

ORAL ARGUMENT HAS NOT YET BEEN SCHEDULED

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

No. 11-1341

**PPL ENERGYPLUS, LLC,
*PETITIONER,***

v.

**FEDERAL ENERGY REGULATORY COMMISSION,
*RESPONDENT.***

**ON PETITION FOR REVIEW OF ORDERS OF THE
FEDERAL ENERGY REGULATORY COMMISSION**

**BRIEF FOR RESPONDENT
FEDERAL ENERGY REGULATORY COMMISSION**

**DAVID L. MORENOFF
ACTING GENERAL COUNSEL**

**ROBERT H. SOLOMON
SOLICITOR**

**CAROL J. BANTA
ATTORNEY**

**FOR RESPONDENT
FEDERAL ENERGY REGULATORY
COMMISSION
WASHINGTON, D.C. 20426**

SEPTEMBER 7, 2012

FINAL BRIEF: NOVEMBER 2, 2012

CIRCUIT RULE 28(A)(1) CERTIFICATE

A. Parties and Amici

To counsel's knowledge, the parties and intervenors before this Court (in addition to Petitioner PPL EnergyPlus, LLC and Respondent Federal Energy Regulatory Commission) and before the Federal Energy Regulatory Commission in the underlying docket are as stated in the Brief of Petitioner.

B. Rulings Under Review

1. Order Dismissing Complaint, *PPL EnergyPlus, LLC v. PJM Interconnection, L.L.C.*, Docket No. EL11-25, 134 FERC ¶ 61,263 (Mar. 31, 2011) ("Complaint Order"), R. 42, JA 1; and
2. Order Denying Rehearing, *PPL EnergyPlus, LLC v. PJM Interconnection, L.L.C.*, Docket No. EL11-25, 136 FERC ¶ 61,060 (July 27, 2011) ("Rehearing Order"), R. 47, JA 19.

C. Related Cases

This case has not previously been before this Court or any other court. Counsel is not aware of any other related cases pending before this or any other court.

/s/ Carol J. Banta
Carol J. Banta
Attorney

TABLE OF CONTENTS

	PAGE
STATEMENT OF THE ISSUE.....	1
STATUTORY AND REGULATORY PROVISIONS	2
INTRODUCTION	2
STATEMENT OF FACTS	3
I. STATUTORY AND REGULATORY BACKGROUND	3
II. THE COMMISSION PROCEEDINGS AND ORDERS.....	5
SUMMARY OF ARGUMENT	12
ARGUMENT	14
I. STANDARD OF REVIEW.....	14
II. THE COMMISSION REASONABLY CONCLUDED THAT THE SYSTEM OPERATOR SATISFIED ITS TARIFF RESPONSIBILITIES	15
A. The PJM Tariff Gives The System Operator Discretion In Modeling Simultaneous Feasibility.....	16
B. PJM Reasonably Exercised Its Discretion In Excluding The Meadowbrook Outage From Its Model Of System Conditions	20
1. PJM’s failure to ensure revenue adequacy did not constitute a Tariff violation.....	20
2. PJM did not exercise its discretion unreasonably by excluding the Meadowbrook outage from its model	23

TABLE OF CONTENTS

	PAGE
3. PPL failed to show that PJM exercised unreasonable discretion in deciding not to model other outages	27
III. THE COMMISSION REASONABLY DETERMINED THAT PJM'S SYSTEM MODELING DECISIONS WERE NOT UNDULY DISCRIMINATORY	28
CONCLUSION	33

TABLE OF AUTHORITIES

COURT CASES:	PAGE
* <i>B&J Oil and Gas v. FERC</i> , 353 F.3d 71 (D.C. Cir. 2004).....	25
<i>Blumenthal v. FERC</i> , 552 F.3d 875 (D.C. Cir. 2009).....	4
<i>Burlington Truck Lines, Inc. v. United States</i> , 371 U.S. 156 (1962).....	14
* <i>City of New Orleans v. FERC</i> , 67 F.3d 947 (D.C. Cir. 1995).....	26
<i>City of Vernon v. FERC</i> , 845 F.2d 1042 (D.C. Cir. 1988).....	28
* <i>Colorado Interstate Gas Company v. FERC</i> , 599 F.3d 698 (D.C. Cir. 2010).....	15
<i>Electricity Consumers Resource Council v. FERC</i> , 747 F.2d 1511 (D.C. Cir. 1984).....	31
<i>ExxonMobil Oil Corporation v. FERC</i> , 487 F.3d 945 (D.C. Cir. 2007).....	15
* <i>Koch Gateway Pipeline Company v. FERC</i> , 136 F.3d 810 (D.C. Cir. 1998).....	15
<i>Maryland Public Service Commission v. FERC</i> , 632 F.3d 1283 (D.C. Cir. 2011).....	4, 14

* Cases chiefly relied upon are marked with an asterisk.

TABLE OF AUTHORITIES

COURT CASES (continued):	PAGE
<i>Morgan Stanley Capital Group v. Public Utility District No. 1 of Snohomish County</i> , 554 U.S. 527 (2008).....	4, 14
<i>Motor Vehicle Manufacturers Association of United States, Inc. v. State Farm Mutual Automobile Insurance Co.</i> , 463 U.S. 29 (1983).....	14
<i>New York v. FERC</i> , 535 U.S. 1 (2002).....	3
* <i>Northern States Power Company v. FERC</i> , 30 F.3d 177 (D.C. Cir. 1994).....	25
<i>NRG Power Marketing, LLC v. Maine Public Utilities Commission</i> , 558 U.S. 165, 130 S. Ct. 693 (2010)	4
<i>NSTAR Electric & Gas Corporation v. FERC</i> , 481 F.3d 794 (D.C. Cir. 2007).....	15
<i>Permian Basin Area Rate Cases</i> , 390 U.S. 747 (1986).....	14
* <i>Public Service Electric and Gas Company v. FERC</i> , 485 F.3d 1164 (D.C. Cir. 2007).....	19
<i>Public Utilities Commission of California v. FERC</i> , 254 F.3d 250 (D.C. Cir. 2001).....	15
<i>Sacramento Municipal Utility District v. FERC</i> , 474 F.3d 797 (D.C. Cir. 2007).....	29
<i>Sithe/Independence Power Partners, L.P. v. FERC</i> , 165 F.3d 944 (D.C. Cir. 1999).....	14

TABLE OF AUTHORITIES

COURT CASES (continued):	PAGE
<i>Southwestern Electric Cooperative v. FERC</i> , 347 F.3d 975 (D.C. Cir. 2003).....	29
ADMINISTRATIVE CASES:	
<i>California Independent System Operator Corporation</i> , 98 FERC ¶ 61,335 (2002).....	31
* <i>Midwest Independent System Operator, Inc.</i> , 108 FERC ¶ 61,163 (2004).....	22
<i>New York Independent System Operator, Inc. v. Astoria Energy LLC</i> , 118 FERC ¶ 61,216 (2007).....	17
* <i>PPL EnergyPlus, LLC v. PJM Interconnection, L.L.C.</i> , 134 FERC ¶ 61,263, <i>reh’g denied</i> , 136 FERC ¶ 61,060 (2011).....	3, 5, 6, 7, 11, 16, 17, 18, 19, 21, 23, 24, 25, 26, 29
* <i>PPL EnergyPlus, LLC v. PJM Interconnection, L.L.C.</i> , 136 FERC ¶ 61,060 (2011).....	3, 11, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30
* <i>PJM Interconnection, L.L.C.</i> , 84 FERC ¶ 61,212 (1998).....	22
<i>PJM Interconnection, L.L.C.</i> , 117 FERC ¶ 61,220 (2006).....	31
<i>Southwest Power Pool, Inc.</i> , 114 FERC ¶ 61,222 (2006).....	31

TABLE OF AUTHORITIES

STATUTES:	PAGE
Federal Power Act	
Section 201(a)-(b), 16 U.S.C. § 824(a)-(b)	3
Section 205(a), (b), (e), 16 U.S.C. § 824d(a), (b), (e)	3
Section 206, 16 U.S.C. § 824e.....	4, 15
Section 206(a), 16 U.S.C. § 824e(a).....	4
Section 206(b), 16 U.S.C. § 824e(b)	4, 29

GLOSSARY

ARR	Auction revenue right
Commission or FERC	Federal Energy Regulatory Commission
Complaint Order	Order Dismissing Complaint, <i>PPL EnergyPlus, LLC v. PJM Interconnection, L.L.C.</i> , Docket No. EL11-25, 134 FERC ¶ 61,263 (Mar. 31, 2011), R. 42, JA 1
FERC Orders	Collectively, Complaint Order and Rehearing Order
FPA	Federal Power Act
FTR	Financial transmission right
Manual	PJM Manual 06, <i>Financial Transmission Rights</i> (excerpted in addenda to this Brief and to Petitioner’s Brief; full version at http://www.pjm.com/~media/documents/manuals/m06.ashx)
PJM	Intervenor PJM Interconnection, L.L.C., the independent system operator for the mid-Atlantic regional transmission system
PPL	Petitioner PPL EnergyPlus, LLC
Rehearing Order	Order Denying Rehearing, <i>PPL EnergyPlus, LLC v. PJM Interconnection, L.L.C.</i> , Docket No. EL11-25, 136 FERC ¶ 61,060 (July 27, 2011), R. 47, JA 19
Tariff	PJM’s FERC-approved Tariff (excerpted in addenda to this Brief and to Petitioner’s Brief; full version at http://www.pjm.com/documents/~media/documents/agreements/tariff.ashx)

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

No. 11-1341

**PPL ENERGYPLUS, LLC,
*PETITIONER,***

v.

**FEDERAL ENERGY REGULATORY COMMISSION,
*RESPONDENT.***

**ON PETITION FOR REVIEW OF ORDERS OF THE
FEDERAL ENERGY REGULATORY COMMISSION**

**BRIEF FOR RESPONDENT
FEDERAL ENERGY REGULATORY COMMISSION**

STATEMENT OF THE ISSUE

PJM Interconnection, L.L.C. (“PJM”) operates the high-voltage electric transmission network in the mid-Atlantic region. It also administers a tariff, approved by the Federal Energy Regulatory Commission (“Commission” or “FERC”), that details the rates, terms, and conditions of regional transmission service, including the allocation of certain financial rights among transmission service customers. The question presented on appeal is:

Whether the Commission reasonably found that PJM complied with the terms of its tariff, which affords PJM considerable operational discretion, when PJM decided not to include a particular transmission line outage in its system modeling.

STATUTORY AND REGULATORY PROVISIONS

Pertinent statutes and regulations are contained in the attached Addendum.

INTRODUCTION

This case concerns the transmission system analysis used by PJM to allocate certain financial rights among its transmission customers. One such customer, Petitioner PPL EnergyPlus, LLC (“PPL”), complained to FERC that PJM’s decision not to include a temporary transmission line outage in its modeling violated the PJM tariff (“Tariff”).

PJM’s Tariff requires it to determine, using a powerflow model based on various inputs and assumptions, that all of the financial rights allocated to customers are “simultaneously feasible,” meaning that congestion charges are expected to cover funding of those obligations. PPL claims that PJM’s decision not to include in its modeling a planned outage of a transmission line violated PJM’s Tariff and resulted in a shortfall that was allocated to PPL and other customers.

The Commission denied PPL’s complaint. It concluded that the tariff affords PJM discretion in conducting its system analysis. The Commission also concluded that PPL failed to show that PJM had not reasonably exercised its discretion in choosing to exclude the outage for purposes of allocating financial rights. *PPL EnergyPlus, LLC v. PJM Interconnection, L.L.C.*, 134 FERC ¶ 61,263 (“Complaint Order”), R. 42, JA 1, *reh’g denied*, 136 FERC ¶ 61,060 (2011) (“Rehearing Order”), R. 47, JA 19.¹

STATEMENT OF FACTS

I. STATUTORY AND REGULATORY BACKGROUND

Section 201 of the Federal Power Act (“FPA” or “Act”) gives the Commission jurisdiction over the rates, terms, and conditions of service for the transmission and sale at wholesale of electric energy in interstate commerce. 16 U.S.C. §§ 824(a)-(b). This grant of jurisdiction is comprehensive and exclusive. *See generally New York v. FERC*, 535 U.S. 1 (2002) (discussing statutory framework and FERC jurisdiction). All rates for or in connection with jurisdictional sales and transmission services are subject to FERC review to assure they are just and reasonable, and not unduly discriminatory or preferential. FPA § 205(a), (b), (e), 16 U.S.C. § 824d(a), (b), (e).

