

**ORAL ARGUMENT NOT YET SCHEDULED**

**No. 20-1212**

*In the*  
**United States Court of Appeals**  
*for the*  
**District of Columbia Circuit**

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DELAWARE DIVISION OF THE PUBLIC ADVOCATE; MARYLAND OFFICE OF  
PEOPLE'S COUNSEL; OFFICE OF THE PEOPLE'S COUNSEL FOR THE  
DISTRICT OF COLUMBIA; SIERRA CLUB,

*Petitioners,*

– v. –

FEDERAL ENERGY REGULATORY COMMISSION,

*Respondent.*

PJM INTERCONNECTION, L.L.C.,

*Intervenor for Respondent.*

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On petition for review of orders of the  
Federal Energy Regulatory Commission

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**BRIEF OF THE PJM POWER PROVIDERS GROUP AS  
*AMICUS CURIAE* SUPPORTING RESPONDENT**

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## **CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES**

### **A. Parties and Amici**

Except for the following, all parties, intervenors appearing before the Federal Energy Regulatory Commission (FERC) and in this Court are listed in petitioners' opening brief.

The PJM Power Providers Group ("P3"), which appeared before FERC, appears as *amicus curiae* in this Court. Pursuant to Circuit Rule 26.1, P3 states that it is not a public company, it has no parent corporation, and no publicly held corporation owns 10% or more of its stock. P3 is a trade association within the meaning of Circuit Rule 26.1(b). P3's members are active participants in the market at issue in this proceeding, and P3 therefore has an interest in the tariff that governs pricing in that market.

### **B. Rulings Under Review**

References to the rulings at issue appear in petitioners' opening brief.

### **C. Related Cases**

This case has not previously been before this Court or any other appellate court. *Amicus* is unaware of any related cases currently pending in this Court or in any other court within the meaning of Circuit Rule 28(a)(1)(C).

*/s/ Paul W. Hughes*

## TABLE OF CONTENTS

Certificate as to Parties, Rulings, and Related Cases .....	i
Table of Authorities .....	iii
Glossary .....	vi
Interest of the <i>Amicus Curiae</i> .....	1
Introduction and Summary of the Argument .....	2
Argument.....	4
A. FERC’s approval of PJM’s proposed reference unit was not arbitrary or capricious.....	4
1. PJM’s choice of reference unit was well within the bounds of reasonableness .....	5
2. Because PJM’s proposal was reasonable, petitioners’ arguments that a different reference unit would be preferable are irrelevant .....	16
B. Petitioners’ arguments about purported “over- procurement” were outside the scope of this Section 205 proceeding.....	20
Conclusion .....	27

## TABLE OF AUTHORITIES<sup>†</sup>

### Cases

<i>Advanced Energy Mgmt. All. v. FERC</i> , 860 F.3d 656 (D.C. Cir. 2017) .....	23, 24
* <i>Ala. Elec. Co-op., Inc. v. FERC</i> , 684 F.2d 20 (D.C. Cir. 1982) .....	17, 18, 19
<i>Cities of Bethany et al. v. FERC</i> , 727 F.2d 1131 (D.C. Cir. 1984) .....	24
<i>Electricity Consumers Resource Council v. FERC</i> , 407 F.3d 1232 (D.C. Cir. 2005) .....	21
<i>Emera Maine v. FERC</i> , 854 F.3d 9 (D.C. Cir. 2017) .....	23, 24
<i>ExxonMobil Gas Mktg. Co. v. FERC</i> , 297 F.3d 1071 (D.C. Cir. 2002) .....	18
<i>FCC v. Fox Television Stations, Inc.</i> , 556 U.S. 502 (2009) .....	12
<i>ISO New England Inc.</i> , 158 FERC ¶ 61,138 (2017) .....	22
<i>ISO New England Inc.</i> , 161 FERC ¶ 61,035 (2017), <i>on reh'g</i> , 170 FERC ¶ 61,052 (2020).....	13
<i>Maine Pub. Utils. Comm'n v. FERC</i> , 520 F.3d 464 (D.C. Cir. 2008) .....	17
<i>Montana-Dakota Utils. Co. v. N.W. Pub. Serv. Co.</i> , 341 U.S. 246 (1951) .....	17
<i>Nat'l Ass'n for Advancement of Colored People v. Fed. Power Comm'n</i> , 425 U.S. 662 (1976) .....	27
<i>New England Power Generators Ass'n, Inc. v. FERC</i> , 881 F.3d 202 (D.C. Cir. 2018) .....	13
<i>New Jersey Bd. of Pub. Utils. v. FERC</i> , 744 F.3d 74 (3d Cir. 2014).....	6
<i>New York Indep. Sys. Operator, Inc.</i> , 103 FERC ¶ 61,201 (2003), <i>on reh'g</i> , 105 FERC ¶ 61,108 (2003), <i>aff'd sub nom. Electricity Consumers</i> , 407 F.3d 1232 .....	22

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<sup>†</sup> Authorities on which we chiefly rely are marked with asterisks.

