ORAL ARGUMENT NOT YET SCHEDULED

Nos. 16-1234, 16-1235, 16-1236, and 16-1239
UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

# ADVANCED ENERGY MANAGEMENT ALLIANCE, et al., Petitioners, <br> V . <br> FEDERAL ENERGY REGULATORY COMMISSION, Respondent. 

On Petitions for Review of Orders of the Federal Energy Regulatory Commission


#### Abstract

JOINT OPENING BRIEF OF PETITIONERS ADVANCED ENERGY MANAGEMENT ALLIANCE, AMERICAN PUBLIC POWER ASSOCIATION, NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION, NEW JERSEY BOARD OF PUBLIC UTILITIES, PUBLIC POWER ASSOCIATION OF NEW JERSEY, NATURAL RESOURCES DEFENSE COUNCIL, SIERRA CLUB, UNION OF CONCERNED SCIENTISTS, AND AMERICAN MUNICIPAL POWER, INC.


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# CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES 

In accordance with D.C. Circuit Rule 28(a)(1), Petitioners certify as follows:

## A. Parties, Intervenors, and Amici

1. The following parties have appeared before this Court in the present consolidated cases:

Petitioners: Advanced Energy Management Alliance; American Public
Power Association; National Rural Electric Cooperative Association; New Jersey Board of Public Utilities; Public Power Association of New Jersey; Natural Resources Defense Council; Sierra Club; Union of Concerned Scientists; and American Municipal Power, Inc.

Respondent: Federal Energy Regulatory Commission
Intervenors: American Wind Energy Association; Calpine Corporation; CPV
Power Holdings, L.P.; EDF Renewable Energy, Inc.; E.ON Climate and
Renewables North America, L.L.C.; Exelon Corporation; LS Power Associates, L.P.; Maryland Public Service Commission; Mid-Atlantic Renewable Energy

Coalition; Monitoring Analytics, L.L.C. (PJM's Independent Market Monitor);
NextEra Energy Resources, L.L.C.; NRG Power Marketing, L.L.C., and GenOn
Energy Management, L.L.C.; Old Dominion Electric Cooperative; PJM Industrial
Customer Coalition; PJM Interconnection, L.L.C.; PJM Power Providers Group
(P3); Public Service Electric \& Gas Company, PSEG Power, L.L.C., and PSEG Energy Resources \& Trade, L.L.C. (the PSEG Companies); Retail Energy Supply Association; and the Steel Producers

## Amicus curiae: Electric Power Supply Association

2. The following entities appeared in the administrative proceedings before the Federal Energy Regulatory Commission in FERC Docket No. ER15-623-000 et seq.: Advanced Energy Management Alliance; AEP Companies; Alevo Energy, Inc.; Allegheny Electric Cooperative, Inc.; American Gas Association; American Municipal Power, Inc.; America’s Natural Gas Alliance; American Public Power Association; American Wind Energy Association; Mid-Atlantic Renewable Energy Coalition; Ares EIF Management, L.L.C.; Attorney General of Kentucky; BP Wind Energy North America, Inc.; Brookfield Energy Marketing, L.P.; Buckeye Power, Inc.; CPV Power Development, Inc.; Calpine Corporation; Champion Energy Companies; CleanGrid Advisors, L.L.C.; Community Energy, Inc.; Comverge Inc.; Consolidated Edison Companies; CPower Corporation;

Covanta Energy, L.L.C.; DC Office of the People's Counsel; DTE Energy Trading, Inc.; Dayton Power and Light Company; Delaware Public Service Commission;

Direct Energy Companies; Dominion Resources Services, Inc.; Dynegy
Companies; Duke Energy Corporation; Duquesne Light Company; EMC

Development Company, Inc.; E.ON Climate \& Renewables North America, L.L.C.; East Kentucky Power Cooperative, Inc.; Edison Electric Institute; Electricity Consumers Resource Council; Electric Power Supply Association; EnergyConnect, Inc.; EnerNOC, Inc.; Energy Storage Association; Environmental Defense Fund; Environmental Law and Policy Center; EquiPower Resources Corp.; Essential Power Companies; Exelon Corporation; FirstEnergy Service Company; GDF Suez Energy North America, Inc.; H.Q. Energy Services (U.S.) Inc.; H-P Energy Resources, L.L.C.; Homer City Generation, L.P.; IMG

Midstream, L.L.C.; ITC Lake Erie Connector, L.L.C.; Iberdrola Renewables, L.L.C.; Illinois Citizens Utility Board; Illinois Commerce Commission; Illinois Industrial Energy Consumers; Illinois Municipal Electric Agency; Indiana Office of Utility Consumer Counselor; Indiana Utility Regulatory Commission; Invenergy

Companies; LS Power Associates, L.P.; Macquarie Energy L.L.C.; Maryland
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Public Service Commission; Monitoring Analytics, L.L.C. (PJM's Independent
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NRG Companies; National Fuel Gas Distribution Corporation; National Rural
Electric Cooperative Association; Natural Gas Supply Association; Natural
Resources Defense Council and the Sustainable FERC Project; New Jersey Board of Public Utilities; New Jersey Division of Rate Counsel; NextEra Energy

Resources, L.L.C.; Noble Americas Energy Solutions, L.L.C.; North Carolina Electric Membership Corporation; Ohio Consumers' Counsel; Old Dominion Electric Cooperative; Panda Power Funds; Pennsylvania Office of Consumer Advocate; Pennsylvania Public Utility Commission; PHI Companies; PJM Industrial Customer Coalition; PJM Power Providers Group (P3); PPL Companies;

PSEG Companies; Public Citizen, Inc.; Public Power Association of New Jersey;
Public Service Commission of Kentucky; Public Utilities Commission of Ohio;
Raven Power/Sapphire Power Companies; Retail Energy Supply Association;
Rockland Electric Company; Sequent Energy Management, L.P.; Shell Energy
North America (U.S.), L.P.; Sierra Club; Solar Energy Industries Association;
Southern Maryland Electric Cooperative, Inc.; Steel Producers; Sun Edison Utility
Holdings, Inc.; UGI Companies; Union of Concerned Scientists; U.S. Federal
Executive Agencies; Virginia Municipal Electric Association No. 1; WGL Energy
Services, Inc.; and West Virginia Consumer Advocate

## B. Rulings Under Review

These petitions for review challenge two orders of the Federal Energy
Regulatory Commission:

1. PJM Interconnection, L.L.C., Order on Proposed Tariff Revisions, 151 FERC II 61,208 (June 9, 2015) ("Capacity Performance Order") (CIR 312, JA __-_), and
2. PJM Interconnection, L.L.C., Order on Rehearing and Compliance, 155 FERC II 61,157 (May 10, 2016) ("Rehearing Order") (CIR 413, JA ____).

## C. Related Cases

These consolidated petitions for review have not previously been before this Court or any other court. Petitioners are not aware of any other related cases within the meaning of D.C. Circuit Rule 28(a)(1)(C).

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## CORPORATE DISCLOSURE STATEMENTS

In accordance with Rule 26.1 of the Federal Rules of Appellate Procedure and D.C. Circuit Rule 26.1, the non-governmental Petitioners make the following disclosures:

The Advanced Energy Management Alliance (AEMA) is a national trade association whose members include companies that provide demand response services, large commercial and industrial customer demand resources, and a number of other affiliate and associate members. The AEMA's organizational purpose, among other things, is to advocate for policies that empower and compensate customers to manage their energy usage to make the electric grid more efficient, more reliable, more environmentally friendly, and less expensive. The AEMA is non-profit corporation incorporated under the laws of the District of Columbia. There is no parent corporation or any publicly held corporation that owns 10 percent or more of the AEMA's stock.

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The American Public Power Association (APPA) has no parent corporation or publicly traded stock. APPA is the national service organization representing the interests of not-for-profit, state, municipal, and other locally owned electric utilities in the United States. APPA was created in 1940 as a nonprofit, nonpartisan organization. Its purpose is to advance the public policy interests of its members and their consumers and to provide services to its members to ensure adequate, reliable electric power at a reasonable cost, consistent with good environmental stewardship. APPA is a trade association under Circuit Rule 26.1(b).

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The Public Power Association of New Jersey (PPANJ) is a non-profit association of public power and rural electric cooperative systems comprised of the municipal electric utilities of the Boroughs of Butler, Lavallette, Madison, Milltown, Park Ridge, Pemberton, Seaside Heights, South River, New Jersey; the Vineland Municipal Electric Utility; and Sussex Rural Electric Cooperative, Inc. The purpose of PPANJ is to promote the policy interests of its members in supplying reliable, low cost electricity to their customers. PPANJ does not have any parent companies, and no publicly-held company has a ten percent or greater ownership interest in the PPANJ. PPANJ does not issue stock.

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The National Rural Electric Cooperative Association (NRECA) states as follows, pursuant to Rule 15(d) of the Federal Rules of Appellate Procedure:

National Rural Electric Cooperative Association is a not-for-profit national service organization to which Rule 26.1 does not apply. See Fed. R. App.P.26.1(a).

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## The Natural Resources Defense Council (NRDC) is a non-profit

 environmental and public health organization committed to protecting public health and the environment through research and advocacy. NRDC has no parent corporations and no outstanding stock shares or other securities in the hands of the public. NRDC does not have any parent, subsidiary, or affiliate that has issued stock shares or other securities to the public. No publicly held corporation owns any stock in NRDC.Respectfully submitted,
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The Sierra Club is a national non-profit organization dedicated to the protection and enjoyment of the environment. The Sierra Club has no parent corporations and no outstanding stock shares or other securities in the hands of the public. The Sierra Club does not have any parent, subsidiary, or affiliate that has issued stock shares or other securities to the public. No publicly held corporation owns any stock in the Sierra Club.

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The Union of Concerned Scientists (UCS) is a national non-profit organization working for a healthy environment and a safer world through independent scientific research and citizen action. UCS has no parent corporations and no outstanding stock shares or other securities in the hands of the public. UCS does not have any parent, subsidiary, or affiliate that has issued stock shares or other securities to the public. No publicly held corporation owns any stock in UCS.

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American Municipal Power, Inc. (AMP) is an Ohio nonprofit corporation organized in 1971 as American Municipal Power-Ohio, Inc. (the name was changed to American Municipal Power, Inc. in 2009). It is a membership organization composed of municipalities that own and operate electric utility systems. AMP's members are located in in Ohio, West Virginia, Pennsylvania,

Michigan, Virginia, Kentucky, Indiana, and Maryland; an association of municipalities in Delaware also is a member.

AMP has issued term debt in the form of notes payable and bonds for the financing of its own assets and assets developed on behalf of specific members or groups of members. In connection with financing undertaken by the electric systems of certain members, AMP has issued tax-exempt debt securities for municipal projects.

AMPO, Inc. is a for-profit subsidiary that provides natural gas and electric aggregation consulting services to municipalities. It has no securities outstanding.

AMP does not have a parent corporation, and there is no publicly held corporation that holds $10 \%$ or more of its stock.

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* Authorities upon which we chiefly rely are marked with asterisks.


## GLOSSARY OF TERMS

Capacity Performance Order FERC's decision approving PJM's Capacity
"The Act"
ADD

Base Capacity*

Base Residual Auction*

Capacity Performance Filing

CIR
Cost of New Entry (CONE)*

Federal Power Act, 16 U.S.C. §§ 824 et seq.
Page number in the separately bound addendum to this brief

A temporary product allowing seasonal resources to continue participating in capacity auctions, up to a certain cap, during the transition period

PJM's primary annual capacity market auction, in which PJM procures commitments to provide electricity during a delivery year three years in the future. For example, PJM's May 2017 Base Residual Auction will procure commitments for delivery year 2020/2021.

PJM's proposal to amend its capacity market rules by introducing Capacity Performance, filed with FERC under Federal Power Act section 205. See PJM, "Reforms to the Reliability Pricing Market (RPM) and Related Rules in the PJM Open Access Transmission Tariff (Tariff) and Reliability Assurance Agreement Among Load Serving Entities (RAA)," Docket No. ER15-623 (filed Dec. 12, 2014) (CIR 2, JA __) Performance proposal, PJM Interconnection, L.L.C., Order on Proposed Tariff Revisions, 151 FERC II 61,208 (June 9, 2015) (CIR 312, JA __)

Item number in the Certified Index to the Record
PJM's estimate of the revenue that a new combustion turbine generator would require from the capacity market

Energy Market Filing

FERC or "the Commission"
Incremental Auction*
JA
P
PJM
Rehearing Order
Reliability Pricing Model*

RTO

Section 205

Section 206

PJM's complaint to amend its energy market rules, filed with FERC under Federal Power Act section 206. See PJM, "Proposed Revisions to the PJM Open Access Transmission Tariff and PJM Operating Agreement," Docket No. EL15-29 (filed Dec. 12, 2014) (CIR 3, JA __)

Federal Energy Regulatory Commission
PJM's smaller capacity market auctions, held closer to the target delivery year, adjusting the capacity procured in the Base Residual Auction

Page number in the Joint Appendix (deferred)
Paragraph number in a FERC order
PJM Interconnection, L.L.C.
FERC's decision denying Petitioners' rehearing requests, PJM Interconnection, L.L.C., Order on Rehearing and Compliance, 155 FERC II 61,157 (May 10, 2016) (CIR 413, JA $\qquad$
PJM's capacity market construct, which PJM revised with the Capacity Performance Filing

Regional Transmission Organization, as defined at 18 C.F.R. § 35.34

Section 205 of the Federal Power Act, 16 U.S.C. § 824d

Section 206 of the Federal Power Act, 16 U.S.C. § 824e

A temporary period, ending with the May 2017 Base Residual Auction (for Delivery Year 2020/2021), during which PJM procures a limited
amount of Base Capacity in its auctions in addition to Capacity Performance

Transition auctions
Two incremental auctions conducted in 2015 that replaced $60 \%$ and $70 \%$ of the capacity already procured for the 2016/2017 and 2017/2018 Delivery Years, respectively, with Capacity Performance resources

* Terms marked with an asterisk are authoritatively defined or described in PJM's tariff. See Capacity Performance Filing, Attachment B, "PJM Open Access Transmission Tariff and PJM Reliability Assurance Agreement" at 50 (Dec. 12, 2014) (CIR 2, JA __). In some cases, the definitions provided in this Glossary have been simplified for clarity.


## JURISDICTIONAL STATEMENT

Petitioners seek review of two final orders of the Federal Energy Regulatory Commission ("FERC" or "the Commission"). The first approved revisions to the tariff of PJM Interconnection ("PJM"). PJM Interconnection, L.L.C., Order on Proposed Tariff Revisions, 151 FERC $\mathbb{I}$ 61,208 (June 9, 2015) (CIR 312, JA __) ("Capacity Performance Order"). The second denied Petitioners' rehearing requests. PJM Interconnection, L.L.C., Order on Rehearing and Compliance, 155 FERC If 61,157 (May 10, 2016) (CIR 413, JA __) ("Rehearing Order"). ${ }^{1}$

FERC had subject matter jurisdiction under Federal Power Act sections 201, 205, and 206. 16 U.S.C. §§ 824, 824d, 824e. This Court has jurisdiction under 16 U.S.C. § $825 l(b)$. Petitioners filed timely petitions for review on July 8 and 11, 2016, within sixty days of FERC's denial of their rehearing requests. See id.

## STATUTORY PROVISIONS

The relevant statutory provisions are reproduced in the addendum.

[^0]
## STATEMENT OF ISSUES

1. Whether FERC's acceptance of PJM's unilateral Capacity

Performance tariff revisions as just and reasonable, even though they rendered other PJM filed rates unjust and unreasonable and necessitated further revisions that PJM could not directly make, was arbitrary and capricious and contravened the Federal Power Act;
2. Whether FERC's determination that Capacity Performance will yield "just and reasonable" rates is arbitrary and capricious given FERC's failure to evaluate the claimed benefits and estimated costs of the proposal;
3. Whether Capacity Performance unduly discriminates against seasonal resources by requiring that they meet an unnecessary year-round availability requirement;
4. Whether the demand resource performance rules depart from prior Commission determinations without a reasoned explanation;
5. Whether FERC's acceptance of an administratively determined default offer cap was arbitrary and capricious and amounts to acceptance of an unjust and unreasonable rate;
6. Whether FERC acted arbitrarily and capriciously by adopting a nonperformance charge design that fails to create effective penalties;
7. Whether PJM's aggregation rules are unduly discriminatory; and
8. Whether FERC failed to justify the inconsistent treatment of unitspecific parameters that results from its orders.

## INTRODUCTION

These petitions for review challenge FERC's approval of comprehensive changes to PJM's capacity auction and energy market rules, which determine the compensation paid to the region's electricity suppliers and directly affect the rates paid by sixty-one million electricity customers. Under the Federal Power Act, FERC is responsible for ensuring that such rules are "just and reasonable" and do not "subject any person to any undue prejudice or disadvantage." 16 U.S.C. §§ 824d(a), (b).

In approving PJM's rule changes, known as the "Capacity Performance" proposal, FERC failed to carry out its statutory duty. Capacity Performance requires that all resources participating in PJM's capacity auctions be available to produce electricity at any time of day, any day of the year. By PJM's own admission, Capacity Performance will impose billions of dollars of additional costs on consumers. While PJM asserts that Capacity Performance should improve system reliability, evidence of those claimed benefits is conspicuously absent from the record.

A majority of the Commission approved PJM's proposal and denied Petitioners' rehearing requests over the well-reasoned dissents of the Commission's Chairman, Norman C. Bay. As argued below, the Commission's approval of Capacity Performance is arbitrary and capricious and unsupported by
substantial evidence. The Commission violated its authorizing statute by approving PJM's proposal even as the proposal rendered other portions of PJM's tariff unlawful, and it failed to ensure that Capacity Performance is just and reasonable and not unduly discriminatory.

## STATEMENT OF THE CASE AND FACTS

## I. FERC's Role in Ensuring that Grid Operators Comply with the Federal Power Act

The Federal Power Act grants FERC jurisdiction over interstate transmission and wholesale sales of electric energy. 16 U.S.C. § 824(b)(1). The Act requires that "[a]ll rates and charges . . . by any public utility for or in connection with" such transmission or sales "and all rules and regulations affecting or pertaining to such rates or charges" must be "just and reasonable" and not "undu[ly] preferen[tial]." Id. §§ 824d(a), (b).
"Two related but distinct sections" of the Act "govern FERC's adjudication of just and reasonable rates." FirstEnergy Serv. Co. v. FERC, 758 F.3d 346, 348 (D.C. Cir. 2014). Under section 205, when a public utility seeks to "change" any rates or rules, it must file the proposed changes with FERC. 16 U.S.C. § 824d(d). FERC may hold a "hearing concerning the lawfulness of such rate," at which the utility bears "the burden of proof to show that the increased rate . . . is just and reasonable." Id. § 824d(e). A separate provision, section 206, authorizes FERC to investigate existing rates, on complaint or its own initiative. Id. § 824e(a). If it
finds that a rate "is unjust, unreasonable, unduly discriminatory, or preferential, the Commission shall determine the just and reasonable rate . . . [or] rule . . . , and shall fix the same by order." Id. § 824e(a). Under section 206, "the burden of proof to show that any rate . . . is unjust, unreasonable, unduly discriminatory, or preferential shall be upon . . . the complainant." Id. § 824e(b); see FirstEnergy, 758 F.3d at 353.

## II. PJM's Capacity Market and the "Capacity Performance" Proposal

## A. PJM's Capacity Market

PJM is a public utility providing interstate transmission service subject to comprehensive regulation by FERC. 16 U.S.C. § 824. As a regional transmission organization ("RTO"), see 18 C.F.R. § 35.34, PJM facilitates the delivery of wholesale electricity to sixty-one million customers in thirteen Mid-Atlantic and Midwest states and the District of Columbia. In addition to operating short-term wholesale electric "energy markets," PJM also operates a "capacity market" to secure commitments to provide the amount of capacity-i.e., the capability to supply, or forgo the consumption of, electricity in the future-that PJM forecasts will be necessary for the reliable operation of its grid. Capacity Performance Order at P 5 (JA __).

Each year, PJM holds a series of auctions in which suppliers submit offers to be available to provide a certain amount of capacity during a one-year period, three
years in the future. See id. at P 5 (JA __). ${ }^{2}$ Resources participating in the auction offer a specific amount of capacity at a specific price. Those with the lowest offer prices "clear" the auction first, and PJM continues to procure additional resources until its projected future demand is met. The highest clearing price then sets the rate of compensation for all resources selected to provide capacity. The more resources compete in the auction, the lower capacity costs tend to be. The auction also incorporates a "demand curve" that allows for procurement of more supply if prices are lower. This has the effect of increasing reliability as prices decrease. The auction results provide financial commitments to market participants that may influence decisions about whether to retire existing facilities, build new fossilfueled generators, install renewable energy resources like wind and solar, or develop demand response resources. ${ }^{3}$

[^1]PJM's capacity market is called the "Reliability Pricing Model," and, as approved by FERC, has historically "allow[ed] both existing and proposed generation, demand response and energy efficiency resources to compete to meet the region's installed capacity needs." PJM Interconnection, L.L.C., 134 FERC II 61,066, at P 2 (2011). It has "allowed PJM to meet reserve margins, add new capacity, and, most importantly, keep the lights on since 2007." Rehearing Order at 1 (Bay, dissenting) (JA __).