¹ “R.” refers to a record item. “JA” refers to the Joint Appendix page number. “A” refers to the page number in the Addendum submitted with this Brief. “P” refers to the internal paragraph number within a FERC order.

Section 206 of the Act, 16 U.S.C. § 824e, authorizes the Commission, on its own initiative or on a third-party complaint, to investigate whether existing rates are lawful. In a complaint proceeding, the complainant bears “the burden of proof to show that any rate . . . is unjust, unreasonable, unduly discriminatory, or preferential” FPA § 206(b), 16 U.S.C. § 824e(b); *see also Blumenthal v. FERC*, 552 F.3d 875, 881 (D.C. Cir. 2009) (stating complainant’s burden of proof). If the Commission finds that the burden has been met, it must determine and set the new just and reasonable rate. FPA § 206(a), 16 U.S.C. § 824e(a).

The Commission’s efforts to foster wholesale electricity competition over broader geographic areas in recent decades have led to the creation of independent system operators and regional transmission organizations. *See Morgan Stanley Capital Grp. v. Pub. Util. Dist. No. 1*, 554 U.S. 527, 536-37 (2008). These independent regional entities operate the transmission grid on behalf of transmission-owning member utilities. *See NRG Power Mktg., LLC v. Me. Pub. Utils. Comm’n*, 558 U.S. 165, 130 S. Ct. 693, 697 & n.1 (2010) (explaining responsibilities of regional system operators). PJM is the independent system operator for a regional transmission system that spans thirteen mid-Atlantic states, plus the District of Columbia. *See Md. Pub. Serv. Comm’n v. FERC*, 632 F.3d 1283, 1284 (D.C. Cir. 2011).

II. THE COMMISSION PROCEEDINGS AND ORDERS

A. PJM's Tariff and Manual: Financial transmission rights and auction revenue rights

PJM offers open-access transmission service under its FERC-approved Tariff, which is excerpted in the Addendum to this Brief and available in full at <http://www.pjm.com/documents/~/media/documents/agreements/tariff.ashx>. (Attachment K-Appendix, which contains the sections at issue in this case, begins at p. 1607.) PJM has developed dozens of manuals to set forth and explain various administrative, planning, operating, and accounting procedures. *See generally* <http://www.pjm.com/documents/manuals.aspx>; *see also* Tariff Definitions § 1.35, A-4 (PJM Manuals are “the instructions, rules, procedures and guidelines established by [PJM] for the operation, planning, and accounting requirements of the PJM Region”); Complaint Order at P 42 & n.32, JA 15. For purposes of this case, only PJM’s Manual 06, *Financial Transmission Rights* (“Manual”), is relevant.² Portions of this Manual are excerpted in this Brief’s Addendum; the full version is available at <http://www.pjm.com/~/media/documents/manuals/m06.ashx>.

² This Manual explains that its “intended audiences” are transmission customers, PJM members, and PJM’s own departments responsible for running simultaneous feasibility tests, conducting and settling auctions, and calculating the resulting billing credits. Manual at 9-10, A-17 to A-18.

PJM offers its transmission customers opportunities to acquire financial transmission rights,³ which are financial instruments that entitle holders to receive compensation for charges related to grid congestion and out-of-merit-order generator dispatch to relieve congestion. *See* Complaint Order at P 2, JA 1-2. Each financial transmission right is defined from a point of receipt to a point of delivery. *See id.* For each hour in which congestion exists on the transmission system between those specified points, the holder receives a share of the transmission congestion charges collected from market participants. *See id.* Accordingly, a transmission customer on a congested area of the grid is able to hedge against its own congestion charges. *See* Manual § 1.1, A-19 (“One purpose of [financial transmission rights] is to protect Firm Transmission Service Customers from increased cost due to Transmission Congestion when their energy deliveries are consistent with their firm reservations” — in essence, to provide “rebates of congestion charges paid by the Firm Transmission Service Customers”). Though customers can obtain financial transmission rights through three kinds of auctions (long-term, annual, and monthly) or through the secondary market, this case concerns only the annual auction. *See* Complaint Order at P 2, JA 2.

³ Financial transmission rights are commonly called “FTRs,” as in the FERC Orders and Petitioner’s Brief.

Auction revenue rights⁴ are the mechanism by which the proceeds from the annual auction are allocated. *See* Complaint Order at P 3, JA 2. They are entitlements that PJM allocates annually to its network service and firm point-to-point transmission service customers; the holders are entitled to receive an allocation of the revenues from the annual auction of financial transmission rights. *See id.* Holders of auction revenue rights may retain those allocations or convert their rights into financial transmission rights in the annual auction. *See* Tariff, Attachment K-Appendix § 7.1.1(b), A-12.

PJM’s Tariff requires that all financial transmission rights and auction revenue rights must be “simultaneously feasible” — that is, the transmission system must be able to support all of the subscribed rights during normal system conditions. *See* Tariff, Attachment K-Appendix §§ 5.2.2(f)(i), 7.1.1(a), 7.4.2(h), A-8, A-11, A-14; Manual § 9.1, A-24. The Tariff requires PJM to make its simultaneous feasibility determinations “using appropriate powerflow models of contingency-constrained dispatch,” based on expected system conditions and reasonable assumptions:

Such determinations shall take into account outages of both individual generation units and transmission facilities and shall be based on reasonable assumptions about the configuration and availability of

⁴ Auction revenue rights are commonly called “ARRs,” as in the FERC Orders and Petitioner’s Brief.

transmission capability during the period covered by the auction
The goal of the simultaneous feasibility determination shall be to ensure that there are sufficient revenues from Transmission Congestion Charges to satisfy all Financial Transmission Rights Obligations for the auction period under expected conditions and to ensure that there are sufficient revenues from the annual Financial Transmission Right auction to satisfy all Auction Revenue Rights Obligations.

Tariff, Attachment K-Appendix § 7.5(a), A-15. *See also* Manual § 9.1, A-24 (“The purpose of the [simultaneous feasibility test] is to preserve the economic value of [financial transmission rights or auction revenue rights] to the holders by ensuring that all [such rights] awarded can be honored.”).

In its Manual, PJM explains that the simultaneous feasibility test is a “market feasibility test” that uses a DC powerflow model to “model[] the requested firm transmission reservations and expected network topology” during the relevant period. Manual § 9.1, A-24. The Manual notes that “[i]t is not a system reliability test and is not intended to model actual system operating conditions.” *Id.* Inputs to the model include all existing and newly-requested financial transmission rights and auction revenue rights. For the annual auction model, inputs also include “transmission line outage schedules . . . that are expected to last for 2 months or more,” as well as shorter outages that PJM has determined to be “likely to cause

[financial transmission right] revenue inadequacy” — meaning insufficient congestion charges to fund all such rights — if such outages are not modeled. *Id.*⁵

While the Tariff states PJM’s goal of ensuring sufficient revenues from congestion charges to satisfy its financial transmission rights and auction revenue rights obligations (*see supra*), the Tariff also provides a mechanism for covering any revenue deficiency by assessing an “uplift charge” on a *pro rata* basis among all holders of financial transmission rights. Attachment K-Appendix § 5.2.5(c), A-9; *see also* Manual § 8.5, A-23.

C. Complaint Order

In March 2011, PPL filed a Complaint (R. 1, JA 36), alleging that PJM had violated its Tariff by failing to model a construction-related transmission outage on the 500-kilovolt Meadowbrook-Morrisville span, which was planned to last more than 121 days, in the planning period for the 2010/2011 annual auction of financial transmission rights. Complaint at 9, JA 44. PPL further alleged that the failure to model that outage led to a total revenue adequacy for financial transmission rights of only 87.53% as of January 2011 (eight months into the June 2010-May 2011

⁵ The current version of the Manual, echoing the Tariff, further states that simultaneous feasibility determinations “shall take into account outages based on reasonable assumptions about configuration and availability of transmission capability.” Manual § 9.1, A-24. The Manual was revised to add this language after the FERC Orders were issued.

planning period). *Id.* at 10, JA 45. PPL claimed that the failure to model the Meadowbrook outage resulted in an overallocation of auction revenue rights, causing a dilution of auction revenues and underfunding of financial transmission rights, so that market participants, such as PPL, would have to pay increased uplift costs to cover the deficiency at the end of the 2010/2011 period. *Id.* at 10-11, JA 45-46.

PPL also challenged PJM's announced intention to exclude two outages (on the Burches Hill-Chalk Point and Burches Hill-Possum Point lines) from the powerflow model in the simultaneous feasibility test for the 2011/2012 planning period. *Id.* at 14, 26, JA 49, 61.⁶ PPL sought remedial relief for market participants who were harmed by the alleged violation for the 2010/2011 planning period and prospective relief directing PJM to model all two-month outages for the 2011/2012 planning period.

PJM filed an Answer to the Complaint, which included an affidavit explaining PJM's simultaneous feasibility analysis, both in general and specifically for the 2010/2011 and 2011/2012 planning periods. R. 33, JA 178. PPL responded with its own Answer (R. 37, JA 223), which the Commission also

⁶ PPL also cited a nine-month outage of the Mt. Storm-Doubs line. PJM had determined that it would model that outage in its 2011/2012 test, but PPL objected to the system operator's position that it had any discretion to consider that modeling optional. *See* Complaint at 13-14, 25, JA 48-49, 60.

accepted and considered in its decisionmaking. *See* Complaint Order at P 37, JA 13.

On March 31, 2011, the Commission issued its Complaint Order, dismissing PPL's Complaint on the merits. *Id.* at PP 1, 38, JA 1, 13. As discussed more fully in the Argument, *infra*, the Commission concluded that PJM had not violated its Tariff, because the Tariff afforded the system operator discretion to decide whether or not to include a particular temporary outage in its model. Complaint Order at PP 38-44, JA 13-16. The Commission also found that PPL had not shown that PJM had exercised its discretion unreasonably or with undue discrimination. *Id.* at PP 46-48, JA 17.

D. Rehearing Order

PPL filed a timely Request for Rehearing. R. 43, JA 19. On July 27, 2011, the Commission denied rehearing, reaffirming its finding that PPL had failed to meet its burden to show that PJM had violated its Tariff or acted in an unreasonable or unduly discriminatory manner. Rehearing Order at PP 17, 19, JA 24.

This appeal followed.

SUMMARY OF ARGUMENT

The Commission reasonably interpreted the PJM Tariff as not compelling PJM to conduct its model of annual system conditions in precisely the way favored by one party. The Tariff is not absolute as to PJM's modeling responsibilities. Rather, its terms are imprecise, obligating PJM only to "take into account" certain factors, to pursue a "goal" of revenue sufficiency, and to make "reasonable assumptions." The PJM operating manual that helps inform PJM's administration of its tariff, which recognizes various "inputs" to PJM's model, is similarly imprecise. The Commission reasonably concluded that PJM considered the factors that it needed to consider. That PJM did not construct precisely the model that would have been most advantageous to Petitioner PPL does not mean that PJM's choice of model failed to respect its responsibilities under its Tariff.

Under the Tariff, the allocation of financial rights to transmission service customers depends on PJM's determination that all such rights are "simultaneously feasible" — that is, that revenues from congestion charges can be expected to fund those rights used to hedge against such charges. This case hinges on whether, and to what degree, the system operator may rely on its experience and expertise in modeling the transmission system to make that determination — and whether the operator's modeling choices must be upset when actual system conditions play out differently than its predicted outcomes. Petitioner PPL contends that the system

operator simply cannot, consistent with its Tariff or with reasonable decisionmaking, decide to exclude from the annual model any outage lasting more than two months. The Commission, however, reasonably concluded that PPL had failed to make its case.

First, the Commission found that PJM had not violated its Tariff. The Commission interpreted the Tariff, as informed by the Manual, to afford the system operator discretion in making simultaneous feasibility determinations, including selection of inputs for its system modeling. The Commission also concluded that it is appropriate for the system operator to attempt to protect firm service customers through optimal allocation of auction revenue rights while also seeking to ensure revenue adequacy. The fact that a funding shortfall may, in fact, occur — as the Tariff itself contemplates — does not prove that PJM violated its Tariff or acted unreasonably.