**Cases—continued**

<i>New York Indep. Sys. Operator, Inc.</i> , 158 FERC ¶ 61,028 (2017) .....	13
* <i>NRG Power Mktg., L.L.C. v. FERC</i> , 862 F.3d 108 (D.C. Cir. 2017) .....	23, 24
<i>Pac. Gas &amp; Elec. Co. v. FERC</i> , 306 F.3d 1112 (D.C. Cir. 2002) .....	18
<i>Petal Gas Storage, L.L.C. v. FERC</i> , 496 F.3d 695 (D.C. Cir. 2007) .....	18
<i>PJM Interconnection, L.L.C.</i> , 117 FERC ¶ 61,331 (2006) .....	22, 25, 27
<i>PJM Interconnection, L.L.C.</i> , 119 FERC ¶ 61,318 (2007) .....	21
<i>PJM Interconnection, L.L.C.</i> , 126 FERC ¶ 61,275 (2009) .....	10
<i>PJM Interconnection, L.L.C.</i> , 128 FERC ¶ 61,157 (2009) .....	16
<i>PJM Interconnection, L.L.C.</i> , 138 FERC ¶ 61,062 (2012) .....	12
<i>PJM Interconnection, L.L.C.</i> , 149 FERC ¶ 61,183 (2014) .....	12
<i>Public Service Commission of State of N.Y. v. FERC</i> , 642 F.2d 1335 (D.C. Cir. 1980) .....	25
<i>TC Ravenswood, L.L.C. v. FERC</i> , 741 F.3d 112 (D.C. Cir. 2013) .....	5
<i>United Gas Pipe Line Co. v. Memphis Light, Gas &amp; Water Div.</i> , 358 U.S. 103 (1958) .....	27
<i>West Deptford Energy, L.L.C. v. FERC</i> , 766 F.3d 10 (D.C. Cir. 2014) .....	12
<i>Williams Gas Processing-Gulf Coast Co. v. FERC</i> , 475 F.3d 319 (D.C. Cir. 2006) .....	13
<i>Wisconsin Pub. Power, Inc. v. FERC</i> , 493 F.3d 239 (D.C. Cir. 2007) .....	18

**Statutes**

## 16 U.S.C.

§ 824d.....	<i>passim</i>
*§ 824d(a).....	2
§ 824d(d) .....	23
§ 824e .....	23
§ 824e(a).....	24
§ 824e(b).....	24

**Other Authorities**

Francisco Flores-Espino et al., <i>Competitive Electricity Market Regulation in the United States: A Primer</i> (Dec. 2016) .....	6
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**GLOSSARY**

CC	Combined cycle
CONE	Cost of new entry
CT	Combustion turbine
E&AS	Energy & ancillary services
FERC	Federal Energy Regulatory Commission

## **INTEREST OF THE *AMICUS CURIAE***

The PJM Power Providers Group (“P3”) is a non-profit organization dedicated to advancing federal, state, and regional policies that promote properly designed and well-functioning electricity markets in the PJM Interconnection, L.L.C. (“PJM”) region. Combined, P3 members own over 67,000 megawatts of generation assets and produce enough power to supply over 50 million homes in the PJM region covering all or part of 13 States and the District of Columbia.<sup>1</sup>

P3’s members are active participants in the markets administered by PJM, including its capacity market, and P3 therefore has an interest in the tariff governing that market.<sup>2</sup> P3 is also dedicated to promoting policies that will allow the PJM region to fulfill its promise of competitive wholesale electricity markets.

In this case, PJM proposed revisions to its tariff pursuant to Section 205 of the Federal Power Act, 16 U.S.C. § 824d. Although P3 disagreed with certain of the proposed revisions, P3 maintains that FERC did not err in concluding that the revised tariff is “just and reasonable” under the Act.

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<sup>1</sup> No counsel for a party authored this brief in whole or in part and that no person other than *amicus*, its members, and its counsel contributed money that was intended to fund preparing or submitting the brief. The Court granted P3 leave to participate as *amicus curiae* on December 3, 2020.

<sup>2</sup> The comments contained in this filing represent the position of P3 as an organization, but not necessarily the views of any particular member.

## INTRODUCTION AND SUMMARY OF THE ARGUMENT

In accordance with its tariff, PJM performed a quadrennial review of the parameters of the demand curves used in the auctions it conducts to procure electricity generation capacity, and it submitted discrete revisions to certain of those parameters to the Federal Energy Regulatory Commission (“FERC”) for review under Section 205 of the Federal Power Act, 16 U.S.C. § 824d. In the proceeding below, FERC reviewed and accepted the tariff revisions as just and reasonable. Petitioners contend that FERC’s decision was arbitrary and capricious because FERC failed to adopt their preferred policy alternatives. FERC, however, was not obliged or even permitted to rewrite PJM’s proposal to suit petitioners’ preferences.

This *amicus* brief addresses two of petitioners’ arguments. First, petitioners argue (in Part I) that FERC should have required PJM to use a different “reference unit” as an input to its auction parameters. Second, petitioners argue (in Part III) that FERC erred by failing to consider whether the market design embodied in PJM’s proposal would exacerbate alleged problems of “oversupply” in the PJM region. Neither contention is correct.

**A.** Under Section 205, FERC was required to accept PJM’s proposed reference unit if PJM’s choice was “just and reasonable.” 16 U.S.C. § 824d(a). It was. PJM’s proposal used a combustion turbine, consistent with the practice in the PJM region for over a decade and with the FERC-

approved practice in other regions. Combustion turbines are a reasonable choice because they may be built relatively cheaply and quickly, and they are therefore the kind of units that may be deployed in response to abrupt increases in electricity demand. In addition, PJM determined that switching to a combined cycle gas turbine—what petitioners would prefer—would be unacceptably risky and disruptive. Multiple grounds independently establish that FERC was within its broad discretion to conclude that PJM’s proposal is just and reasonable.

Petitioners contend that a different reference unit—a combined cycle gas turbine—would have been superior. Not only does this complaint misapprehend the basis of FERC’s action, but it also mistakes the law. The issue before FERC was not whether PJM had made the *best* choice. It was whether PJM’s choice of a combustion turbine was unjust and unreasonable. And now, that review is doubly-deferential—the consideration is whether FERC was outside its discretion in holding that PJM’s choice was *one* just and reasonable option. In view of the robust record, there is no basis to upset FERC’s decision.