## B. Winter 2014 Conditions Highlighted Generator Performance Issues

In January 2014, the PJM region experienced unusually cold temperatures. See PJM, "Reforms to the Reliability Pricing Market and Related Rules" at 18 (Dec. 12, 2014) (CIR 2, JA __) ("Capacity Performance Filing"). During this period of high demand, nearly a quarter of generators were unable to perform as expected. Id. at 16-17 (JA __-_). Other suppliers, including wind generation and demand response, performed at or better than expectations. See id. at 34 (acknowledging "[t]he significant value provided by Demand Resources during these winter events"); Protest of Public Interest Organizations at 5 nn. 11-13 (Jan. 20, 2015) (CIR 181, JA __) ("Public Interest Protest") (citing PJM analyses).

Because PJM has extra capacity on its system, its customers did not lose power due to these individual plant failures.

Following this event, PJM developed focused reforms aimed at improving generator performance, such as enhanced testing of certain generators and use of a winter preparedness checklist. See Public Interest Protest at 32-35 (JA __); Protest of APPA and NRECA at 5 \& n. 10 (Jan. 20, 2015) (CIR 148, JA __) ("APPA Protest"). The incidence of forced outages dropped sharply as these reforms took effect, and generator performance was much improved the following winter despite a repeat of similarly extreme cold weather. See Rehearing Order at 2 (Bay, dissenting) (JA ___) ("Better preparation and winterization" helped improve reliability during the similarly severe winter of 2015); see also Capacity Performance Filing at 19 (JA __) (PJM conceded that "[m]ost, if not all," of the underlying causes of the 2014 winter outages "could be addressed through investments in weatherization or increased operating budgets").

## C. PJM Proposes "Capacity Performance" Rules

In addition to the focused reforms noted above, PJM also undertook a much broader overhaul of its capacity market: the development of "Capacity Performance" requirements. Due to a perceived need to implement these changes before the next capacity auction and a concern it "could not resolve the inherently contentious issues in time," PJM bypassed the stakeholder process it typically employs to develop such rules. Capacity Performance Filing at 21 (JA __-_).

PJM's Capacity Performance rules have two fundamental elements. First, they require that all resources submitting offers in PJM's capacity auctions be ready to perform at any time of day, every day of the year. Second, they impose penalties ("non-performance charges") when resources fail to perform when called upon, and they offer incentives and bonuses for meeting or beating performance targets.

## 1. Annual Performance Requirement

Under PJM's proposal, the only capacity product customers can buy and sellers can offer is an "annual" product called a "Capacity Performance Resource," which must be available to deliver electricity whenever called on, any time during the year. Id. at 21-22 (JA __-_). Resources that were previously able to reliably contribute capacity but that cannot upgrade to satisfy this annual availability requirement will no longer be eligible to participate in the market as stand-alone resources. Certain resources with seasonal or variable attributes-including demand response, wind, and solar-inherently do not perform at the same level throughout the year, and unlike fuel-based resources, they cannot be converted to annual resources through physical upgrades. Thus, many suppliers that ensured grid reliability during January 2014 will be effectively excluded from PJM's capacity market under these new rules.

PJM attempted to accommodate seasonal resources by allowing them to offer into the auctions as Capacity Performance resources if they can pair with other resources with complementary availability-a process called "aggregation"-to patch together 365 days of committed availability. Id. at 33-37 (JA __). Critically, however, the rules allow aggregation only by specific types of resources, and only if those resources are within the same "Locational Delivery Area"-limitations that effectively eliminate the usefulness of this provision. See infra, Argument Sections I(C), II(D).

## 2. Non-Performance Charges and Default Offer Cap

PJM's proposal introduced a new system of penalties and rewards. The NonPerformance Charge-a penalty imposed on any resource that fails to meet its performance obligations during a PJM-designated emergency event-is calculated using a fixed estimate of thirty "performance assessment hours" per year. Capacity Performance Filing at 39 (JA__). A high fixed number of performance assessment hours will reward sellers whose cleared capacity fails to perform when most needed by guaranteeing that such sellers will retain a significant portion of their revenue. Even PJM's Independent Market Monitor recognized that this estimate was too high, skewing the calculation and weakening the penalty. See PJM Answer at 64-65 (JA _____). As such, PJM proposed to revise its tariff to reflect a threeyear rolling average of performance assessment hours. Id. A 1.5 divisor of the
fixed number of performance assessment hours was also recommended to the Commission. Ultimately, however, the Commission rejected these suggestions that were intended to improve the effectiveness of the penalty mechanism.

PJM also proposed restructuring its preexisting market seller offer cap, replacing it with a "default offer cap." Under the prior rules, PJM limited offers from existing generation to no more than their "Avoidable Cost Rate" (i.e., the costs they could avoid by not committing as capacity). PJM Response to Deficiency Letter at 11 (Apr. 10, 2015) (CIR 279, JA __) ("Deficiency Response"). With Capacity Performance, a market seller can now offer up to the product of Net Cost of New Entry (CONE), multiplied by the balancing ratio, which is currently set at 0.85 . Id at 7 . The product of this equation is an administratively determined default offer cap that exceeds PJM's existing offer caps and allows existing resources to bid at levels that may be well above their true costs without concern for market power. In addition, the default offer cap acts as a safe harbor by allowing market sellers to avoid unit-specific market power mitigation of sell offers below the default offer cap. When an offer cap is too high, as it is under Capacity Performance, market power is not likely to be fully mitigated.

## D. Transition Period

In 2015, PJM began phasing in the new Capacity Performance requirements over the course of several auctions. See Capacity Performance Filing at 27-33 (JA _-_). During this transition period, resources that could not meet Capacity Performance requirements could still participate in the auctions as "Base Capacity," a temporary product. Id. at 27 (JA __). ${ }^{4}$ Starting with the next Base Residual Auction in May 2017, Base Capacity will be eliminated and PJM will accept only Capacity Performance resources. Id.

From the outset, PJM acknowledged that "the Capacity Performance proposal can be expected to increase capacity costs." PJM Answer at 16 (Feb. 13, 2015) (CIR 240, JA __). An initial estimate by PJM and its Independent Market Monitor projected that, taking into account the proposal's quantifiable benefits, its net incremental costs over the first three years would be $\$ 1.4$ to $\$ 4.0$ billion. See Public Interest Protest at 20 (JA __) (citing PJM \& Monitoring Analytics, "Capacity Performance Initiative" (Oct. 23, 2014) (JA __)). For the longer term, the proposal's net incremental cost would be about $\$ 300$ to $\$ 700$ million per year,

[^2]assuming average weather. Id. As discussed below, Capacity Performance has, as predicted, imposed additional costs in the billions of dollars.

## III. Proceedings Before the Commission

PJM filed its proposed rule changes with FERC under sections 205 and 206 of the Federal Power Act. See Capacity Performance Filing at 1, 5 (JA __, __). In the section 205 filing, PJM submitted revisions to portions of its Tariff and to the Reliability Assurance Agreement Among Load Serving Entities. Simultaneously, PJM submitted a complaint under section 206, which stated that other portions of its Tariff and portions of its Amended and Restated Operating Agreement ("Operating Agreement") were now unjust and unreasonable, and proposing replacement provisions. See PJM, "Revisions to the OA and OATT re: Capacity Performance" (Dec. 12, 2014) (CIR 3, JA __) ("Energy Market Filing"). PJM filed this complaint because it did not have approval by its members to make these revisions. See id. at 3 (JA $\qquad$ ).

All nine Petitioners intervened in the proceedings before FERC, where they submitted written comments and protests. Petitioners argued, among other things, that Capacity Performance would result in high costs with no demonstrated net benefits, that the new rules would drive renewable and demand resources out of the market, and that the penalties were not correctly calibrated to improve generator performance. See AEMA Protest (Jan. 20, 2015) (CIR 174, JA __); APPA Protest
(JA $\qquad$ ); Joint Consumer Representatives Protest (Jan. 20, 2015) (CIR 120, JA $\qquad$ ("Joint Consumer Protest"); Public Interest Protest (JA __); AMP Protest (Jan. 20, 2015) (CIR 188, JA__).

## IV. The Commission's Orders and Chairman Bay's Dissents

Despite Petitioners' and other protests, FERC approved PJM's rule changes under section 205, subject to PJM making certain modifications not relevant here. See Capacity Performance Order at P 2 (JA __). FERC held that Capacity Performance was just and reasonable and not unduly discriminatory, and it declined to modify PJM's penalty provisions or reject the default offer cap. Simultaneously, FERC granted PJM's complaint under section 206, concluding that, in light of its approval of PJM's section 205 proposal, other aspects of PJM's tariff were now unjust and unreasonable. $I d$.

All nine Petitioners requested rehearing. See AEMA Rehearing Request. (July 9, 2015) (CIR 331, JA __); Joint Consumer Representatives Rehearing Request (July 9, 2015) (CIR 344, JA __) ("Joint Consumer Rehearing Request"); APPA Rehearing Request (July 9, 2015) (CIR 338, JA __); Public Interest Organizations Rehearing Request (July 9, 2015) (CIR 345, JA __) ("Public Interest Rehearing Request"); Supplement to Public Interest Organizations Rehearing Request (Feb. 5, 2016) (CIR 409, JA __) ("Public Interest Rehearing Supplement"); AMP Request for Rehearing and Clarification (July 9, 2015) (CIR

328, JA __) ("AMP Rehearing Request"). FERC denied the rehearing requests and reaffirmed its prior order in all relevant respects. See Rehearing Order at P 2 (JA _ ).

The Commission's Chairman, Norman C. Bay, forcefully dissented from both orders, asserting that the majority's approval of Capacity Performance was not "the product of reasoned decision making." Rehearing Order at 1 (Bay, dissenting) (JA __). Chairman Bay specifically faulted the majority for accepting PJM's proposal as just and reasonable without attempting to evaluate "whether the benefits [of Capacity Performance] are at least roughly commensurate with the costs." Capacity Performance Order at 6 (Bay, dissenting) (JA __). Instead, the Chairman said, the majority cursorily relied on the "talismanic invocation of reliability" as justification for the proposal. Rehearing Order at 8 (Bay, dissenting) ( JA __).

As Chairman Bay explained, the record provided ample reason to doubt that the proposal would yield net benefits for consumers. First, he explained, PJM's proposal suffers from misaligned incentives and penalties, meaning that once resources are selected to participate in the capacity market, they "can profit even if they fail to deliver in an emergency when they are most needed and for which they have been handsomely compensated." Id. at 4 (Bay, dissenting) (JA __). Capacity

Performance drives costs up without any assurance consumers will benefit from improved reliability. Id. at 11 (Bay, dissenting) (JA __).

Moreover, when FERC issued its Rehearing Order, PJM had already conducted three auctions partially implementing Capacity Performance: two transition auctions for Delivery Years 2016/2017 (60\% Capacity Performance) and 2017/2018 (70\% Capacity Performance), and a Base Residual Auction for Delivery Year 2018/2019 (80\% Capacity Performance). As Chairman Bay explained, the imposition of partial Capacity Performance requirements in the two transition auctions alone resulted in $\$ 2.30$ billion and $\$ 1.63$ billion in additional costs, respectively, on top of what consumers were already committed to pay for capacity in those delivery years. ${ }^{5}$ Id. at 8-9 (Bay, dissenting) (JA __). Chairman Bay depicted these results with the following graph:

[^3]

Id. at 10 (Bay, dissenting) (JA $\qquad$ ). Notably, the original (pre-Capacity

Performance) cost of capacity for those two delivery years was $\$ 5.29$ billion and $\$ 7.52$ billion, respectively—markedly lower than the $\$ 10.94$ billion total price tag for the 2018/2019 Base Residual Auction, which is the first Base Residual Auction to be conducted under (partial) Capacity Performance rules. In sum, Chairman Bay concluded, even with Capacity Performance only partially implemented, "the capacity auctions in PJM have become increasingly expensive," and "the costs are in the billions." Id. at 8-9 (Bay, dissenting) (JA $\qquad$ _).

These petitions for review followed.

## SUMMARY OF ARGUMENT

FERC's orders suffer from multiple flaws. As a threshold matter, the Commission's actions under Federal Power Act sections 205 and 206 are irreconcilable and contravene the statutory scheme for adjudicating just and reasonable rates. The Commission accepted PJM's proposed unilateral tariff revisions under section 205 as just and reasonable. Yet FERC found PJM's tariff revisions rendered portions of PJM's FERC-filed Operating Agreement, which PJM could not unilaterally change, unjust and unreasonable. Upon that finding, FERC granted PJM's section 206 complaint and ordered changes to the Operating Agreement. The Commission's findings in the two proceedings are irreconcilable. In effect, FERC let PJM create a statutory unlawfulness in its filed rates that FERC could remedy, vitiating the statutory burden of proof, and evading FERC's obligations to consider alternatives to PJM's proposal. See infra, Argument Section I(A).

Even considered on its own terms, FERC's approval of Capacity Performance falls short of the standard for reasoned decisionmaking. FERC held that PJM's proposed rule change would lead to just and reasonable rates without any basis in the record for evaluating its claimed reliability benefits against undisputed evidence showing it will dramatically increase costs to consumers. See infra, Argument Section I(B). The Commission also approved Capacity

Performance in spite of its unjustifiably discriminatory effect on seasonal resources like wind, solar, and demand response. See infra, Argument Section I(C). In both respects, the Commission acted arbitrarily and capriciously and without substantial evidence.

In addition, the Commission's orders are arbitrary and capricious in several specific respects. The Commission departed from its prior ruling in approving PJM's proposed demand resource performance rules without providing a reasoned explanation. See infra, Argument Section II(A). It also acted arbitrarily in adopting an overly generous default offer cap, below which no market power mitigation takes place, and which allows for the unlawful exercise of market power on the front end; and by adopting a non-performance charge design that relies upon an unreasonably high number of performance assessment hours and fails to achieve effective penalties on the back end. See infra, Argument Sections II(B) and (C). FERC also approved limitations on the aggregation of resources that are discriminatory and unjustified, and it decided, illogically and inconsistently, that unit-specific operating parameters should be given effect for some purposes but not others. See infra, Argument Sections II(D) and II(E).

## STANDING

## I. Environmental Petitioners


#### Abstract

Petitioners Natural Resources Defense Council ("NRDC"), Sierra Club, and Union of Concerned Scientists ("UCS") (collectively, "Environmental Petitioners") are membership-based environmental public interest organizations.


 To establish associational standing, each Petitioner must show that at least one of its "members would . . . have standing to sue in [his] own right, [that] the interests at stake are germane to the organization['s] purpose[s], and [that] neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit." Friends of the Earth, Inc. v. Laidlaw Envtl. Servs., Inc., 528 U.S. 167, 181 (2000). Environmental Petitioners satisfy this test.First, Environmental Petitioners' members would "have standing to sue in their own right" because they suffer a classic "injury in fact" that is traceable to FERC's orders and likely to be redressed by a favorable decision of this Court. Id. at 180-81. Environmental Petitioners have tens of thousands of members who live in PJM's service area. See Trujillo Decl. II 4 (ADD 14); Fashho Decl. II 4 (ADD 16-18); Gomberg Decl. II 2 (ADD 34). FERC's approval of PJM's rule changes will have a concrete impact on those members, increasing the rates they pay for electricity. Environmental Petitioners have submitted declarations from members who aver that they live in the PJM region, that they pay electricity bills, and that
they do not want to pay higher electric rates. See Hansen Decl. IIII 1-4 (ADD 2);
Stenftenagel Decl. IIII 1-5 (ADD 10-11); Koczan Decl. IIII 1-5 (ADD 20-21); Owen
Decl. IIf 1-5 (ADD 31-32); Schoenberg Decl. IIII 1-5 (ADD 38-39); Schwartz Decl.
IIII 1-5 (ADD 41); see also Wilson Decl. II 5 (ADD 46). Because of FERC's approval of Capacity Performance, it is not merely probable but certain that these members will see their electricity rates rise unless this Court acts. See Wilson Decl.

IIII 13, 23, 24-27 (ADD 50, 54-56) (describing Capacity Performance's effects on end-users' rates); Rehearing Order at 10 (Bay, dissenting) (JA __) (noting that "capacity performance has resulted in billions in additional costs for consumers"). ${ }^{6}$

These economic injuries are quintessential injuries in fact. See Envtl. Action v. FERC, 996 F.2d 401, 406 (D.C. Cir. 1993) (environmental organization had standing by virtue of increased electricity costs to its members). They are also traceable to FERC's approval of PJM's rule changes. See Rehearing Order at 8-10 (Bay, dissenting) (JA __-_) (attributing increased costs in recent auctions to Capacity Performance); see generally Elec. Power Supply Ass'n, 136 S. Ct. at 776 ("[T]ransactions that occur on the wholesale market have natural consequences at

[^4]the retail level."). These injuries will be redressed by a decision of this Court to vacate FERC's orders, which would keep consumers' rates from rising.

Second, the interests that Environmental Petitioners seek to protect in this case are "germane" to their organizational purposes of promoting clean, affordable renewable energy. Friends of the Earth, 528 U.S. at 181. See Kennedy Decl. II 4 (ADD 6) (describing NRDC's mission to promote "full participation of affordable clean energy in the electricity market" to "keep[] costs down for consumersincluding NRDC members-and . . . level[] the playing field for clean energy resources"); Kresowik Decl. IIII 4, 6 (ADD 24-26) (describing Sierra Club's "twin goals" of "a transition to clean energy that is equitable [and] affordable for people, including Sierra Club members," and noting that Sierra Club's work in PJM's stakeholder processes have "furthered the transition to clean energy while simultaneously keeping prices low for consumers"); Gomberg Decl. ๆf 2 (ADD 34) (describing UCS's mission "to demonstrate that the transition to a clean energy economy is achievable and affordable for ratepayers" and to "prevent electricity rate increases for our members that . . . could be avoided through the use of lowercost renewable resources . . . ."). Third, because Environmental Petitioners do not seek individualized relief for their members, individual members' participation in this appeal is not required. See Friends of the Earth, 528 U.S. at 181.

Finally, Environmental Petitioners also satisfy the test for prudential standing, which requires that the interests they seek to protect "fall within the zone of interests to be protected . . . by the statutory provision" at issue. Nuclear Energy Inst., Inc. v. EPA, 373 F.3d 1251, 1279 (D.C. Cir. 2004) (internal quotation marks omitted). Environmental Petitioners challenge FERC's orders under section 205 of the Federal Power Act, which protects consumers from electricity rates that are not "just and reasonable" or that confer "undue prejudice or disadvantage." 16 U.S.C. § 824d(a), (b). As this Court has long recognized, section 205's "primary aim is the protection of consumers from excessive rates and charges." Mun. Light Bds. v. Fed. Power Comm'n, 450 F.2d 1341, 1348 (D.C. Cir. 1971). Because

Environmental Petitioners seek to protect their own and their members' interests as consumers of electricity, and because section 205 expressly protects these interests, they satisfy the test for prudential standing.

## II. Advanced Energy Management Alliance

The Advanced Energy Management Alliance ("AEMA") is a national trade association that represents leading demand response providers and their customers. The AEMA's members have made significant financial investments to provide demand response services in electricity markets across the country, including in PJM's service area, and it will be directly affected by the FERC orders on review. The constitutional and prudential standing of individual AEMA members is
particularly clear because they will be directly and adversely affected by FERC's decision to approve PJM's Capacity Performance Filing and to adopt unjust, unreasonable and unduly discriminatory rules applicable to demand response resource participation in PJM's capacity market. See Ali Decl. II 9 (ADD 73); Campbell Decl. §I 11 (ADD 79); Diamond Decl. ๆI 12 (ADD 84); McCaffree Decl. II 8 (ADD 90).

## III. New Jersey Board of Public Utilities

Petitioner New Jersey Board of Public Utilities ("NJBPU") is the administrative agency charged under New Jersey law with general supervision, regulation, and control over public utilities in the State, including electric utilities.
N.J.S. §§ 48:2-1; 48:2-13; 48:2-21. NJBPU's regulatory function and jurisdiction are recognized in the Federal Power Act. 16 U.S.C. § 824(a)-(b). NJBPU is a "state commission" pursuant to FERC's regulations. 18 C.F.R. § 385.214(a)(2).

NJBPU has standing to seek review of FERC's orders based on "the interest of the states in protecting their citizens in this traditional government field of utility regulation-that is, the states' parens patriae interest." Md. People's Counsel v. FERC, 760 F.2d 318, 321 (D.C. Cir. 1985). NJBPU challenges FERC's orders approving PJM's new capacity proposal because that proposal will produce unjust and unreasonable charges that will harm New Jersey's retail ratepayers.

## IV. American Public Power Association, National Rural Electric Cooperative Association, and Public Power Association of New Jersey

The American Public Power Association ("APPA") is the national service organization representing the interests of not-for-profit, state, municipal and other locally owned electric utilities throughout the United States. APPA has a significant number of utility members who are load-serving entities in PJM and receive service under the PJM tariff. See APPA Motion to Intervene (Dec. 19, 2014) (CIR 50, JA __). For the reasons stated above, APPA has standing because its utility members will pay excessive rates as a result of FERC's orders.

National Rural Electric Cooperative Association ("NRECA") is the national service organization for more than 900 not-for-profit rural electric utilities that provide energy to 42 million consumers in 47 states. Several NRECA members are located within the PJM footprint and are subject to PJM's tariff. It is critical to NRECA's members that their participation in PJM's markets not adversely impact their efforts to provide reliable electric service at the lowest reasonable cost. See NRECA Motion to Intervene (Jan. 20, 2015) (CIR 130, JA __).

Public Power Association of New Jersey ("PPANJ") is a non-profit association of public power and rural electric cooperative systems comprised of ten municipal electric utilities in New Jersey, nine of which are members of PJM.

Every PPANJ member system depends upon PJM for transmission services. See PPANJ Motion to Intervene (Dec. 19, 2014) (CIR 54, JA __).