The Commission further found that PPL, which bore the burden of proof under the Federal Power Act, failed to show that PJM exercised its discretion unreasonably. Though PPL argues that any two-month transmission outage must be modeled for the entire year, without exception and without further analysis, the Commission recognized that system modeling is an inexact science, dependent upon the operator's experience, expertise, and assessment of likely outcomes. The Commission fully considered PJM's explanation of its modeling methodology —

including its past experience with temporary outages (including on the same Meadowbrook line), its consistent approach to evaluating such outages, and its record of generally achieving revenue adequacy — and found that PPL had not met its burden to show that PJM had acted unreasonably. The Commission likewise rejected PPL’s claim that the system operator’s modeling decisions inappropriately chose “winners and losers” among market participants.

ARGUMENT

I. STANDARD OF REVIEW

The Court reviews FERC orders under the Administrative Procedure Act’s arbitrary and capricious standard. *See, e.g., Md. Pub. Serv. Comm’n*, 632 F.3d at 1286; *Sithe/Independence Power Partners, L.P. v. FERC*, 165 F.3d 944, 948 (D.C. Cir. 1999). A court must satisfy itself that the agency “articulate[d] a satisfactory explanation for its action including a ‘rational connection between the facts found and the choice made.’” *Motor Vehicle Mfrs. Ass’n of United States, Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (quoting *Burlington Truck Lines, Inc. v. United States*, 371 U.S. 156, 168 (1962)).

The Commission’s decisions regarding rate issues are entitled to broad deference, because of “the breadth and complexity of the Commission’s responsibilities.” *Permian Basin Area Rate Cases*, 390 U.S. 747, 790 (1968); *see also Pub. Utils. Comm’n of Cal. v. FERC*, 254 F.3d 250, 254 (D.C. Cir. 2001)

(“Because issues of rate design are fairly technical and, insofar as they are not technical, involve policy judgments that lie at the core of the regulatory mission, our review of whether a particular rate design is just and reasonable is highly deferential.”) (internal quotation marks and citations omitted); *accord NSTAR Elec. & Gas Corp. v. FERC*, 481 F.3d 794, 802 (D.C. Cir. 2007). *See also Morgan Stanley*, 554 U.S. at 532 (“The statutory requirement that rates be ‘just and reasonable’ is obviously incapable of precise judicial definition, and we afford great deference to the Commission in its rate decisions.”); *ExxonMobil Oil Corp. v. FERC*, 487 F.3d 945, 951 (D.C. Cir. 2007) (“In reviewing FERC’s orders, we are ‘particularly deferential to the Commission’s expertise’ with respect to ratemaking issues.”) (citation omitted).

In addition, under the *Chevron* standard, this Court gives substantial deference to the Commission’s interpretation of filed tariffs. *See Colo. Interstate Gas Co. v. FERC*, 599 F.3d 698, 701 (D.C. Cir. 2010); *Koch Gateway Pipeline Co. v. FERC*, 136 F.3d 810, 814 (D.C. Cir. 1998).

II. THE COMMISSION REASONABLY CONCLUDED THAT THE SYSTEM OPERATOR SATISFIED ITS TARIFF RESPONSIBILITIES

As the complainant under Section 206 of the Federal Power Act, 16 U.S.C. § 824e, PPL bore the burden to establish that PJM had acted in an unjust, unreasonable, or unduly discriminatory manner. *See supra* p. 4. The Commission

concluded that PPL failed to meet that burden, based on the Commission’s interpretation of the Tariff language, the Manual, PJM’s persuasive explanation of its simultaneous feasibility analysis, and PPL’s failure to show that PJM had exercised its discretion unreasonably. Complaint Order at PP 41-48, JA 14-17; Rehearing Order at PP 17, 19, JA 24.

A. The PJM Tariff Gives The System Operator Discretion In Modeling Simultaneous Feasibility

Starting with the text of the Tariff, the Commission found that, while the Tariff provides that the system operator shall take outages “into account” (Tariff, Attachment K-Appendix § 7.5, A-15), it “does not specify how PJM should take them into account, or impose any requirements as to which outages should be taken into account.” Complaint Order at P 41, JA 14; *see also* Rehearing Order at P 21 (Tariff does not provide “further detail” on treatment of outages), JA 25; *id.* at P 26 & n.20 (noting that Tariff does not say “*all*” outages), JA 27. Indeed, the Tariff states that simultaneous feasibility determinations “shall be based on reasonable assumptions about the configuration and availability of transmission capability” (Tariff, Attachment K-Appendix § 7.5, A-15). The Commission interpreted this to mean that PJM — an independent system operator having significant and unique expertise and experience with the configuration and operation of its transmission system — “may exercise a degree of judgment and

discretion in conducting the simultaneous feasibility determination.” Complaint Order at P 41, JA 14; *accord* Rehearing Order at P 21, JA 25.

Notwithstanding the discretion that the Tariff provides for the system operator’s determination, PPL contends that PJM, in its Manual, bound itself to a strict requirement to model all two-month outages. *See* Br. 33. But the Manual, unlike the Tariff, is not a binding filed rate “and was not accepted or approved by the Commission.” Rehearing Order at P 24, JA 26-27; *see also id.* at P 22 n.14 (“the Commission has not accepted or approved the Manuals”), JA 26. Therefore, even if the Manual were more absolute than the Tariff, it would “not override Commission-accepted/approved Tariff provisions.” *Id.* at P 22 n.14 (citing cases), JA 26; *see N.Y. Indep. Sys. Operator, Inc. v. Astoria Energy LLC*, 118 FERC ¶ 61,216, at P 32 n.17 (2007) (holding that system operator’s manual, unlike its tariff, was “not a filed rate schedule” and “cannot override the terms of the tariff”; thus, the Commission had “no statutory obligation to enforce its terms”).

The Commission nevertheless considered the Manual in construing PJM’s Tariff obligations. *See* Complaint Order at P 42 (“While Manuals cannot override the terms of PJM’s Tariff, we may look at Manuals in interpreting the Tariff.”), JA 15. Contrary to PPL’s claim that PJM committed itself to include every two-month outage in its simultaneous feasibility determination, the Commission

determined that the Manual does not impose “such an absolute obligation” — particularly when read with “the level of discretion” provided to the system operator in the Tariff. Complaint Order at P 42, JA 14-15.

Even the Manual is “not entirely clear” as to accounting for outages; it lists outages lasting more than two months as one of several “inputs” for the system operator to consider in its overall simultaneous feasibility analysis; it does not, however, specify that every outage must be included in the powerflow model, which is just one “specific sub-part” of that “multiple stage process.” Complaint Order at P 42, JA 15; *accord id.* at P 44, JA 16; Rehearing Order at P 23, JA 26. Accordingly, the Commission “[did] not interpret the Manual as imposing a more absolute requirement than the Tariff.” Complaint Order at P 42, JA 15.

The Commission further found that its interpretation of the Tariff as affording discretion to the system operator was supported by the purpose of the simultaneous feasibility test. *See* Complaint Order at P 43, JA 15. That test, though it does employ a powerflow model that presents a snapshot of the transmission system, is not actually “used to determine the physical capability of the system to flow power at a single point in time”; rather, PJM uses its analysis to determine the allocation of auction revenue rights for an entire year. *Id.* Thus, any temporary outage that is captured in the snapshot powerflow model decreases the system’s capability for the whole planning period. *See id.* For that reason, to

develop an accurate annualized model of the system, the system operator must determine on a case-by-case basis whether a particular short-term outage warrants denying auction revenue rights for the whole year — a determination that requires the exercise of reasonable discretion. *See id.*; *see also* Rehearing Order at P 24, JA 26.⁷

For these reasons, the Commission concluded, “based on an interpretation of the Tariff language, the Manual as informed by the Tariff, and the realities of the modeling process, that PJM does have discretion to determine which outages should be treated as applicable to the entire year for the purpose of the simultaneous feasibility test.” Complaint Order at P 44, JA 16; Rehearing Order at P 24, JA 26. “On this record, therefore, [the Court] can hardly say that the Commission’s interpretation of the tariff was unreasonable.” *Pub. Serv. Elec. & Gas Co. v. FERC*, 485 F.3d 1164, 1169 (D.C. Cir. 2007).

⁷ The Commission also noted that, under an absolute requirement to include every two-month outage, the powerflow model would “significantly understate” the system’s capability, disregarding the system operator’s understanding of its own network. The Commission was persuaded by PJM’s explanation that such a flawed model likely would deprive the system operator of a useful base model from which to conduct its feasibility analysis. *See* Rehearing Order at P 29, JA 28.

B. PJM Reasonably Exercised Its Discretion In Excluding The Meadowbrook Outage From Its Model Of System Conditions

Having concluded that PJM has discretion under its Tariff to decide whether to model a particular temporary outage in the powerflow snapshot for its simultaneous feasibility test, the Commission further found that PPL had not met its burden to show that the system operator had unreasonably excluded the Meadowbrook outage from the model. Rehearing Order at PP 23, 32, JA 26, 30.

1. PJM’s failure to ensure revenue adequacy did not constitute a Tariff violation

PPL contends that the fact that underfunding occurred proves that PJM did not exercise its discretion reasonably — *i.e.*, that PJM violated the Tariff’s requirement to ensure that financial transmission rights are fully funded. *See* Br. 18. The Tariff does indeed state that the “goal” of the simultaneous feasibility determination is to ensure both sufficient revenues from congestion charges to satisfy all financial transmission rights obligations “under expected conditions” and sufficient revenues from the annual auction to satisfy all annual revenue rights obligations. Tariff, Attachment K-Appendix § 7.5, A-15. Similarly, the Manual explains that the purpose of the determination “is to preserve the economic value” of both kinds of rights by ensuring that all such obligations “can be honored.” Manual § 9.1, A-24.

That is not to say, however, that the system operator violates the Tariff if it fails to achieve revenue adequacy: “If PJM does not meet its goal of revenue adequacy in a particular instance, that does not mean that a Tariff violation has necessarily occurred.” Complaint Order at P 46, JA 17; *see also* Rehearing Order at P 32 (Tariff itself “describes revenue adequacy as a ‘goal’ of the simultaneous feasibility determination, not a requirement”), JA 30. To the contrary, the Tariff itself explicitly “contemplates the possibility of underfunding” (Complaint Order at P 46, JA 17) by providing that, if any holders of financial transmission rights have not received their full target allocations of congestion charges at the end of the planning period, the system operator must assess an uplift charge equaling the shortfall and impose it on a *pro rata* basis to all financial transmission rights holders. *See* Tariff, Attachment K-Appendix § 5.2.5(c), A-9; *see also* Rehearing Order at P 32, JA 30. (Recognizing that revenue adequacy is not an exact science, the Tariff also contemplates overfunding, in a section that provides for distribution of excess congestion charges to holders of financial transmission rights. *See* Tariff, Attachment K-Appendix § 5.2.6, A-10.)

Even so, PPL argues that the Commission failed to consider whether PJM inappropriately balanced the goal of revenue adequacy with an effort to allocate as many auction revenue rights as possible. Br. 27, 29. PJM explained that — in accordance with longstanding FERC policy — it tries to maximize the use of the

transmission system by providing as much firm transmission service to customers as can reasonably be expected, by allocating auction revenue rights to firm service customers sufficient to hedge against their congestion charges. *See* PJM Answer at 20-22, JA 197-99.⁸ *See generally* *PJM Interconnection, L.L.C.*, 84 FERC ¶ 61,212 at p. 62,035 (1998) (noting Commission’s policy “to maximize use of the transmission provider’s system” and approving procedure that prioritized longer-term transmission arrangements); *Midwest Indep. Sys. Operator, Inc.*, 108 FERC ¶ 61,163 at P 156 (2004) (noting “the primary objective” of an initial allocation of financial transmission rights was “to hold existing transmission customers whole with respect to congestion related charges . . . to the extent possible given the objective of simultaneous feasibility”), *cited in* Rehearing Order at P 29 n.24, JA 29.

The Commission agreed, recognizing that PJM appropriately conducts its analysis to determine the point at which optimal protection of firm service customers and revenue adequacy can both be met: “The purpose of conducting the simultaneous feasibility determination is thus to allocate the maximum number of

⁸ Indeed, PJM explained that, if its analysis were required to ensure that financial transmission rights could never be underfunded, it would take such a conservative approach to granting firm transmission service that many customers would be unable to obtain the level of firm service upon which they had relied in the past. *See* Rehearing Order at P 29 n. 25 (citing PJM Answer at 26 n.77, JA 203), JA 29.

