

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Transmission Planning and Cost Allocation :
By Transmission Owning and Operating : **Docket No. RM10-23-000**
Public Utilities

**COMPLIANCE FILING OF
PJM INTERCONNECTION, L.L.C.**

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*On Behalf of
PJM Interconnection, L.L.C.*

Dated: October 25, 2012

Table of Contents

I.	Overview	2
A.	<i>Building on PJM’s Existing Transmission Planning Process</i>	<i>2</i>
B.	<i>Key Components of this Filing.....</i>	<i>3</i>
C.	<i>The Proposed Approach to this Filing.....</i>	<i>5</i>
D.	<i>PJM’s Compliance Filing Builds on Past Reforms and Lessons Learned.....</i>	<i>6</i>
E.	<i>Proven Results of PJM’s Planning Process.....</i>	<i>10</i>
F.	<i>Specific Elements of this Filing.....</i>	<i>13</i>
II.	PJM’s Compliance with Order No. 1000.....	16
A.	<i>Compliance with Order No. 890 Planning Principles.....</i>	<i>16</i>
B.	<i>PJM Meets Order No. 1000’s “Consideration” of Public Policy Requirement</i>	<i>35</i>
1.	<i>PJM’s Compliance with the “Identification” and “Evaluation” Provisions of Order No. 1000.....</i>	<i>36</i>
a.	<i>PJM’s Integrated Market Design Directly Incorporates Resource Requirements Resulting from Public Policy Requirements.....</i>	<i>38</i>
b.	<i>PJM’s Explicit Identification and Evaluation of Public Policy Requirements and Public Policy Objectives.....</i>	<i>39</i>
c.	<i>Processes for Direct State Input on Public Policy Requirements and Public Policy Objectives.....</i>	<i>42</i>
d.	<i>Order No. 1000 “Consideration” of Public Policy Requirement Is Met.....</i>	<i>43</i>
2.	<i>State Agreement Approach</i>	<i>45</i>
C.	<i>Right of First Refusal.....</i>	<i>48</i>
D.	<i>Nonincumbent Transmission Developers</i>	<i>49</i>
1.	<i>Overview of PJM’s Proposal.....</i>	<i>49</i>

2.	<i>Proposal Process for Submission of Projects by Nonincumbent Transmission Owners.....</i>	52
3.	<i>Three New Categories of Projects</i>	54
4.	<i>A Comparison of PJM’s Proposed Time-Based Categories Versus Order No.1000’s Exceptions to Competitive Solicitation.....</i>	59
5.	<i>PJM’s Time-Based Treatment of Competitive Solicitation is “Consistent with and Superior to” Order No. 1000’s “Solutions-Based” Exceptions to Competitive Solicitation</i>	62
6.	<i>Proposal Window.....</i>	63
a.	<i>Pre-qualification Requirement.....</i>	63
b.	<i>Posting System Needs</i>	65
c.	<i>Project Proposal - Proposal Windows for Long-lead Projects, Short-term Projects and Immediate-need Reliability Projects.....</i>	65
d.	<i>Selection and Designation of Projects.....</i>	67
e.	<i>Review and Selection of Project Proposal.....</i>	67
f.	<i>Designation of a Project to a Designated Entity</i>	68
g.	<i>If No Proposals Solve the Identified Violations and Economic Constraints.....</i>	69
h.	<i>PJM Board Approval and Designation of the Final RTEP</i>	71
i.	<i>Incumbent Transmission Owners’ Obligation to Build</i>	71
III.	<i>Development of the Revised Transmission Planning Process and this Compliance Filing – Summary of a Two and One-Half Year Stakeholder Process</i>	73
IV.	<i>Cost Allocation</i>	75
A.	<i>Highlights of Transmission Owner Cost Allocation Filing</i>	76
B.	<i>PJM Observations on the Transmission Owner Cost Allocation Filing....</i>	78
V.	<i>Ongoing Reform</i>	80

VI.	Effective Date/Transition.....	81
VII.	Correspondence and Communications	83
VIII.	Contents of this Filing.....	84
IX.	Service.....	84
X.	Conclusion	85



October 25, 2012

Honorable Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Re: PJM Interconnection, L.L.C., Docket No. _____
OATT Order No. 1000 Compliance Filing

Dear Secretary Bose:

Pursuant to section 206 of the Federal Power Act (“FPA”),¹ and in compliance with Order No. 1000,² PJM Interconnection, L.L.C. (“PJM”) submits revisions to the definitional section and Schedule 6 of the Amended and Restated Operating Agreement of PJM (“Schedule 6”)³ and Part I of the PJM Open Access Transmission Tariff (“PJM Tariff”) in the above captioned docket.⁴

¹ 16 U.S.C. § 824d (2000).