## V. American Municipal Power

American Municipal Power, Inc. ("AMP") is an Ohio nonprofit corporation with 135 members that own and operate municipal electric utility systems in several states that are (in whole or part) within PJM's area of operations. AMP supplies wholesale power service for most its members by providing its own electric generation resources, scheduling and dispatching member-owned generation, and entering into power supply and transmission arrangements with third parties on behalf of its members.

AMP is an active participant in PJM's capacity auction process. AMP offers capacity into the auctions and, to meet the needs of AMP members located in PJM, also purchases some of the capacity PJM acquires in the auctions. AMP is thereby directly subject to the higher costs of capacity that result from the orders on review. After taking into account the revenues it may receive as a seller of capacity, AMP anticipates that the implementation of Capacity Performance will increase its (and its members') net costs of providing service to their customers. See AMP Motion to Intervene (Dec. 15, 2014) (CIR 12, JA __). In light of this direct injury to its interests and the interests of its members, and in view of its
participation and exhaustion of administrative remedies in the proceedings below, AMP has standing to seek review of FERC's orders.

## STANDARD OF REVIEW

This Court's review of FERC's determination is governed by the Administrative Procedure Act, which requires that an agency's orders be set aside if they are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." Pac. Gas \& Elec. Co. v. FERC, 373 F.3d 1315, 1319 (D.C. Cir. 2004) (quoting 5 U.S.C. § 706(2)(A)). When reviewing a utility's proposed tariff revision, FERC can approve the change only if it finds, based on substantial evidence, that it satisfies section 205's substantive requirements. "FERC must be able to demonstrate that it has made a reasoned decision based upon substantial evidence in the record." Id. (internal quotation marks omitted). FERC "must examine the relevant data and articulate a satisfactory explanation . . . including a rational connection between the facts found and the choice made." PSEG Energy Res. \& Trade, L.L.C. v. FERC, 665 F.3d 203, 208 (D.C. Cir. 2011) (internal quotation marks omitted).

## ARGUMENT <br> I. The Commission's Approval of Capacity Performance Was Unlawful <br> A. FERC's Orders Were Arbitrary and Capricious and Contravened the Statute ${ }^{7}$

FERC accepted PJM's Capacity Performance Filing as just and reasonable under section 205 of the Federal Power Act, subject to compliance requirements not at issue here. See Capacity Performance Order at PP 22-23 (JA __-_). At the same time, FERC granted PJM's Energy Market Filing under section 206 of the Act, finding that provisions in PJM's Operating Agreement were unjust and unreasonable. Id. at PP 400, 433, 462-463, 493-494 (JA __, _, __-_, _-__); see also id. at P 432 (JA __). These actions were irreconcilable and contrary to the statutory scheme for adjudicating just and reasonable rates.

The basis for FERC's section 206 finding was that PJM's Capacity Performance Filing under section 205 made provisions in PJM's Operating Agreement unjust and unreasonable: "We agree with PJM that given the changes we are accepting to its capacity market provisions, its existing energy market rules with respect to operating parameters, force majeure, and generator outages are unjust and unreasonable and must be revised." Id. at P 400 (JA __) (emphasis added).

[^5]Specifically, FERC found that PJM's existing operating-parameter provisions were "unjust and unreasonable because they can allow capacity resources to submit energy market offers with inflexible operating parameters that do not reflect their current, actual operating capabilities," which would be "inconsistent with its obligation to make its capacity available to the PJM region" under the Capacity Performance rules. Id. at P 433 (JA __). Moreover, FERC held, "[g]iven our acceptance of PJM's proposed Capacity Performance reforms," the "exemptions for non-performance" in PJM's force majeure provisions were "inappropriately broad," leading FERC to "therefore find that PJM has met its burden under section $206 \ldots$ to demonstrate that its existing force majeure provisions of its Tariff and Operating Agreement are unjust and unreasonable." Id. at P 463 (JA __). Similarly, FERC found that PJM's existing rules governing generator maintenance outages were "inconsistent with the . . . capacity market construct" of PJM's Capacity Performance rules. Id. at P 494 (JA __). In each instance, FERC's finding that a provision in PJM's Operating Agreement was unjust and unreasonable was based on FERC's acceptance of PJM's Capacity Performance Filing as just and reasonable.

Thus, FERC's section 205 findings were irreconcilable with its section 206 findings. Its orders do not explain how FERC could accept PJM's Capacity Performance Filing as just and reasonable, when simultaneously finding that this
very filing renders PJM's filed Operating Agreement unjust and unreasonable, triggering FERC's revisions of the latter under section 206. By the terms of the statute and the logic of FERC's own findings, PJM's Capacity Performance Filing was "not just and reasonable" and thus was "unlawful." 16 U.S.C. § 824d(a).

Moreover, FERC's acceptance of PJM's Capacity Performance Filing under section 205 provided the sole basis for FERC's finding that PJM had met its burden of proof under section 206 as the complainant in its Energy Market Filing. In effect, FERC found that PJM had created the factual premise and legal basis for FERC to order a change in rates that PJM could not have unilaterally made. This bootstrapping of results is impermissible. Nothing in the statutory scheme allows FERC to accept as lawful a public utility's change in its filed rates under section 205 and then to find that the newly changed rates render unlawful other filed rates of the utility, which FERC then must fix under section 206. That would "blur the line" between sections 205 and 206 and vitiate the burden of proof under section 206. See Western Resources, Inc. v. FERC, 9 F.3d 1568, 1578 (D.C. Cir. 1993) (interpreting analogous provisions of section 4 and 5 of the Natural Gas Act, 15 U.S.C. §§ 717c, 717d)).

Given FERC's explicit factual and legal linkage of the two parts of PJM's proposal, if FERC were to approve PJM's proposal, the Federal Power Act required FERC to act under section 206 alone, without first accepting a portion of

PJM's proposal under section 205. Indeed, that was the legal route FERC previously took on a similar proposal by another RTO to reform its market rules. See ISO New England Inc., 147 FERC II 61,172 at PP 23-26 (2014), reh'g denied, 153 FERC II 61,223 (2015), pet. for review pending sub nom. New England Power Generators Ass'n v. FERC, Nos. 16-1023 et al. (filed Jan. 19, 2016). FERC cited that earlier action as precedent for accepting PJM's proposal, see Capacity Performance Order at P 12 (JA __), ignoring the major procedural differences.

On remand, however, FERC cannot simply apply a section 206 Band-Aid to its prior actions-i.e., find that PJM's existing filed rates are unjust and unreasonable and then summarily reaffirm its approval of PJM's proposal. By filing unilateral tariff revisions under section 205, PJM did not place the lawfulness of its existing rates at issue. And when acting under section 206, FERC must do more than evaluate PJM's new proposal. The reason is the fundamental difference between FERC actions under section 206 versus section 205-and a further reason why FERC's orders were arbitrary and capricious. When acting on a public utility's rate filing under section 205, FERC undertakes an essentially "passive and reactive role" and confines itself to evaluating the filed proposal. City of Winnfield v. FERC, 744 F.2d 871, 876 (D.C. Cir. 1984). Indeed, FERC defended its action here on that basis. See Rehearing Order at P 37 (JA $\qquad$ ).

When FERC changes an existing filed rate under section 206, however, this is the agency's action, not the utility's, and it is "the Commission's burden to prove the reasonableness of its change in methodology." PPL Wallingford Energy L.L.C. v. FERC, 419 F.3d 1194, 1199 (D.C. Cir. 2005). Section 206 does not limit FERC to considering the complainant's proposed replacement rate. To the contrary, under section 206 " $[i] t$ is the Commission's job-not the petitioner's-to find a just and reasonable rate." Md. Pub. Serv. Comm'n v. FERC, 632 F.3d 1283, 1285 n. 1 (D.C. Cir. 2011). Reasoned decisionmaking required FERC to consider that alternative changes to PJM's capacity construct could better achieve PJM's performance objectives at a lower cost.

In denying rehearing, FERC framed the issue as whether it could deny PJM the "right" to file tariff changes under section 205 "merely because some related provisions of the Operating Agreement may be implicated by the filing." Rehearing Order at P 16 (JA __). The issue is not PJM's filing rights, but rather FERC's contradictory findings and actions. FERC does not explain why it is permissible to evaluate the lawfulness of PJM's Capacity Performance Filing without considering its effect on PJM's existing Operating Agreement. Indeed, FERC defended its granting of PJM's complaint with the contrary argument: "in these atypical circumstances," it was not required to "ignore" its acceptance of PJM's Capacity Performance Filing under section 205, but it could use that
acceptance as evidence to support its finding under section 206 that PJM's
Operating Agreement was unjust and unreasonable. Id. at P 17 (JA __). In FERC's curious logic, it may ignore PJM's Operating Agreement when accepting PJM's tariff changes, but it may consider PJM's tariff changes when ordering changes to PJM's Operating Agreement. Such lopsided reasoning is arbitrary and capricious and contrary to the statute. FERC must consider the Capacity Performance Filing and the Energy Market Filing together under section 206.

## B. FERC's Approval of PJM's Proposal Without Evaluating Its Claimed Benefits and Estimated Costs Is Arbitrary and Capricious and Not Supported by Substantial Evidence ${ }^{8}$

Section 205 of the Federal Power Act requires that all interstate wholesale electricity rates and "all rules . . . pertaining to such rates" be "just and reasonable." 16 U.S.C. § 824d(a). FERC here determined that PJM's Capacity Performance proposal will yield "just and reasonable" rates based on PJM's assertion that the proposal would provide unquantified improvements in reliability. The Commission made no serious attempt to evaluate those questionable reliability benefits, while undisputed record evidence showed that the proposal will dramatically increase costs to consumers.

[^6]In so doing, FERC ignored this Court's directive that "when the Commission chooses to refer to non-cost factors in rate setting, it must offer a reasoned explanation of how the relevant factors justify the resulting rates." TransCanada Power Mktg., Ltd. v. FERC, 811 F.3d 1, 13 (D.C. Cir. 2015) (internal quotation marks, ellipsis, and brackets omitted)). Without some informed estimate of how the proposal's anticipated costs compare with its claimed benefits, the Commission's determination that it will yield "just and reasonable" rates is arbitrary and capricious and unsupported by substantial evidence. 16 U.S.C. § 824d(a).

## 1. PJM Admitted that Capacity Performance Will Impose Substantial Costs with No Net Benefits in an Average Year

PJM's Capacity Performance Filing offered "no analysis, however rudimentary, indicating whether the benefits [of the proposal] are at least roughly commensurate with the costs." Capacity Performance Order at 6 (Bay, dissenting)
$\qquad$
$\qquad$ ). Nor did the Commission attempt to balance the proposal's expected costs and benefits, explaining that it "does not generally require the mathematical specificity of a cost-benefit analysis to support a market rule change." Capacity Performance Order at P 49 (JA __). Instead, citing PJM's desire to "enhance the reliability of resources in the capacity market," the Commission found that "on balance . . . the proposal . . . [is] just and reasonable." Id. at PP 43, 49 (JA __, __).

The Commission's disinterest in evaluating the proposal's costs and benefits is striking, given that the record contained undisputed evidence that Capacity Performance would impose significant costs on consumers. In October 2014, PJM and its Independent Market Monitor jointly issued a cost-benefit analysis of PJM staff's proposal. See Public Interest Protest at 20 (JA __) (citing PJM \& Monitoring Analytics, "Capacity Performance Initiative" (Oct. 23, 2014) (JA __)). That analysis showed that Capacity Performance's net incremental costs for the first three delivery years would range from $\$ 1.4$ to $\$ 4.0$ billion-more than it would cost simply to pay generators directly for operating during extreme weather conditions. See Capacity Performance Order at P 34 (JA __).

PJM slightly modified its Capacity Performance proposal after October 2014, but it never conducted a new cost-benefit study or provided FERC with updated cost estimates. Indeed, PJM's filed proposal is likely even more costly than the staff proposal, because it pays all the proceeds of the capacity nonperformance charges as bonuses to over-performing suppliers rather than allocating part of these proceeds to load-serving entities for distribution to consumers in the form of lower rates. See id. at P 182 (JA __). PJM did not dispute the continued relevance of the October 2014 study results to its filed proposal. On the contrary, PJM "characterize[d] [the October 2014 study results] as indicative" and acknowledged:
[T]he Capacity Performance proposal can be expected to increase capacity costs, including the costs of investments for improved resource performance. Overall, PJM found that the economic benefits would exceed ${ }^{9}$ the economic costs in years with extreme weather, whereas economic costs would exceed economic benefits in years with average or mild weather.

PJM Answer at 16-17 (CIR 240, JA __-_) (emphasis added).
In other words, by PJM's own admission, Capacity Performance is expected to have no net benefits in a typical (i.e., "average") year. Id. Only in "extreme" years does PJM expect Capacity Performance to yield any net benefits at all. Id. Neither PJM nor the Commission hazarded a guess as to how frequently such extreme years might occur, or "whether the benefit from years with extreme weather outweighed the cost of years with average or mild weather." Rehearing Order at 3 (Bay, dissenting) (JA __). Thus, FERC had no meaningful way to value the reliability benefits Capacity Performance purportedly could confer in those "extreme" years. Moreover, PJM admitted that it "did not attempt to quantify the economic value of reliability improvements" for "extreme" years or any years-a

[^7]notable omission, given that "enhanc[ing] reliability" was exactly what Capacity Performance was "designed" to achieve. PJM Answer at 16 (JA __).

In sum, PJM's own submissions failed to offer any meaningful assessment of the reliability benefits Capacity Performance purportedly would confer. PJM did, however, admit that the proposal's costs would be substantial, and those predictions became fact. By the time FERC denied rehearing, there was ample evidence in the record of Capacity Performance's actual costs. Even as partially implemented, Capacity Performance added billions of dollars in costs for consumers over the first three auctions in the transition period. See supra at 40-41.

## 2. FERC's Reliance on Exelon's Cost-Benefit Study Is Misplaced

In its denial of rehearing, FERC attempted to shore up its determination by citing to a commenter's submission purportedly demonstrating that Capacity Performance's "reliability benefits. . . are significant and justify the costs." Rehearing Order at P 34 (JA __). In fact, however, the single piece of evidence on which FERC relied-an affidavit submitted by Exelon Corporation-calls into question whether Capacity Performance would improve reliability at all.

FERC correctly noted that Exelon's affidavit "estimat[ed] that the value of avoiding load curtailment and scarcity energy pricing ranges from $\$ 3.8$ billion to over $\$ 7$ billion." Id. FERC neglected to mention, however, that Exelon's expert qualified his estimate with the following "major caveat":
[T]his level of customer benefits implicitly assumes that C[apacity] P[erformance] resources actually achieve the improvements in reliability necessary to improve performance to the standard expected of C[apacity] P[erformance] resources. If the performance penalties and other provisions are not adequate to induce this level of performance improvement, the benefits shown by my analysis will not materialize.

Exelon Comments, Ex. A at 100 (CIR 183, JA __). Specifically, Exelon's expert opined that PJM's performance penalties were set "much too low to incent the desired performance improvements," and that the number of performance assessment hours was too high. Id. at 46-47 (JA __-_). "If PJM fails to appropriately calibrate the hourly performance penalties," he warned, "I believe that the C[apacity] P[erformance] proposal will likely fall short of its reliability goals." Id. at 98 (JA __); accord id. at 46 (JA __).

In short, the viability of the Exelon expert's calculation depended on FERC ordering changes to Capacity Performance's penalty provisions. But the Commission declined to order the changes that Exelon's expert said were necessary to achieve his results. See Rehearing Order at PP 65, 70, 73 (JA $\qquad$ , —, __). His calculations, therefore, provide no support for the claim that Capacity Performance, as FERC approved it, would improve reliability. The majority's
reliance on the Exelon expert's estimate, even as it declined to adopt the changes on which that estimate depended, is arbitrary and illogical. ${ }^{10}$

## 3. By Failing To Evaluate the Proposal's Costs and Benefits, FERC Ignored Its Statutory Duty and this Court's Precedent

The Federal Power Act's requirement that utility rates be "just and reasonable" obliges FERC to consider the costs a proposed rate change would impose on consumers. Under the Act, a utility's rates are just and reasonable if they fall within a "zone of reasonableness" in which rates are high enough to be compensatory to the utility but not excessive for the consumer. See City of Chicago v. FPC, 458 F.2d 731, $750-51$ (D.C. Cir. 1971). "The 'zone of reasonableness' is delineated by striking a fair balance between the financial interests of the regulated company and the relevant public interests, both existing and foreseeable." Farmers Union Cent. Exch., Inc. v. FERC, 734 F.2d 1486, 1502 (D.C. Cir. 1984) (internal quotation marks omitted). Non-cost factors may play a role in setting just and reasonable rates, but "when FERC chooses to refer to non-cost factors in

[^8]ratesetting, it must specify the nature of the relevant non-cost factor and offer a reasoned explanation of how the factor justifies the resulting rates." Id.

This Court recently applied these principles in TransCanada Power Marketing v. FERC, 811 F.3d 1 (D.C. Cir. 2015). In that case, FERC approved a utility's proposed winter reliability program as "just and reasonable" even though the record was "devoid of any evidence regarding how much of the [p]rogram cost was attributable to profit and risk mark-up." Id. at 11. FERC "claimed that it 'balanced the actual cost with other critical considerations,' such as the 'pressing reliability risks,"" and concluded it was generally "'reasonable that participants with greater reliability benefits will be paid higher prices,'" but it did not determine that there would in fact be "no excess of profits." Id. at 13 (internal brackets omitted). FERC's explanation was insufficient, this Court held, because it "did not explain what its 'balancing' entailed, or how it applied the non-cost factors" to reach its determination. Id.

The Commission "commit[ted] the same error" here as in TransCanada. Rehearing Order at 4 (Bay, dissenting) (JA __). As Chairman Bay explained, "the talismanic invocation of reliability is, by itself, inadequate to establish reasoned decision making and just and reasonable rates." Id. at 3 (Bay, dissenting) (JA __). To meet the standard of reasoned decisionmaking, FERC must do more than simply invoke reliability; it must explain how it evaluated the rule's anticipated
costs and claimed benefits, and how it weighed them to determine that the resulting rates would be just and reasonable. See TransCanada, 811 F.3d at $13 .{ }^{11}$

Consistent with these principles-and especially considering the massive costs PJM's proposal was forecasted to impose on consumers-FERC was required to evaluate, in more than a cursory fashion, the costs and claimed benefits of Capacity Performance, or at least to explain why such an evaluation was impossible. See id.; see also FirstEnergy, 758 F.3d at 355 (dicta); Business

Roundtable v. SEC, 647 F.3d 1144, 1148-51 (D.C. Cir. 2011). FERC did neither of these things.

On rehearing, FERC acknowledged the centrality of costs to its statutory duties, but cited its "broad authority to consider non-cost factors as well as cost factors." Rehearing Order at P 30 (JA __) (internal quotation marks omitted). But that discretion is not an excuse for failing either to evaluate the costs and benefits or to explain why it was unable to do so. See Ill. Commerce Comm'n v. FERC, 756 F.3d 556, 561-62 (7th Cir. 2014) (holding that FERC's failure to evaluate the

[^9]reliability benefits of PJM's rate proposal was unreasonable absent a demonstration "that even a rough estimate of the benefits to be conferred . . . is impossible"). The Supreme Court's decision in Michigan v. EPA, 135 S. Ct. 2699 (2015), underscores that even in the absence of an explicit statutory requirement to perform a cost-benefit analysis, agencies may act unreasonably when they fail to consider the consequences-positive and negative-of their actions. That is the case here.

To be clear, Petitioners do not argue that a cost-benefit study is needed every time a market rule is changed, or that unquantified benefits can never outweigh estimated costs. Rather, Petitioners argue that a reasoned agency determination on a utility proposal that is expected to impose billions of dollars of increased costs on the public must provide at least a "rudimentary" analysis "indicating whether the benefits are at least roughly commensurate with the costs." Capacity Performance Order at 6 (Bay, dissenting) (JA __).

Insisting that the Commission "articulate[] a satisfactory explanation for its action[,] including a rational connection between the facts found and the choice made," Pac. Gas \& Elec., 373 F.3d at 1319 (internal quotation marks omitted), is particularly critical where, as here, the tariff in effect had previously been found just and reasonable, see PJM Interconnection, L.L.C., 134 FERC ๆI 61,066 (2011), the record contains unrebutted evidence that the rule change will impose billions of
dollars in increased costs on consumers, and the utility admits that the costs will outweigh the benefits in all years except possibly those with "extreme" weather events. PJM Answer at 16-17 (JA __).

FERC's failure to weigh Capacity Performance's speculative reliability benefits against its undisputed and substantial costs is arbitrary and capricious, and its conclusion that PJM's proposal will yield "just and reasonable" rates is
unsupported by substantial evidence in the record. 16 U.S.C. § 824d(a).

## C. Capacity Performance Unduly Discriminates Against Renewable Resources and Demand Resources ${ }^{12}$

Section 205(b) of the Federal Power Act provides that a utility may not "grant any undue preference or advantage" or "subject any person to any undue prejudice or disadvantage." 16 U.S.C. § 824d(b). Thus, section 205(b) prohibits rules that discriminate or confer a preference on one group of market participants over another without an adequate justification. See, e.g., Elec. Consumers Res. Council v. FERC, 747 F.2d 1511, 1515 (D.C. Cir. 1984). Because PJM's Capacity Performance rules insist that all resources in the capacity market act as annual resources-including those whose availability inherently varies by season, such as wind power, solar power, and demand response - the rules are unduly

[^10]discriminatory in violation of section 205(b), and FERC's approval in spite of their unjustifiably discriminatory effect is arbitrary and capricious.