[auction revenue rights] that can be allocated while ensuring that [financial transmission rights] are fully funded” — *not*, as PPL contends (*see, e.g.*, Br. 29-30), to focus narrowly on “ensur[ing] that financial transmission rights can never be underfunded.” Rehearing Order at P 29, JA 29.

Having concluded that an outcome of revenue inadequacy is not, automatically, a Tariff violation and that the system operator appropriately considered the additional goal of protecting firm transmission service customers, the Commission found that PPL “ha[d] not shown that PJM did not attempt to meet the goal of revenue adequacy” Rehearing Order at P 32, JA 30.

2. PJM did not exercise its discretion unreasonably by excluding the Meadowbrook outage from its model

PPL also failed to prove that PJM’s modeling decisions were unreasonable. Though PPL contends that the Commission “failed to analyze” whether PJM’s exercise of discretion was reasonable (Br. 34), the Commission fully considered PJM’s explanation of its analysis and found it persuasive. *See* Rehearing Order at PP 23, 32, 36, JA 26, 30, 32; Complaint Order at P 42, 47, JA 15, 17. Moreover, PPL, as the complainant under section 206(b) of the Federal Power Act, § 824e(b), bore the burden of proving that PJM had violated its Tariff — a burden that the Commission found it had failed. *See* Rehearing Order at PP 19, 32, JA 24, 30.

PPL argues that the only reasonable approach to system modeling is a simple, open-and-shut question of whether a line is planned to be in-service for all twelve months or out-of-service for any period over two months. *See* Br. 32-33. The Commission, however, recognized that determination of simultaneous feasibility is more complex, entailing discretionary decisions “whether and the extent to which each of the referenced inputs should be included or excluded from the pre-auction phase of the determination and/or the computer optimization program that PJM uses to determine the proper allocation of [auction revenue rights] and auctioning of [financial transmission rights].” Rehearing Order at P 23, JA 26. In analyzing the Meadowbrook outage, PJM “did include the Outage as part of its consideration of the simultaneous feasibility test,” but found that, based on its analysis, this particular outage “did not warrant a denial of [auction revenue rights] for the entire year.” Complaint Order at P 42, JA 15.

Specifically, PJM considered that the Meadowbrook line was expected to be in-service for more than eight months of the twelve-month planning period and that an outage on the same line in the prior year had “had little to no [e]ffect” on revenue adequacy. *See* Affidavit of Andrew L. Ott at para. 27 (attached to PJM Answer), JA 215; Complaint Order at P 17 (summarizing PJM’s explanation),

JA 7.⁹ Based on its review of that evidence, the Commission was persuaded that the system operator had conducted its simultaneous feasibility process for 2010/2011 consistent with its past treatment of outages. Complaint Order at P 47, JA 17; Rehearing Order at P 36, JA 32. That finding warrants deference: “[W]hen agency orders involve complex scientific or technical questions, as here, [the court is] particularly reluctant to interfere with the agency’s reasoned judgments.” *B&J Oil & Gas v. FERC*, 353 F.3d 71, 76 (D.C. Cir. 2004); *see also N. States Power Co. v. FERC*, 30 F.3d 177, 180 (D.C. Cir. 1994) (applying highly deferential standard of review to agency findings on technical matters).

PPL also, in oversimplifying and second-guessing the system operator’s methodology, disregards PJM’s record of achieving revenue adequacy. The Commission recognized that, while system modeling is not an exact science — “the simultaneous feasibility test model is not perfect” (Rehearing Order at P 36, JA 32) — PJM has achieved “generally successful results.” *Id.* at P 32 (citing

⁹ Contrary to PPL’s suggestion that excluding a two-month outage is bound to result in revenue inadequacy, PJM’s experience in modeling its transmission system is that excess congestion charges in some months balance out shortfalls in other months during the year-long planning period. *See Ott Affidavit* at para. 35 (“It is typical and expected that . . . revenue inadequacies will occur for different months of the year because [outages and other conditions] fluctuate as a result of system conditions changing. For these same reasons, there will typically be months during which there is a revenue surplus.”), JA 217. Hence, it is not a foregone conclusion that exclusion of a temporary line outage from the model will cause a shortfall in congestion revenues.

PJM Answer at 27, JA 204, and Ott Affidavit at para. 18, JA 214), JA 30-31; *id.* at P 36 (PJM usually achieved full funding of its financial transmission rights, with only “periodic” exceptions), JA 32; *see also* Ott Affidavit at para. 25 (“historically, PJM has been at or near 100% revenue adequate”), JA 215; Complaint, Att. B at 9 (chart showing eight years of results), JA 96. Of course, hindsight is 20/20: “Whether PJM’s various modeling decisions ultimately achieved the goal of revenue adequacy or not in this particular case did not become clear until months after its decisions had been made.” Rehearing Order at P 32, JA 30. The Commission did not share PPL’s view (*see, e.g.*, Br. 23) that such hindsight retroactively deems those modeling choices unreasonable. *Cf. City of New Orleans v. FERC*, 67 F.3d 947, 954 (D.C. Cir. 1995) (“Neither FERC nor this court can properly use hindsight in evaluating the reasonableness of a decision’s effect on rates.”).

Furthermore, even in retrospect, the Commission was not persuaded that including the Meadowbrook outage in the powerflow model would have led to full funding of financial transmission rights. *See* Rehearing Order at P 33, JA 31. Of the factors that contributed to revenue inadequacy in the 2010/2011 planning period, three major construction outages (including Meadowbrook) together accounted for only a fraction — less than one-fifth — of the shortfall. *See* Complaint Order at P 45 (noting that three outages accounted for 17 percent of the

revenue inadequacy), JA 16; Ott Affidavit at para. 33, JA 216; *id.* at para. 32 (citing other outages, transformer failures, external flowgates/constraints, and loop flow as other factors contributing to revenue inadequacy), JA 216; *id.* Appendix B (table), JA 220. Moreover, the Commission determined that, even if the exclusion of the Meadowbrook outage from the model did contribute to the revenue inadequacy in the 2010/2011 planning period, PPL had not shown that PJM did not attempt to meet the goal of revenue adequacy or that “PJM acted unreasonably based on the information available at the time.” Rehearing Order at P 33, JA 31.

3. PPL failed to show that PJM exercised unreasonable discretion in deciding not to model other outages

On appeal, PPL contends that the Commission failed to consider whether PJM reasonably exercised its discretion in deciding to exclude the Burches Hill-Chalk Point and Burches Hill-Possum Point lines from the powerflow model in its simultaneous feasibility test for 2011/2012. *See* Br. 14-15, 22, 32, 35. The Commission, however, found that PPL had made no showing as to those outages. *See* Rehearing Order at P 39, JA 33-34. PPL had only “briefly mentioned” the Burches Hill outages in its Complaint, without providing “any substantive information” or “provid[ing] any evidence going to the unreasonableness of PJM’s exercise of discretion with respect to the Burches Hill spans,” and PPL’s later Answer included only a passing reference to PPL’s disagreement with PJM’s judgment. *See id.* “Mere brief assertions in pleadings and rehearing requests are

not sufficient to raise cognizable issues.” *Id.* See *City of Vernon v. FERC*, 845 F.2d 1042, 1047 (D.C. Cir. 1988) (the Commission “cannot be asked to make silk purse responses to sow’s ear arguments”).

Notwithstanding PPL’s failure to present its case, the Commission considered PJM’s response, which explained that the system operator decided to exclude the Burches Hill outages from the model because it determined that including them, together with the other outages that it had chosen to include, “would result in extreme under-allocation of [auction revenue rights] for expected conditions and would not be realistically representative of the physics of the grid.” Rehearing Order at P 40 (citing PJM Answer at 15-16, JA 192-93), JA 34. The Commission concluded that, given the “paucity” of PPL’s filings on the matter, it found PJM’s response reasonable and concluded that PPL had “not demonstrated that PJM acted unreasonably in exercising its discretion with respect to the Burches Hill spans.” *Id.* at P 40, JA 34.

III. THE COMMISSION REASONABLY DETERMINED THAT PJM’S SYSTEM MODELING DECISIONS WERE NOT UNDULY DISCRIMINATORY

PPL’s discrimination claim likewise fails. PPL contends that PJM unduly discriminated against some market participants (including PPL) by deciding not to model the Meadowbrook outage. Br. 36-37. But at the core of PPL’s discrimination claim is its contention that PJM, by failing to model every planned

outage lasting two months or longer, did not follow its Tariff. *See* Br. 37 (“The net effect of PJM’s failure to follow its Tariff is to create winners and losers among market participants: . . . a classic case of undue discrimination”); Complaint at 27-29, JA 62-64. As discussed above, however, the Commission reasonably concluded that PJM *did* follow its Tariff by considering all relevant factors. *See supra* pp. 24-26.

Furthermore, the Commission found that PPL failed to meet its burden to show “that PJM acted in an unduly discriminatory manner in how it did or did not model the Meadowbrook Outage as compared with its modeling of other similar outages.” Rehearing Order at P 36, JA 32.¹⁰ *See* FPA § 206(b), 16 U.S.C. § 824e(b) (complainant has the burden of proof to demonstrate, *inter alia*, undue discrimination). To the contrary, PJM had similarly excluded outages lasting more than two months in simultaneous feasibility modeling for previous planning periods, without resulting in revenue inadequacy. *See* Rehearing Order at P 36, JA 32; Complaint Order at P 47 (“PJM regularly conducted the simultaneous feasibility determination process in the same manner and previously excluded

¹⁰ To make a claim of undue discrimination, a party must show dissimilar treatment of customers that are similarly situated, or similar treatment of customers that are differently situated. *See, e.g., Sacramento Mun. Util. Dist. v. FERC*, 474 F.3d 797, 802 (D.C. Cir. 2007); *Sw. Elec. Coop. v. FERC*, 347 F.3d 975, 981 (D.C. Cir. 2003).

outages lasting more than two months.”), JA 17. And, having agreed that the system operator appropriately tries to balance its responsibility to ensure revenue adequacy and its responsibility to maximize the use of the transmission system, the Commission noted that PJM generally achieved that balance, producing revenue adequacy in most years. *See* Rehearing Order at PP 32, 36, JA 30, 32; *supra* pp. 25-26.

PPL argues that the Commission’s reasoning did not respond to PPL’s discrimination claim. Br. 37-38. But the Commission was directly on point — PPL’s claim that PJM picks “winners and losers” depends on at least three premises that the Commission rejected: First, that it is inappropriate for PJM to seek to maximize allocation of financial rights, in balance with the goal of revenue adequacy (*see supra* pp. 21-23); second, that PJM — contrary to its track record of generally achieving revenue adequacy — should anticipate that excluding an outage from the powerflow model will cause a revenue shortfall (*see supra* pp. 25-26); and third, that the ultimate revenue inadequacy in 2010/2011 was, in fact, attributable to the exclusion of the outage from the powerflow model (*see supra* pp. 26-27).¹¹

¹¹ PPL’s argument also promises unending litigation over system modeling, as it suggests that any discretionary modeling decision that the system operator makes in determining simultaneous feasibility constitutes undue discrimination if revenue inadequacy occurs.

The cases that PPL cites (Br. 37) are not to the contrary. PPL points to FERC precedents for the uncontroversial principle that system operators must exercise discretion “in a not unduly discriminatory manner.” *Sw. Power Pool, Inc.*, 114 FERC ¶ 61,222, at PP 78, 88 (2006); *Cal. Indep. Sys. Operator Corp. v. Sellers of Energy & Ancillary Servs.*, 98 FERC ¶ 61,335, at p. 62,427 (2002). Nor is *Electricity Consumers Resource Council v. FERC*, 747 F.2d 1511 (D.C. Cir. 1984), instructive, as it concerned a proposed rate design under which marginal cost pricing would cause high-demand customers to cross-subsidize low-demand customers. *See id.* at 1515-16. That case is inapposite here, where a system operator’s discretionary decision as to the likely effects of one possible modeling input, among many considered in a multi-stage system analysis, contributed to a revenue shortfall that triggered an existing, Tariff-prescribed allocation mechanism. Likewise, *PJM Interconnection, L.L.C.*, 117 FERC ¶ 61,220 (2006), is not on point because the Commission merely noted that PJM would not grant auction revenue rights that were *known from the start* to be infeasible (*see id.* at P 46) — as opposed to rights that are determined to be simultaneously feasible but turn out to be underfunded when actual system conditions differ from predicted outcomes.