**B.** Petitioners’ arguments that FERC was required to consider their concerns about “oversupply” are equally misplaced. This argument goes to PJM’s previously-accepted adoption of a downward-sloping, rather than a

vertical, demand curve. A downward-sloping demand curve assigns a diminishing but positive price to capacity in excess of the amount required to supply the region, and thus, by its nature, can result in procurement of capacity in excess of the minimum reliability requirement. But that market design choice was not before FERC in this Section 205 proceeding, and FERC thus properly declined to consider petitioners' arguments for a different demand curve. If petitioners believe that, notwithstanding all evidence and FERC precedent to the contrary, a downward-sloping demand curve is unjust and unreasonable, they may bring a separate proceeding under Section 206 of the Federal Power Act. Regardless, FERC rightly rejected petitioners' "over-supply" argument as beyond the scope of *this* proceeding.

### **ARGUMENT**

#### **A. FERC's approval of PJM's proposed reference unit was not arbitrary or capricious**

In Part I of their opening brief, petitioners argue that FERC should have required PJM's revised tariff to use combined cycle gas turbine technology as its reference unit, rather than the combustion turbine technology that PJM has long used. Petitioners' argument is doubly wrong. First, by myopically focusing on the supposed obstacles to building "greenfield" combustion turbines, petitioners lose sight of the several, independent justifications that PJM provided for its decision to adopt a combustion turbine as

the reference unit. Second, petitioners misapprehend the governing legal framework.

**1. *PJM's choice of reference unit was well within the bounds of reasonableness***

a. As the parties' briefs explain, one of the key inputs affecting the demand curve in a utility's tariff is the *net cost of new entry*, which represents the cost that a hypothetical supplier would incur to enter the market for electricity generation capacity.<sup>3</sup> See Opening Br. 7-9; FERC Br. 8-12. To calculate the net cost of new entry, the utility system operator (in this case, PJM) identifies an appropriate "reference unit," representing the power generation unit that a hypothetical supplier in the market would construct in response to an abrupt increased demand for capacity. The cost of building and operating this reference unit yields the gross cost of new entry; the net cost of new entry is that gross cost minus the revenue that the hypothetical reference unit would earn in energy and ancillary services markets (referred

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<sup>3</sup> "Unlike the electricity market, in which generators sell actual power to retailers, the capacity market trades in the *future* supply of electrical power. . . . Capacity suppliers bid a quantity of capacity into [an] auction, and the total amount of capacity bid creates a supply curve, which intersects with a predetermined demand curve. The intersection of the two curves establishes the available quantity of capacity and the price for this capacity. Power retailers then purchase capacity at that price. In theory, this market design encourages desirable investment by signaling the need for more generation and by enabling power generators to recoup their costs in the capacity market." *TC Ravenswood, L.L.C. v. FERC*, 741 F.3d 112, 114 (D.C. Cir. 2013) (citation omitted).

to in the documents below as “E&AS”).<sup>4</sup> “In other words, the more revenue a new generator is expected to make through energy sales, the larger the amount deducted from the costs of developing the resource” to derive the net cost of new entry. *New Jersey Bd. of Pub. Utils. v. FERC*, 744 F.3d 74, 85 n.8 (3d Cir. 2014). The lower the net cost of new entry associated with the chosen reference unit, the lower the prices for capacity will be along the demand curve.

Historically, the reference unit in the PJM region has been a combustion turbine. See Doc. 1 (PJM Transmittal Letter), Attach. C (Keech Affidavit) ¶ 6, JA \_\_ (“Since the adoption of RPM, the VRR Curve has been based on the Net CONE of a [combustion turbine] Plant.”). While petitioners contend that the only reasonable course was for PJM to switch the reference unit to a combined cycle gas turbine, FERC accepted PJM’s decision to continue using a combustion turbine as a just and reasonable choice. That decision was plainly correct.

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<sup>4</sup> Energy markets are markets for actually-generated electricity. Ancillary services markets are markets for “non-energy products and services that contribute to the safe and efficient operation of the grid,” “such as frequency regulation and black-start capabilities,” *i.e.*, the capability to bring additional generation units online without energy support from the rest of the grid. Francisco Flores-Espino et al., *Competitive Electricity Market Regulation in the United States: A Primer* 14 (Dec. 2016), <https://www.nrel.gov/docs/fy17osti/67106.pdf>.

*First*, the record evidence demonstrated that, compared with combined-cycle generation units, combustion turbines are cheaper, smaller, more agile units that can be brought online more quickly—and are thus most responsive to increased capacity demand, which is precisely what is most relevant here. PJM’s affiant, Adam Keech, explained that new combustion turbine plans “have the lowest project cost and are the quickest resources to bring to market.” Doc. 1, at 128 (Keech Affidavit ¶ 8), JA \_\_. One of the suppliers in the PJM region further explained that a combustion turbine has “the lowest absolute project cost,” and these turbines “have been economically viable in PJM.” Doc. 43, at 60, Attach. B at 5 (Affidavit of Carlyne Murff & Andrew Dera, LS Power Group). Combustion turbines cost roughly \$300 million to construct, whereas combined cycle units can cost over a billion dollars. Doc. 1, at 128 (Keech Affidavit ¶ 8), JA \_\_.