## 1. Capacity Performance Unduly Discriminates Against Seasonal Resources

PJM's Capacity Performance rules unduly discriminate against an entire class of clean energy resources by conditioning participation in the capacity market on an arbitrary and unnecessary annual performance requirement that will largely exclude them. Wind, solar, and demand response are "seasonal" resources, whose availability varies over the course of the year. Wind performs especially well in winter, for example, and solar and many demand response resources (like air conditioning cycling) perform best in summer. PJM's prior FERC-approved capacity market rules accounted for this seasonal availability and enabled these low-cost and reliable resources to participate in the capacity auctions. See PJM Interconnection, L.L.C., 134 FERC ๆI 61,066, at P 74. Because these resources do not require the purchase and delivery of fuel, they can be uniquely valuable in maintaining system reliability during severe weather events. During the winter of 2014, while coal piles froze and natural gas-fired plants experienced fuel delivery interruptions and equipment failures, wind power and demand response exceeded expectations. See supra at 31 .

Perversely, PJM's Capacity Performance proposal effectively excludes from the capacity market the very seasonal resources that helped to keep the lights on in
2014. It does so by arbitrarily requiring every resource in the capacity market to act as a twelve-month resource, committing to deliver its offered electricity at any time over that year-long period. By restructuring its capacity market to procure capacity only in twelve-month blocks, PJM irrationally disadvantages seasonal clean energy resources (which, because of their seasonal nature, cannot upgrade to meet the twelve-month requirement) and confers an unjustified structural preference on annual fuel-based resources like coal, natural gas, and nuclear energy (which can burn fuel all year).

PJM acknowledged that its annual performance requirement would exclude some resources, especially demand response resources, from participating in the capacity market. See Capacity Performance Filing at 35 (JA __). In a token effort to mitigate this discriminatory effect, the Capacity Performance rules allow seasonal and intermittent resources to "aggregate"-i.e., to combine with other resources with complementary availability and bid into the auction as a single annual product. See id. Aggregation does not ameliorate the annual performance requirement's discriminatory effect, however, because aggregation imposes burdensome contracting and transaction costs on seasonal resources that fuel-based resources, in contrast, need not bear. In addition, as described further below, PJM unnecessarily restricted the type and location of resources that can aggregate,
further diminishing the usefulness of this provision. See infra Argument Section II(D).

Of course, a rule is not "undu[ly] preferen[tial]" or discriminatory if the utility can "justify[] these different effects." Elec. Consumers Res. Council, 747 F.2d at 1515 (internal quotation marks omitted); see also Black Oak Energy L.L.C. v. FERC, 725 F.3d 230, 239 (D.C. Cir. 2013) (differential treatment is not "undue" if "differences between parties . . . are relevant to the achievement of permissible policy goals"). Here, however, PJM's annual performance requirement cannot be justified. Seasonal resources have economic and reliability benefits that in some circumstances surpass those of annual fuel-burning resources: they are able to meet PJM's seasonal peak demands at low cost, and they have proven invaluable during emergency events when fuel-based resources experience operating or fuel delivery difficulties. See supra at 31. Their exclusion from the auctions will decrease competition and tend to drive prices up. See Public Interest Protest at 21 n. 57 (projecting that eliminating seasonal demand response and energy efficiency from the 2017/2018 auction results could increase costs by over $\$ 2.2$ billion (citing Monitoring Analytics, "Analysis of the 2017/2018 RPM Base Residual Auction" at 56 (Oct. 6, 2014))) (JA __).

Nor will the imposition of a year-round availability requirement address the forced outages PJM experienced in January 2014. Again, the record shows that
wind and demand response performed at higher levels than expected during the 2014 "polar vortex." See supra at 31. Imposing a blanket requirement on all resource types when it was specifically natural gas and coal-fired generators that failed to respond makes no sense.

More generally, imposing a year-round availability requirement is not reasonably tailored to meet PJM's reliability goals. The record shows that PJM can ensure reliability effectively by allowing seasonal resources to participate in the capacity market - as they did under PJM's previous capacity market construct, and as they have continued to do to a limited extent during the current transition period. See PJM Interconnection, L.L.C., 134 FERC 9 [ 61,066, at P 74 (approving the allowance for summer-only resources in the Reliability Pricing Model); Capacity Performance Order at PP 253-61 (JA __-__) (approving allowance for Base Capacity during the transition period). PJM itself stated that "it ha[d] sufficient capacity to meet its reserve margins at least through 2019," even without Capacity Performance. Public Interest Rehearing Request at 6-7 \& n. 15 (JA __) (citing PJM, "2014 Reserve Requirement Study" at 15 (Oct. 9, 2014) (JA __)). And as Chairman Bay pointed out, PJM's "prior capacity construct"-in which seasonal resources participated-"allowed PJM to meet reserve margins" and "keep the lights on since 2007." Rehearing Order at 1 (Bay, dissenting) (JA __). While
improving reliability is certainly a permissible goal, excluding all but year-round resources from the capacity market is not reasonably tied to achieving that goal. ${ }^{13}$

## 2. FERC's Determination that Capacity Performance Is Not Unduly Discriminatory Is Conclusory and Illogical

FERC largely evaded contentions that the annual performance requirement unduly discriminated against seasonal resources. For instance, the Commission failed to respond specifically to Environmental Petitioners, who argued that Capacity Performance was unduly discriminatory in both their comments and their rehearing request. See Public Interest Protest at 7-15 (JA __-__); Public Interest Rehearing Request at 10-11 (JA __-_). The Commission rejected a somewhat similar discrimination argument raised by the Pennsylvania and Delaware Public Service Commissions and Steel Producers concerning summer-only demand response resources, see Rehearing Order at PP 58-59 (JA __-_), but its reasoning is illogical and conclusory.

[^11]Specifically, the Commission held that PJM's annual availability
requirement was not unduly discriminatory because:
PJM is treating all resources identically in this respect. The rehearing requesters are in effect asking for special treatment for certain resources, permitting them to provide a lesser quality of service for the same price. We cannot find unreasonable PJM's conclusion that non-year-round resources do not provide equivalent service as yearround resources. Permitting non-year-round resources to continue participating could result in a loss of reliability during the fall, winter and spring when PJM will not have as many resources to respond to emergencies, such as a polar vortex.

Id. There are multiple flaws with FERC's reasoning. Most fundamentally, FERC's observation that "PJM is treating all resources identically," id. at P 58 (JA __), misses the point. The problem with Capacity Performance is that it imposes an unjustified one-size-fits-all rule, which has the predictable effect of screening seasonal resources out of the market. A single, uniform rule may well be discriminatory if it imposes disparate burdens on certain market participants. See Ala. Elec. Co-op., Inc. v. FERC, 684 F.2d 20, 27-28 (D.C. Cir. 1982) ("While the typical complaint of unlawful rate discrimination is leveled at a rate design which assigns different rates to customer classes which are similarly situated, a single rate design may also be unlawfully discriminatory" if it "creates an undue disparity . . . .") (emphases added).

Furthermore, the Commission apparently characterizes seasonal resources as "provid[ing] a lesser quality of service" because it has already assumed that year-
round availability is the proper metric of "quality." Rehearing Order at P 59 (JA
__). But this reasoning is circular: of course annual resources will appear superior if one assumes that annual availability is the key desirable characteristic. In fact, the record reveals no reason why all commitment periods must be annual. Instead of procuring capacity in twelve-month blocks, PJM could just as well procure capacity in smaller increments-e.g., six-month commitments, one for winter and one for summer-to meet the system's needs. ${ }^{14}$

FERC goes on to speculate, without support, that "[p]ermitting non-yearround resources to continue participating could result in a loss of reliability during the fall, winter and spring when PJM will not have as many resources to respond to emergencies, such as a polar vortex." Id. (emphasis added). As an initial matter, the problems PJM experienced in January 2014 were due to existing fuel-burning annual resources failing to respond. See supra at 31. More important, FERC's speculation does not justify PJM's imposition of a year-round availability requirement. When determining whether PJM's "preference" is "undue," 16 U.S.C. $\S 824 \mathrm{~d}(\mathrm{~b})$, the question is whether "there are rational reasons" for demanding

[^12]uniform year-round availability. Envtl. Action, Inc. v. FERC, 939 F.2d 1057, 1062
(D.C. Cir. 1991). As explained above, permitting only year-round annual resources to participate in the capacity market is not only costly, but also not rationally related to addressing the generator failures of January 2014 or meeting PJM's reliability goals.

Finally, FERC found, "PJM has provided reasonable accommodation to permit greater participation in the capacity market by such resource types, including a reasonable transition period and the ability to participate in aggregated offers." Rehearing Order at P 59 (JA __). But the transition period is temporaryseasonal resources can participate as Base Capacity only until that category is eliminated in the May 2017 auction. Beyond that, aggregation does little to mitigate the rules' discriminatory effect. FERC did not acknowledge the differential burden that aggregation places on seasonal resources-the burden of resources with complementary availability within the same delivery area finding each other, negotiating and contracting to present a single offer to PJM, and figuring out how to share the risks and rewards of Capacity Performance-let alone explain why imposing such a burden was justified.

In sum, PJM's annual availability requirement creates an undue disparity between seasonal resources and year-round, fuel-based resources that is unnecessary to achieve PJM's stated reliability goal. By imposing this requirement,

PJM is unduly discriminating against seasonal resources in violation of section 205(b).

## II. The Commission Erred In Approving Particular Aspects of the Capacity Performance Proposal

In addition to the overarching flaws with FERC's approval of Capacity
Performance described above, FERC's orders suffer from the following specific defects.

## A. The Demand Resource Performance Rules Depart from Prior Commission Determinations Without a Reasoned Explanation ${ }^{15}$

The Commission's orders are arbitrary and capricious because its approval of PJM's rules governing demand resource performance departs from prior determinations addressing the same subject matter without providing a reasoned explanation. See, e.g., Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 57 (1983). The Commission accepted, without explanation, the same type of demand resource performance rules it had previously rejected in approving PJM's prior capacity market construct. PJM's new rules have a significant detrimental effect on demand resources and electricity customers in PJM generally, and residential customers with air conditioning load in particular. The

Commission approved these rules without providing a reasoned explanation. See,

[^13]e.g., Louisiana Pub. Serv. Comm'n v. FERC, 184 F.3d 892, 894 (D.C. Cir. 1999) ("We hold that it was arbitrary and capricious for the Commission to assess capacity costs for interruptible service without an explanation for departing from its own precedent.").

Demand resources are comprised of customers' interruptible demand for electricity that can be reduced in accordance with PJM's instructions. Established FERC policy dictates that interruptible customers should be compensated in proportion to PJM's cost savings. See, e.g., Delmarva Power \& Light Co., 24 FERC ๆ 61,199, at 61,462 (1983). However, PJM's new demand resource performance rules break the connection between PJM's savings and the compensation received by interruptible customers.

Instead, the new rules attempt to gauge the level of load reduction that a demand resource makes during particular off-peak non-summer hours. However, that measurement is not related to PJM's avoided costs of obtaining capacity. As a result, demand resources that are already operating at lower levels and cannot reduce load in the non-summer off-peak months are penalized by not receiving compensation for the full value of their on-peak summertime load reduction capability and may even be precluded from participating as demand resources altogether. While FERC considered PJM's interest in promoting year-round resource performance, its error lies in failing to explain how PJM's interest
justified reversing its prior determination that tied demand resource performance rules to the capacity procurement that PJM avoids.

## 1. FERC's Prior Determination in Docket No. ER11-3322

In Docket No. ER11-3322, FERC approved the demand resource performance rules in effect prior to PJM's Capacity Performance Filing. PJM Interconnection, L.L.C., 137 FERC II 61,108 (2011). In that order, the Commission accepted PJM's proposal to determine the customer's maximum possible capacity contribution as a demand resource by examining whether the customer's metered load is less than its Peak Load Contribution, which "represents a customer's contribution to the system peak load." Id. at P 36. More specifically, Peak Load Contribution is "the average of the end-user's actual load during the five coincident peak hours of the preceding delivery year." $I d$. at P 2 n.2. This five coincident peak methodology is straightforward: it is a simple average of the customer's load for the five hours of greatest electrical demand on PJM's system within a one-year period. This methodology is also used to determine the customer's pro rata share of PJM's overall capacity costs. This approach to cost allocation is consistent with well-established precedent. See, e.g., Louisiana Pub. Serv. Comm'n, 184 F.3d at 895 ("Capacity costs are assessed to the peak-period users because it is peak demand that determines how much a utility will invest in capacity." (internal quotation marks omitted)); Town of Norwood v. FERC, 962
F.2d 20, 26 (D.C. Cir. 1992) ("CP demand billing encourages conservation by discouraging consumption at the time of system peaks . . . thereby forestalling the need to install new capacity." (internal quotation marks omitted)).

On PJM's system, periods of peak electricity demand occur in the summertime, and PJM has represented to FERC that "the most accurate, available measure of an end user's contribution to the system peak load is its [Peak Load Contribution]." PJM Interconnection, L.L.C., 137 FERC $\mathbb{T}$ 61,108, at P 29. In accepting PJM's proposal in Docket No. ER11-3322, FERC stated that the Peak Load Contribution "provides PJM with an estimate of peak period performance in future delivery years based on a customer's historic peak demand and is the specified limit under the tariff to the amount of capacity that an individual resource can commit in a capacity auction." Id. at P 64. Thus, under the rules in effect prior to PJM's Capacity Performance Filing, demand resource performance was, at its maximum, the difference between the customer's actual metered load for a particular hour and its historic contribution to peak system load. This connection supported FERC's conclusion that, "PJM's proposal is consistent with the purpose of capacity procurement in PJM, which is to procure capacity resources to meet forecasted system demand during peak periods . . . ." Id.

The Commission summarized PJM's argument against using an alternative measure-Customer Baseline Load-in place of Peak Load Contribution, as follows:

PJM argues that [Customer Baseline Load] values should not be used as the benchmark for valuing capacity market load reductions. PJM argues that while [Customer Baseline Load] is appropriate for measuring load reductions in the energy market, it is unnecessary and inappropriate to use this reference point in the capacity market, because the amount of capacity actually procured for each customer load, i.e., the [Peak Load Contribution], is a known variable.

PJM Interconnection, L.L.C., 135 FERC §I 61,212, at P 13 (2011). The
Commission accepted the use of Peak Load Contribution in PJM's demand resource performance rules and specifically rejected a number of alternatives to Peak Load Contribution, including Customer Baseline Load. See, e.g., PJM Interconnection, L.L.C., 137 FERC 9I 61,108, at P 61.

## 2. FERC Reversed Course Without a Reasoned Explanation in Approving PJM's Demand Resource Performance Rules

In its Capacity Performance Filing before FERC, PJM retained the Peak Load Contribution methodology to measure demand resource performance in summer months, but it generally replaced Peak Load Contribution with the Customer Baseline Load methodology for non-summer months (with one very limited exception). Capacity Performance Filing at 36 (JA __). PJM described

Customer Baseline Load as the "methodology that is currently employed for
measuring load reductions in the energy market," id., and stated that this change was necessary because of PJM's "new Performance Payment and NonPerformance Charge structure . . . ." Id. Additionally, PJM argued that "a nonsummer Peak Load Contribution . . . approach would yield less accurate compliance measurement . . . ." Id. However, PJM made no real effort to explain why it no longer supported the Peak Load Contribution method for which it advocated in Docket No. ER11-3322 when it argued that load reduction is best measured against "the amount of capacity actually procured for each customer." PJM Interconnection, L.L.C., 135 FERC II 61,212, at P 13.

In its protest, the AEMA objected to PJM's use of Customer Baseline Load in the manner proposed, pointing out that PJM's proposal directly contradicted PJM's arguments that the Commission accepted in Docket No. ER11-3322 in support of using the Peak Load Contribution methodology instead of Customer Baseline Load. AEMA Protest at 17-18 (filed Jan. 20, 2015) (JA __). In its Capacity Performance Order, FERC brushed aside PJM's reversal:

PJM argues that non-summer consumption that falls below the summer-based peak load contribution is insufficient to demonstrate performance, because any seasonal difference in demand is already accounted for in the planned outage schedules that PJM uses in calculating its installed reserve margin.

Capacity Performance Order at P 80 (JA __). Further, FERC noted that PJM cites the "absence of a non-summer equivalent of peak load contribution" as
justification for its proposal. Id. at P 80 n. 60 (JA __). However, FERC did not address how PJM's assertions outweigh the shortcomings of Customer Baseline Load that FERC recognized in Docket No. ER11-3322.

FERC's assertions prove AEMA's point: Customer Baseline Load is unrelated to the quantity of capacity PJM procures on behalf of an individual customer, which is the quantity PJM avoids purchasing when the customer commits to reduce load. Instead, PJM is applying Customer Baseline Load to measure demand resource performance in off-peak periods that do not affect the cost of PJM's capacity procurement. See, e.g., Louisiana Pub. Serv. Comm'n, 184 F.3d at 895 ("During the off-peak periods the capacity is available at no marginal cost . . . ."). Therefore, Customer Baseline Load is not an appropriate baseline from which to measure that customer's load reduction capability because it does not allow the customer to be accurately credited for the cost savings it brings to PJM. See AEMA Rehearing Request at 12-13 (JA __-_).

FERC did not address the AEMA's argument or meaningfully balance PJM's interests in promoting year-round performance against the customer's interest in obtaining commensurate credits for providing load reduction capability that reduces PJM's costs. FERC's mere recitation of PJM's disjointed rationale does not constitute a reasoned explanation for departing from its well-founded determination in Docket No. ER11-3322.

In the Rehearing Order, FERC acknowledged its decision in Docket No. ER11-3322. See Rehearing Order at PP 122, 124 (JA __, __). FERC disagreed with the AEMA's position 'that it is improper to use an energy market-based measure, the customer baseline, to determine performance in a capacity demand response program." Id. at P 124 (JA __). FERC once again noted that PJM's Capacity Performance filing emphasizes "improved resource performance in winter periods" and summarily concluded that this "provides PJM adequate justification . . . ." Id . FERC acknowledged that PJM's proposal may impair customers' ability to act as demand resources, id., but it never explained why PJM's interest in year-round performance outweighed the fundamental principle FERC affirmed in Docket No. ER11-3322-that interruptible customers' interruptible capability at times of peak system demand should proportionally offset the capacity charges those customers face. PJM's Capacity Performance Filing is inconsistent with that principle. FERC's failure to provide a reasoned explanation for accepting that filing is arbitrary and capricious and not supported by substantial evidence.

## B. FERC's Acceptance of an Administratively Determined Default Offer Cap Was Arbitrary and Capricious and Amounts to Acceptance of an Unjust and Unreasonable Rate ${ }^{16}$

FERC's adoption of the default offer cap, to replace the former unit-specific cap described below, essentially eliminates market power mitigation in a structurally non-competitive market. As a result, resources can exercise market power in formulating bids up to the default offer cap and be paid handsomely for it without meaningful penalty. As Chairman Bay explains, this results in a market design that is "too generous on the front end and too weak on the back end." Rehearing Order at 4 (Bay, dissenting) (JA __); see also Joint Consumer Rehearing Request at 14 (JA $\qquad$
Ultimately, FERC's approval of the default offer cap is arbitrary and capricious, unsupported by substantial evidence, and fails to achieve its intended purpose at a cost that is unjust and unreasonable in violation of Federal Power Act section 205(a), 16 U.S.C. § 824d(a). See Motor Vehicle Mfrs. Ass'n, 463 U.S. at 43-44; PPL Wallingford Energy, 419 F.3d at 1198; 5 U.S.C. § 706(2).

Capacity Performance represents a sea change to PJM's capacity market rules, the Reliability Pricing Model. Since its 2007 introduction, the Reliability Pricing Model successfully attracted and retained sufficient cost-effective capacity

[^14]to meet resource adequacy requirements, in a capacity market that both FERC and the Independent Market Monitor have acknowledged is structurally noncompetitive. Deficiency Response at 2-3 (JA __-_); Capacity Performance Order at P 12 (JA __). The Independent Market Monitor's 2014 State of the Market Report reveals that the application of market power mitigation rules has resulted in competitive Reliability Pricing Model results. Deficiency Response at 3 (JA __). See also supra at 31.

Under the Reliability Pricing Model, PJM has forecasted adequate reserve margins through at least 2019, despite the retirement of a significant amount of generation resources. Capacity Performance Order at 2 (Bay, dissenting) (JA __). Chairman Bay also noted the success of incremental efforts by PJM, since the winter of 2014, that have significantly reduced forced outages during a record winter peak-setting 2015 that was nearly as cold as 2014. Id. at 2, 3 (Bay, dissenting (JA __, __). Thus, neither the availability of generation nor generator performance constituted pressing issues under the Reliability Pricing Model that required the substantial changes approved by FERC.

Nevertheless, PJM sought, and FERC approved, a comprehensive capacity market transformation ostensibly intended to promote reliability, including the adoption of a default offer cap that completely replaces the prior offer cap rules. The prior Reliability Pricing Model rules effectively capped capacity offer prices at
the unit-specific Net Avoidable Cost Rate. Capping capacity offer prices at the Net Avoidable Cost Rate replicated competitive market fundamentals and competitive market behavior.

Without adequate justification for the substantial change, FERC's new approved default offer cap under Capacity Performance sets aside, in a structurally non-competitive market, the review and mitigation of capacity offers up to an administratively-determined value that bears little resemblance to the actual cost of new-entry. Joint Consumer Rehearing Request at 14-15 (JA __-_). As Chairman Bay explained: "[ $t$ ]he cap is usually the product of two numbers: the balancing ratio, currently 0.85 , and the New Cost of New Entry (CONE), which is PJM's estimate of the revenue that a new combustion turbine generator would require from the capacity market." The cap is algebraically stated as Net CONE*B. ${ }^{17}$ Rehearing Order at 5 (Bay, dissenting) (JA __). This administratively determined default offer cap (Net CONE*B) exceeds PJM's existing offer caps under the Reliability Pricing Model based on unit-specific avoidable costs, as numerous commenters demonstrated below. Capacity Performance Order at PP 324-26 (JA
$\qquad$
--_).