Finally, to the extent that PPL argues that PJM’s modeling of simultaneous feasibility forces some market participants to subsidize others in every instance of

revenue inadequacy, PPL's challenge is to the Tariff itself, not to PJM's modeling determinations. The Tariff affords the system operator discretion in modeling the system to determine simultaneous feasibility, explicitly contemplates that revenue inadequacy may occur in some years, and provides for *pro rata* allocation of uplift charges to cover such insufficiencies. *See supra* pp. 7-9, 16-19, 21. PPL, however, raised no challenge to the Tariff itself in its Complaint, but only challenges to PJM's administration of its Tariff and the Commission's interpretation of the Tariff. Accordingly, the Commission had no need to proceed further.

CONCLUSION

For the reasons stated, the petition for review should be denied and the challenged FERC Orders should be affirmed in all respects.

Respectfully submitted,

David L. Morenoff
Acting General Counsel

Robert H. Solomon
Solicitor

/s/ Carol J. Banta

Carol J. Banta
Attorney

Federal Energy Regulatory
Commission
Washington, DC 20426
Tel.: (202) 502-6433
Fax: (202) 273-0901

September 7, 2012
Final Brief: November 2, 2012

CERTIFICATE OF COMPLIANCE

In accordance with Fed. R. App. P. 32(a)(7)(C)(i), I certify that the Brief of Respondent contains 7,098 words, not including the tables of contents and authorities, the glossary, the certificates of counsel, and the addendum.

/s/ Carol J. Banta
Carol J. Banta
Attorney

Federal Energy Regulatory
Commission
Washington, DC 20426
Tel.: (202) 502-6433
Fax: (202) 273-0901

November 2, 2012

ADDENDUM

Statutes and Other Materials

Table of Contents

Page

Statutes:

Federal Power Act

Section 201(a)-(b), 16 U.S.C. § 824(a)-(b)	A-1
Section 205(a), (b), (e), 16 U.S.C. § 824d(a), (b), (e)	A-2
Section 206(a)-(b), 16 U.S.C. § 824e(a)-(b).....	A-3

Other Materials:

PJM Tariff (excerpts)

Section 1.32D	A-4
Attachment K-Appendix.....	A-5
PJM Manual 06, <i>Financial Transmission Rights</i> (excerpts)	A-16

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 COMMERCE

§ 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) of this section, the provisions of sections 824b(a)(2), 824e(e), 824i, 824j, 824j-1, 824k, 824o, 824p, 824q, 824r, 824s, 824t, 824u, and 824v 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 824b(a)(2), 824e(e), 824i, 824j, 824j-1, 824k, 824o, 824p, 824q, 824r, 824s, 824t, 824u, or 824v 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 824e(e), 824e(f),¹ 824i, 824j, 824j-1, 824k, 824o, 824p, 824q, 824r, 824s, 824t, 824u, or 824v 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

¹So in original. Section 824e of this title does not contain a subsec. (f).

§ 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 anti-competitive 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.

§ 824e. 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) of this section, in a proceeding commenced under this section involving two or more electric utility companies

1.32D PJM Manuals:

The instructions, rules, procedures and guidelines established by the Transmission Provider for the operation, planning, and accounting requirements of the PJM Region and the PJM Interchange Energy Market.

1.32E PJM Region:

Shall have the meaning specified in the Operating Agreement.

1.32F [RESERVED]

1.32.F.01 PJMSettlement:

PJM Settlement, Inc. (or its successor).

1.32G [RESERVED]

1.33 Point(s) of Delivery:

Point(s) on the Transmission Provider's Transmission System where capacity and energy transmitted by the Transmission Provider will be made available to the Receiving Party under Part II of the Tariff. The Point(s) of Delivery shall be specified in the Service Agreement for Long-Term Firm Point-To-Point Transmission Service.

1.33A Point of Interconnection:

The point or points, shown in the appropriate appendix to the Interconnection Service Agreement and the Interconnection Construction Service Agreement, where the Customer Interconnection Facilities interconnect with the Transmission Owner Interconnection Facilities or the Transmission System.

1.34 Point(s) of Receipt:

Point(s) of interconnection on the Transmission Provider's Transmission System where capacity and energy will be made available to the Transmission Provider by the Delivering Party under Part II of the Tariff. The Point(s) of Receipt shall be specified in the Service Agreement for Long-Term Firm Point-To-Point Transmission Service.

1.35 Point-To-Point Transmission Service:

The reservation and transmission of capacity and energy on either a firm or non-firm basis from the Point(s) of Receipt to the Point(s) of Delivery under Part II of the Tariff.

1.36 Power Purchaser:

ATTACHMENT K – APPENDIX

References to section numbers in this Attachment K – Appendix refer to sections of this Attachment K – Appendix, unless otherwise specified.

Preface.

The provisions of the Appendix incorporate into the Tariff for ease of reference the provisions of Schedule 1 of the Operating Agreement. As a result, this Appendix will be modified, subject to the approval of the Federal Energy Regulatory Commission, so that the terms and conditions set forth herein remain consistent with the corresponding terms and conditions of Schedule 1 of the Operating Agreement. All references in this Appendix to “Agreement” or “Schedules” are references to the Operating Agreement and the schedules thereto unless otherwise noted. References to Schedule 1 are references to this Appendix.

Effective Date: 9/17/2010 - Docket #: ER10-2710-000

5.2 Transmission Congestion Credit Calculation.

5.2.1 Eligibility.

(a) Except as provided in Section 5.2.1(b), each holder of a Financial Transmission Right shall receive as a Transmission Congestion Credit a proportional share of the total Transmission Congestion Charges collected for each constrained hour.

(b) If a holder of a Financial Transmission Right between specified delivery and receipt buses acquired the Financial Transmission Right in a Financial Transmission Rights auction (the procedures for which are set forth in Part 7 of this Schedule 1) and (i) had an Increment Bid and/or Decrement Bid that was accepted by the Office of the Interconnection for an applicable hour in the Day-ahead Energy Market for delivery or receipt at or near delivery or receipt buses of the Financial Transmission Right; and (ii) the result of the acceptance of such Increment Bid or Decrement Bid is that the difference in Locational Marginal Prices in the Day-ahead Energy Market between such delivery and receipt buses is greater than the difference in Locational Marginal Prices between such delivery and receipt buses in the Real-time Energy Market, then the Market Participant shall not receive any Transmission Congestion Credit, associated with such Financial Transmission Right in such hour, in excess of one divided by the number of hours in the applicable month multiplied by the amount that the Market Participant paid for the Financial Transmission Right in the Financial Transmission Rights Auction.

(c) For purposes of Section 5.2.1(b) a bus shall be considered at or near the Financial Transmission Right delivery or receipt bus if seventy-five percent or more of the energy injected or withdrawn at that bus and which is withdrawn or injected at any other bus is reflected in the constrained path between the subject Financial Transmission Right delivery and receipt buses that were acquired in the Financial Transmission Rights auction.

(d) The Market Monitoring Unit shall calculate Transmission Congestion Credits pursuant to this section and section VI of Attachment M – Appendix. Nothing in this section shall preclude the Market Monitoring Unit from action to recover inappropriate benefits from the subject activity if the amount forfeited is less than the benefit derived by the FTR holder. If the Office of the Interconnection agrees with such calculation, then it shall impose the forfeiture of the Transmission Congestion Credit accordingly. If the Office of the Interconnection does not agree with the calculation, then it shall impose a forfeiture of Transmission Congestion Credit consistent with its determination. If the Market Monitoring Unit disagrees with the Office of the Interconnection's determination, it may exercise its powers to inform the Commission staff of its concerns and may request an adjustment. This provision is duplicated in section VI of Attachment M – Appendix. An FTR holder objecting to the application of this rule shall have recourse to the Commission for review of the application of the FTR forfeiture rule to its trading activity.

5.2.2 Financial Transmission Rights.

upon the Office of the Interconnection's assessment of the buyer's ability to perform the obligations, including meeting applicable creditworthiness requirements, transferred in the bilateral contract. If consent for a transfer is not provided by the Office of the Interconnection, the title to the Financial Transmission Rights shall not transfer to the third party and the holder of the Financial Transmission Rights shall continue to receive all Transmission Congestion Credits attributable to the Financial Transmission Rights and remain subject to all credit requirements and obligations associated with the Financial Transmission Rights.

(iv) A seller under such a bilateral contract shall guarantee and indemnify the Office of the Interconnection, PJMSettlement, and the Members for the buyer's obligation to pay any charges associated with the transferred Financial Transmission Right and for which payment is not made to PJMSettlement by the buyer under such a bilateral transaction.

(v) All payments and related charges associated with such a bilateral contract shall be arranged between the parties to such bilateral contract and shall not be billed or settled by PJMSettlement or the Office of the Interconnection. The LLC, PJMSettlement, and the Members will not assume financial responsibility for the failure of a party to perform obligations owed to the other party under such a bilateral contract reported to the Office of the Interconnection under this Schedule.

(vi) All claims regarding a default of a buyer to a seller under such a bilateral contract shall be resolved solely between the buyer and the seller.

(e) Network Service Users and Firm Transmission Customers that take service that sinks, sources in, or is transmitted through new PJM zones, at their election, may receive a direct allocation of Financial Transmission Rights instead of an allocation of Auction Revenue Rights. Network Service Users and Firm Transmission Customers may make this election for the succeeding two annual FTR auctions after the integration of the new zone into the PJM interchange energy market. Such election shall be made prior to the commencement of each annual FTR auction. For purposes of this election, the Allegheny Power Zone shall be considered a new zone with respect to the annual Financial Transmission Right auction in 2003 and 2004. Network Service Users and Firm Transmission Customers in new PJM zones that elect not to receive direct allocations of Financial Transmission Rights shall receive allocations of Auction Revenue Rights. During the annual allocation process, the Financial Transmission Right allocation for new PJM zones shall be performed simultaneously with the Auction Revenue Rights allocations in existing and new PJM zones. Prior to the effective date of the initial allocation of FTRs in a new PJM Zone, PJM shall file with FERC, under section 205 of the Federal Power Act, the FTRs and ARR allocations in accordance with sections 5 and 7 of this Schedule 1.

(f) For Network Service Users and Firm Transmission Customers that take service that sinks in, sources in, or is transmitted through new PJM zones that elect to receive direct allocations of Financial Transmission Rights, Financial Transmission Rights shall be allocated using the same allocation methodology as specified for the allocation of Auction Revenue Rights in Section 7.4.2 and in accordance with the following:

(i) Subject to subsection (ii) of this section, all Financial Transmission Rights must be simultaneously feasible. If all Financial Transmission Right requests made when Financial Transmission Rights are allocated for the new zone are not feasible then Financial Transmission Rights are prorated and allocated in proportion to the MW level requested and in inverse proportion to the effect on the binding constraints.

(ii) If any Financial Transmission Right requests that are equal to or less than a Network Service User's Zonal Base Load for the Zone or fifty percent of its transmission responsibility for Non-Zone Network Load, or fifty percent of megawatts of firm service between the receipt and delivery points of Firm Transmission Customers, are not feasible, then PJM shall increase the capability limits of the binding constraints that would have rendered the Financial Transmission Rights infeasible to the extent necessary in order to allocate such Financial Transmission Rights without their being infeasible, and such increased limits shall be included in all modeling used for subsequent Auction Revenue Rights and Financial Transmission Rights allocations and auctions for the Planning Year; provided that, the foregoing notwithstanding, this subsection (ii) shall not apply if the infeasibility is caused by extraordinary circumstances. For the purposes of this subsection, extraordinary circumstances shall mean an event of force majeure that reduces the capability of existing or planned transmission facilities and such reduction in capability is the cause of the infeasibility of such Financial Transmission Rights. Extraordinary circumstances do not include those system conditions and assumptions modeled in simultaneous feasibility analyses conducted pursuant to section 7.5 of Schedule 1 of this Agreement. If PJM allocates Financial Transmission Rights as a result of this subsection (ii) that would not otherwise have been feasible, then PJM shall notify Members and post on its web site (a) the aggregate megawatt quantities, by sources and sinks, of such Financial Transmission Rights and (b) any increases in capability limits used to allocate such Financial Transmission Rights.

(iii) In the event that Network Load changes from one Network Service User to another after an initial or annual allocation of Financial Transmission Rights in a new zone, Financial Transmission Rights will be reassigned on a proportional basis from the Network Service User losing the load to the Network Service User that is gaining the Network Load.

