM Interconnection, L.L.C., *Oversight and Transparency* (Feb. 13, 2025), https://www.pjm.com/-/media/DotCom/about-pjm/newsroom/fact-sheets/oversight-and-transparency-fact-sheet.pdf.

[217] *N. Nat. Gas*, 399 F.2d at 961.

[218] *N.E. Utils. Serv.*, 993 F.2d at 950–51.

The Commission must impose structural conditions. Structural conditions are more effective and less costly to enforce than behavioral conditions.[219]

First, the Commission must require Constellation to divest all the Calpine peakers and combined cycle units in PJM as a condition of approval. This will significantly reduce Constellation's ability and incentive to withhold supply and harm the public interest. Remedies short of divestiture, such as quasi-must offer requirements with bid caps, are insufficient to protect the public interest. As the Commission knows, utilities are regularly manipulating the market and violating RTO tariffs' must-offer requirements.

Second, the Commission must also condition its approval on Constellation not withdrawing a nuclear generator from PJM energy and capacity markets until Constellation adds new generation of the same capacity with the same or lower marginal cost. The new generation would dampen the price increase and the worsening of the inelasticity of the market supply curve caused by the withdrawal. The new generation's electric energy must be regularly deliverable to the same zone as the nuclear generator it would replace.

Third, the Commission should condition any approval on Constellation making a substantial investment in increasing demand elasticity by, for instance, funding residential smart meters, residential storage, community storage, and other such measures for the most energy-burdened residential customers (*i.e.*, those end-use customers whose energy bills are highest as a share of income) in PJM states that Constellation holds most of its generation capacity. Increased

[219] Utilities regularly game behavioral conditions. *See, e.g.*, *Stronghold Digital Mining Inc.*, 190 FERC ¶ 61,059, at P 18 (noting that utility admits breaching its coal-burning plant's must-offer obligation in PJM in connection with operating its co-located Bitcoin mining facility); FERC, *supra* note 135 (collecting Commission enforcement decisions and settlements in 2024, and including links for other years). Behavioral conditions are also subject to good-faith disagreements over their terms.

demand elasticity can counteract increases in market power from a merger. The size of the necessary investment is inversely proportional to the stringency with which the Commission imposes the other conditions identified here, and is further dependent on the information the Commission must obtain from the Applicants.

Fourth, the Commission should also impose behavioral conditions that extend and expand Constellation's current agreement with the PJM independent market monitor. The agreement should be extended indefinitely, and at least until 2040, until Constellation shows in a public proceeding before the Commission that the market conditions permitting and exacerbating its market power (insufficient transmission capacity, limited storage availability, inelastic demand, inelastic supply, entry barriers from fixed costs and interconnection queues, absence of mitigation authority in the aggregate energy market, and inadequate mitigation in local markets) are gone or sufficiently reduced. Additionally, the agreement should be expanded to cover the full capacity of all of Constellation's resources participating in PJM energy and capacity markets, with ongoing and active monitoring by the PJM independent market monitor at Constellation's expense, and with offer caps and offer parameters that update to reflect the most stringent caps deemed acceptable by the PJM independent market monitor as reflected in regular public reports to the Commission.

Fifth, the Commission must condition any approval on a relinquishment by Constellation of additional voting interests it would obtain as a result of the transaction. And once Constellation provides the further information identified above, additional such conditions may be necessary.

Sixth, the Commission must require that ECP not retain an interest or ownership in Constellation. Otherwise, ECP will retain an incentive to benefit its stake in Constellation by exercising market power. That is unjust, unreasonable, and inconsistent with the public interest.

Whether the same condition must be applied to other would-be owners of Constellation depends on the information the Commission must obtain from the Applicants.

Seventh, and related to the second condition, the Commission must impose divestiture conditions sufficient to protect the public interest. That includes, for the reasons stated in section III.C.2, the restriction on nuclear generator withdrawal. The necessary divestiture conditions are further subject to the information the Commission must obtain from Applicants.