[^15]This default offer cap functions as a safe harbor, in that PJM will cease its unit-specific market power mitigation (based on unit-specific avoided costs) of seller offers below the default offer cap. Id. at PP 263, 340 (JA __, __). The Independent Market Monitor does not review costs or the possible exercise of market power for the offers below the cap. Id. at P 340 (JA __). In addition, PJM will permit sellers to justify offers above the default offer cap on a unit-specific basis by using a more generous definition of avoidable costs than under its existing tariff. Id. at PP 264, 316, 335-36, 344 (JA __, __, _-_, __). "As a result, all units, including those with market power, have the ability to submit capacity offers up to the offer cap without scrutiny." Rehearing Order at 5 (Bay, dissenting) (JA
$\qquad$
As Chairman Bay underscored in his dissent, "if the offer cap is too high, market power is likely not fully mitigated." Id. at 6 (Bay, dissenting) (JA __). On rehearing, the majority dismissed concerns over the exercise of market power to raise clearing prices, stating that "mitigation does not, and should not, protect consumers from actual capacity cost increases that are attributable to necessary investments that allow a capacity resource to participate in the capacity market, including relevant opportunity costs faced by said resource, or risks associated with that resource's participation." Rehearing Order at P 183 (JA __). But FERC's analysis misses the point. The removal of mitigation up to Net CONE*B strips
away the Independent Market Monitor's ability to determine whether a seller's offer includes actual and legitimate costs. The majority further dismisses arguments against PJM's proposed default offer cap with conclusory statements favoring PJM's equation. Capacity Performance Order at PP 336-40 (JA __-_); Rehearing Order at PP 184-86 (JA __-_). Ultimately, it is FERC's position that by definition, offers up to Net CONE*B, the default offer cap, are competitive and do not need further scrutiny to curb market power abuse. See Capacity Performance Order at P 340 (JA __).

FERC's adoption of the default offer cap, which essentially eliminates mitigation up to Net CONE*B, shows its disregard for the fact that its approved default offer cap will apply to market offers in the same structurally noncompetitive capacity market that exists under the Reliability Pricing Model. Removing mitigation up to Net CONE*B creates an incentive for market sellers to submit offers up to that amount while still avoiding the scrutiny of offer review. Numerous commenters pointed this out. See id. at PP 273-77, 325 (JA __-_, __). FERC is aware of market vulnerabilities and has acknowledged the need for mitigation in a structurally non-competitive market. Id. at P 348 (JA __). For FERC to then approve the default offer cap-a redesign that essentially strips away the mitigation it found necessary to prevent market abuse in a non-competitive
environment-is arbitrary and capricious and will lead to artificially inflated capacity prices that are unjust and unreasonable.

The impact that non-mitigation of offers up to Net CONE*B will have on capacity clearing prices is intensified by a structure of penalty and reward incentives under Capacity Performance which may function to encourage nonperformance rather than deter it. This incentive structure flaw derives from an imbalance between penalties for non-performance and incentives for performance. Penalties for non-performance are considerably less than incentives for performance, which could permit market sellers to profit despite non-performance. In other words, a resource that fails to perform could pocket the difference between the clearing price for the sale of his capacity, which can be up to Net CONE*B, and the penalty for his subsequent non-performance. Since a seller's potential margin of profit increases as the difference between the penalty and the clearing price increases, and without market power mitigation of offers up to Net CONE*B, there is greater incentive for a seller to bid at or as close to Net CONE*B as possible, regardless of whether it reflects his actual costs.

Chairman Bay authored two dissents where he succinctly refers to this flaw as "two carrots and a partial stick"-the first carrot refers to the generous process allowing a market seller to offer a resource up to Net CONE*B; the second carrot represents an additional payment that over-performing resources can collect
deriving from the collection of penalties from non-performing capacity sellers; and the "partial stick" represents the "Non-Performance Charge," which is only a fraction of the value of the Capacity Performance incentive. Capacity Performance Order at 3 (Bay, dissenting) (JA __); Deficiency Response at 7 (JA __).

Further, the existence of the "two carrots and a partial stick" flaw defies the rationale behind PJM's submission and FERC's acceptance of a default offer cap and calls into question the legality of FERC's approval of Capacity Performance. Capacity Performance is intended to allow PJM to procure sufficient capacity to meet its reliability objectives, with PJM noting that under its prior capacity rules, "poor-performing and non-performing resources could expect to receive positive capacity revenues even if they failed to deliver energy when needed-and customers would pay for resources that did not reliably perform." Rehearing Order at P 32 (JA __). Supposedly, the new Capacity Performance penalty and incentive structure was developed to address that problem. Id. As detailed in Chairman Bay's dissents to both orders, and in Petitioners' filings before FERC, the new Capacity Performance default offer cap will provide precisely the same inducements PJM sought to eliminate-pay for non-performance or "two carrots and a partial stick." See Capacity Performance Order at 3-5 (Bay, dissenting) (JA
__-_); Rehearing Order at 3-4 (Bay, dissenting) (JA __-__); Capacity

Performance Order at P 325 (JA __). Therefore, FERC erred in approving the default offer cap.

An agency must articulate a rational nexus between the facts found and the choice made, and its findings must be supported by substantial evidence. Burlington Truck Lines v. United States, 371 U.S. 156, 168 (1962) (citations omitted). FERC failed to show how adopting a default offer cap will increase reliability and eliminate, rather than perpetuate, the exercise of market power. To the contrary, FERC offered an explanation for its decision that runs counter to the evidence before it. Motor Vehicle Mfrs. Ass'n, 463 U.S. at 43.

Finally, the logic of the default offer cap, which pivots entirely on the concept of compensating capacity sellers for their lost opportunity costs when they choose to offer into the capacity versus the energy market, does not apply under the new Capacity Market product since it continues to embrace the "must-offer" rule. See Joint Consumer Rehearing Request at 19 (JA __). The must-offer rule requires capacity resources to offer into the Base Residual Action; it is not optional. With a must-offer requirement in place, a Low Avoidable Cost Rate resource cannot opt to sit out of the capacity auction and continue as an energyonly resource, earning big revenues on energy-market Performance Bonus Payments. Therefore, PJM's design of the default offer cap, which is intended to compensate capacity sellers for the value of the lost opportunity cost by not
offering into the energy market, is based on a flawed analysis of actual capacity seller market behavior. As a result, it is artificially inflated by the value of opportunity costs that a capacity seller is not entitled to in light of the must-offer requirement. This inaccurate reflection of opportunity costs further demonstrates the unjustness and unreasonableness of the default offer cap.

In sum, FERC's adoption of a default offer cap was arbitrary and capricious, unsupported by substantial evidence, and results in unjust and unreasonable rates in violation of section 205.

## C. FERC Acted Arbitrarily and Capriciously by Adopting a Non-Performance Charge Design that Fails To Achieve Effective Penalties ${ }^{18}$

FERC approved a design that is not only "too generous on the front end," as described above; it is also "too weak on the back end." Rehearing Order at 4 (Bay, dissenting) (JA __). As Chairman Bay explained, the Non-Performance Charge is weak enough that "resources can profit even if they fail to deliver in an emergency when they are most needed and for which they have been handsomely compensated." Id. PJM acknowledged an alternative design that would make the penalty mechanism effective, but FERC did not consider or adopt it. Thus, FERC acted arbitrarily and capriciously for failing to fully review the record and not adopting an effective penalty design.
${ }^{18}$ This argument is presented by NJBPU and PPANJ.

FERC erred in adopting PJM's inflated initial proposal for thirty estimated Performance Assessment Hours. See Capacity Performance Order at P 163 (JA __). The estimated number of Performance Assessment Hours used directly relates to the calculation of the Non-Performance Charge, the "stick" in Chairman Bay's analogy. If a lower number of Performance Assessment Hours is used in the calculation, the penalty charge in each hour would be higher, and thus, "the incentive to perform would be increased." Rehearing Order at 6 (Bay, dissenting) (JA __). FERC arbitrarily chose thirty as the estimated number of RTO-Wide Performance Assessment Hours in a given year, even though the record before itincluding statements from PJM—offered a more accurate, lower number that, if used, would produce a more effective penalty. See Capacity Performance Order at P 163 (JA __); Rehearing Order at PP 65, 70-73 (JA __, _-__). Instead, a fixed thirty estimated Performance Assessment Hours would reward sellers whose cleared capacity fails to perform when most needed by guaranteeing that such sellers will retain a significant portion of their revenue.

FERC repeatedly refers to the use of thirty RTO-wide Performance Assessment Hours as "PJM's Proposal." Capacity Performance Order at P 112 (JA __). Although the computation appeared in PJM's original December 2014 petition, PJM later offered to revise its proposal. PJM Answer at 64-65 (JA __-_). PJM's initial estimate of thirty RTO-wide Performance Assessment Hours was
accurate for the anomalous 2013/2014 Delivery Year, which included the polar vortex winter. Rehearing Order at P 70 (JA __); id. at 6 (Bay, dissenting) (JA __). However, other years have seen far fewer Performance Assessment Hours, as both the majority and dissent acknowledged on rehearing. Id. Realizing its own design flaw during the proceeding, PJM conceded that Delivery Year 2013/2014 "had an unusually high number of emergency hours, and thus may be a poor source for a number of Performance Assessment Hours." PJM Answer at 64-65 (JA __-__). PJM offered to revise the tariff to use a number of hours equal to a rolling threeyear average of actual Performance Assessment Hours. Id.

In his dissent, Chairman Bay stated that "[a]n estimate of 30 expected performance assessment hours appears to be overly generous[.]" Capacity Performance Order at 3 (Bay, dissenting) (JA __). Petitioners NJBPU and PPANJ the Chairman, and PJM agreed, but the FERC majority did not acknowledge PJM's proposed revision either initially or on rehearing. See Joint Consumer Rehearing Request at 8 (JA __). Not acknowledging this submission demonstrates FERC's failure to fully review the record before it and further undermines its selection of PJM's initially proposed thirty RTO-wide Performance Assessment Hours.

FERC also failed to acknowledge other mathematical devices available to improve the Performance Assessment Hours calculation and effectiveness of the penalty mechanism. For example, NJBPU and PPANJ recommended using a
divisor equal to 1.5 in conjunction with calculating the rolling three-year average of actual Performance Assessment Hours that increases the levels of penalties. See id. at 12-14 (JA __). In the Capacity Performance Order, FERC did not address this proposal or any of the simple mathematical critiques of PJM's initial design. On rehearing, the majority offered only a cursory mention of the 1.5 divisor, but no further analysis or discussion. Rehearing Order at P 64 (JA __). FERC's decision to accept the Non-Performance Charge as initially proposed, without seriously considering the 1.5 divisor or other mathematical devices, is arbitrary and capricious.

The majority refused to accept an average, as PJM proposed, to account for the outlier, and ignored further recommendation of mathematical devices to increase accuracy. Instead, FERC held that thirty estimated Performance Assessment Hours was just and reasonable, because it was "within the range of hours seen in recent years"; a conclusion FERC justified by reference to a few specific zones, rather than referencing RTO-wide Performance Assessment Hours. Rehearing Order at P 70 (JA __). Seeking to bolster this rationale in light of numerous rehearing requests, FERC added that the "dynamic nature of the PJM fleet" and the "inherent unpredictability of the weather" also supported the selection of thirty RTO-wide Performance Assessment Hours. Id. at P 71 (JA __).

FERC provides no explanation for why the "dynamic nature of the PJM fleet" or the "unpredictability of the weather" favors a calculation of thirty RTOwide Performance Assessment Hours rather than a rolling three-year average. Id. Indeed, the same rationale could be applied to any number, including the average that falls "within the range of hours seen in recent years." Id. at P 70 (JA __). Thus, FERC fails to support its approval of the 30 RTO-wide Performance Assessment Hours. See id. at 6 (Bay, dissenting) (JA $\qquad$ ).

Despite FERC's unwillingness to engage with the parties' concerns, its orders reflect a lack of confidence in the thirty estimated Performance Assessment Hours determination. Thus, FERC directed PJM to submit annual informational filings for the next five delivery years regarding actual net capacity revenues and revenue levels assuming greater than and less than thirty Performance Assessment Hours, and encouraged "PJM to reassess the assumed number of [Performance Assessment Hours] after it has gained more experience with Capacity Performance[.]" Capacity Performance Order at P 163 (JA __); see also Rehearing Order at PP 71, 73 (JA _ , _ ). FERC will have PJM conduct an additional five years of review and then, potentially, propose fewer Performance Assessment Hours upon reassessment. FERC fails to explain why "more experience with Capacity Performance" is necessary or superior to adoption of the three-year rolling average.

Fixing the number of estimated Performance Assessment Hours of the NonPerformance Charge at thirty hours undermines the intent and effect of PJM's penalty charge design. Although FERC declares that this arrives at a "middle ground between a penalty rate that is too high and introduces excessive risk and other that is too low and fails to spur performance improvement," it again fails to provide adequate analysis to support the conclusion. Rehearing Order at P 73 (JA __). FERC ultimately concludes that "[s]ome uncertainty about the actual number of [Performance Assessment Hours] in any given delivery year is unavoidable, and no penalty rate based on an expectation of future conditions can resolve that uncertainty." Id. at P 72 (JA __). Thus, FERC abdicated its responsibility for determining a more reasonable calculation of estimated Performance Assessment Hours.

The law requires FERC to examine the relevant data and articulate a satisfactory explanation for its action, including a "rational connection between the facts found and the choice made." Motor Vehicle Mfrs. Ass 'n, 463 U.S. at 43 (citations omitted); see also Green Island Power Authority v. FERC, 577 F.3d 148 (2d Cir. 2009). It did not do so in this case. FERC's refusal to examine this acknowledged design flaw constitutes arbitrary and capricious decisionmaking contradicting substantial record evidence.

## D. The Capacity Performance Aggregation Rules Are Unduly Discriminatory ${ }^{19}$

In its Capacity Performance Filing, PJM proposed to allow certain capacity resources to combine with other resources to submit aggregated offers. As FERC explained, " $[t]$ he aggregated offer allowance is designed to provide an avenue to Capacity Performance participation by resources that otherwise may be unable or unwilling to participate on a stand-alone basis because no reasonable amount of investment in the resource can mitigate non-performance risk to an acceptable level within the Capacity Performance market design." Capacity Performance Order at P 102 (JA __). FERC approved the aggregation provision, but with limitations.

Apart from the failure of the aggregation rules to mitigate undue discrimination against seasonal resources, see supra Argument Section I(C), AMP challenges FERC's disposition of two specific limitations: (1) PJM's restriction on the types of capacity resources that may aggregate; and (2) the prohibition against resource aggregation across Locational Deliverability Areas. AMP submits that the first limitation results in prohibited "undue discrimination," and that FERC's adoption of the second limitation was not the product of reasoned decisionmaking.
${ }^{19}$ This argument is presented by AMP.

## 1. FERC's Acceptance of Limitations on the Resource Types Permitted To Aggregate Results in Undue Discrimination

PJM's Capacity Performance Filing allowed aggregated capacity offers by four categories of "non-traditional" resources: Capacity Storage Resources, Intermittent Resources (i.e., wind or solar), Demand Resources, and Energy Efficiency Resources. Responding to protests, PJM offered to allow aggregation by another non-traditional resource type-Environmentally-Limited Resources. ${ }^{20}$ FERC approved PJM's expanded proposal, finding "merit" in "allow[ing] resources . . . to aggregate their capabilities in order to reliably perform during emergency conditions." Capacity Performance Order at P 101 (JA __). FERC also found that "permitting such resources to submit aggregated offers . . . will likely enhance their ability to provide reliability benefits to the PJM region and may increase competition in the capacity market." Id.

On rehearing, AMP argued that the opportunity to submit aggregated offers should not be confined to the five non-traditional resource types specified in PJM's expanded proposal, because the reasons for allowing aggregated offers from nontraditional resources apply equally to conventional resources. In some instances,

[^16]AMP noted, no amount of investment in a conventional generating unit would mitigate its non-performance risk to an acceptable level. AMP Rehearing Request at 36 (JA ___). AMP argued that it would be unduly discriminatory to prevent such a resource from aggregating with another resource, while simultaneously offering that option to similarly situated non-traditional resources. Id.

FERC denied rehearing, stating three reasons for banning resource aggregation by conventional generating units while allowing it for non-traditional resources. First, FERC found that distinguishing between these categories is not unduly discriminatory because non-traditional resources "generally would not be able to satisfy the annual performance obligation of the Capacity Performance product on their own, but may through aggregation meet that requirement . . . ." Rehearing Order at P 51 (JA ___). According to FERC, non-traditional resources "are unlike other resource types-such as natural gas-, coal-, and nuclear-powered combustion or steam turbines - because no reasonable amount of investment can mitigate the non-performance risk they face." Id. Second, FERC described PJM's proposal as "a reasonable accommodation to permit greater participation in the capacity market by those resource types that would generally lack incentives to offer as Capacity Performance Resources on a stand-alone basis, and will provide benefits to consumers through greater competition in the capacity market." Id.

Third, FERC found that PJM's limitation "preserves the individual-unit bidding approach that is central to PJM's capacity auction process." Id

FERC's reasons for adopting PJM's ban on aggregation by conventional resources do not withstand scrutiny. Its orders approve categorical discrimination in eligibility for resource aggregation even though the premise for the disparate treatment is illogical and unsupported in the record. For that reason, FERC's orders are unduly discriminatory.

FERC's premise for making conventional resources ineligible was that only the five resource types included in PJM's expanded proposal would ever face circumstances in which "no reasonable amount of investment can mitigate . . . nonperformance risk" for the resource. That premise, however, finds no support in the record, and, in fact, FERC cited no evidence in making the claim. See Rehearing Order at P 51 (JA ___). There may well be circumstances when a conventional resource cannot qualify as a Capacity Performance resource on its own because of operational factors that cannot be mitigated, but could qualify if permitted to aggregate with another conventional resource. See AMP Rehearing Request at 36 (JA__). Consumers would benefit from the increased auction participation that would result.

Moreover, FERC failed to recognize that the limitation it approved also prevents non-traditional resources from aggregating with conventional generators
in order for the non-traditional resources to offer as Capacity Performance resources. If an Intermittent Resource, for example, is unable to offer as a Capacity Performance resource on its own, there is no reason it should be restricted to aggregating with other non-traditional resources to attain Capacity Performance status. Such a restriction reduces the Intermittent Resource's opportunities to find other resources with which to aggregate and may prevent the Intermittent Resource from offering into the auction at all. The result would be diminished competition in the auction and higher prices for consumers. Conversely, allowing the owner of an Intermittent Resource to back up its unit with a conventional resource may be more efficient and more reliable than forcing it to secure backup from another intermittent (or other non-traditional) resource. AMP Protest at 21 (JA__); AMP Rehearing Request at 36 (JA __); see also Illinois Commerce Commission Rehearing Request at 21 (JA __).

FERC's second reason for banning conventional units from aggregating was that PJM's proposal represented a "reasonable accommodation" that would increase competition and benefit consumers by making it possible for nontraditional resources to participate in PJM's capacity market. Rehearing Order at P 51 (JA __). FERC never explained, however, why an "accommodation" should be thought necessary or appropriate in this context. If (as FERC recognized) consumers benefit by letting non-traditional resources aggregate with one another,
consumers would benefit even more by letting non-traditional resources aggregate with conventional resources, or by letting conventional resources aggregate with one another. Conversely, a rule that gives the aggregation option to some types of resources but not others is one that disadvantages consumers by reducing competition in the capacity auctions. Contrary to the label FERC applied, such a rule is neither "reasonable" nor consistent with the Federal Power Act's consumer protection goals. See Public Systems v. FERC, 606 F.2d 973, 979 n. 27 (D.C. Cir. 1979). The unsupported assertion that a categorical limitation on aggregation is a "reasonable accommodation" provides no justification for the overt discrimination the rule creates and FERC's orders condone.

Equally unavailing is FERC's third rationale for barring conventional units from taking part in aggregation-that "limiting aggregation to this distinct group of [non-conventional] resource types preserves the individual-unit bidding approach that is central to PJM's capacity auction process," Rehearing Order at P 51 (JA __). Even if preserving PJM's nebulous "individual unit bidding approach" were sufficient to excuse otherwise impermissible discrimination, FERC failed to explain why allowing conventional units to aggregate is problematic in that regard while unlimited aggregation by five categories of non-traditional resources is not. FERC's orders present no basis for concluding that aggregation between conventional units (or between non-traditional and conventional units) is more of a
threat to PJM's purported bidding approach than is the aggregation between non-conventional resources that FERC did approve. In the absence of such a showing, the discrimination produced by FERC's orders is "undue," and therefore impermissible under the Federal Power Act. See, e.g., Ala. Elec. Coop., 684 F.2d at 21 (undue discrimination includes the dissimilar treatment of similarly situated parties).