(g) At least one month prior to the integration of a new zone into the PJM Interchange Energy Market, Network Service Users and Firm Transmission Customers that take service that sinks in, sources in, or is transmitted through the new zone, shall receive an initial allocation of Financial Transmission Rights that will be in effect from the date of the integration of the new zone until the next annual allocation of Financial Transmission Rights and Auction Revenue Rights. Such allocation of Financial Transmission Rights shall be made in accordance with Section 5.2.2(f) of this Schedule.

(h) The following congestion charge crediting and uplift (hereinafter, "mitigation") rules shall apply to each new zone first integrated on any date from May 1, 2004 through May 31, 2005 for which FERC orders such mitigation as a result of a filing for such zone of the type specified in subsection (g) above. Where FERC orders such mitigation, such rules shall remain in effect for such zone from the date of its integration through May 31, 2005. All such mitigation shall terminate for all such zones on May 31, 2005.

Transmission Right Option. The total Target Allocation for Network Service Users and Transmission Customers for each hour shall be the sum of the Target Allocations associated with all of the Network Service Users' or Transmission Customers' Financial Transmission Rights.

5.2.4 [Reserved.]

5.2.5 Calculation of Transmission Congestion Credits.

(a) The total of all the Target Allocations determined as specified above shall be compared to the total Transmission Congestion Charges in each hour resulting from both the Day-ahead Energy Market and the Real-time Energy Market. If the total of the Target Allocations is less than the total of the Transmission Congestion Charges, the Transmission Congestion Credit for each entity holding an FTR shall be equal to its Target Allocation. All remaining Transmission Congestion Charges shall be distributed as described below in Section 5.2.6 "Distribution of Excess Congestion Charges."

(b) If the total of the Target Allocations is greater than the total Transmission Congestion Charges for the hour resulting from both the Day-ahead Energy Market and the Real-time Energy Market, each holder of Financial Transmission Rights shall be assigned a share of the total Transmission Congestion Charges in proportion to its Target Allocations for Financial Transmission Rights which have a positive Target Allocation value. Financial Transmission Rights which have a negative Target Allocation value are assigned the full Target Allocation value as a negative Transmission Congestion Credit.

(c) At the end of a Planning Period if all FTR holders did not receive Transmission Congestion Credits equal to their Target Allocations, the Office of the Interconnection shall assess a charge equal to the difference between the Transmission Congestion Credit Target Allocations for all revenue deficient FTRs and the actual Transmission Congestion Credits allocated to those FTR holders. A charge assessed pursuant to this section shall also include any aggregate charge assessed pursuant to section 7.4.4(c) of Schedule 1 of this Agreement and shall be allocated to all FTR holders on a pro-rata basis according to the total Target Allocations for all FTRs held at any time during the relevant Planning Period. The charge shall be calculated and allocated in accordance with the following methodology:

1. The Office of the Interconnection shall calculate the total amount of uplift required as {[sum of the total monthly deficiencies in FTR Target Allocations for the Planning Period + the sum of the ARR Target Allocation deficiencies determined pursuant to section 7.4.4(c) of Schedule 1 of this Agreement] – [sum of the total monthly excess ARR revenues and congestion charges for the Planning Period]}.

2. For each Market Participant that held an FTR during the Planning Period, the Office of the Interconnection shall calculate the total Target Allocation associated with all FTRs held by the Market Participant during the Planning Period provided that, the foregoing notwithstanding, if the total Target Allocation for an individual Market Participant calculated pursuant to this section is negative the Office of Interconnection shall set the value to zero.

3. The Office of the Interconnection shall then allocate an uplift charge to each Market Participant that held an FTR at any time during the Planning Period in accordance with the following formula: $\{[\text{total uplift}] * [\text{total Target Allocation for all FTRs held by the Market Participant at any time during the Planning Period}] / [\text{total Target Allocations for all FTRs held by all PJM Market Participants at any time during the Planning Period}]\}$.

5.2.6 Distribution of Excess Congestion Charges.

(a) Excess Transmission Congestion Charges accumulated in a month shall be distributed to each holder of Financial Transmission Rights in proportion to, but not more than, any deficiency in the share of Transmission Congestion Charges received by the holder during that month as compared to its total Target Allocations for the month.

(b) After the excess Transmission Congestion Charge distribution described in Section 5.2.6(a) is performed, any excess Transmission Congestion Charges remaining at the end of a month shall be distributed to each holder of Financial Transmission Rights in proportion to, but not more than, any deficiency in the share of Transmission Congestion Charges received by the holder during the current Planning Period, including previously distributed excess Transmission Congestion Charges, as compared to its total Target Allocation for the Planning Period.

(c) Any excess Transmission Congestion Charges remaining at the end of a Planning Period shall be distributed to each holder of Auction Revenue Rights in proportion to, but not more than, any Auction Revenue Right deficiencies for that Planning Period.

(d) Any excess Transmission Congestion Charges remaining after a distribution pursuant to subsection (c) of this section shall be distributed to all FTR holders on a pro-rata basis according to the total Target Allocations for all FTRs held at any time during the relevant Planning Period. Any allocation pursuant to this subsection (d) shall be conducted in accordance with the following methodology:

1. For each Market Participant that held an FTR during the Planning Period, the Office of the Interconnection shall calculate the total Target Allocation associated with all FTRs held by the Market Participant during the Planning Period, provided that, the foregoing notwithstanding, if the total Target Allocation for an individual Market Participant calculated pursuant to this section is negative the Office of the Interconnection shall set the value to zero.

2. The Office of the Interconnection shall then allocate an excess Transmission Congestion Charge credit to each Market Participant that held an FTR at any time during the Planning Period in accordance with the following formula: $\{[\text{total excess Transmission Congestion Charges remaining after distributions pursuant to subsection (a)-(c) of this section}] * [\text{total Target Allocation for all FTRs held by the Market Participant at any time during the Planning Period}] / [\text{total Target Allocations for all FTRs held by all PJM Market Participants at any time during the Planning Period}]\}$.

Effective Date: 1/1/2011 - Docket #: ER11-2527-000

7.1 Auctions of Financial Transmission Rights.

Annual, periodic and long-term auctions to allow Market Participants to acquire or sell Financial Transmission Rights shall be conducted by the Office of the Interconnection in accordance with the provisions of this Section. PJMSettlement shall be the Counterparty to the purchases and sales of Financial Transmission Rights arising from such auctions; provided however, that PJMSettlement shall not be a contracting party to any subsequent bilateral transfer of Financial Transmission Rights between Market Participants. The conversion of an Auction Revenue Right to a Financial Transmission Right pursuant to this section 7 shall not constitute a purchase or sale transaction to which PJMSettlement is a contracting party.

7.1.1 Auction Period and Scope of Auctions.

(a) The periods covered by auctions shall be: (1) the one-year period beginning the month after the final round of an annual auction; (2) any single calendar month period remaining in the Planning Period that is within the three, or less, month period immediately following the month that the monthly auction is conducted; (3) any Planning Period Quarter remaining in the Planning Period following the month that the monthly auction is conducted; and (4) the Planning Period Balance. In addition to the period defined in (2) of this subsection, only one of the periods defined in (3) or (4) of this subsection will be included in the monthly auction clearing until the Office of the Interconnection determines that both of the periods defined in (3) and (4) can be solved simultaneously in the same monthly auction process within the timeframe specified in Section 7.3.7. With the exception of FTRs allocated pursuant to section 5.2.2 (e) of this Schedule and the Financial Transmission Rights awarded as a result of the exercise of the conversion option pursuant to section 7.1.1(b) of this Schedule, in the annual auction, the Office of the Interconnection, on behalf of PJMSettlement, shall offer for sale the entire Financial Transmission Rights capability for the year in four rounds with 25 percent of the capability offered in each round. In the monthly auction, the Office of the Interconnection, on behalf of PJMSettlement, shall offer for sale in the auction any remaining Financial Transmission Rights capability for the months remaining in the Planning Period after taking into account all of the Financial Transmission Rights already outstanding at the time of the auction. In addition, any holder of a Financial Transmission Right for the period covered by an auction may offer such Financial Transmission Right for sale in such auction. On-Peak, off-peak and 24-hour FTRs will be offered in the annual and monthly auctions. FTRs will be offered as Financial Transmission Right Obligations and Financial Transmission Right Options, provided that such Financial Transmission Right Obligations and Financial Transmission Right Options shall be awarded based only on the residual system capability that remains after the allocation of Financial Transmission Rights pursuant to section 5.2.2(e) and the award of Financial Transmission Rights pursuant to section 7.1.1(b) of this Schedule. Market Participants may bid for and acquire any number of Financial Transmission Rights, provided that all Financial Transmission Rights awarded are simultaneously feasible with each other and with all Financial Transmission Rights outstanding at the time of the auction and not sold into the auction. An ARR holder may self-schedule an FTR on the same path in the Annual FTR auction according to the rules described in the PJM Manuals.

(b) An Auction Revenue Rights holder may convert Auction Revenue Rights to Financial Transmission Rights, and such conversion shall not be considered a purchase or sale of Financial Transmission Rights in the auction. Such Financial Transmission Rights must (i) have the same source and sink points as the Auction Revenue Rights; (ii) be a 24-hour product; and (iii) be Financial Transmission Right Obligations. The Auction Revenue Rights holder must inform the Office of the Interconnection in accordance with the procedures established by the Office of the Interconnection that it intends to exercise the conversion option prior to close of round one of the annual Financial Transmission Rights auction. Once the conversion option is exercised, it will remain in effect for the entire Financial Transmission Rights auction. The Office of the Interconnection will designate twenty-five percent of the megawatt amount of the Auction Revenue Rights to be converted as price-taker bids in each of the four rounds of the Financial Transmission Rights auction.

An Auction Revenue Rights holder that converts its Auction Revenue Rights may not designate a price bid for its converted Financial Transmission Rights and will receive a price equal to the clearing price set by other bids in the annual Financial Transmission Right auction. To the extent a market participant seeks to obtain FTRs in the annual auction through such conversion, the FTRs sought will not be included in the calculation of such market participant's credit requirement for such annual FTR auction.

7.1.2 Frequency and Time of Auctions.

Subject to section 7.1.1 of this Schedule, annual Financial Transmission Rights auctions shall offer the entire FTR capability of the PJM system in four rounds with 25 percent of the capability offered in each round. All four rounds of the annual Financial Transmission Rights auction shall occur within the two-month period (April – May) preceding the start of the PJM Planning Period. Each round shall occur over five business days and shall be conducted sequentially. Each round shall begin with the bid and offer period. The bid and offer period for annual Financial Transmission Rights auctions shall be open for three consecutive business days, opening the first day at 12:00 midnight (Eastern Prevailing Time) and closing the third day at 5:00 p.m. (Eastern Prevailing Time). Monthly, Financial Transmission Rights auctions shall be held each month. The bid and offer period for monthly Financial Transmission Rights auctions shall be open for three consecutive business days in the month preceding the first month for which Financial Transmission Rights are being auctioned, opening the first day at 12:00 midnight (Eastern Prevailing Time) and closing the third day at 5:00 PM (Eastern Prevailing Time).

7.1.3 Duration of Financial Transmission Rights.

Each Financial Transmission Right acquired in a Financial Transmission Rights auction shall entitle the holder to credits of Transmission Congestion Charges for the period that was specified in the corresponding auction.

Effective Date: 1/1/2011 - Docket #: ER11-2527-000

(ii) Long-term FTR auction revenues remaining after distributions made pursuant to Section 7.4.1(d)(ii) of Schedule 1 of this Agreement shall be distributed pursuant to Section 5.2.6 of Schedule 1 of this Agreement.

7.4.2 Auction Revenue Rights.

(a) Prior to the end of each PJM Planning Period an annual allocation of Auction Revenue Rights for the next PJM Planning Period shall be performed using a two stage allocation process. Stage 1 shall consist of stages 1A and 1B, which shall allocate ten year and annual Auction Revenue Rights, respectively, and stage 2 shall allocate annual Auction Revenue Rights. The Auction Revenue Rights allocation process shall be performed in accordance with Sections 7.4 and 7.5 hereof and the PJM Manuals.

With respect to the allocation of Auction Revenue Rights, if the Office of the Interconnection discovers an error in the allocation, the Office of the Interconnection shall notify Market Participants of the error as soon as possible after it is found, but in no event later than 5:00 p.m. of the business day following the initial publication of allocation results. After this initial notification, if the Office of the Interconnection determines that it is necessary to post modified allocation results, it shall provide notification of its intent to do so, together with all available supporting documentation, by no later than 5:00 p.m. of the second business day following the publication of the initial allocation. Thereafter, the Office of the Interconnection must post any corrected allocation results by no later than 5:00 p.m. of the fourth calendar day following the initial publication. Should any of the above deadlines pass without the associated action on the part of the Office of the Interconnection, the originally posted results will be considered final. Notwithstanding the foregoing, the deadlines set forth above shall not apply if the referenced allocation is under publicly noticed review by the FERC.