Finally, Applicants do not propose rate protections beyond divestiture of a few resources and interim mitigation, even though, as discussed in this Protest, the proposed transaction risks increased power prices. Moreover, PPC Protestors are aware of no efforts by Applicants to build consensus before their filing, and the Application does not cite any such efforts. Commission policy directs Applicants to propose such protections and attempt to build consensus.[220] PPC Protestors stand ready to discuss with Applicants in a formal or informal process. The Commission should direct Applicants to propose rate protections and consider establishing a technical conference or other forum to discuss.

[220] 1996 Policy Statement, 61 Fed. Reg. at 68,596.

IV. Conclusion

Some proposed transactions "may result in firms that will dominate or manipulate electricity markets and thwart competition."[221] A transaction can exacerbate a utility's ability and incentive to raise market prices by withholding supply. It can also better position a utility to insist on uncompetitively high prices to meet demand. Or a transaction can further enable utilities to profitably coordinate their conduct. And two utilities engaged in vigorous competition can, through merger, ease their private struggle. The practices enrich utilities as higher prices are paid to generators and financial bets. Meanwhile, the practices harm consumers, damage competition, jeopardize reliability, and wreak havoc on markets. A transaction likely to lead to those practices will not be consistent with the public interest.

Applicants do not meet their burden to show their proposed transaction will be consistent with the public interest. Applicants forthrightly acknowledge that they designed their application "to easily pass the Commission's market power screens and provide a straightforward path for approval."[222] But in trying to easily pass the screen, Applicants present a flawed analysis that is insufficient to show the transaction will not harm competition, consumers, and the public interest.

PPC Protestors fill in the gaps left by Applicants and show the likely harms from the transaction. The transaction exacerbates the risks that Constellation will withhold supply to raise prices, will withdraw nuclear generators to raise prices, will insist on uncompetitively high prices when its supply is needed to meet demand, will coordinate with its would-be owners, will benefit from its would-be owners taking steps to raise Constellation's earnings, and will dominate PJM stakeholder processes. Each risk is a sufficient basis on which to block the transaction. Taken

[221] *Id.* at 68,599.

[222] Application at 3.

together, the transaction's likely harm is grave and Applicant's failure to demonstrate the contrary is apparent.

The Commission must block the transaction to prevent Applicants and their would-be owners from harming the public interest. If the Commission does not block the transaction, it must impose significant structural and behavioral conditions to protect the public interest. As more fully discussed in section III.D, the Commission must require:

1. Constellation to divest all the Calpine peakers and combined cycle units in PJM;
2. Constellation to add low-cost generation to PJM before it may withdraw the nuclear units;
3. Constellation to substantially invest in improving demand elasticity by funding projects benefitting energy-burdened consumers;
4. Constellation to extend and expand the behavioral conditions in its current agreement with the PJM independent market monitor;
5. Constellation to relinquish any additional voting interests it would obtain in PJM stakeholder processes;
6. Energy Capital Partners to not retain an ownership in Constellation; and
7. Other sufficient divestiture conditions

The Commission must also require Applicants to produce required information and afford PPC Protestors a meaningful opportunity to be heard. The conditions may need to be expanded once Constellation provides the information.

Respectfully submitted,

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Dated: March 25, 2025

CERTIFICATE OF SERVICE

I hereby certify that I have this day served by electronic mail a copy of the foregoing document upon the individuals on the official service list in this proceeding.

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Dated: March 25, 2025

Attachment A

Constellation Energy Group's Acquisition of Calpine Corporation

A review of market power impacts

Prepared for Public Citizen, PennFuture, and Clean Air Council

March 25, 2025

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CONTENTS

1. INTRODUCTION

On January 24, 2025, Constellation Energy Corporation and Constellation Energy Generation, LLC (together the "Constellation Applicants"), together with Calpine Corporation and its public utility subsidiaries (together the "Calpine Applicants"), jointly "the Applicants", filed an application before the Federal Energy Regulatory Commission for authorization for the Constellation Applicants to acquire the Calpine Applicants (the "Transaction"). Synapse Energy Economics, Inc. was retained by Earthjustice on behalf of Public Citizen, PennFuture, and Clean Air Council to assess the potential impacts of the Transaction on market power and market prices in PJM Interconnection, L.L.C. ("PJM").