Beyond cost, it is unrefuted that combustion turbines can be deployed comparatively more “quickly to address any potential resource adequacy or reliability concerns.” Doc. 78, ¶ 15 (Rehearing Order), JA \_\_. Combustion turbine “plants long have operated well to meet *rapid* changes in demand” (Doc. 1, at 129 (Keech Affidavit ¶ 8), JA\_\_ (emphasis added)), because they are “the simplest, fastest to market resource type that, due to much faster development and shorter construction lead time, can be deployed quickly to address any resource adequacy or reliability concerns.” Doc. 43, Attach. B

at 6. The bottom line is that combustion turbines “can be added faster than [combined cycle] resources.” *Id.*

These twin points—upfront cost and construction speed—were critical considerations for PJM and, in turn, for FERC, because the purpose of a reference unit is to represent the hypothetical generation unit that a supplier would build in response to an abrupt increase in demand. In that scenario, a supplier would most likely build the unit that can be constructed at greater speed and lower cost—*i.e.*, a combustion turbine. Indeed, “time to market” is “one of the most important considerations in deciding on the Reference Resource configuration,” as it seeks to establish “quick and reliable provision of resource adequacy and reliability.” Doc. 43, at 61, Attach. B at 6, JA \_\_.

For this reason, PJM explained that, “as compared to combined cycle (‘CC’) plants, [combustion turbine] plants remain an attractive option for developers given that they inherently have lower project costs and can be brought to market quicker. [Combustion turbine] plants therefore constitute the least expensive and fastest generation that can be brought to market in the event market signals indicate the need for new capacity.” Doc. 50, at 8 (PJM Answer); *see also* Doc. 1, at 128 (Keech Affidavit ¶ 8), JA \_\_.

FERC agreed, “finding that [combustion turbine] plants typically are built at a lower total cost than [combined cycle] plants, and as a result, that

[combustion turbines] typically can be deployed quickly to address any potential resource adequacy or reliability concerns.” Doc. 78, ¶ 15, JA \_\_. That conclusion is supported by substantial record evidence.

*Second*, even setting aside cost and speed, FERC appropriately relied on an independent basis for its decision—“that switching to a [combined cycle]-based Net [cost of new entry] would entail specific reliability risks, which would be exacerbated by mis-estimation risks.” Doc. 78, ¶ 15, JA \_\_. Simply put, using combustion turbines as the reference resource leads to less reliability risk.

This is because it is easier to develop an accurate net cost of new entry for combustion turbines than it is for combined cycle units. Combined cycle units, which have lower variable costs of operation than combustion turbines, are ordered to run more frequently and thus depend more on energy market revenue. Energy market revenue is “harder to estimate [in advance] than plant fixed costs” (Doc. 50, at 8), in part because “the value of the spread between electricity and natural gas commodity prices is inherently uncertain” (Doc. 43, Attach. B, at 5). Thus, a combined cycle unit’s projected energy market revenue is “far more susceptible to mis-estimation,” which in turn means that the net cost of new entry for a combined cycle unit is “more likely to be inaccurate.” Doc. 1, at 129 (Keech Affidavit ¶ 9), JA \_\_; *accord* Doc. 43, Attach. B at 5 (noting that “the risk of a mistake with an

estimate of Net [Cost of New Entry] [is] much greater for a [combined cycle unit] than for a [combustion turbine]”).

More than a decade ago, FERC found in the same market that “combined cycle plants have more variable [energy and ancillary services] revenues, and therefore, present significant estimating uncertainties” with respect to net cost of new entry. *PJM Interconnection, L.L.C.*, 126 FERC ¶ 61,275 at P 39 (2009).

To be sure, PJM noted that it was *possible* that switching to a combined cycle as a reference resource *could* lower costs even more than the approach taken by PJM. *See* Doc. 1, at 130 (Keech Affidavit ¶ 12). But this potential for savings would come at enormous reliability risk: If the estimated net cost of new entry for combined cycle technology was 20% below the true market cost (which PJM explained could well happen because of the greater difficulty in estimating combined cycle costs), using combined cycle as a reference resource would fail an essential reliability standard. *Id.* PJM seeks to maintain a baseline reliability requirement of risking insufficient resources no more than 1 day in every 10 years. *Id.* But it estimated that using a combined cycle as the reference unit would lead to an expected “loss of load events” 1.6 times every ten years. *Id.*; *see also* Doc. 1, at 12-13 (PJM adopting reliability standards and concerns as separate basis for continuing with combustion turbine technology as the reference resource).

Thus, continuing to use a combustion turbine as the reference unit helps guarantee the reliability of the electrical grid in the PJM region. Indeed, while PJM's consultants recommended using a combined cycle unit, they acknowledged that a combustion turbine-based demand curve "would more strongly guarantee resource adequacy under all conditions, at a cost that is modest when put in context": the difference in procurement costs between the two curves "is less than 0.5% of PJM's total annual wholesale costs." Doc. 1, Attach. G, Ex. 2, at 69 (Brattle Curve Report), JA \_\_. PJM and FERC relied expressly on these considerations as an additional basis for continuing with the same reference resource. Doc. 1, at 12-13; Doc. 67, ¶ 61; Doc. 78, ¶ 15, JA \_\_.

For all of these reasons, FERC concluded that using a combined cycle unit as a reference unit involves far greater "reliability risks" than use of a combustion turbine as a reference unit. Doc. 78, ¶ 15, JA \_\_. It was just and reasonable for FERC to acknowledge the "specific reliability risk" associated with combined cycle units and to accept PJM's proposal to use a combustion turbine instead. Doc. 78, ¶ 15.<sup>5</sup>

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<sup>5</sup> LS's experts described a related reason why combustion turbine technology is the best reference resource for the capacity market: "A [combustion turbine] is also the closest to a pure play capacity resource, because it depends primarily on the capacity revenues." Doc. 43, at 61, Attach. B at 6. Thus, not only is this a less risky alternative than a combined cycle turbine,