## 2. FERC's Rejection of Aggregation Across Locational Delivery Area Boundaries Is Not the Product of Reasoned Decisionmaking

PJM's Capacity Performance Filing would have precluded eligible resources in different Locational Deliverability Areas from submitting aggregated offers as Capacity Performance resources. ${ }^{21}$ That limitation drew objections, however. In response, PJM decided that aggregation of resources in different Locational Deliverability Areas would be feasible, and it described how that could be done. PJM Answer at 25-26 (JA __). PJM even offered to submit tariff language implementing this change. Id. at 25 (JA __). FERC rejected PJM's offer because it was "not persuaded that aggregation will be feasible across Locational Deliverability Areas in all circumstances, or would be able to provide the required

[^17]resource adequacy during emergency conditions." Capacity Performance Order at P 103 (JA __). FERC also stated that, "[a]lthough there may be value in permitting aggregation across Locational Deliverability Areas," PJM had not supported how cross-border aggregation would mesh with other market design features. Id.

On rehearing, AMP sought clarification that the tariff provisions governing resource aggregation would not preclude aggregation across Locational Deliverability Area boundaries in all circumstances. As AMP explained, PJM has twenty-seven Locational Deliverability Areas that it evaluates for transmission constraints, but it only models a particular Locational Deliverability Area when circumstances indicate that a constraint may actually limit energy transfers into the area. AMP Rehearing Request at 37 (JA __). AMP argued that cross-border aggregation should be disallowed only when PJM models one of the involved Locational Deliverability Areas based on the expectation of a binding constraint. Id.; see also Illinois Commerce Commission Rehearing Request at 21-23 (CIR 318, JA $\qquad$ -_).

FERC denied rehearing, asserting that PJM "failed to demonstrate that its proposal would be feasible across Locational Deliverability Areas in all circumstances, or would be able to provide the required resource adequacy during emergency conditions." Rehearing Order at P 52 (JA__). FERC also reiterated its
earlier finding that PJM had not explained how penalty and other provisions that apply in Local Deliverability Areas could be applied to aggregated offers. Id.

FERC's refusal to permit cross-Locational Deliverability Area aggregation reflects a failure to engage in reasoned decisionmaking. First, in faulting PJM for not showing that its proposal would be feasible "in all circumstances," FERC failed to recognize that no party had argued for cross-border aggregation in all circumstances, but only if relevant transmission constraints were not expected to bind. FERC's "all circumstances" test imposed on PJM a burden far more stringent than section 205 requires. Second, PJM represented it had "determined that [PJM] can permit aggregation across Locational Deliverability Areas." PJM Answer at 25 (JA __) (emphasis added). Considering FERC's own acknowledgement that aggregation across Locational Deliverability Areas could have value, Rehearing Order at P 103 (JA __), it was incumbent on FERC to carefully evaluate PJM's proposal. FERC's rejection of the proposal on the basis that PJM had not proved it would work "in all circumstances," however, shows that FERC's consideration instead was cursory and simplistic. FERC's failure to engage PJM's feasibility determination renders FERC's ruling unlawful. See TransCanada, 811 F.3d at 12 ("[T]he Commission must respond meaningfully to the arguments raised before it." (internal quotation marks omitted)).

FERC also noted that PJM had "failed to explain how various Locational Deliverability Area-specific penalty and other provisions that apply in Local Deliverability Areas could be applied to aggregated offers." Rehearing Order at P 52 (JA __). In fact, though, PJM did support how it would implement cross-border aggregation within the larger Capacity Performance framework. PJM stated in its Answer that "PJM will deem the aggregated Capacity Performance Resource to reside, for [Reliability Pricing Model] clearing and determining Non-Performance Charges and/or Performance Credits, in the Locational Deliverability Area that is expected to be the least constrained." PJM Answer at 26 (JA __). PJM went on to provide an example that explained how clearing prices, Non-Performance Charges and Performance Credits would be determined with and without binding constraints. Id. PJM also offered to include revised tariff pages in a compliance filing, id. at 25 (JA __), which would have afforded FERC the opportunity to consider a more detailed specification of how the proposal could be implemented.

For FERC to summarily reject the proposal as insufficiently developed under these circumstances was unreasoned, arbitrary, and capricious. FERC's orders fall short of satisfying the applicable standards governing agency decisionmaking. See TransCanada, 811 F.3d at 12 (agency must engage arguments presented); Motor Vehicle Mfrs. Ass'n, 463 U.S. at 43 (agency must articulate a "rational connection between the facts found and the choice made").

## E. FERC Failed To Justify the Inconsistent Treatment of UnitSpecific Operating Parameters That Results from Its Orders ${ }^{22}$

FERC's orders suffer from an unreasoned inconsistency in the treatment of unit-specific operating parameters, which may include physical or other limitations on a generator's ability to start and run when dispatched to operate by PJM. Resources that include unit-specific operating limitations in their energy market offers are entitled to "make-whole" payments if PJM requires them to operate outside those limitations. In fact, PJM's Energy Market Filing proposed to limit that opportunity to operations outside unit-specific "physical" constraints, but FERC required PJM to expand the provision to all "actual" constraints. Capacity Performance Order at P 437 (JA __). Yet FERC also accepted PJM's proposal to exempt a resource from non-performance penalties if PJM did not schedule the resource to operate for reasons other than seller-specified operating parameter limitations. Id. at P 167 (JA $\qquad$ ).

On rehearing, AMP argued that it was unreasonable and unduly discriminatory to give effect to unit-specific operating constraints in a seller's energy market offers, but then to subject resource owners to non-performance penalties when the same constraints affect capacity availability. AMP Rehearing Request at 17 (JA __). FERC denied rehearing on the basis that allowing a make${ }^{22}$ This argument is presented by AMP.
whole payment for an operating constraint ensures that sellers are properly compensated but does not excuse a resource from failing to fulfill its capacity obligation. Rehearing Order at P 250 (JA __). FERC also stated that the makewhole payment allowance was consistent with tariff provisions it previously had approved and that the rehearing requests "provide no basis for judging these provisions unjust and unreasonable here." Id.

FERC's stated rationale for leaving intact the inconsistent treatment of unitspecific operating parameters is misdirected. AMP's argument was not that the make-whole provisions are unlawful, but that it is illogical to recognize unitspecific operating limitations for make-whole eligibility while disregarding them for penalty exemption purposes. Moreover, FERC's statement that the make-whole provision ensures "proper compensation" for sellers but does not excuse nonperformance is more an observation than an explanation for the differing treatment of unit-specific parameters. As such, the inconsistency cited by AMP went unresolved in FERC's orders, creating a failure of reasoned decisionmaking. See TransCanada, 811 F.3d at 12, 13. Finally, unit-specific parameters reflect in part real-world limits on what is physically possible for a generator, taking into account unit design, fuel arrangements, and other factors. Penalizing a resource for failing to perform despite those constraints violates the maxim that " $[\mathrm{t}]$ he law does not compel the doing of impossibilities." Hughey v. JMS Development Corp., 78 F.3d

1523, 1530 (11th Cir. 1996) (citation omitted). Neither should PJM's Capacity Performance rules.

## III. The Court Should Vacate FERC's Orders and Remand

For the reasons set forth above, the Court should grant the petitions for review and vacate FERC's orders. Had FERC engaged in reasoned decisionmaking, it would have rejected PJM's Capacity Performance Filing and Energy Market Filing as contrary to the statutory scheme, not just and reasonable, and unduly discriminatory. The appropriate remedy for these defects is to vacate and remand to FERC with instructions to order the reinstatement of PJM's prior just and reasonable tariff and agreement provisions and to conduct any further proceedings in accordance with section 206 of the Act. See generally 16 U.S.C. § $825 l(\mathrm{~b})$ (this Court "ha[s] jurisdiction . . . to affirm, modify, or set aside [FERC's] order in whole or in part').

In general, " $[t]$ he decision whether to vacate depends on the seriousness of the order's deficiencies . . . and the disruptive consequences of an interim change that may itself be changed." Allied-Signal, Inc. v. U.S. Nuclear Regulatory Comm'n, 988 F.2d 146, 150-51 (D.C. Cir. 1993) (internal quotation marks omitted). Here, both factors weigh in favor of vacatur. First, FERC cannot rehabilitate its decision on remand simply by providing a more detailed explanation. Cf. Black Oak Energy, 725 F.3d at 244 . Given the findings and
evidence in the record, there is no basis on which the Commission could rationally determine that "the benefits [of Capacity Performance] are at least roughly commensurate with the costs," and thus that it will yield just and reasonable rates. Capacity Performance Order at 6 (Bay, dissenting) (JA __). See Nat'l Fuel Gas Supply Corp. v. FERC, 468 F.3d 831, 834, 844 (D.C. Cir. 2006) (vacating FERC orders where "FERC's asserted factual premises" were unsupported by the existing record, and where FERC would need to "develop a factual record" on remand to reach the same result).

Second, vacatur would not be unduly "disruptive." Allied-Signal, 988 F.2d at 150-51. Petitioners do not seek an order that PJM re-run any auctions it has already conducted; nor would vacatur require PJM to issue refunds or upset existing contractual obligations. Vacatur would simply prevent Capacity Performance-which is still in its transitional phase-from going into full and permanent effect, as it is scheduled to do with the May 2017 auction. See Am. Equity Inv. Life Ins. Co. v. SEC, 613 F.3d 166, 179 (D.C. Cir. 2010) (vacatur would not "be disruptive" where the rule "has not yet gone into effect"); cf. Black Oak Energy, 725 F.3d at 244 (declining to vacate where vacatur would require PJM to issue refunds). Remanding without vacating, in contrast, would be contrary to the public interest, as it would effectively allow PJM to fully implement Capacity Performance while remand is pending-thereby imposing still more costs
on PJM's sixty-one million customers, and locking in financial incentives and capital investments that will determine what resources are available to provide capacity in PJM for years to come.

Petitioners respectfully request that the Court vacate FERC's orders and remand with instructions to re-institute the previously effective rules for future capacity auctions.

## CONCLUSION

The Court should grant the petitions and vacate the Commission's orders.
Respectfully submitted,

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## CERTIFICATE OF COMPLIANCE

This brief complies with the type-volume limitation of Fed. R. App. P. 32(a)(7)(B) because it contains 19,273 words (as counted by Microsoft Word), excluding the parts of the brief exempted by Fed. R. App. P. 32(a)(7)(B)(iii).

This brief complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type style requirements of Fed. R. App. P. 32(a)(6) because it has been prepared in a proportionally spaced typeface using Microsoft Word in 14point Times New Roman.
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Dated: September 23, 2016

## STATUTORY ADDENDUM

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## Federal Power Act section 201 16 U.S.C. § 824

dispute to the Commission's Dispute Resolution Service. The Dispute Resolution Service shall consult with the Secretary and the Commission and issue a non-binding advisory within 90 days. The Secretary may accept the Dispute Resolution Service advisory unless the Secretary finds that the recommendation will not adequately protect the reservation. The Secretary shall submit the advisory and the Secretary's final written determination into the record of the Commission's proceeding.

## (b) Alternative prescriptions

(1) Whenever the Secretary of the Interior or the Secretary of Commerce prescribes a fishway under section 811 of this title, the license applicant or any other party to the license proceeding may propose an alternative to such prescription to construct, maintain, or operate a fishway
(2) Notwithstanding section 811 of this title, the Secretary of the Interior or the Secretary of Commerce, as appropriate, shall accept and prescribe, and the Commission shall require, the proposed alternative referred to in paragraph (1), if the Secretary of the appropriate department determines, based on substantial evidence provided by the license applicant, any other party to the proceeding, or otherwise available to the Secretary, that such alternative-
(A) will be no less protective than the fish-
way initially prescribed by the Secretary; and
(B) will either, as compared to the fishway initially prescribed by the Secretary-
(i) cost significantly less to implement; or
(ii) result in improved operation of the project works for electricity production.
(3) In making a determination under paragraph (2), the Secretary shall consider evidence provided for the record by any party to a licensing proceeding, or otherwise available to the Secretary, including any evidence provided by the Commission, on the implementation costs or operational impacts for electricity production of a proposed alternative.
(4) The Secretary concerned shall submit into the public record of the Commission proceeding with any prescription under section 811 of this title or alternative prescription it accepts under this section, a written statement explaining the basis for such prescription, and reason for not accepting any alternative prescription under this section. The written statement must demonstrate that the Secretary gave equal consideration to the effects of the prescription adopted and alternatives not accepted on energy supply, distribution, cost, and use; flood control; navigation; water supply; and air quality (in addition to the preservation of other aspects of environmental quality); based on such information as may be available to the Secretary, including information voluntarily provided in a timely manner by the applicant and others. The Secretary shall also submit, together with the aforementioned written statement, all studies, data, and other factual information available to the Secretary and relevant to the Secretary's decision.
(5) If the Commission finds that the secretary's final prescription would be inconsistent with the purposes of this subchapter, or other
applicable law, the Commission may refer the dispute to the Commission's Dispute Resolution Service. The Dispute Resolution Service shall consult with the Secretary and the Commission and issue a non-binding advisory within 90 days. The Secretary may accept the Dispute Resolution Service advisory unless the Secretary finds that the recommendation will not adequately protect the fish resources. The Secretary shall submit the advisory and the Secretary's final written determination into the record of the Commission's proceeding.
(June 10, 1920, ch. 285, pt. I, §33, as added Pub. L. 109-58, title II, §241(c), Aug. 8, 2005, 119 Stat. 675.)

## SUBCHAPTER II-REGULATION OF ELECTRIC UTILITY COMPANIES ENGAGED IN INTERSTATE COMMMERCE

§ 824. Declaration of policy; application of subchapter
(a) Federal regulation of transmission and sale of electric energy
It is declared that the business of transmitting and selling electric energy for ultimate distribution to the public is affected with a public interest, and that Federal regulation of matters relating to generation to the extent provided in this subchapter and subchapter III of this chapter and of that part of such business which consists of the transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce is necessary in the public interest, such Federal regulation, however, to extend only to those matters which are not subject to regulation by the States.

## (b) Use or sale of electric energy in interstate

 commerce(1) The provisions of this subchapter shall apply to the transmission of electric energy in interstate commerce and to the sale of electric energy at wholesale in interstate commerce, but except as provided in paragraph (2) shall not apply to any other sale of electric energy or deprive a State or State commission of its lawful authority now exercised over the exportation of hydroelectric energy which is transmitted across a State line. The Commission shall have jurisdiction over all facilities for such transmission or sale of electric energy, but shall not have jurisdiction, except as specifically provided in this subchapter and subchapter III of this chapter, over facilities used for the generation of electric energy or over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce, or over facilities for the transmission of electric energy consumed wholly by the transmitter.
(2) Notwithstanding subsection (f), the provisions of sections $824 \mathrm{~b}(\mathrm{a})(2), 824 \mathrm{e}(\mathrm{e}), 824 \mathrm{i}, 824 \mathrm{j}$, $824 \mathrm{j}-1,824 \mathrm{k}, 824 \mathrm{o}, 824 \mathrm{o}-1,824 \mathrm{p}, 824 \mathrm{q}, 824 \mathrm{r}, 824 \mathrm{~s}$, 824 t, 824 u, and $824 v$ of this title shall apply to the entities described in such provisions, and such entities shall be subject to the jurisdiction of the Commission for purposes of carrying out such provisions and for purposes of applying the enforcement authorities of this chapter with respect to such provisions. Compliance with any
order or rule of the Commission under the provisions of section $824 \mathrm{~b}(\mathrm{a})(2), 824 \mathrm{e}(\mathrm{e}), 824 \mathrm{i}, 824 \mathrm{j}$, $824 \mathrm{j}-1,824 \mathrm{k}, 8240,8240-1,824 \mathrm{p}, 824 \mathrm{q}, 824 \mathrm{r}, 824 \mathrm{~s}$, 824 t, $824 u$, or $824 v$ of this title, shall not make an electric utility or other entity subject to the jurisdiction of the Commission for any purposes other than the purposes specified in the preceding sentence.

## (c) Electric energy in interstate commerce

For the purpose of this subchapter, electric energy shall be held to be transmitted in interstate commerce if transmitted from a State and consumed at any point outside thereof; but only insofar as such transmission takes place within the United States.
(d) "Sale of electric energy at wholesale" defined

The term "sale of electric energy at wholesale" when used in this subchapter, means a sale of electric energy to any person for resale.

## (e) "Public utility" defined

The term "public utility" when used in this subchapter and subchapter III of this chapter means any person who owns or operates facilities subject to the jurisdiction of the Commission under this subchapter (other than facilities subject to such jurisdiction solely by reason of section $824 \mathrm{e}(\mathrm{e}), 824 \mathrm{e}(\mathrm{f}),{ }^{1} 824 \mathrm{i}, 824 \mathrm{j}, 824 \mathrm{j}-1,824 \mathrm{k}$, $8240,824 o-1,824$ p, $824 q, 824$ r, $824 \mathrm{~s}, ~ 824 \mathrm{t}, 824$ u, or 824 v of this title).

## (f) United States, State, political subdivision of a State, or agency or instrumentality thereof exempt

No provision in this subchapter shall apply to, or be deemed to include, the United States, a State or any political subdivision of a State, an electric cooperative that receives financing under the Rural Electrification Act of 1936 (7 U.S.C. 901 et seq.) or that sells less than 4,000,000 megawatt hours of electricity per year, or any agency, authority, or instrumentality of any one or more of the foregoing, or any corporation which is wholly owned, directly or indirectly, by any one or more of the foregoing, or any officer, agent, or employee of any of the foregoing acting as such in the course of his official duty, unless such provision makes specific reference thereto.

## (g) Books and records

(1) Upon written order of a State commission, a State commission may examine the books, accounts, memoranda, contracts, and records of-
(A) an electric utility company subject to its regulatory authority under State law,
(B) any exempt wholesale generator selling energy at wholesale to such electric utility, and
(C) any electric utility company, or holding company thereof, which is an associate company or affiliate of an exempt wholesale generator which sells electric energy to an electric utility company referred to in subparagraph (A),
wherever located, if such examination is required for the effective discharge of the State

[^18]commission's regulatory responsibilities affecting the provision of electric service.
(2) Where a State commission issues an order pursuant to paragraph (1), the State commission shall not publicly disclose trade secrets or sensitive commercial information.
(3) Any United States district court located in the State in which the State commission referred to in paragraph (1) is located shall have jurisdiction to enforce compliance with this subsection.
(4) Nothing in this section shall-
(A) preempt applicable State law concerning the provision of records and other information; or
(B) in any way limit rights to obtain records and other information under Federal law, contracts, or otherwise.
(5) As used in this subsection the terms "affiliate", "associate company", "electric utility company", 'holding company", 'subsidiary company", and "exempt wholesale generator" shall have the same meaning as when used in the Public Utility Holding Company Act of 2005 [42 U.S.C. 16451 et seq.].
(June 10, 1920, ch. 285, pt. II, §201, as added Aug. 26, 1935, ch. 687, title II, § 213, 49 Stat. 847; amended Pub. L. 95-617, title II, §204(b), Nov. 9, 1978, 92 Stat. 3140; Pub. L. 102-486, title VII, §714, Oct. 24, 1992, 106 Stat. 2911; Pub. L. 109-58, title XII, §§1277(b)(1), 1291(c), 1295(a), Aug. 8, 2005, 119 Stat. 978, 985; Pub. L. 114-94, div. F, §61003(b), Dec. 4, 2015, 129 Stat. 1778.)

## References in Text

The Rural Electrification Act of 1936, referred to in subsec. (f), is act May 20, 1936, ch. 432, 49 Stat. 1363, as amended, which is classified generally to chapter 31 (§901 et seq.) of Title 7, Agriculture. For complete classification of this Act to the Code, see section 901 of Title 7 and Tables.
The Public Utility Holding Company Act of 2005, referred to in subsec. (g)(5), is subtitle F of title XII of Pub. L. 109-58, Aug. 8, 2005, 119 Stat. 972, which is classified principally to part D ( $\S 16451$ et seq.) of subchapter XII of chapter 149 of Title 42, The Public Health and Welfare. For complete classification of this Act to the Code, see Short Title note set out under section 15801 of Title 42 and Tables.

## Amendments

2015-Subsec. (b)(2). Pub. L. 114-94, §61003(b)(1), inserted " $8240-1$," after " 8240 ," in two places.
Subsec. (e). Pub. L. 114-94, §61003(b)(2), inserted "8240-1," after " 8240 ,"
2005-Subsec. (b)(2). Pub. L. 109-58, §1295(a)(1), substituted "Notwithstanding subsection (f), the provisions of sections $824 \mathrm{~b}(\mathrm{a})(2), 824 \mathrm{e}(\mathrm{e}), 824 \mathrm{i}, 824 \mathrm{j}, 824 \mathrm{j}-1$, $824 \mathrm{k}, 824 \mathrm{o}, 824 \mathrm{p}, 824 \mathrm{q}, 824 \mathrm{r}, 824 \mathrm{~s}, 824 \mathrm{t}, 824 \mathrm{u}$, and 824 v of this title" for "The provisions of sections $824 \mathrm{i}, 824 \mathrm{j}$, and 824k of this title" and "Compliance with any order or rule of the Commission under the provisions of section 824 b (a)(2), $824 \mathrm{e}(\mathrm{e}), 824 \mathrm{i}, 824 \mathrm{j}, 824 \mathrm{j}-1,824 \mathrm{k}, 824 o, 824 \mathrm{p}, 824 \mathrm{q}$, $824 \mathrm{r}, 824 \mathrm{~s}, 824 \mathrm{t}, 824 \mathrm{u}$, or 824 v of this title" for "Compliance with any order of the Commission under the provisions of section $824 i$ or $824 j$ of this title".
Subsec. (e). Pub. L. 109-58, §1295(a)(2), substituted "section $824 \mathrm{e}(\mathrm{e}), 824 \mathrm{e}(\mathrm{f}), 824 \mathrm{i}, 824 \mathrm{j}, 824 \mathrm{j}-1,824 \mathrm{k}, 824 \mathrm{o}, 824 \mathrm{p}$, $824 \mathrm{q}, 824 \mathrm{r}, 824 \mathrm{~s}, 824 \mathrm{t}, 824 \mathrm{u}$, or 824 v of this title" for "section $824 \mathrm{i}, 824$ j, or 824 k of this title".
Subsec. (f). Pub. L. 109-58, §1291(c), which directed amendment of subsec. (f) by substituting "political subdivision of a State, an electric cooperative that receives financing under the Rural Electrification Act of

1936 (7 U.S.C. 901 et seq.) or that sells less than 4,000,000 megawatt hours of electricity per year," for "political subdivision of a state,", was executed by making the substitution for "political subdivision of a State," to reflect the probable intent of Congress.
Subsec. (g)(5). Pub. L. 109-58, §1277(b)(1), substituted " 2005 " for " 1935 ".
1992-Subsec. (g). Pub. L. 102-486 added subsec. (g).
1978-Subsec. (b). Pub. L. 95-617, §204(b)(1), designated existing provisions as par. (1), inserted "except as provided in paragraph (2)" after "in interstate commerce, but', and added par. (2).
Subsec. (e). Pub. L. 95-617, §204(b)(2), inserted "(other than facilities subject to such jurisdiction solely by reason of section $824 i, 824 j$, or $824 k$ of this title)" after "under this subchapter".