2. APPLICANTS' EVALUATION OF MARKET IMPACTS

The Applicants engaged consultants to evaluate the competitive effects of the Transaction and determine whether it results in market power concerns. The Applicants' consultants performed a Competitive Analysis Screen to examine the horizontal market power effects of the Transaction. As part of the competitive analysis, the Applicants' consultants calculated the Herfindahl-Hirschman Index (HHI) to determine whether the post-transaction market in various regions would become more concentrated. According to the analysis, an increase in HHI above 100 in a moderately concentrated market or above 50 in a highly concentrated market would result in a "screen violation" and require further analysis, and potential mitigation, of market power concerns. However, as discussed below, this analysis is inadequate and obscures the fact that market power is already a concern in PJM and that it would be further exacerbated by the Transaction.

2.1. The HHI Metric is Not Sufficient to Determine whether the Transaction is Consistent with the Public Interest

Based on changes in the HHI for each market, the Applicants argue that the Transaction has no adverse effect on competition, as it would not result in any screen violations following the proposed divestiture of certain generating units in eastern PJM.[1] However, the HHI is a simplistic metric and is inadequate to determine whether a transaction is consistent with the public interest, in part because it does not account for the structure and complexities in regional energy markets, nor does it account for ownership of generation along the supply stack.

[1] The Applicants note that screen violations do occur under certain operating conditions in certain markets that the Commission has, in the past, recognized as submarkets. Application. Page 11.

The HHI has been widely criticized as misleading or inadequate because a market participant with a relatively small market share may still be able to exercise market power.[2] This is largely because HHI is a static measure of market concentration, while actual market conditions—such as demand, generation availability, and transmission constraints—can change rapidly. As a result, when demand approaches system capacity, a supplier can become pivotal and exert market power, even if their overall market share is relatively small.[3]

As noted by an economist at the U.S. Department of Justice, "[w]hat matters for figuring out whether a firm can exercise market power is not necessarily its overall market share, but a firm's ownership share of the various types of units along the industry supply curve at any instant."[4] In particular, the "combination through merger of inframarginal plus marginal capacity can lead to a post-merger price increase."[5]

Because market power can be exercised even when the HHI in that market has been calculated to be unconcentrated, additional analysis is required to determine whether the Transaction is consistent with the public interest.

3. FACTORS CONTRIBUTING TO THE ABILITY AND INCENTIVE TO EXERCISE MARKET POWER

In electricity markets, generating units are generally dispatched in merit order from the lowest to the highest marginal cost. The most expensive unit dispatched to meet demand—known as the *marginal unit*—sets the market clearing price for electricity in that hour. A merger or acquisition can increase market power if it enhances a supplier's ability and incentive to withhold generation from the market, thereby raising market clearing prices.

Withholding can take two forms: physical or economic.

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[2] U.S. Department of Justice and the Federal Trade Commission. Comments in Docket No. RM16-21-000. Modifications to Commission Requirements for Review of Transactions Under Section 203 of the Federal Power Act and Market-Based Rate Applications Under Section 205 of the Federal Power Act. November 28, 2016, at 3. Available at: https://www.justice.gov/atr/page/file/913741/dl?inline.

[3] Twomey, P.; Green, R.; Neuhoff, K.; and Newbery, D. A Review of the Monitoring of Market Power: The Possible Roles of TSOs in Monitoring for Market Power Issues in Congested Transmission Systems. MIT Center for Energy and Environmental Policy Research. March 2005, at 17. Available at: https://ceepr.mit.edu/wp-content/uploads/2023/02/2005-002.pdf

[4] Carlton, Dennis. Mergers in Regulated Industries: Electricity. Economic Analysis Group Discussion Paper. December 2007, at 2. Available at https://www.justice.gov/atr/public/eag/228709.pdf.

[5] *Id.,* at 5.

- Physical withholding occurs when a generation owner chooses not to offer all of its available capacity to the market, reducing supply and potentially increasing prices.
- Economic withholding occurs when a generation owner submits an offer price significantly above its true marginal cost, reducing the likelihood of dispatch and potentially increasing market clearing prices.

Several key factors must be considered in evaluating whether a merger or acquisition increases the ability and incentive for generation owners to withhold capacity: the supplier's resource portfolio, the location of those assets and the context of the market in which they operate, and (of increasing importance in present times) the potential co-location of assets with load.