*Third*, PJM’s selection of a combustion turbine as the reference unit was consistent with its past practice and that of other system operators. PJM has used a combustion turbine as its reference unit since 2007, when PJM first adopted its auction parameters. *See* Doc. 1, at 11; Keech Affidavit ¶ 8, JA \_\_, \_\_. And FERC has repeatedly approved PJM’s choice of a combustion turbine under Section 205’s “just and reasonable” standard. *See, e.g., PJM Interconnection, L.L.C.*, 149 FERC ¶ 61,183 at P 8 (2014) (order accepting demand curve proposal using combustion turbine as the reference unit); *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,062 at P 18 (2012) (same). In order to find that PJM’s proposed use of a combustion turbine was *not* just and reasonable, FERC would have had to explain its departure from precedent finding that PJM’s use of a combustion turbine satisfied the statutory standard. *See, e.g., FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009); *West Deptford Energy, L.L.C. v. FERC*, 766 F.3d 10, 21

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but a combustion turbine is “appropriate for the Reference Resource,” because it “reflect[s] the revenue requirement of a resource addition that is underwritten based on capacity revenues.” *Id.* By contrast, because a combined cycle unit “mainly relies [on energy and ancillary services] revenues,” and “is deployed after a longer development and construction lead time,” it seeks to capture “an expected increase in the energy margin,” and it ultimately “represents an investment that is fundamentally underwritten based on the energy margin.” *Id.* In total, the costs of a combustion turbine reflect most directly the role that the reference resource plays in the tariff.

(D.C. Cir. 2014); *Williams Gas Processing-Gulf Coast Co. v. FERC*, 475 F.3d 319, 327 (D.C. Cir. 2006).

PJM's proposed use of a combustion turbine was also consistent with the practices of other system operators, which likewise use combustion turbines as reference units in setting the demand curves for their capacity markets. *See, e.g., ISO New England Inc.*, 161 FERC ¶ 61,035 at PP 36-46 (2017) (accepting demand curve proposal using a combustion turbine as the reference unit, rather than the combined cycle gas turbine previously used, for the New England capacity market), *on reh'g*, 170 FERC ¶ 61,052 (2020); *New York Indep. Sys. Operator, Inc.*, 158 FERC ¶ 61,028 at PP 27-28 (2017) (accepting demand curve proposal using a combustion turbine as the reference level for the New York capacity market).

This Court has previously held that FERC must be able to reconcile its decisions regarding rate proposals across markets. *See New England Power Generators Ass'n, Inc. v. FERC*, 881 F.3d 202, 211-13 (D.C. Cir. 2018) (holding that FERC acted arbitrarily and capriciously by approving a rate proposal for one market that FERC found unjust and unreasonable in another market). Thus, in order to reject PJM's proposal of a combustion turbine as the reference unit in PJM, FERC would have had to square that decision not only with its prior orders relating to the PJM capacity market

but also with its prior orders relating to the New England and New York capacity markets.

*Finally*, PJM’s choice of a combustion turbine as the reference unit maintained the status quo in the region and thus contributed to stability in the PJM pricing system. A switch to an entirely different kind of reference technology, as P3 explained below, would “insert[] more risk into capacity market revenues due to market rule changes and could lead to high-priced bids and confusion in the market.” Doc. 41, at 12 (P3 Comments). This confusion and instability would be detrimental to power suppliers, including P3’s members, which depend on predictability in capacity markets to guide their operational and investment decisions. PJM was “not comfortable proposing [such] a dramatic change in the . . . auction parameters” as what petitioners here advocated. Doc. 1, at 11, JA \_\_. The maintenance of the status quo was certainly within the range of reasonable decisions.

Putting this all together, PJM’s choice of a combustion turbine as the reference unit was just and reasonable—and FERC did not exceed the substantial deference it deserves in this context in so holding.

**b.** Petitioners respond in the main by contending that FERC evaluated so-called “brownfield” combustion turbine plants, rather than proposed “greenfield” plants. Opening Br. 31-36. Petitioners view FERC’s reasoning

as based *solely* on two combustion turbine projects since 2014, which petitioners seek to discount because they were built on brownfield sites. Opening Br. 31-33. But that is incorrect: As explained above, the reasoning behind FERC's acceptance of the combustion turbine was far more comprehensive and based on many other factors. Notably, FERC rested on the absolute cost of new units, the speed at which resources could be deployed, and the reliability of the grid as a whole.

Moreover, PJM and FERC accounted for the fact that the recent combustion turbine projects that they identified were on brownfield sites. PJM's consultant explained that "any technology that is economically viable in the long run could be selected for determining [the net cost of new entry]" (Doc. 1, Attach. G, Ex. 2, at 33 n.42, JA \_\_), and PJM and FERC rightly concluded that the new combustion turbine projects, even if on brownfield sites, indicated that the technology remained viable in the market. Doc. 67, ¶ 61 (Demand Curve Order), JA \_\_; *see also* Doc. 1, at 10, JA \_\_. Thus, even looking in isolation at the likelihood of combustion turbines being developed in the PJM region, the choice of a combustion turbine as the reference unit was just and reasonable.

In any event, a combustion turbine would be a reasonable choice of reference unit even if petitioners were right that "development of a greenfield combustion turbine project is, in fact, *unlikely*." Opening Br. 31. In a

previous decision involving the PJM region, FERC *rejected* the notion that a technology must be “the most frequent new entrant” in the market to be selected as the reference unit. *PJM Interconnection, L.L.C.*, 128 FERC ¶ 61,157 at P 40 (2009). The Commission explained that “[d]ifferent technologies can efficiently exist within the market and are needed to meet different types of demand. For example, technologies with higher capital costs and lower variable costs [such as combined cycle units] typically can meet baseload demand at the lowest cost, while technologies with lower capital costs and higher variable costs can meet peak load at the lowest cost.” *Id.* “The most frequent type of entrant is likely to vary over time” between these different technologies, “in part[] because plants of different technologies are likely to retire and need to be replaced at different times and because of the lumpiness in the size of investments.” *Id.* Accordingly, a technology better suited to meeting peak demand, such as a combustion turbine, can be a reasonable appropriate reference unit even though another unit may be the more common market entrant overall.