## Effective Date of 2005 Amendment

Amendment by section 1277(b)(1) of Pub. L. 109-58 effective 6 months after Aug. 8, 2005, with provisions relating to effect of compliance with certain regulations approved and made effective prior to such date, see section 1274 of Pub. L. 109-58, set out as an Effective Date note under section 16451 of Title 42, The Public Health and Welfare

## State Authorities; Construction

Nothing in amendment by Pub. L. 102-486 to be construed as affecting or intending to affect, or in any way to interfere with, authority of any State or local government relating to environmental protection or siting of facilities, see section 731 of Pub. L. 102-486, set out as a note under section 796 of this title.

Prior Actions; Effect On Other Authorities
Pub. L. 95-617, title II, §214, Nov. 9, 1978, 92 Stat. 3149, provided that:
'(a) Prior Actions.-No provision of this title [enacting sections $823 \mathrm{a}, 824 \mathrm{i}$ to $824 \mathrm{k}, 824 \mathrm{a}-1$ to $824 \mathrm{a}-3$ and 825q-1 of this title, amending sections 796, 824, 824a, 824d, and 825d of this title and enacting provisions set out as notes under sections 824a, 824d, and 825d of this title] or of any amendment made by this title shall apply to, or affect, any action taken by the Commission [Federal Energy Regulatory Commission] before the date of the enactment of this Act [Nov. 9, 1978].
(b) OTHER AUTHORITIES.-No provision of this title [enacting sections 823 a , 824i to $824 \mathrm{k}, 824 \mathrm{a}-1$ to $824 \mathrm{a}-3$ and 825q-1 of this title, amending sections 796, 824, 824a, 824 d , and 825 d of this title and enacting provisions set out as notes under sections 824a, 824d, and $825 d$ of this title] or of any amendment made by this title shall limit, impair or otherwise affect any authority of the Commission or any other agency or instrumentality of the United States under any other provision of law except as specifically provided in this title.'

## § 824a. Interconnection and coordination of facilities; emergencies; transmission to foreign countries

(a) Regional districts; establishment; notice to State commissions

For the purpose of assuring an abundant supply of electric energy throughout the United States with the greatest possible economy and with regard to the proper utilization and conservation of natural resources, the Commission is empowered and directed to divide the country into regional districts for the voluntary interconnection and coordination of facilities for the generation, transmission, and sale of electric energy, and it may at any time thereafter, upon its own motion or upon application, make such modifications thereof as in its judgment will promote the public interest. Each such district shall embrace an area which, in the judgment of
the Commission, can economically be served by such interconnection and coordinated electric facilities. It shall be the duty of the Commission to promote and encourage such interconnection and coordination within each such district and between such districts. Before establishing any such district and fixing or modifying the boundaries thereof the Commission shall give notice to the State commission of each State situated wholly or in part within such district, and shall afford each such state commission reasonable opportunity to present its views and recommendations, and shall receive and consider such views and recommendations.

## (b) Sale or exchange of energy; establishing physical connections

Whenever the Commission, upon application of any State commission or of any person engaged in the transmission or sale of electric energy, and after notice to each State commission and public utility affected and after opportunity for hearing, finds such action necessary or appropriate in the public interest it may by order direct a public utility (if the Commission finds that no undue burden will be placed upon such public utility thereby) to establish physical connection of its transmission facilities with the facilities of one or more other persons engaged in the transmission or sale of electric energy, to sell energy to or exchange energy with such persons: Provided, That the Commission shall have no authority to compel the enlargement of generating facilities for such purposes, nor to compel such public utility to sell or exchange energy when to do so would impair its ability to render adequate service to its customers. The Commission may prescribe the terms and conditions of the arrangement to be made between the persons affected by any such order, including the apportionment of cost between them and the compensation or reimbursement reasonably due to any of them.

## (c) Temporary connection and exchange of facili-

 ties during emergency(1) During the continuance of any war in which the United States is engaged, or whenever the Commission determines that an emergency exists by reason of a sudden increase in the demand for electric energy, or a shortage of electric energy or of facilities for the generation or transmission of electric energy, or of fuel or water for generating facilities, or other causes, the Commission shall have authority, either upon its own motion or upon complaint, with or without notice, hearing, or report, to require by order such temporary connections of facilities and such generation, delivery, interchange, or transmission of electric energy as in its judgment will best meet the emergency and serve the public interest. If the parties affected by such order fail to agree upon the terms of any arrangement between them in carrying out such order, the Commission, after hearing held either before or after such order takes effect, may prescribe by supplemental order such terms as it finds to be just and reasonable, including the compensation or reimbursement which should be paid to or by any such party.
(2) With respect to an order issued under this subsection that may result in a conflict with a

# Federal Power Act section 205 16 U.S.C. § 824d 

## § 824d. Rates and charges; schedules; suspension of new rates; automatic adjustment clauses

## (a) Just and reasonable rates

All rates and charges made, demanded, or received by any public utility for or in connection with the transmission or sale of electric energy subject to the jurisdiction of the Commission, and all rules and regulations affecting or pertaining to such rates or charges shall be just and reasonable, and any such rate or charge that is not just and reasonable is hereby declared to be unlawful.

## (b) Preference or advantage unlawful

No public utility shall, with respect to any transmission or sale subject to the jurisdiction of the Commission, (1) make or grant any undue preference or advantage to any person or subject any person to any undue prejudice or disadvantage, or (2) maintain any unreasonable difference in rates, charges, service, facilities, or in any other respect, either as between localities or as between classes of service.

## (c) Schedules

Under such rules and regulations as the Commission may prescribe, every public utility shall file with the Commission, within such time and in such form as the Commission may designate, and shall keep open in convenient form and place for public inspection schedules showing all rates and charges for any transmission or sale subject to the jurisdiction of the Commission, and the classifications, practices, and regulations affecting such rates and charges, together with all contracts which in any manner affect or relate to such rates, charges, classifications, and services.

## (d) Notice required for rate changes

Unless the Commission otherwise orders, no change shall be made by any public utility in any such rate, charge, classification, or service, or in any rule, regulation, or contract relating thereto, except after sixty days' notice to the Commission and to the public. Such notice shall be given by filing with the Commission and keeping open for public inspection new schedules stating plainly the change or changes to be made in the schedule or schedules then in force and the time when the change or changes will go into effect. The Commission, for good cause shown, may allow changes to take effect without requiring the sixty days' notice herein provided for by an order specifying the changes so to be made and the time when they shall take effect and the manner in which they shall be filed and published.

## (e) Suspension of new rates; hearings; five-month period

Whenever any such new schedule is filed the Commission shall have authority, either upon complaint or upon its own initiative without complaint, at once, and, if it so orders, without answer or formal pleading by the public utility, but upon reasonable notice, to enter upon a hearing concerning the lawfulness of such rate, charge, classification, or service; and, pending such hearing and the decision thereon, the Commission, upon filing with such schedules and de-
livering to the public utility affected thereby a statement in writing of its reasons for such suspension, may suspend the operation of such schedule and defer the use of such rate, charge, classification, or service, but not for a longer period than five months beyond the time when it would otherwise go into effect; and after full hearings, either completed before or after the rate, charge, classification, or service goes into effect, the Commission may make such orders with reference thereto as would be proper in a proceeding initiated after it had become effective. If the proceeding has not been concluded and an order made at the expiration of such five months, the proposed change of rate, charge, classification, or service shall go into effect at the end of such period, but in case of a proposed increased rate or charge, the Commission may by order require the interested public utility or public utilities to keep accurate account in detail of all amounts received by reason of such increase, specifying by whom and in whose behalf such amounts are paid, and upon completion of the hearing and decision may by further order require such public utility or public utilities to refund, with interest, to the persons in whose behalf such amounts were paid, such portion of such increased rates or charges as by its decision shall be found not justified. At any hearing involving a rate or charge sought to be increased, the burden of proof to show that the increased rate or charge is just and reasonable shall be upon the public utility, and the Commission shall give to the hearing and decision of such questions preference over other questions pending before it and decide the same as speedily as possible.
(f) Review of automatic adjustment clauses and public utility practices; action by Commission; "automatic adjustment clause" defined
(1) Not later than 2 years after November 9, 1978, and not less often than every 4 years thereafter, the Commission shall make a thorough review of automatic adjustment clauses in public utility rate schedules to examine-
(A) whether or not each such clause effectively provides incentives for efficient use of resources (including economical purchase and use of fuel and electric energy), and
(B) whether any such clause reflects any costs other than costs which are-
(i) subject to periodic fluctuations and
(ii) not susceptible to precise determinations in rate cases prior to the time such costs are incurred.
Such review may take place in individual rate proceedings or in generic or other separate proceedings applicable to one or more utilities.
(2) Not less frequently than every 2 years, in rate proceedings or in generic or other separate proceedings, the Commission shall review, with respect to each public utility, practices under any automatic adjustment clauses of such utility to insure efficient use of resources (including economical purchase and use of fuel and electric energy) under such clauses.
(3) The Commission may, on its own motion or upon complaint, after an opportunity for an evidentiary hearing, order a public utility to-
(A) modify the terms and provisions of any automatic adjustment clause, or
(B) cease any practice in connection with the clause,
if such clause or practice does not result in the economical purchase and use of fuel, electric energy, or other items, the cost of which is included in any rate schedule under an automatic adjustment clause.
(4) As used in this subsection, the term "automatic adjustment clause" means a provision of a rate schedule which provides for increases or decreases (or both), without prior hearing, in rates reflecting increases or decreases (or both) in costs incurred by an electric utility. Such term does not include any rate which takes effect subject to refund and subject to a later determination of the appropriate amount of such rate.
(June 10, 1920, ch. 285, pt. II, § 205, as added Aug. 26, 1935, ch. 687, title II, § 213, 49 Stat. 851; amended Pub. L. 95-617, title II, §§207(a), 208, Nov. 9, 1978, 92 Stat. 3142.)

## AMENDMENTS

1978-Subsec. (d). Pub. L. 95-617, § 207(a), substituted "sixty" for "thirty" in two places.
Subsec. (f). Pub. L. 95-617, § 208, added subsec. (f).
Study of Electric Rate Increases Under Federal

## Power Act

Section 207(b) of Pub. L. 95-617 directed chairman of Federal Energy Regulatory Commission, in consultation with Secretary, to conduct a study of legal requirements and administrative procedures involved in consideration and resolution of proposed wholesale electric rate increases under Federal Power Act, section 791a et seq. of this title, for purposes of providing for expeditious handling of hearings consistent with due process, preventing imposition of successive rate increases before they have been determined by Commission to be just and reasonable and otherwise lawful, and improving procedures designed to prohibit anticompetitive or unreasonable differences in wholesale and retail rates, or both, and that chairman report to Congress within nine months from Nov. 9, 1978, on results of study, on administrative actions taken as a result of this study, and on any recommendations for changes in existing law that will aid purposes of this section.

## $\S 824 e$. Power of Commission to fix rates and charges; determination of cost of production or transmission

(a) Unjust or preferential rates, etc.; statement of reasons for changes; hearing; specification of issues
Whenever the Commission, after a hearing held upon its own motion or upon complaint, shall find that any rate, charge, or classification, demanded, observed, charged, or collected by any public utility for any transmission or sale subject to the jurisdiction of the Commission, or that any rule, regulation, practice, or contract affecting such rate, charge, or classification is unjust, unreasonable, unduly discriminatory or preferential, the Commission shall determine the just and reasonable rate, charge, classification, rule, regulation, practice, or contract to be thereafter observed and in force, and shall fix the same by order. Any complaint or motion of the Commission to initiate a proceeding under this section shall state the change or changes to be made in the rate,
charge, classification, rule, regulation, practice, or contract then in force, and the reasons for any proposed change or changes therein. If, after review of any motion or complaint and answer, the Commission shall decide to hold a hearing, it shall fix by order the time and place of such hearing and shall specify the issues to be adjudicated.
(b) Refund effective date; preferential proceedings; statement of reasons for delay; burden of proof; scope of refund order; refund orders in cases of dilatory behavior; interest
Whenever the Commission institutes a proceeding under this section, the Commission shall establish a refund effective date. In the case of a proceeding instituted on complaint, the refund effective date shall not be earlier than the date of the filing of such complaint nor later than 5 months after the filing of such complaint. In the case of a proceeding instituted by the Commission on its own motion, the refund effective date shall not be earlier than the date of the publication by the Commission of notice of its intention to initiate such proceeding nor later than 5 months after the publication date. Upon institution of a proceeding under this section, the Commission shall give to the decision of such proceeding the same preference as provided under section 824d of this title and otherwise act as speedily as possible. If no final decision is rendered by the conclusion of the 180-day period commencing upon initiation of a proceeding pursuant to this section, the Commission shall state the reasons why it has failed to do so and shall state its best estimate as to when it reasonably expects to make such decision. In any proceeding under this section, the burden of proof to show that any rate, charge, classification, rule, regulation, practice, or contract is unjust, unreasonable, unduly discriminatory, or preferential shall be upon the Commission or the complainant. At the conclusion of any proceeding under this section, the Commission may order refunds of any amounts paid, for the period subsequent to the refund effective date through a date fifteen months after such refund effective date, in excess of those which would have been paid under the just and reasonable rate, charge, classification, rule, regulation, practice, or contract which the Commission orders to be thereafter observed and in force: Provided, That if the proceeding is not concluded within fifteen months after the refund effective date and if the Commission determines at the conclusion of the proceeding that the proceeding was not resolved within the fifteen-month period primarily because of dilatory behavior by the public utility, the Commission may order refunds of any or all amounts paid for the period subsequent to the refund effective date and prior to the conclusion of the proceeding. The refunds shall be made, with interest, to those persons who have paid those rates or charges which are the subject of the proceeding.
(c) Refund considerations; shifting costs; reduction in revenues; "electric utility companies" and "registered holding company" defined
Notwithstanding subsection (b), in a proceeding commenced under this section involving two or more electric utility companies of a reg-

# Federal Power Act section 206 16 U.S.C. § 824e 

(B) cease any practice in connection with the clause,
if such clause or practice does not result in the economical purchase and use of fuel, electric energy, or other items, the cost of which is included in any rate schedule under an automatic adjustment clause.
(4) As used in this subsection, the term "automatic adjustment clause" means a provision of a rate schedule which provides for increases or decreases (or both), without prior hearing, in rates reflecting increases or decreases (or both) in costs incurred by an electric utility. Such term does not include any rate which takes effect subject to refund and subject to a later determination of the appropriate amount of such rate.
(June 10, 1920, ch. 285, pt. II, § 205, as added Aug. 26, 1935, ch. 687, title II, § 213, 49 Stat. 851; amended Pub. L. 95-617, title II, §§207(a), 208, Nov. 9, 1978, 92 Stat. 3142.)

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$\S 824$. Power of Commission to fix rates and charges; determination of cost of production or transmission
(a) Unjust or preferential rates, etc.; statement of reasons for changes; hearing; specification of issues
Whenever the Commission, after a hearing held upon its own motion or upon complaint, shall find that any rate, charge, or classification, demanded, observed, charged, or collected by any public utility for any transmission or sale subject to the jurisdiction of the Commission, or that any rule, regulation, practice, or contract affecting such rate, charge, or classification is unjust, unreasonable, unduly discriminatory or preferential, the Commission shall determine the just and reasonable rate, charge, classification, rule, regulation, practice, or contract to be thereafter observed and in force, and shall fix the same by order. Any complaint or motion of the Commission to initiate a proceeding under this section shall state the change or changes to be made in the rate,
charge, classification, rule, regulation, practice, or contract then in force, and the reasons for any proposed change or changes therein. If, after review of any motion or complaint and answer, the Commission shall decide to hold a hearing, it shall fix by order the time and place of such hearing and shall specify the issues to be adjudicated.
(b) Refund effective date; preferential proceedings; statement of reasons for delay; burden of proof; scope of refund order; refund orders in cases of dilatory behavior; interest
Whenever the Commission institutes a proceeding under this section, the Commission shall establish a refund effective date. In the case of a proceeding instituted on complaint, the refund effective date shall not be earlier than the date of the filing of such complaint nor later than 5 months after the filing of such complaint. In the case of a proceeding instituted by the Commission on its own motion, the refund effective date shall not be earlier than the date of the publication by the Commission of notice of its intention to initiate such proceeding nor later than 5 months after the publication date. Upon institution of a proceeding under this section, the Commission shall give to the decision of such proceeding the same preference as provided under section 824d of this title and otherwise act as speedily as possible. If no final decision is rendered by the conclusion of the 180-day period commencing upon initiation of a proceeding pursuant to this section, the Commission shall state the reasons why it has failed to do so and shall state its best estimate as to when it reasonably expects to make such decision. In any proceeding under this section, the burden of proof to show that any rate, charge, classification, rule, regulation, practice, or contract is unjust, unreasonable, unduly discriminatory, or preferential shall be upon the Commission or the complainant. At the conclusion of any proceeding under this section, the Commission may order refunds of any amounts paid, for the period subsequent to the refund effective date through a date fifteen months after such refund effective date, in excess of those which would have been paid under the just and reasonable rate, charge, classification, rule, regulation, practice, or contract which the Commission orders to be thereafter observed and in force: Provided, That if the proceeding is not concluded within fifteen months after the refund effective date and if the Commission determines at the conclusion of the proceeding that the proceeding was not resolved within the fifteen-month period primarily because of dilatory behavior by the public utility, the Commission may order refunds of any or all amounts paid for the period subsequent to the refund effective date and prior to the conclusion of the proceeding. The refunds shall be made, with interest, to those persons who have paid those rates or charges which are the subject of the proceeding.
(c) Refund considerations; shifting costs; reduction in revenues; "electric utility companies" and "registered holding company" defined
Notwithstanding subsection (b), in a proceeding commenced under this section involving two or more electric utility companies of a reg-
the Bonneville Power Administration only if the sale is at an unjust and unreasonable rate.
(B) The Commission may order a refund under subparagraph (A) only for short-term sales made by the Bonneville Power Administration at rates that are higher than the highest just and reasonable rate charged by any other entity for a short-term sale of electric energy in the same geographic market for the same, or most nearly comparable, period as the sale by the Bonneville Power Administration.
(C) In the case of any Federal power marketing agency or the Tennessee Valley Authority, the Commission shall not assert or exercise any regulatory authority or power under paragraph (2) other than the ordering of refunds to achieve a just and reasonable rate.
(June 10, 1920, ch. 285, pt. II, §206, as added Aug. 26, 1935, ch. 687, title II, § 213, 49 Stat. 852; amended Pub. L. 100-473, §2, Oct. 6, 1988, 102 Stat. 2299; Pub. L. 109-58, title XII, §§ 1285, 1286, 1295(b), Aug. 8, 2005, 119 Stat. 980, 981, 985.)

## References in Text

The Public Utility Holding Company Act of 1935, referred to in subsec. (c), is title I of act Aug. 26, 1935, ch. 687, 49 Stat. 803, as amended, which was classified generally to chapter 2C (§79 et seq.) of Title 15, Commerce and Trade, prior to repeal by Pub. L. 109-58, title XII, $\S 1263$, Aug. 8, 2005, 119 Stat. 974. For complete classification of this Act to the Code, see Tables.

## Amendments

2005-Subsec. (a). Pub. L. 109-58, §1295(b)(1), substituted "hearing held" for "hearing had" in first sentence.
Subsec. (b). Pub. L. 109-58, §1295(b)(2), struck out 'the public utility to make" before "refunds of any amounts paid" in seventh sentence.
Pub. L. 109-58, §1285, in second sentence, substituted "the date of the filing of such complaint nor later than 5 months after the filing of such complaint" for "the date 60 days after the filing of such complaint nor later than 5 months after the expiration of such 60-day period", in third sentence, substituted "the date of the publication" for "the date 60 days after the publication" and " 5 months after the publication date" for " 5 months after the expiration of such 60-day period", and in fifth sentence, substituted "If no final decision is rendered by the conclusion of the 180-day period commencing upon initiation of a proceeding pursuant to this section, the Commission shall state the reasons why it has failed to do so and shall state its best estimate as to when it reasonably expects to make such decision" for "If no final decision is rendered by the refund effective date or by the conclusion of the 180-day period commencing upon initiation of a proceeding pursuant to this section, whichever is earlier, the Commission shall state the reasons why it has failed to do so and shall state its best estimate as to when it reasonably expects to make such decision".
Subsec. (e). Pub. L. 109-58, §1286, added subsec. (e).
1988-Subsec. (a). Pub. L. 100-473, § 2(1), inserted provisions for a statement of reasons for listed changes, hearings, and specification of issues.
Subsecs. (b) to (d). Pub. L. 100-473, §2(2), added subsecs. (b) and (c) and redesignated former subsec. (b) as (d).