3.1. Resource Profile

The first factor to consider is the supplier's pre- and post-transaction resource profile—the type and quantity of generation units the supplier owns. Generators are typically classified as baseload, intermediate, or peaking units. Usually:

- Baseload generators run almost continuously, serving the minimum level of demand on the electricity grid.
- Intermediate generators ramp up and down over the course of the day to meet fluctuating demand.
- Peaking generators are dispatched during periods of high electricity demand.

The composition of a supplier's portfolio determines both its ability to raise the market clearing price through physical or economic withholding and the extent to which it benefits from higher prices.

- Marginal units set the market clearing price in any given hour. Peaking units typically operate on the margin during periods of high demand, while intermediate units are often on the margin during periods of moderate demand.
- Inframarginal units do not set the market clearing price but benefit when prices rise. Baseload units are typically inframarginal, and intermediate units frequently are as well.

Critically, when a supplier owns substantial generation across the entire supply stack—both marginal and inframarginal units—it may have both a greater ability and incentive to exercise market power. In other words, a diverse resource portfolio spanning the full dispatch curve can pose a particularly significant risk to competition. A transaction that adds resources along the supply stack to a utility's resource portfolio, therefore, requires close inspection, as it may heighten the utility's ability and incentive to exercise market power.

As a result, changes in the type and number of generators in a supplier's portfolio can significantly affect its ability to exercise market power. The more marginal generation a supplier controls, the greater its

ability to influence market prices. The more inframarginal generation it owns, the more it stands to gain from elevated prices. And, to be sure, a utility can withhold inframarginal generation and affect the market-clearing price.

Applicants' Resource Profile

A list of the units that are affected by the merger are shown in Table 1 and Table 2, for Constellation and Energy Capital Partners/Calpine, respectively. Synapse has classified each of these units according to their position in the supply stack. Nuclear, coal, and hydro power units are classified as "Baseload" given their near continuous operations. Natural gas combined cycle units are classified as "Intermediate." Gas turbines and internal combustion engines are classified as "Peaking." Wind and solar are "Intermittent," while batteries and pumped storage hydro are classified as "Storage." The tables also list the submarkets that the Commission has historically considered as separate relevant markets due to transmission constraints.[6]

[6] As identified in Application Exhibit J Solomon-Opgrand Affidavit, at 16.

Table 1. Units owned by Constellation Energy

Market	Plant Name	Summer MW	State	Capacity Zone	Supply Position
PJM	Braidwood Generation Station	2,337.0	IL	COMED	Baseload
PJM	Byron Generating Station	2,300.0	IL	COMED	Baseload
5004/5005	Calvert Cliffs	1,707.8	MD	SWMAAC	Baseload
East	Conowingo	527.5	MD	EMAAC	Baseload
PJM	Dresden	1,778.5	IL	COMED	Baseload
PJM	LaSalle	2,264.4	IL	COMED	Baseload
East	Limerick	2,241.8	PA	EMAAC	Baseload
5004/5005	Peach Bottom	1,254.2	PA	EMAAC	Baseload
East	PSEG Salem Generating Station	1,007.9	NJ	EMAAC	Baseload
PJM	Quad Cities	1,364.3	IL	COMED	Baseload
PJM	Criterion Wind	70.0	MD	RTO	Intermittent
PJM	Fair Wind	30.0	MD		Intermittent
PJM	Fourmile Ridge Wind	40.0	MD	RTO	Intermittent
East	Chester Generating Station	39.0	PA	EMAAC	Peaking
East	Croydon CT	391.0	PA	EMAAC	Peaking
East	Delaware Generating Station	56.0	PA	EMAAC	Peaking
East	Eddystone Generating Station	60.0	PA	EMAAC	Peaking
East	Falls	51.0	PA	EMAAC	Peaking
PJM	Handsome Lake Energy	267.5	PA	MAAC	Peaking
East	Moser Generating Station	51.0	PA	EMAAC	Peaking
5004/5005	Perryman	294.0	MD	BGE	Peaking
5004/5005	Philadelphia Road	59.7	MD	BGE	Peaking
East	Richmond Generating Station	98.0	PA	EMAAC	Peaking
East	Schuylkill Generating Station	30.0	PA	EMAAC	Peaking
East	Southwark Generating Station	52.0	PA	EMAAC	Peaking
PJM	Clinton Battery	5.0	OH		Storage
East	Muddy Run	1,063.3	PA	EMAAC	Storage
Total		**19,440.9**			

Source: Merger Application. Exhibit SEC-3.