**2. *Because PJM’s proposal was reasonable, petitioners’ arguments that a different reference unit would be preferable are irrelevant***

Petitioners argue that a combined cycle unit would have been a better choice of reference unit than a combustion turbine. They believe that new

combustion turbines are less likely to be built in the PJM region than combined cycle units (Opening Br. 31-36); that the costs and revenues of combined cycle units are no harder to estimate than those of combustion turbines (*id.* at 36-39); and that FERC's concern for reliability is a "lopsided elevation of supplier interests" (*id.* at 42) that will entail "unnecessary costs" (*id.* at 39). But these arguments about the relative merits of combined cycle technology and combustion turbines do not go to the question at hand: whether PJM's proposal to use a combustion turbine was just and reasonable.

A rate proposal does not become unjust and unreasonable just because it is deemed less advantageous than other alternatives. As this Court has often observed, ratemaking under the Federal Power Act is "much less a science than an art." *Ala. Elec. Co-op., Inc. v. FERC*, 684 F.2d 20, 27 (D.C. Cir. 1982). That is, under the Act, "there is not a single 'just and reasonable rate' but rather a zone of rates that are just and reasonable," and "a just and reasonable rate is [any] one that falls within that zone." *Maine Pub. Utils. Comm'n v. FERC*, 520 F.3d 464, 471 (D.C. Cir. 2008); *see also, e.g., Montana-Dakota Utils. Co. v. N.W. Pub. Serv. Co.*, 341 U.S. 246, 251 (1951) ("Statutory reasonableness is an abstract quality represented by an area rather than a pinpoint. It allows a substantial spread between what is unreasonable because too low and what is unreasonable because too high.").

Thus, when this Court reviews FERC's decisions regarding rates, "the court may only set aside a rate that is outside [the] zone of reasonableness." *Pac. Gas & Elec. Co. v. FERC*, 306 F.3d 1112, 1116 (D.C. Cir. 2002); see also *Petal Gas Storage, L.L.C. v. FERC*, 496 F.3d 695, 703 (D.C. Cir. 2007) ("FERC is not required to choose the best solution, only a reasonable one."); *Ala. Elec. Co-op., Inc.*, 684 F.2d at 27 ("[C]ourts will not be so presumptuous as to hold unlawful a rate approved by the Commission if, even if not in the court's judgment the 'ideal' design, it is nevertheless within a 'zone of reasonableness.'").

Given the wide latitude that FERC has in approving rate proposals under Section 205, it is not sufficient for petitioners to argue that their preferred alternative is better than the policy that FERC chose. Rather, "[t]he burden is on the petitioners to show that the Commission's choices are unreasonable." *ExxonMobil Gas Mktg. Co. v. FERC*, 297 F.3d 1071, 1084 (D.C. Cir. 2002) (explaining that petitioners must show that FERC's "chosen line of demarcation is not within a zone of reasonableness[,] as distinct from the question of whether the line drawn by the Commission is precisely right.") (quotation marks omitted); see also, e.g., *Wisconsin Pub. Power, Inc. v. FERC*, 493 F.3d 239, 266 (D.C. Cir. 2007) ("Merely because petitioners can conceive of a . . . method that they believe would be superior to the one FERC

approved does not mean that FERC erred in concluding the latter was just and reasonable. Again, reasonableness is a zone, not a pinpoint.”).

Petitioners cannot carry that burden here. In designing a capacity market, relevant considerations—like cost, speed of deployment, and reliability—may tug in opposing directions. For example, a more reliable system may be a slightly more expensive one. That PJM balanced the considerations differently than petitioners would prefer—by prioritizing reliability and speed of deployment more highly than petitioners would if they were to design the market themselves—is precisely the sort of different, yet eminently reasonable, decision-making that is expressly allowed by the statutory structure, and is no basis to find error with FERC’s holding below.

In short, as detailed above, FERC explained in two thorough orders why it believed that PJM’s choice of combustion turbine technology as the reference unit was just and reasonable. The Federal Power Act required no more, and FERC’s conclusions are entitled to great deference in this Court. *See Ala. Elec. Co-op., Inc.*, 684 F.2d at 27 (“[G]reat deference is given to FERC’s expertise and judgment on the reasonableness of a particular rate proposal.”). Thus, petitioners’ protestations that their preferred reference technology would serve consumers better than the one that FERC approved do not show that FERC erred.

**B. Petitioners' arguments about purported "over-procurement" were outside the scope of this Section 205 proceeding**

Part III of petitioners' opening brief argues that FERC improperly disregarded the "problem of excess generation in PJM" in approving the revised tariff. Opening Br. 47. But this argument misapprehends the governing framework. Petitioners' complaints about "excess generation" take aim at PJM's prior decision to adopt a downward-sloping demand curve in the PJM region; they do not address the issues actually implicated here—the specific parameters used to set that demand curve. Because FERC's only charge in this proceeding was to determine whether PJM's actual proposal was just and reasonable, the issue of "excess generation" was outside the scope of the proceeding, and FERC correctly declined to address it.

1. Before explaining why petitioners' "over-procurement" argument is inapposite, it is helpful to understand the real gist of petitioners' contention.