(b) In stage 1A of the allocation process, each Network Service User may request Auction Revenue Rights for a term covering ten consecutive PJM Planning Periods beginning with the immediately ensuing PJM Planning Period from a subset of the historical generation resources that were designated to be delivered to load based on the historical reference year for the Zone, and each Qualifying Transmission Customer (as defined in subsection (f) of this section) may request Auction Revenue Rights based on the megawatts of firm service provided between the receipt and delivery points as to which the Transmission Customer had Point-to-Point Transmission Service during the historical reference year. The historical reference year for all Zones shall be 1998, except that the historical reference year shall be: 2002 for the Allegheny Power and Rockland Electric Zones; 2004 for the AEP East, The Dayton Power & Light Company and Commonwealth Edison Company Zones; 2005 for the Virginia Electric and Power Company and Duquesne Light Company Zones; 2011 for the ATSI Zone; 2012 for the DEOK Zone; and the Office of the Interconnection shall specify a historical reference year for a new PJM zone corresponding to the year that the zone is integrated into the PJM Interchange Energy Market. For stage 1, the Office of the Interconnection shall determine a set of eligible historical generation resources for each Zone based on the historical reference year and assign a pro rata amount of megawatt capability from each historical generation resource to each Network Service User in the Zone based on its proportion of peak load in the Zone. Auction Revenue Rights shall be allocated to each Network Service User in a Zone from each historical generation resource in a number of megawatts equal to or less than the amount of the historical generation resource that

between the receipt and delivery points as to which the Transmission Customer currently has Firm Point-to-Point Transmission Service. The source point of the Auction Revenue Rights must be the designated source point that is specified in the Transmission Service Request and the sink point of the Auction Revenue Rights must be the designated sink point that is specified in the Transmission Service Request. A Qualifying Transmission Customer may request Auction Revenue Rights in each round of stage 2 of the allocation process in a number of megawatts equal to or less than one third of the difference between the number of megawatts of firm service being provided between the receipt and delivery points as to which the Transmission Customer currently has Firm Point-to-Point Transmission Service and its Auction Revenue Right Allocation from stage 1 of the allocation process.

(g) PJM Transmission Customers that serve load in the Midwest ISO may participate in stage 1 of the allocation to the extent permitted by, and in accordance with, this Section 7.4.2 and other applicable provisions of this Schedule 1. For service from non-historic sources, these customers may participate in stage 2, but in no event can they receive an allocation of ARRs/FTRs from PJM greater than their firm service to loads in MISO.

(h) Subject to subsection (i) of this section, all Auction Revenue Rights must be simultaneously feasible. If all Auction Revenue Right requests made during the annual allocation process are not feasible then Auction Revenue Rights are prorated and allocated in proportion to the megawatt level requested and in inverse proportion to the effect on the binding constraints.

(i) If any Auction Revenue Right requests made during stage 1A of the annual allocation process are not feasible, then PJM shall increase the capability limits of the binding constraints that would have rendered the Auction Revenue Rights infeasible to the extent necessary in order to allocate such Auction Revenue Rights without their being infeasible, and such increased limits shall be included in all modeling used for subsequent Auction Revenue Rights and Financial Transmission Rights allocations and auctions for the Planning Year; provided that, the foregoing notwithstanding, this subsection (i) shall not apply if the infeasibility is caused by extraordinary circumstances. For the purposes of this subsection, extraordinary circumstances shall mean an event of force majeure that reduces the capability of existing or planned transmission facilities and such reduction in capability is the cause of the infeasibility of such Auction Revenue Rights. Extraordinary circumstances do not include those system conditions and assumptions modeled in simultaneous feasibility analyses conducted pursuant to section 7.5 of Schedule 1 of this Agreement. If PJM allocates stage 1A Auction Revenue Rights as a result of this subsection (i) that would not otherwise have been feasible, then PJM shall notify Members and post on its web site (a) the aggregate megawatt quantities, by sources and sinks, of such Auction Revenue Rights and (b) any increases in capability limits used to allocate such Auction Revenue Rights.

(j) Long-Term Firm Point-to-Point Transmission Service customers that are not Qualifying Transmission Customers and Network Service Users serving Non-Zone Network Load may participate in stage 1 of the annual allocation of Auction Revenue Rights pursuant to Section 7.4.2(a)-(c) of Schedule 1 of this Agreement, subject to the following conditions:

7.5 Simultaneous Feasibility.

(a) The Office of the Interconnection shall make the simultaneous feasibility determinations specified herein using appropriate powerflow models of contingency-constrained dispatch. Such determinations shall take into account outages of both individual generation units and transmission facilities and shall be based on reasonable assumptions about the configuration and availability of transmission capability during the period covered by the auction that are not inconsistent with the determination of the deliverability of Generation Capacity Resources under the Reliability Assurance Agreement. The goal of the simultaneous feasibility determination shall be to ensure that there are sufficient revenues from Transmission Congestion Charges to satisfy all Financial Transmission Rights Obligations for the auction period under expected conditions and to ensure that there are sufficient revenues from the annual Financial Transmission Right auction to satisfy all Auction Revenue Rights Obligations.

(b) On an annual basis the Office of the Interconnection shall conduct a simultaneous feasibility test for stage 1A Auction Revenue Rights, which shall assess the simultaneous feasibility for each year remaining in the term of the right(s). This test shall be based on the Auction Revenue Rights required to meet Zonal Base Load requirements. The Office of the Interconnection shall apply a zonal load growth rate to the simultaneous feasibility test for the ten year term of the stage 1A Auction Revenue Rights to reflect load growth as estimated by the Office of the Interconnection.

(c) Simultaneous feasibility tests for new stage 1 resource requests made pursuant to Section 7.6 of Schedule 1 of this Agreement shall ensure that the request for a new base resource does not increase the megawatt flow on facilities binding in the current Auction Revenue Rights allocation or in future stage 1A allocations and does not cause megawatt flow to exceed applicable ratings on any other facilities in either set of conditions. The most limiting set of conditions will be used as the limiting condition in these evaluations. A simultaneous feasibility test conducted pursuant to this section by the Office of the Interconnection shall assess the simultaneous feasibility under the following conditions:

- Based on next allocation year with all existing stage 1 and stage 2 Auction Revenue Rights modeled as fixed injection-withdrawal pairs.
- Based on 10 year allocation model with all eligible stage 1A Auction Revenue Rights for each year including base load growth for each year.

(d) Simultaneous feasibility tests conducted pursuant to this section shall be subject to Incremental Auction Revenue Rights granted pursuant to Section 7.8 of Schedule 1 of this Agreement and Section 231 of the PJM Tariff.

Effective Date: 9/17/2010 - Docket #: ER10-2710-000



Working to Perfect the Flow of Energy

PJM Manual 06

Financial Transmission Rights

Revision: 13

Effective Date: June 28, 2012

Prepared by

Market Simulation Department

© PJM 2012

Introduction

Welcome to the **PJM Manual for Financial Transmission Rights**. In this Introduction, you will find the following information:

- What you can expect from the PJM Manuals in general (see “*About PJM Manuals*”).
- What you can expect from this PJM Manual (see “*About This Manual*”).
- How to use this manual (see “*Using This Manual*”).

About PJM Manuals

The PJM Manuals are the instructions, rules, procedures, and guidelines established by PJM for the operation, planning, and accounting requirements of the PJM RTO and the PJM Energy Market.

- Transmission
- PJM Energy Market
- Generation and transmission interconnection
- Reserve
- Accounting and Billing
- PJM administrative services

For a complete list of all PJM Manuals, go to www.pjm.com and select “Manuals” under the “Documents” pull-down menu.

About This Manual

The PJM Manual for **Financial Transmission Rights** is one of a series of manuals within the Transmission Owners group. This manual focuses on how Auction Revenue Rights (ARRs) are acquired, how Financial Transmission Rights (FTRs) are traded, in the FTR auctions or the secondary market, and on how the value of ARRs and FTRs are determined.

The **PJM Manual for Financial Transmission Rights** consists of ten sections. These sections are listed in the table of contents beginning on page ii.

Intended Audience

The intended audiences for the PJM Manual for Financial Transmission Rights are:

- *Transmission Customers* - Transmission Customers submit requests to PJM for ARRs, and buy/sell FTRs in the FTR auctions and secondary market.
- *PJM Members* - PJM Members buy and sell FTRs in the FTR auctions and secondary market.
- *PJM Market Settlement Department* - The PJM Market Settlement Department uses information from the FTR database to calculate transmission congestion

credits for the monthly billing statements and to settle the FTR auctions including ARR Credits.

- *PJM Market Services Division* - The PJM Market Services Division processes requests for ARRs from Transmission Customers, facilitates the Annual ARR Allocation, runs Simultaneous Feasibility Tests to verify that the Transmission System can support the requested set of ARRs and FTRs, and conducts the FTR auctions.

References

The references to other documents that provide background or additional detail directly related to the ***PJM Manual for Financial Transmission Rights*** are:

- PJM Manual for *Transmission Service Request (M-02)*
- PJM OASIS Users Guide
- PJM Manual for *Operating Agreement Accounting (M-28)*
- PJM Manual for *Billing (M-29)*
- FTR Auction User's Guide
- eCapacity
- eFTR

Using This Manual

We believe that explaining concepts is just as important as presenting the procedures. This philosophy is reflected in the way we organize the material in this manual. We start each section with an overview. Then, we present details, procedures or references to procedures found in other PJM manuals.

What You Will Find In This Manual

- A table of contents that lists two levels of subheadings within each of the sections
- An approval page that lists the required approvals and a brief outline of the current revision
- Sections containing the specific guidelines, requirements, or procedures including PJM actions and PJM Member actions
- A section at the end detailing all previous revisions of this PJM manual

Section 1: Financial Transmission Rights Overview

Welcome to the *Financial Transmission Rights Overview* section of the **PJM Manual for Financial Transmission Rights**. In this section, you will find the following information:

- A definition of Financial Transmission Rights (FTRs) and their purpose (see “*Definition and Purpose of FTRs*”).
- How the economic value of FTRs is calculated (see “*Valuation of FTRs*”).
- Requirements to participate in buying/selling of FTRs in the FTR auctions or in the secondary market (see “*Requirements to Participate*”).
- An overview of the FTR-related actions performed by Market Participants (see “*Participant Actions*”).
- An overview of the FTR-related actions performed by PJM (see “*PJM Actions*”).

1.1 Definition and Purpose of FTRs

A Financial Transmission Right (FTR) is a financial instrument that entitles the holder to receive compensation for Transmission Congestion Charges that arise when the transmission grid is congested in the Day-ahead Market and differences in Day-ahead Congestion Prices result from the dispatch of generators out of merit order to relieve the congestion. Each FTR is defined from a point of receipt (where the power is injected onto the PJM grid) to a point of delivery (where the power is withdrawn from the PJM grid). For each hour in which congestion exists on the Transmission System between the receipt and delivery points specified in the FTR, the holder of the FTR is awarded a share of the Transmission Congestion Charges collected from the Market Participants.

One purpose of FTRs is to protect Firm Transmission Service Customers from increased cost due to Transmission Congestion when their energy deliveries are consistent with their firm reservations. Essentially, FTRs are financial instruments that entitle the holder to rebates of congestion charges paid by the Firm Transmission Service Customers. Market Participants are able to acquire financial transmission rights in the form of options or obligations. They do not represent a right for physical delivery of power.

The holder of the FTR is not required to deliver energy in order to receive a congestion credit. If a constraint exists on the Transmission System in the Day-ahead Market, the holders of FTRs receive a credit based on the FTR MW reservation and the Congestion Price difference between point of delivery and point of receipt. This credit is paid to the holder regardless of who delivered energy or the amount delivered across the path designated in the FTR.

You can acquire FTRs in four market mechanisms: the Long-term FTR Auction, Annual FTR Auction, the Monthly FTR Auction or the FTR Secondary market.