Table 2. Units owned by Calpine

Market	Plant Name	Summer MW	State	Capacity Zone	Supply Position
East	Bethlehem Units 1-7*	939.0	PA	PPL/MAAC	Intermediate
5004/5005	Bethlehem Unit 8*	195.0	PA	PPL/MAAC	Intermediate
East	Hay Road*	1,136.0	DE	EMAAC	Intermediate
5004/5005	York Energy Center 1*	569.0	PA	EMAAC	Intermediate
5004/5005	York Energy Center 2	835.0	PA	EMAAC	Intermediate
East	Calpine Vineland Solar	4.1	NJ	NA	Intermittent
East	Bayview	12.6	VA	DPL-SOUTH	Peaking
East	Christiana	50.0	DE	EMAAC	Peaking
East	Crisfield	10.4	MD	DPL-SOUTH	Peaking
East	Cumberland	186.9	NJ	EMAAC	Peaking
East	Delaware City 10	18.0	DE	EMAAC	Peaking
East	Edge Moor*	707.0	DE	EMAAC	Peaking
East	Sherman Avenue	86.9	NJ	EMAAC	Peaking
East	Tasley	29.9	VA	DPL-SOUTH	Peaking
East	West Station	15.0	DE	EMAAC	Peaking
PJM	Zion Energy Center	546.0	IL	COMED	Peaking
Total		**5,340.8**			

**Units included in the proposed divestiture.*

Source: Merger Application at 24 and Exhibit SEC-4

As shown in Table 2, the Transaction would add to Constellation's portfolio a sizable volume of peaking capacity spread across a number of units in eastern PJM states and one in Illinois, as well as a large intermediate gas-burning generator in Pennsylvania. This warrants an evaluation as to whether or not the acquisition likely increases the ability and/or incentive to withhold generation from the market.

3.2. Market Characteristics

The second factor that should be considered is the location in which the supplier sells power and the characteristics of that market.

Locational Constraints

Transmission constraints restrict the flow of electricity imports, which can create submarkets that are particularly prone to market power issues, absent mitigation measures. Transmission constraints and local reliability issues have concentrated the supply in local markets, creating the potential for the exercise of market power. Indeed, the PJM IMM observed that "local market structure was evaluated as not competitive due to the highly concentrated ownership of supply in local markets created by transmission

constraints and local reliability issues."[7] Given that local markets have already been deemed "not competitive" in PJM, the Transaction should be closely scrutinized.

Withdrawal of units from PJM (such as the withdrawal of a nuclear unit to serve data center load) may also create new transmission constraints (or exacerbate existing ones), resulting in higher locational marginal prices (LMPs) in certain transmission zones. Such transmission constraints could occur because additional generation from outside the transmission zone will be required to replace any nuclear generation withdrawn to serve data center load. Thus, acquisition of additional generation within a zone may strengthen the incentive for the Applicants to withdraw nuclear units, as it increases the extent to which the Applicants would benefit from higher LMPs. For example:

- In the ComEd transmission zone, Constellation currently owns five nuclear power plants and would acquire Calpine's gas-fired peaking unit, Zion Energy Center (546 MW). The withdrawal of one or more nuclear power plants in the ComEd zone could increase congestion and LMPs, resulting in higher revenue for the remaining nuclear units and the newly-acquired Zion Energy Center.
- Similarly, in the PECO zone, Constellation currently owns Limerick nuclear plant and would acquire Calpine's gas-fired intermediate unit, York Energy Center 2 (835 MW). Withdrawal of Limerick could result in higher LMPs for the PECO zone, benefiting the Applicants through ownership of York Unit 2.

In this way, the Transaction may strengthen incentives for the Applicants to withdraw nuclear generators from PJM to serve data center load, as Applicants' remaining projects in PJM would benefit from higher LMPs resulting from local transmission bottlenecks caused by the removal of the generators. Such impacts should be studied to determine the Transaction's likely impact on competition and rates prior to deciding whether to approve or block the Transaction. We are unable to perform this study because we do not have access to non-public information required for the study.