The demand curve used in the PJM region is downward-sloping. PJM's tariff identifies a "reliability requirement" for the region—*i.e.*, an amount of capacity that is expected to meet all of the region's electricity demand, plus a specified reserve margin. The demand curve provides for a capped price of 1.5 times the net cost of new entry for each unit of capacity up to 99.8% of the reliability requirement. Doc. 1, at 5, JA \_\_. Beyond that amount of capacity, the curve slopes downward, reaching a price of zero

when the cleared capacity in the market exceeds the reliability requirement by 8.8%. *Id.*

Over a decade ago, PJM chose—and FERC accepted—this downward-sloping demand curve because, although the marginal utility of additional capacity beyond the reliability requirement is lower, it is not zero: Additional capacity still helps increase the reliability of the grid and thus has value for grid users.<sup>6</sup> By assigning a positive price to excess capacity, a downward-sloping demand curve also “encourages investment in new generation capacity by ensuring increased stability in [capacity] revenues” and “send[s] better price signals to encourage the construction of generation before a shortage occurs.” *Electricity Consumers Resource Council v. FERC*, 407 F.3d 1232, 1237-38 (D.C. Cir. 2005) (quotation marks omitted).

Although petitioners do not come right out and say it, the clear import of their over-procurement arguments is that they would prefer a vertical demand curve, which assigns a price of zero to capacity in excess of the reserve requirement. *See* Opening Br. 48 (“Year after year, PJM’s demand

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<sup>6</sup> *See PJM Interconnection, L.L.C.*, 119 FERC ¶ 61,318 at P 106 (2007) (“[T]he value of capacity does not plummet to zero simply when supply equals the Installed Reserve Margin. Capacity above the Installed Reserve Margin still has value because it makes the system even more reliable, albeit at a declining level. Therefore, it is reasonable for additional capacity to be purchased if the offered price is less than the additional reliability benefits.”).

curve has forced consumers to buy an amount of capacity that significantly exceeds the target reserve margin.”). Under a vertical demand curve, PJM would procure capacity up to the reserve requirement—but no more. Petitioners would no doubt view a vertical demand curve as superior because such a curve would “meet the reserve margin target as closely as possible . . . .” Opening Br. 51. But FERC has consistently disagreed; in PJM and other regions, FERC has found a downward-sloping demand curve to be the superior market design choice.<sup>7</sup>

2. Most relevant for present purposes, petitioners’ arguments that PJM’s proposed tariff will lead to “oversupply” have nothing to do with *this*

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<sup>7</sup> See, e.g., *PJM Interconnection, L.L.C.*, 117 FERC ¶ 61,331 at P 76 (2006) (stating that “a downward-sloping demand curve provides a better indication of the incremental value of capacity at different capacity levels than the current vertical demand curve”); *New York Indep. Sys. Operator, Inc.*, 103 FERC ¶ 61,201 at P 35 (2003) (A sloped demand curve “rests on a more rational economic basis than the current demand curve, as it more realistically reflects the economic value of capacity reserves. As the likelihood of inadequate capacity decreases with increased reserves, the value of additional reserve capacity decreases. The proposed downward sloping demand curve reflects the decreasing but still positive value of additional reserves (while the existing vertical demand curve does not) and is a substantial improvement over the existing demand curve.”), *on reh’g*, 105 FERC ¶ 61,108 (2003), *aff’d sub nom. Electricity Consumers*, 407 F.3d 1232; *ISO New England Inc.*, 158 FERC ¶ 61,138 at P 29 (2017) (explaining that downward-sloping demand curves are “designed to reflect more accurately the locational marginal reliability impact of capacity”).

case. This proceeding addresses PJM's Section 205 filing, which simply proposed parameters for its downward-sloping demand curves. Petitioners' broadside against downward-sloping demand curves belongs, if anywhere, in a Section 206 proceeding, where FERC would at least have the authority to act on it. Petitioners' essential argument—that FERC should have gone beyond the four corners of PJM's proposal and forced PJM to abandon its use of a downward-sloping demand curve and revert to a vertical demand curve—is far outside the statutorily-defined scope of this proceeding.

The Federal Power Act creates two procedures under which FERC can review the reasonableness of rates: Section 205 proceedings (*see* 16 U.S.C. § 824d) and Section 206 proceedings (*see id.* § 824e). The two procedures “are related but distinct provisions of the [Act],” and their purposes are “quite different.” *Emera Maine v. FERC*, 854 F.3d 9, 24 (D.C. Cir. 2017) (quotation marks omitted).

“Section 205 enables a utility to propose changes in its own rates.” *Emera Maine*, 854 F.3d at 24. In a Section 205 proceeding, like the one that took place here, a public utility such as PJM submits a revision to its tariff for review. 16 U.S.C. § 824d(d). Section 205 then “puts FERC in a ‘passive and reactive role.’” *NRG Power Mktg., L.L.C. v. FERC*, 862 F.3d 108, 114 (D.C. Cir. 2017) (Kavanaugh, J.) (quoting *Advanced Energy Mgmt. All. v. FERC*, 860 F.3d 656, 662 (D.C. Cir. 2017)). FERC must “restrict[] itself to

evaluating the confined proposal” submitted by the utility (*Advanced Energy*, 860 F.3d at 662) and must either “accept or reject the proposal” under the just-and-reasonable standard (*NRG Power Mktg.*, 862 F.3d at 114). The Commission may not “impose a new rate scheme of its own making” that is outside the scope of the utility’s proposal. *Id.*

“Section 206,” by contrast, “empowers FERC to modify existing rates upon complaint or on FERC’s own initiative.” *Emera Maine*, 854 F.3d at 24. The complainant may “state the [desired] change or changes to be made in the rate” and articulate the “reasons for any proposed change.” 16 U.S.C. § 824e(a). The complainant has the burden of proving that the rate is unjust or unreasonable. *Id.* § 824e(b). If, and only if, the complainant carries that burden of proof, FERC may then set a new rate itself. *Emera Maine*, 854 F.3d at 24 (“[S]ection 206 mandates a two-step procedure that requires FERC to make an explicit finding that the existing rate is unlawful *before* setting a new rate.”) (emphasis added); *see also, e.g., Cities of Bethany et al. v. FERC*, 727 F.2d 1131, 1143 (D.C. Cir. 1984) (“[U]nder [S]ection 206, FERC itself may establish the just and reasonable rate, provided that it first determines that a rate set by a public utility is unjust, unreasonable, or unduly discriminatory.”).