- *Long-term FTR Auction* – PJM conducts a Long-term FTR process of selling and buying FTRs through a multi-round process for FTRs for three consecutive planning periods immediately subsequent to the planning period during which the Long-term FTR Auction is conducted. The capacity offered for sale in Long-term FTR Auctions shall be the residual system capability after the

assumption that all Auction Revenue Rights allocated in the immediately prior Annual Auction Revenue Rights allocation process are self-scheduled into FTRs, which shall be modeled as fixed injections and withdrawals in the Long-term FTR Auction.

- *Annual FTR Auction* – PJM conducts an annual process of selling and buying FTRs through a multi-round auction. The Annual FTR Auction offers for sale the entire transmission entitlement that is available on the PJM system on an annual basis. The clearing mechanism of the Annual FTR Auction will maximize the quote-based value of FTRs awarded in the auction. Auction Revenue Rights (ARRs) are the mechanism by which the proceeds from the Annual FTR Auction are allocated.
- *Monthly FTR Auction* – PJM conducts a monthly process of selling and buying FTRs through an auction. The FTR auction offers for sale any residual transmission entitlement that is available after FTRs are awarded from the Annual and Long-term FTR Auctions. The auction also allows Market Participants an opportunity to sell FTRs that they are currently holding. Market Participants offer to sell or request to buy FTRs through an Internet computer application called eFTR.
- *Secondary Market* – The FTR secondary market is a bilateral trading system that facilitates trading of existing FTRs between PJM Members through an Internet computer application called eFTR.

1.2 Valuation of FTRs

The hourly economic value of an FTR is based on the FTR MW reservation and the difference between Day-ahead Congestion Prices at the sink point (point of delivery) and the source point (point of receipt) designated in the FTR. Therefore, it is important to note that an FTR can provide financial benefit, but it can also be a financial liability resulting in a charge to the holder.

1.2.1 FTR Obligations

- The hourly economic value of an FTR Obligation is based on the FTR MW reservation and the difference between Day-ahead Congestion Prices at the sink point (point of delivery) and the source point (point of receipt) designated in the FTR.
- The hourly economic value of an FTR Obligation is positive (a benefit) when the path designated in the FTR is in the same direction as the congested flow. (The Day-ahead Congestion Price at the sink point (point of delivery) is higher than the Day-ahead Congestion Price at the source point (point of receipt).)
- The hourly economic value of an FTR Obligation is negative (a liability) when the designated path is in the direction opposite to the congested flow. (The Day-ahead Congestion Price at the point of receipt is higher than the Day ahead Congestion Price at the point of delivery.); however, if the holder were to actually deliver energy along the designated path, they would receive a congestion credit that would offset the FTR charge.

Section 2: Auction Revenue Rights Overview

Welcome to the *Auction Revenue Rights Overview* section of the ***PJM Manual for Financial Transmission Rights***. In this section, you will find the following information:

- A definition of Auction Revenue Rights (ARRs) and their purpose (see “*Definition and Purpose of ARRs*”).
- How the economic value of ARRs is calculated (see “*Valuation of ARRs*”).
- Requirements to participate in the acquisition and allocation of ARRs (see “*Requirements to Participate*”).
- An overview of the ARR-related actions performed by Market Participants (see “*Participant Actions*”).
- An overview of the ARR-related actions performed by PJM (see “*PJM Actions*”).

2.1 Definition and Purpose of ARRs

Auction Revenue Rights (ARRs) are the mechanism by which the proceeds from the Annual FTR Auction are allocated. Auction Revenue Rights are entitlements allocated annually to Firm Transmission Service Customers that entitle the holder to receive an allocation of the revenues from the Annual FTR Auction.

Auction Revenue Rights will be allocated to Network Transmission Service Customers and Firm Point-to-Point Transmission Customers. Market Participants will request ARRs, and PJM will approve all, part or none of the request based on the results of the Simultaneous Feasibility Test. At the beginning of each Annual Planning Period, ARRs are allocated to Network Transmission customers and to Firm Point to Point Transmission customers for the duration of the Annual Planning Period.

- *Network Integration Service* - Network Integration Service ARRs are designated along paths from specific generation resource(s) to the customer’s aggregated load. The Network Service Customer has the option to request ARRs for all or any portion of an historic generation resource. A Network Service Customer’s total ARR designation to a zone cannot exceed the customer’s total network load in that zone. Network Service Customers make ARR requests through PJM eTools.
- *Firm Point-to-Point Service* - PJM allocates ARRs to Firm Point-to-Point Service customers for approved service requests, subject to passing the Simultaneous Feasibility Test. The point of receipt is either a generation resource within the PJM RTO or the interconnection point with the sending Control Area. The point of delivery is the set of load buses designated in OASIS or the point of interconnection with the receiving Control Area. The duration of the ARR is the same as for the associated Transmission Service Request (TSR). The Point-to-Point Customer has the option to request ARRs consistent with the transmission reservation.

Note, if the $DA LMP_{Delivery}$ or the $DA LMP_{Receipt}$ is an aggregate zone, the following formula is used:

$$Target = FTR * \sum Load Percentage_i * \left(DALMP_{Delivery - i} - DALMP_{Receipt} \right)$$

where:

- *FTR* - Financial Transmission Rights between the designated Load Aggregation Zone and the designated bus, in megawatts
- *Load Percentage* - The percentage of the load at time of annual peak associated with each individual load bus in the Load Aggregation Zone designated in the FTR

For additional information, refer to the [PJM Manual for Billing \(M-29\)](#) and the [PJM Manual for Operating Agreement Accounting \(M-28\)](#).

8.4 FTR Settlement - Calculating Transmission Congestion Credits

The PJM OI compares the total of all Transmission Congestion Credit target allocations to the total Transmission Congestion Charges for the PJM Control Area in each hour resulting from the Day-ahead Market and from the Real-time Market.

- If the total of the target allocations is less than the total of the Transmission Congestion Charges, the Transmission Congestion Credit for each FTR is equal to its target allocation. All excess Transmission Congestion Charges are distributed at the end of the month as described later in this section.
- If the total of the target allocations is equal to the total of the Transmission Congestion Charges, the Transmission Congestion Credit for each FTR is equal to its target allocation.
- If the total of the target allocations is greater than the total of the Transmission Congestion Charges, the Transmission Congestion Credit for each FTR is equal to a share of the total Transmission Congestion Charges in proportion to its target allocation. The shortfalls in hourly Transmission Congestion Charges may be offset by excess charges from other hours in the end of the month accounting, as described in the next section.

For additional information, refer to the PJM Manual for [Billing \(M-29\)](#) and the PJM Manual for [Operating Agreement Accounting \(M-28\)](#).

8.5 Distributing Excess Transmission Congestion Charges

The objective of the monthly excess Transmission Congestion Charge distribution is to cover any deficiency in the share of Transmission Congestion Credits received by each FTR holder during the month as compared to their target allocations for the month.

- *Stage One* - The PJM OI distributes excess Transmission Congestion Charges accumulated during the month to each holder of FTRs in proportion to, but not greater than, any deficiency in the share of Transmission Congestion Charges received by the holder during that month as compared to its total target allocations for the month.

- *Stage Two* - Any remaining excess after the stage one distribution will be used to satisfy any FTR deficiency from previous months within the Planning Period on a pro-rata basis up to the full FTR Target Allocation value.
- *Stage Three* – Any remaining excess after the stage Two distribution will be carried forward to the next month as excess congestion charges.
- *Stage Four* - At the end of the Planning Period, any remaining Excess Congestion Charges will first be used to satisfy any ARR deficiency that may exist. If insufficient funds exist to honor all ARR revenue shortfalls then the funds would be distributed by ratio of the ARR deficiency.
- *Stage Five* - The PJM OI distributes any excess Transmission Congestion Charges remaining after the Stage Four distribution to all FTR holders on a pro-rata basis according to the total target allocations for all FTRs held at any time during the relevant Planning Period.

Any revenue deficient transmission rights (ARRs or FTRs) remaining at the end of the Planning Period are satisfied through a transmission rights uplift charge which is allocated to FTR holders on a pro-rata basis according to their net FTR target allocation position, relative to the total net FTR target allocation positions of all FTR holders in the PJM Interchange Energy Market. An entity with a net negative FTR target allocation position is not subject to transmission rights uplift allocation charges.

For additional information, refer to the [PJM Manual for Billing \(M-29\)](#) and the [PJM Manual for Operating Agreement Accounting \(M-28\)](#).

Section 9: Simultaneous Feasibility Test

Welcome to the *Simultaneous Feasibility Test* section of the **PJM Manual for Financial Transmission Rights**. In this section, you will find the following information:

- A description of the Simultaneous Feasibility Test (SFT) and how it is performed by the PJM OI (see “*Simultaneous Feasibility Test Overview*”).

9.1 Simultaneous Feasibility Test Overview

The Simultaneous Feasibility Test (SFT) is a market feasibility test run by PJM that provides revenue adequacy by ensuring that the Transmission System can support the subscribed set of FTRs or ARRs during normal system conditions. If the FTRs or ARRs can be supported under normal system conditions and congestion occurs, PJM will be collecting enough congestion charges to cover the FTRs or ARR credits, thus becoming revenue adequate. The purpose of the SFT is to preserve the economic value of FTRs or ARRs to the holders by ensuring that all FTRs or ARRs awarded can be honored. An SFT is run for each ARR or FTR requested.

The SFT uses a DC power flow model that models the requested firm transmission reservations and expected network topology during the period being analyzed. It is not a system reliability test and is not intended to model actual system operating conditions. FTRs and ARRs for Firm Point-to-Point Service are modeled as generation at the receipt (source) point(s) and load at the delivery (sink) point(s). FTRs and ARRs for Network Integration Service are modeled as a set of generators at the receipt (source) point and a network load at the delivery (sink) point. SFTs are run for yearly, monthly, and weekly analysis periods, when network resource changes are submitted and during the determination of the winning quotes for the Annual FTR Auction and the Monthly FTR auction.

Inputs to the SFT model include:

- all newly-requested FTRs and ARRs for the study period,
- all existing FTRs and ARRs for the study period,
- transmission line outage schedules, thermal operating limits for transmission lines, that are expected to last for 2 months or more will be included in the determination of simultaneous feasibility for the Annual PJM FTR Auction and outages of five days or more shall be included in the determination of simultaneous feasibility for monthly PJM FTR auctions as well as outages of shorter duration that are determined through PJM analysis to be likely to cause FTR revenue inadequacy if not modeled. Simultaneous Feasibility determinations shall take into account outages based on reasonable assumptions about configuration and availability of transmission capability.
- PJM reactive interface limits that are valid for the study period, and
- estimates of uncompensated power flow circulation through the PJM Control Area from other Control Areas.

Consistent with PJM Operating and Planning criteria, the SFT evaluates the ability of all system facilities to remain within normal ratings during normal, extended-period operation, while maintaining an acceptable bulk system voltage profile. The system must also be able



to sustain any single contingency event with all system facilities remaining within applicable short-term, emergency ratings while maintaining an acceptable bulk system voltage profile and a maximum bulk system voltage drop of five percent. To ensure feasibility, each constraint is monitored for limit violation by the worse-case scenario combination of awarded FTR options and obligations. Counterflow created by an FTR option is ignored.

CERTIFICATE OF SERVICE

In accordance with Fed. R. App. 25(d) and the Court's Administrative Order Regarding Electronic Case Filing, I hereby certify that I have, this 2d day of November 2012, served the following upon the counsel listed in the Service Preference Report via email through the Court's CM/ECF system or via U.S. Mail, as indicated below:

Gary James Newell Thompson Coburn LLP 1909 K Street, NW Washington, DC 20006	Email
---	-------

Rebecca L. Sterzinar Thompson Coburn LLP 1909 K Street, NW Washington, DC 20006	Email
--	-------

Paul M. Flynn Wright & Talisman, PC 1200 G Street, NW Washington, DC 20005	Email
---	-------

Robert A. Weishaar Jr. McNess, Wallace & Nurick 777 North Capitol Street, NE Suite 401 Washington, DC 20002	Email
---	-------

Sandra E. Rizzo Bracewell & Giuliani LLP 2000 K Street, NW Suite 500 Washington, DC 20006	Email
---	-------

George H. Williams Jr.
Bracewell & Giuliani LLP
2000 K Street, NW
Suite 500
Washington, DC 20006-1872

U.S. Mail

/s/ Carol J. Banta
Carol J. Banta
Attorney

Federal Energy Regulatory
Commission
Washington, DC 20426
Tel.: (202) 502-6433
Fax: (202) 273-0901
Carol.Banta@ferc.gov