Elasticity of Supply and Demand

The elasticity of supply refers to the extent to which output changes relative to a change in price. If supply is inelastic, then a large change in price will induce a smaller change in output. And it works the other way too, i.e., if the supply is inelastic, then a small reduction in output will induce a larger change in price. The steeper (more inelastic) the supply curve, the more likely that withholding will lead to market price increases.

The baseload portion (bottom) of the supply curve tends to be more elastic, while the peaking portion of the supply curve (top) tends to be inelastic. If baseload generation (e.g., a nuclear unit) is physically withdrawn from the market, then the supply curve will shift left, and the demand curve will intersect with a more inelastic portion of the supply curve, resulting in higher prices and greater price volatility.

[7] Monitoring Analytics, LLC. 2024 PJM State of the Market Report. March 13, 2025, at 9.

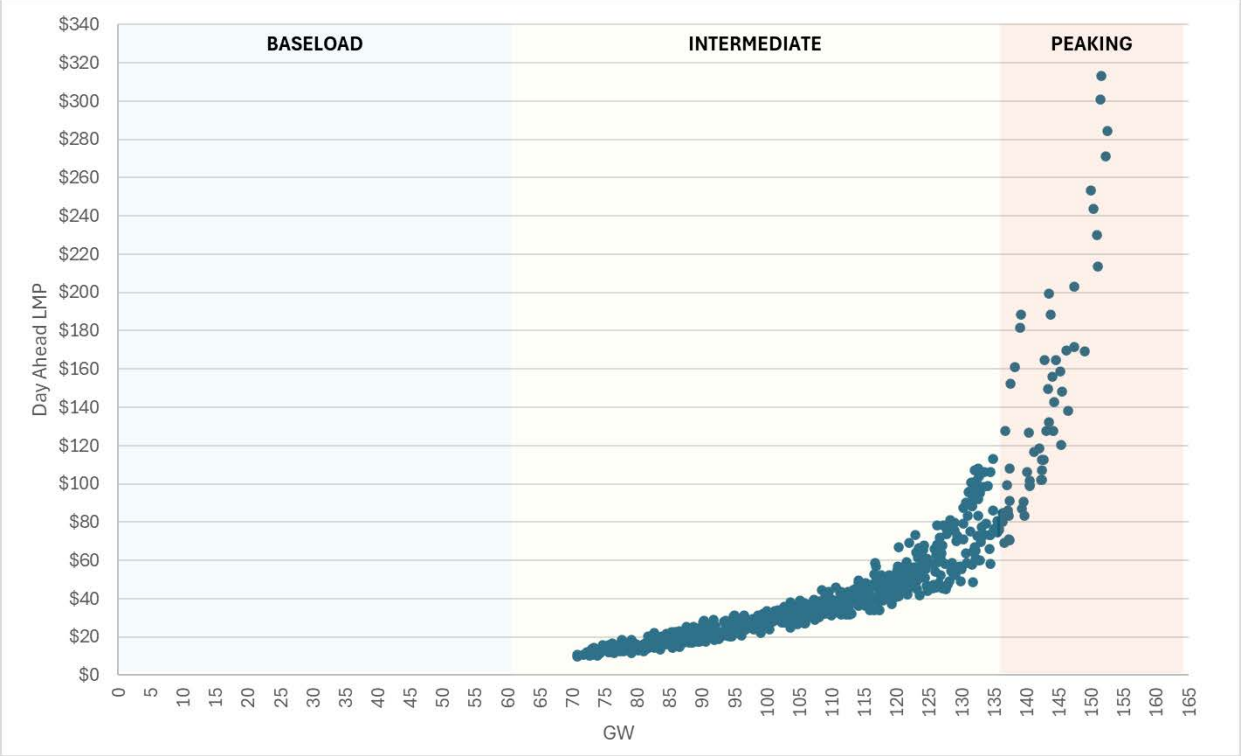
In the short-run, the elasticity of the supply curve is impacted by generation flexibility. Although there may technically be capacity available, if supply is inflexible, generators cannot respond quickly to changes in demand. This can contribute to higher prices when generation is withheld.