Petitioners’ complaints that PJM’s downward-sloping demand curve will “exacerbate” the “excess supply” of capacity in the PJM region (Opening

Br. 48) are the stuff of a Section 206 proceeding, not a Section 205 review. In this Section 205 proceeding, FERC's *only* task was to evaluate whether the parameters for the downward-sloping demand curve PJM proposed were just and reasonable. The question of whether a vertical demand curve is preferable to a downward-sloping demand curve was not at issue; PJM and FERC crossed that bridge over a decade ago, when the downward-sloping demand curve was adopted in the PJM region. *See PJM*, 117 FERC ¶ 61,331. Neither PJM nor FERC was required to defend that decision in the Section 205 proceeding below, in which PJM was simply proposing parameters used to set the previously adopted downward-sloping demand curves. *See Public Service Commission of State of N.Y. v. FERC*, 642 F.2d 1335, 1345 (D.C. Cir. 1980) (explaining that the analogous provision of the Natural Gas Act places the burden on a rate applicant to “justify the change[] in rates, not the constant elements”). Petitioners must raise their arguments, if anywhere, in a Section 206 proceeding, where FERC would have authority to set its own demand curve, should petitioners actually demonstrate that the current demand curve is unjust and unreasonable. FERC thus correctly declined to address petitioners' generalized “oversupply” arguments here.

Petitioners argue that FERC's refusal to consider their “oversupply” arguments is “contradict[ed]” by its “focus on the ability to estimate the

costs and revenues of combined cycle plants” as a reason not to choose combined cycle technology as the reference unit. Opening Br. 36 n.7. But there is no contradiction. The Commission considered the merits of combined cycle technology because PJM’s own submission raised that issue: PJM’s consultant had recommended using combined cycle technology as the reference unit (Doc. 1, Attach. G, Ex. 2, at vii, JA \_\_), and PJM accordingly explained why it had not adopted that recommendation. Plaintiffs’ arguments about “oversupply,” by contrast, were untethered to any argument about “how specific parameters should be adjusted in light of th[eir] concern.” Doc. 78, ¶ 33, JA \_\_. FERC thus had no authority to rewrite PJM’s proposal based on petitioners’ policy arguments.

3. Because the question of whether PJM should continue to use a downward-sloping demand curve was not at issue below, petitioners’ arguments that a downward-sloping curve is insufficiently protective of consumers’ interests (*e.g.*, Opening Br. 50-52) are beside the point. But those arguments are also wrong on the merits, because they rest on a myopic view of how the Federal Power Act “balanc[es] investor and consumer interests.” *Id.* at 42. Congress did not believe, as petitioners appear to do, that every gain for suppliers comes at consumers’ expense. On the contrary, Congress understood that improving suppliers’ operational and financial performance redounds to consumers’ benefit because these entities are “companies in

whose financial stability the . . . consuming public has a vital stake.” *United Gas Pipe Line Co. v. Memphis Light, Gas & Water Div.*, 358 U.S. 103, 113 (1958). That is particularly true in the context of capacity markets, whose purpose is to ensure that a system operator has adequate generation capability at its disposal to meet consumers’ needs.

Thus, even if the question whether PJM should employ a downward-sloping demand curve had been at issue in this proceeding, it would not have been arbitrary or capricious for PJM and FERC to retain a downward-sloping curve. As FERC found more than a decade ago, the downward-sloping curve “result[s] in a more reliable system,” which benefits consumers. *PJM*, 117 FERC ¶ 61,331 at P 78. Moreover, “because more generation capacity will be in place, prices in the energy markets will be lower, resulting in lower energy bills to customers.” *Id.* Petitioners’ narrow-minded focus on how much capacity customers purchase is out of step with the Federal Power Act’s goal of “promot[ing] the orderly production of plentiful supplies of electric energy . . . at just and reasonable rates.” *Nat’l Ass’n for Advancement of Colored People v. Fed. Power Comm’n*, 425 U.S. 662, 670 (1976). Petitioners thus cannot show that FERC acted arbitrarily or capriciously.

## CONCLUSION

The petition for review should be denied.

Dated: December 4, 2020

Respectfully submitted,

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## CERTIFICATE OF COMPLIANCE

Pursuant to Federal Rule of Appellate Procedure 32(g), the undersigned counsel for *amicus curiae* certifies that this brief:

(i) complies with the type-volume limitation of Rule 29(a)(5) because it contains 6,485 words, including footnotes and excluding the parts of the brief exempted by Rule 32(f) and Circuit Rule 32(e)(1); and

(ii) complies with the typeface requirements of Rule 32(a)(5) and the type style requirements of Rule 32(a)(6) because it has been prepared using Microsoft Office Word 2016 and is set in New Century Schoolbook font in a size equivalent to 14 points or larger.

Dated: December 4, 2020

/s/ Paul W. Hughes

**CERTIFICATE OF SERVICE**

I hereby certify that that on December 4, 2020, I filed the foregoing brief via the Court's CM/ECF system, which effected service on all registered parties to this case.

Dated: December 4, 2020

/s/ Paul W. Hughes