## Effective Date of 1988 Amendment

Pub. L. 100-473, §4, Oct. 6, 1988, 102 Stat. 2300, provided that: "The amendments made by this Act [amending this section] are not applicable to complaints filed or motions initiated before the date of enactment of this Act [Oct. 6, 1988] pursuant to section 206 of the Federal Power Act [this section]: Provided, however, That such
complaints may be withdrawn and refiled without prejudice."

## Limitation on Authority Provided

Pub. L. 100-473, §3, Oct. 6, 1988, 102 Stat. 2300, provided that: "Nothing in subsection (c) of section 206 of the Federal Power Act, as amended (16 U.S.C. 824e(c)) shall be interpreted to confer upon the Federal Energy Regulatory Commission any authority not granted to it elsewhere in such Act [16 U.S.C. 791a et seq.] to issue an order that (1) requires a decrease in system production or transmission costs to be paid by one or more electric utility companies of a registered holding company; and (2) is based upon a determination that the amount of such decrease should be paid through an increase in the costs to be paid by other electric utility companies of such registered holding company. For purposes of this section, the terms 'electric utility companies' and 'registered holding company' shall have the same meanings as provided in the Public Utility Holding Company Act of 1935 , as amended [15 U.S.C. 79 et seq.]."

## STUDY

Pub. L. 100-473, §5, Oct. 6, 1988, 102 Stat. 2301, directed that, no earlier than three years and no later than four years after Oct. 6, 1988, Federal Energy Regulatory Commission perform a study of effect of amendments to this section, analyzing (1) impact, if any, of such amendments on cost of capital paid by public utilities, (2) any change in average time taken to resolve proceedings under this section, and (3) such other matters as Commission may deem appropriate in public interest, with study to be sent to Committee on Energy and Natural Resources of Senate and Committee on Energy and Commerce of House of Representatives

## § 824f. Ordering furnishing of adequate service

Whenever the Commission, upon complaint of a State commission, after notice to each State commission and public utility affected and after opportunity for hearing, shall find that any interstate service of any public utility is inadequate or insufficient, the Commission shall determine the proper, adequate, or sufficient service to be furnished, and shall fix the same by its order, rule, or regulation: Provided, That the Commission shall have no authority to compel the enlargement of generating facilities for such purposes, nor to compel the public utility to sell or exchange energy when to do so would impair its ability to render adequate service to its customers.
(June 10, 1920, ch. 285, pt. II, § 207, as added Aug. 26,1935 , ch. 687, title II, § 213, 49 Stat. 853.)

## $\S 824 \mathrm{~g}$. Ascertainment of cost of property and depreciation

## (a) Investigation of property costs

The Commission may investigate and ascertain the actual legitimate cost of the property of every public utility, the depreciation therein, and, when found necessary for rate-making purposes, other facts which bear on the determination of such cost or depreciation, and the fair value of such property.

## (b) Request for inventory and cost statements

Every public utility upon request shall file with the Commission an inventory of all or any part of its property and a statement of the original cost thereof, and shall keep the Commission informed regarding the cost of all additions, betterments, extensions, and new construction.
(June 10, 1920, ch. 285, pt. II, § 208, as added Aug. 26,1935 , ch. 687, title II, § 213, 49 Stat. 853.)

## §824h. References to State boards by Commission <br> (a) Composition of boards; force and effect of proceedings

The Commission may refer any matter arising in the administration of this subchapter to a board to be composed of a member or members, as determined by the Commission, from the State or each of the States affected or to be affected by such matter. Any such board shall be vested with the same power and be subject to the same duties and liabilities as in the case of a member of the Commission when designated by the Commission to hold any hearings. The action of such board shall have such force and effect and its proceedings shall be conducted in such manner as the Commission shall by regulations prescribe. The board shall be appointed by the Commission from persons nominated by the State commission of each State affected or by the Governor of such State if there is no State commission. Each State affected shall be entitled to the same number of representatives on the board unless the nominating power of such State waives such right. The Commission shall have discretion to reject the nominee from any State, but shall thereupon invite a new nomination from that State. The members of a board shall receive such allowances for expenses as the Commission shall provide. The Commission may, when in its discretion sufficient reason exists therefor, revoke any reference to such a board.

## (b) Cooperation with State commissions

The Commission may confer with any State commission regarding the relationship between rate structures, costs, accounts, charges, practices, classifications, and regulations of public utilities subject to the jurisdiction of such State commission and of the Commission; and the Commission is authorized, under such rules and regulations as it shall prescribe, to hold joint hearings with any state commission in connection with any matter with respect to which the Commission is authorized to act. The Commission is authorized in the administration of this chapter to avail itself of such cooperation, services, records, and facilities as may be afforded by any State commission.
(c) Availability of information and reports to State commissions; Commission experts
The Commission shall make available to the several State commissions such information and reports as may be of assistance in State regulation of public utilities. Whenever the Commission can do so without prejudice to the efficient and proper conduct of its affairs, it may upon request from a State make available to such State as witnesses any of its trained rate, valuation, or other experts, subject to reimbursement to the Commission by such State of the compensation and traveling expenses of such witnesses. All sums collected hereunder shall be credited to the appropriation from which the amounts were expended in carrying out the provisions of this subsection.

## Federal Power Act section 313 <br> 16 U.S.C. § 8251

(June 10, 1920, ch. 285, pt. III, §311, as added Aug. 26, 1935, ch. 687, title II, § 213, 49 Stat. 859.)

## § 825k. Publication and sale of reports

The Commission may provide for the publication of its reports and decisions in such form and manner as may be best adapted for public information and use, and is authorized to sell at reasonable prices copies of all maps, atlases, and reports as it may from time to time publish. Such reasonable prices may include the cost of compilation, composition, and reproduction. The Commission is also authorized to make such charges as it deems reasonable for special statistical services and other special or periodic services. The amounts collected under this section shall be deposited in the Treasury to the credit of miscellaneous receipts. All printing for the Federal Power Commission making use of engraving, lithography, and photolithography, together with the plates for the same, shall be contracted for and performed under the direction of the Commission, under such limitations and conditions as the Joint Committee on Printing may from time to time prescribe, and all other printing for the Commission shall be done by the Director of the Government Publishing Office under such limitations and conditions as the Joint Committee on Printing may from time to time prescribe. The entire work may be done at, or ordered through, the Government Publishing Office whenever, in the judgment of the Joint Committee on Printing, the same would be to the interest of the Government: Provided, That when the exigencies of the public service so require, the Joint Committee on Printing may authorize the Commission to make immediate contracts for engraving, lithographing, and photolithographing, without advertisement for proposals: Provided further, That nothing contained in this chapter or any other Act shall prevent the Federal Power Commission from placing orders with other departments or establishments for engraving, lithographing, and photolithographing, in accordance with the provisions of sections 1535 and 1536 of title 31, providing for interdepartmental work.
(June 10, 1920, ch. 285, pt. III, §312, as added Aug. 26, 1935, ch. 687, title II, § 213, 49 Stat. 859; amended Pub. L. 113-235, div. H, title I, §1301(b), (d), Dec. 16, 2014, 128 Stat. 2537.)

## Codification

"Sections 1535 and 1536 of title 31 " substituted in text for "sections 601 and 602 of the Act of June 30, 1932 (47 Stat. 417 [31 U.S.C. 686, 686b])" on authority of Pub. L. 97-258, §4(b), Sept. 13, 1982, 96 Stat. 1067, the first section of which enacted Title 31, Money and Finance.

## Change of Name

"Director of the Government Publishing Office" substituted for "Public Printer" in text on authority of section 1301(d) of Pub. L. 113-235, set out as a note under section 301 of Title 44, Public Printing and Documents
"Government Publishing Office" substituted for "Government Printing Office" in text on authority of section 1301(b) of Pub. L. 113-235, set out as a note preceding section 301 of Title 44, Public Printing and Documents.

## § 825l. Review of orders

## (a) Application for rehearing; time periods; modi-

 fication of orderAny person, electric utility, State, municipality, or State commission aggrieved by an order issued by the Commission in a proceeding under this chapter to which such person, electric utility, State, municipality, or State commission is a party may apply for a rehearing within thirty days after the issuance of such order. The application for rehearing shall set forth specifically the ground or grounds upon which such application is based. Upon such application the Commission shall have power to grant or deny rehearing or to abrogate or modify its order without further hearing. Unless the Commission acts upon the application for rehearing within thirty days after it is filed, such application may be deemed to have been denied. No proceeding to review any order of the Commission shall be brought by any entity unless such entity shall have made application to the Commission for a rehearing thereon. Until the record in a proceeding shall have been filed in a court of appeals, as provided in subsection (b), the Commission may at any time, upon reasonable notice and in such manner as it shall deem proper, modify or set aside, in whole or in part, any finding or order made or issued by it under the provisions of this chapter.

## (b) Judicial review

Any party to a proceeding under this chapter aggrieved by an order issued by the Commission in such proceeding may obtain a review of such order in the United States court of appeals for any circuit wherein the licensee or public utility to which the order relates is located or has its principal place of business, or in the United States Court of Appeals for the District of Columbia, by filing in such court, within sixty days after the order of the Commission upon the application for rehearing, a written petition praying that the order of the Commission be modified or set aside in whole or in part. A copy of such petition shall forthwith be transmitted by the clerk of the court to any member of the Commission and thereupon the Commission shall file with the court the record upon which the order complained of was entered, as provided in section 2112 of title 28 . Upon the filing of such petition such court shall have jurisdiction, which upon the filing of the record with it shall be exclusive, to affirm, modify, or set aside such order in whole or in part. No objection to the order of the Commission shall be considered by the court unless such objection shall have been urged before the Commission in the application for rehearing unless there is reasonable ground for failure so to do. The finding of the Commission as to the facts, if supported by substantial evidence, shall be conclusive. If any party shall apply to the court for leave to adduce additional evidence, and shall show to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for failure to adduce such evidence in the proceedings before the Commission, the court may order such additional evidence to be taken before the Commission and to be adduced upon the
hearing in such manner and upon such terms and conditions as to the court may seem proper. The Commission may modify its findings as to the facts by reason of the additional evidence so taken, and it shall file with the court such modified or new findings which, if supported by substantial evidence, shall be conclusive, and its recommendation, if any, for the modification or setting aside of the original order. The judgment and decree of the court, affirming, modifying, or setting aside, in whole or in part, any such order of the Commission, shall be final, subject to review by the Supreme Court of the United States upon certiorari or certification as provided in section 1254 of title 28.

## (c) Stay of Commission's order

The filing of an application for rehearing under subsection (a) shall not, unless specifically ordered by the Commission, operate as a stay of the Commission's order. The commencement of proceedings under subsection (b) of this section shall not, unless specifically ordered by the court, operate as a stay of the Commission's order.
(June 10, 1920, ch. 285, pt. III, §313, as added Aug. 26, 1935, ch. 687, title II, § 213, 49 Stat. 860; amended June 25, 1948, ch. 646, §32(a), 62 Stat. 991; May 24, 1949, ch. 139, §127, 63 Stat. 107; Pub. L. 85-791, §16, Aug. 28, 1958, 72 Stat. 947; Pub. L. 109-58, title XII, §1284(c), Aug. 8, 2005, 119 Stat. 980.)

## Codification

In subsec. (b), "section 1254 of title 28 " substituted for "sections 239 and 240 of the Judicial Code, as amended (U.S.C., title 28, secs. 346 and 347 )" on authority of act June 25, 1948, ch. 646, 62 Stat. 869, the first section of which enacted Title 28, Judiciary and Judicial Procedure

## Amendments

2005-Subsec. (a). Pub. L. 109-58 inserted 'electric utility," after "Any person," and "to which such person," and substituted "brought by any entity unless such entity" for "brought by any person unless such person".
1958-Subsec. (a). Pub. L. 85-791, §16(a), inserted sentence to provide that Commission may modify or set aside findings or orders until record has been filed in court of appeals.
Subsec. (b). Pub. L. 85-791, §16(b), in second sentence, substituted "transmitted by the clerk of the court to" for "served upon", substituted "file with the court" for "certify and file with the court a transcript of", and inserted 'as provided in section 2112 of title 28 ', and in third sentence, substituted "jurisdiction, which upon the filing of the record with it shall be exclusive" for "exclusive jurisdiction".

## CHANGE OF NAME

Act June 25, 1948, eff. Sept. 1, 1948, as amended by act May 24, 1949, substituted "court of appeals" for "circuit court of appeals".

## § 825m. Enforcement provisions

## (a) Enjoining and restraining violations

Whenever it shall appear to the Commission that any person is engaged or about to engage in any acts or practices which constitute or will constitute a violation of the provisions of this chapter, or of any rule, regulation, or order thereunder, it may in its discretion bring an action in the proper District Court of the United

States or the United States courts of any Territory or other place subject to the jurisdiction of the United States, to enjoin such acts or practices and to enforce compliance with this chapter or any rule, regulation, or order thereunder, and upon a proper showing a permanent or temporary injunction or decree or restraining order shall be granted without bond. The Commission may transmit such evidence as may be available concerning such acts or practices to the Attorney General, who, in his discretion, may institute the necessary criminal proceedings under this chapter.

## (b) Writs of mandamus

Upon application of the Commission the district courts of the United States and the United States courts of any Territory or other place subject to the jurisdiction of the United States shall have jurisdiction to issue writs of mandamus commanding any person to comply with the provisions of this chapter or any rule, regulation, or order of the Commission thereunder.

## (c) Employment of attorneys

The Commission may employ such attorneys as it finds necessary for proper legal aid and service of the Commission or its members in the conduct of their work, or for proper representation of the public interests in investigations made by it or cases or proceedings pending before it, whether at the Commission's own instance or upon complaint, or to appear for or represent the Commission in any case in court; and the expenses of such employment shall be paid out of the appropriation for the Commission.

## (d) Prohibitions on violators

In any proceedings under subsection (a), the court may prohibit, conditionally or unconditionally, and permanently or for such period of time as the court determines, any individual who is engaged or has engaged in practices constituting a violation of section $824 u$ of this title (and related rules and regulations) from-
(1) acting as an officer or director of an electric utility; or
(2) engaging in the business of purchasing or selling-
(A) electric energy; or
(B) transmission services subject to the jurisdiction of the Commission.
(June 10, 1920, ch. 285, pt. III, §314, as added Aug. 26, 1935, ch. 687, title II, § 213, 49 Stat. 861 ; amended June 25, 1936, ch. 804, 49 Stat. 1921; June 25, 1948, ch. 646, §32(b), 62 Stat. 991; May 24, 1949, ch 139, §127, 63 Stat. 107; Pub. L. 109-58, title XII, §1288, Aug. 8, 2005, 119 Stat. 982.)

## Codification

As originally enacted subsecs. (a) and (b) contained references to the Supreme Court of the District of Columbia. Act June 25, 1936, substituted "the district court of the United States for the District of Columbia" for "the Supreme Court of the District of Colum bia", and act June 25, 1948, as amended by act May 24, 1949, substituted "United States District Court for the District of Columbia" for "district court of the United States for the District of Columbia". However, the words "United States District Court for the District of Columbia" have been deleted entirely as superfluous in view of section 132(a) of Title 28, Judiciary and Judicial


[^0]:    ${ }^{1}$ Throughout, "CIR" refers to an item in the Certified Index to the Record. "JA" refers to the deferred Joint Appendix. "P" refers to a paragraph number within a FERC order. "ADD" refers to a page number in the separately bound addendum filed concurrently with this brief.

[^1]:    ${ }^{2}$ PJM's primary auction each year is called the "Base Residual Auction," which procures capacity for a delivery year three years in the future. As the delivery year approaches, PJM holds "Incremental Auctions" to adjust the amount of capacity procured. See generally PJM Interconnection, L.L.C., 117 FERC II 61,331 (2006).
    ${ }^{3}$ Demand response is a practice whereby electricity consumers, typically aggregated by a demand response provider, "commit[] not to use power at certain times" in exchange for compensation. FERC v. Elec. Power Supply Ass 'n, 136 S. Ct. 760, 767 (2016). Particularly during peak times, demand response can effectively "offer electricity both more cheaply and more reliably by paying users to dial down their consumption than by paying power plants to ramp up their production." Id.

[^2]:    ${ }^{4}$ In the 2015 and 2016 Base Residual Auctions (for Delivery Years 2018/2019 and 2019/2020, respectively), PJM capped the amount of Base Capacity at 20\%. PJM also held transition auctions for Delivery Years 2016/2017 and 2017/2018 (for which Base Residual Auctions had already been conducted), at which part of the capacity that was already committed was converted to Capacity Performance. Id. at 27 (JA __).

[^3]:    ${ }^{5}$ Because PJM had already procured capacity for 2016/2017 and 2017/2018 under its pre-Capacity Performance rules, the results of these transition auctions illuminate the incremental costs attributable to Capacity Performance.

[^4]:    ${ }^{6}$ In addition, Sierra Club and UCS maintain offices in PJM's service area and will pay higher electricity rates for those offices because of FERC's orders. See Lewis Decl. IIII 1-5 (ADD 28-29); Gomberg Decl. IIII 6-8 (ADD 35-36). Sierra Club and UCS therefore satisfy the test for standing directly.

[^5]:    ${ }^{7}$ This argument is presented by APPA, NRECA, and PPANJ.

[^6]:    ${ }^{8}$ This argument is presented by APPA, PPANJ, NRECA, NRDC, Sierra Club, UCS, and AMP.

[^7]:    ${ }^{9}$ PJM characterized the October 2014 study as finding that "the economic benefits would exceed the economic costs in years with extreme weather," id. (emphasis added), but that characterization is not supported by the study itself. In fact, the study was much more tentative, asserting only that "[p]reliminary analysis indicates that in extreme weather years, the Capacity Performance proposal could result in net cost savings." PJM \& Monitoring Analytics, "Capacity Performance Initiative" at 4 (Oct. 23, 2014) (JA __) (emphasis added). PJM provided no further information about this "preliminary analysis," id., and it offered no justification for converting "could" to "would." Id. See also Public Interest Rehearing Request at 920 (JA $\qquad$ - $\qquad$

[^8]:    ${ }^{10}$ Chairman Bay also focused on PJM's miscalculation of penalties and incentives, which, he opined, "undercut[] the very purpose of the program." Rehearing Order at 1 (Bay, dissenting) (JA __). These design flaws-discussed in Argument Sections II(B) and (C), below-undermine the FERC majority's simplistic reliance on market mechanisms to ensure that capacity prices would be just and reasonable.

[^9]:    ${ }^{11}$ In its denial of rehearing, the Commission attempted to distinguish TransCanada in a footnote, reasoning that "the Capacity Performance proposal relies on market forces and ex ante market rules to drive resource selection and set prices, while the . . . winter reliability program [in TransCanada] was a temporary out-of-market program." Rehearing Order at P 30 n. 40 (JA _). That is a distinction without a difference. TransCanada holds that FERC must offer a reasonable explanation of how it weighs non-cost factors when deciding whether a rule is just and reasonable; that is as true for market rules as it is for out-of-market rules.

[^10]:    ${ }^{12}$ This argument is presented by NRDC, Sierra Club, and UCS.

[^11]:    ${ }^{13}$ PJM's FERC-approved capacity rules were designed to ensure that its system would perform at all times except for rare events, which occur not more frequently than about once every ten years. See Planning Resource Adequacy Assessment Reliability Standard, 134 FERC II 61,212, at PP 31-34 (2011). This one-in-ten-year reliability standard is known as the "loss-of-load expectation." Id. Notably, the resources that cleared the 2015 Base Residual Auction (a mix of $80 \%$ Capacity Performance and 20\% Base Capacity) yielded a loss-of-load expectation of about once every fifty years, which far surpassed PJM's one-in-ten-year objective. See Public Interest Rehearing Supplement, Rutigliano Aff. at 8 (CIR 409, JA __). Thus, even with $20 \%$ of the market participants being seasonal, PJM far exceeded its FERC-approved reliability objective.

[^12]:    ${ }^{14}$ The Commission's assertion that seasonal resources provide capacity "for the same price" as annual resources is also unsupported. Rehearing Order at P 59 (JA __). Under the new rules, Base Capacity resources are paid less than Capacity Performance resources, and the amount of capacity for which renewable resources can be compensated is heavily discounted. See Capacity Performance Filing at 71 \& n. 196 (JA __).

[^13]:    ${ }^{15}$ This argument is presented by AEMA.

[^14]:    ${ }^{16}$ This argument is presented by NJBPU, APPA, PPANJ, NRECA, and AMP.

[^15]:    ${ }^{17}$ Mathematically, Net CONE*B represents the Performance Bonus Payment rate times the Balancing Ratio times the expected number of Performance Assessment Hours. Capacity Performance Order at P 338 (JA __). Ostensibly, Net CONE*B amounts to an offer cap that is equal to the competitive offer estimate for a Low Avoidable Cost Rate Resource. Id at P 340 (JA __).

[^16]:    ${ }^{20}$ See PJM Answer at 27-28 (JA $\qquad$ -__). ). An "Environmentally-Limited Resource" is a traditional generation resource that is environmentally limited as a result of government regulation. Id.

[^17]:    ${ }^{21}$ A Locational Deliverability Area is an area within PJM that is defined by the ability of the transmission system to deliver energy into that area during emergency conditions.

[^18]:    ${ }^{1}$ So in original. Section 824 e of this title does not contain a subsec. (f).