Long-run elasticity is characterized by the extent to which additional suppliers can enter the market. If there are significant barriers to entry, competition is restricted and suppliers have greater ability to exercise and maintain market power.

The inelasticity of demand is another contributing factor to the potential to exercise market power. Few customers are exposed to real-time prices,[8] thus attenuating price signals that would otherwise encourage customers to reduce demand during high prices.

When demand is high, the PJM energy market's supply curve is inelastic.[9] This means that a small change in generation availability can result in price spikes, as illustrated in the day-ahead prices for July 2024 displayed in Figure 1 below.

Figure 1. PJM RTO day-ahead prices, July 2024



[8] Twomey, P.; Green, R.; Neuhoff, K.; and Newbery, D. A Review of the Monitoring of Market Power: The Possible Roles of TSOs in Monitoring for Market Power Issues in Congested Transmission Systems. MIT Center for Energy and Environmental Policy Research. March 2005, at 11. Available at: https://ceepr.mit.edu/wp-content/uploads/2023/02/2005-002.pdf

[9] Monitoring Analytics, LLC. 2024 PJM State of the Market Report. March 13, 2025, at 141.

Source: PJM. Data Miner 2. Day-Ahead Hourly LMPs (RTO) and Hourly Load: Metered (RTO). Available at https://dataminer2.pjm.com/feed/da_hrl_lmps and https://dataminer2.pjm.com/feed/hrl_load_metered.

Each point on the graph represents the day-ahead hourly market clearing price, as set by the marginal generator at a certain level of demand. Because baseload generation is inframarginal, it does not set the market clearing price and is therefore not represented by any points on the graph. For the purposes of illustration, we classify any generation operating below the July 2024 minimum level of demand in PJM as "baseload," and marginal generators above 90 percent of peak demand as "peaking." The remaining generation is classified as "intermediate" in the graph.[10]

The inelasticity of the peaking portion of the supply curve at times results in prices more than 10 times higher than the average price of $31/MWh. To illustrate, for the afternoon of July 15, 2024, demand in PJM was projected to rise by 6%, from 143 GW at 1 pm to 152 GW at 5 pm. The corresponding day-ahead market clearing price for those hours rose from $150/MWh to $313/MWh, an increase of nearly 110 percent. This inelasticity of the supply curve underscores the ability and incentive for the exercise of market power in PJM.

In the longer-term, supply is likely to remain inelastic. In contrast to Ms. Solomon and Dr. Opgrand's assertions that "entry is not constrained,"[11] barriers to entry in PJM have been widely noted. Just last month, Commissioner Rosner and Commissioner Phillips' concurrence noted that PJM has not yet implemented the additional interconnection reforms required in the Commission's Order No. 2023 to further speed the process of connecting new resources to the grid. As a result, PJM's "interconnection process is overwhelmed by the volume of requests to connect new generation and storage, causing the typical wait time in PJM's queue to exceed five years."[12]

Market Power Mitigations

The existence of market mitigations that deprive suppliers of either the ability or the incentive to physically or economically withhold generation is another characteristic that should be considered. In PJM, the IMM has repeatedly noted that there are issues with existing market power mitigations, which "can result in the exercise of local market power even when market power mitigation rules are applied."[13] To illustrate the presence of market power, the IMM observed that "a significant proportion of units were offered with high markups, consistent with the exercise of market power."[14]

In 2023, Commissioner Clements identified her concerns with PJM's offer cap rules, stating "I believe the Independent Market Monitor for PJM (Market Monitor) has presented evidence that these rules may not

[10] This is a rough approximation. A more detailed analysis of the supply stack would take into account the physical and economic characteristics of each generator. However, this data was not available to us for this analysis.

[11] Application Exhibit J, Solomon-Opgrand Affidavit, at 44.

[12] Concurrence Regarding PJM's Reliability Resource Initiative (RRI) Proposal (ER25-712-000). February 10, 2025.

[13] Monitoring Analytics, LLC. 2024 PJM State of the Market Report. March 13, 2025, at 10.

[14] Monitoring Analytics, LLC. 2024 PJM State of the Market Report. March 13, 2025, at 24.

be working as intended and may be permitting the exercise of market power in PJM's day-ahead and real-time energy markets."[15]

3.3. Persistence of Issues

The concerns around competition described in the preceding sections are likely to persist in the PJM market for the foreseeable future. As described by PJM in recent filings, PJM faces "an extreme and rapid tightening of supply and demand"[16] in the near term and needs "additional resources . . . to rapidly address PJM's near-term reliability challenge."[17] On December 9, 2024, PJM Board Chair Mark Takahashi wrote that, "Taking the anticipated 2025 Long-Term Load Forecast into account, the PJM system could see a capacity shortage as soon as the 2026/2027 Delivery Year."[18]

Although sufficient volumes of installed storage capacity would help alleviate some of the supply constraints and provide additional flexibility to the system, storage deployment in PJM remains limited. According to recent reports, battery storage makes up only a small fraction of PJM's total installed capacity and has yet to meaningfully impact system reliability or mitigate price spikes.[19] Ongoing challenges, including regulatory uncertainty, interconnection delays, and market design limitations, continue to slow the pace of storage development.

Finally, existing system-wide mitigation measures, as discussed above, are inadequate to address these concerns. Current market rules do not sufficiently prevent the exercise of market power, particularly in an environment where barriers to entry are high and new supply is slow to come online.

All of this points to the fact that competition in PJM remains vulnerable, and without significant improvements in entry processes, interconnection reforms, and mitigation measures, the risk of market power and its adverse effects on market outcomes will likely continue.

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[15] Commissioner Clements's Partial Dissent in PJM Interconnection, L.L.C. Docket No. EL21-78-000. November 30, 2023. Available at: https://www.ferc.gov/news-events/news/commissioner-clementss-partial-dissent-pjm-interconnection-llc-docket-no-el21-78

[16] PJM Interconnection, L.L.C.. Revisions to Reliability Pricing Model of PJM Interconnection, L.L.C.. Docket No. ER25-682-000. Dec. 9, 2024, at 5.

[17] PJM Interconnection, L.L.C.. Tariff Revisions for Reliability Resource Initiative of PJM Interconnection, L.L.C., Docket No. ER25-712-000, Dec. 13, 2024, at 1.

[18] Takahashi, Mark. Letter from the PJM Board of Managers. December 9, 2024, page 1. Available at: https://www.pjm.com/-/media/DotCom/about-pjm/who-we-are/public-disclosures/2024/20241209-board-letter-outlining-action-on-capacity-market-adjustments-rri-and-sis.pdf

[19] Of the 145,883 MW of generation (UCAP MW, reflecting ELCC accreditation and excluding energy efficiency) that cleared in the 2025/2026 Base Residual Auction, 14 MW (UCAP, reflecting ELCC accreditation) were battery storage. See PJM. 2024. 2025/2026 Base Residual Auction Report.

4. THE TRANSACTION WOULD LIKELY EXACERBATE MARKET POWER ISSUES

Constellation's acquisition of Calpine leads to market power concerns. This is because (1) the Applicants' post-transaction resource mix increases ownership of resources along the supply stack, and (2) the market context allows for and multiplies the ability and incentive to exercise market power.

4.1. Resource Mix

Constellation is currently the largest nuclear plant owner in the United States and in PJM. Nuclear generation is baseload generation, which benefits from increases in market prices, but does not set market prices in the majority of hours. The Transaction will allow Constellation to add intermediate generators and fossil-fired peaking units, which can be withheld to increase prices, while benefitting Constellation's substantial quantity of baseload generation.

4.2. Market Context Permits Exercise of Market Power

As shown above, the inelasticity of the supply curve and existing concentration of peaking resources already results in high price markups during periods of high demand. Further, most of Calpine's PJM units are located in eastern PJM, where transmission constraints already frequently lead to increased prices. A small amount of physical or economic withholding anywhere along the supply curve can therefore result in substantial price increases in PJM. For example, were Constellation to withdraw nuclear generation from the PJM market to serve data center load, it would likely have a large impact on market prices. As noted by the IMM, "Removal of even a relatively small amount of capacity from the market would have a significant impact on reliability and capacity market prices."[20]

[20] PJM IMM. Comments to the Maryland PSC Senate Bill 1 Co-location Study. Administrative Docket PC 61. September 24, 2024, p. 1.