² *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Order No. 1000, 139 FERC ¶ 61,051 (2011), 76 Fed. Reg. 49842 (Aug. 11, 2011), *Order on reh’g and clarification*, 1 Order No. 1000-A, 139 FERC ¶ 61,132 (2012), 77 Fed. Reg. 32184 (May 31, 2012). (“Order No. 1000” or “Final Rule”).

³ Schedule 6 of the PJM Operating Agreement contains PJM’s existing regional transmission planning process known as the Regional Transmission Expansion Planning Protocol (“RTEPP”). The PJM Operating Agreement is on file at the Commission and is enforceable as a FERC-filed rate schedule. *See* PJM Interconnection, L.L.C., 123 FERC ¶ 61,163 (May 15, 2008) (“Order on PJM 890 Compliance”).

⁴ On October 15, 2012, the Commission issued an extension of time until October 25, 2012, for PJM to submit this compliance filing. *See* Notice of Extension of Time, *PJM Interconnection, L.L.C.*, Docket No. RM10-23-000 (Oct. 15, 2012).

PJM is making this filing consistent with the Commission's Notice of Filing Procedures for Order No. 1000 Electronic Compliance Filings in Docket No. RM10-23-000.⁵

I. Overview

A. Building on PJM's Existing Transmission Planning Process.

PJM's planning process was a key component of PJM's formation as an independent regional transmission organization. PJM's regional transmission expansion planning ("RTEP") process works together with PJM's markets and operations as a cohesive unit designed to meet the fundamental mission of PJM as embodied in Schedule 6 of the PJM Operating Agreement. As specified in Section 1.1 of Schedule 6, this mission is to: "[E]nable the transmission needs in the PJM Region [to] be met on a reliable, economic and environmentally acceptable basis."

The Commission has already found that PJM's current planning process satisfies Order No. 890 planning principles.⁶ Through this filing, PJM includes specific reforms which, either meet the letter of Order No. 1000 or, due to the unique nature of PJM's

⁵ See Notice of Filing Procedures for Order No. 1000 Electronic Compliance Filings, *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Docket No. RM10-23-000 (Sept. 19, 2012).

⁶ *Preventing Undue Discrimination and Preference in Transmission Service*, Order No. 890, 72 FR 12266 (Mar. 15, 2007), FERC Stats. & Regs. ¶ 31,241, *order on reh'g*, Order No. 890-A, 73 FR 2984 (Jan. 16, 2008), FERC Stats. & Regs. ¶ 31,261 (2007), *order on reh'g and clarification*, Order No. 890-B, 73 FR 39092 (July 8, 2008), 123 FERC ¶ 61,299 (2008), *order on reh'g*, Order No. 890-C, 74 FR 12540 (Mar. 25, 2009), 126 FERC ¶ 61,228 (2009), *order on clarification*, Order No. 890-D, 74 FR 61511 (Nov. 25, 2009), 129 FERC ¶ 61,126 (2009) ("Order No. 890").

operations and markets, satisfy the Commission's "consistent with or superior to" standard recognized in Order No. 1000.⁷

B. Key Components of this Filing.⁸

This filing will demonstrate how PJM: (i) complies with the expanded requirements under the Order No. 890 planning principles,⁹ (ii) proposes procedures that provide for consideration of Public Policy Requirements consistent with Order No. 1000 and (iii) proposes a process that provides for competitive solicitation for new transmission proposals consistent with Order No. 1000. In addition, PJM incorporates the revisions to Schedule 12 of the PJM Tariff filed on behalf of the PJM Transmission

⁷ See Order No. 1000 at P 149; *see also* 18 C.F.R. § 35.28(c)(4)(ii).

⁸ Order No. 1000 also requires public utility transmission providers ("Transmission Providers") to evaluate their interregional planning processes and cost allocation mechanisms. PJM will address those issues in its April 2013 compliance filing. *See* Order No. 1000 at 792; *see also* 76 FR 49842 (Aug. 11, 2011).

⁹ Building on the reforms adopted in Order No. 890, the Commission added greater specificity around the planning principles to specifically require in terms of process that each Transmission Provider must: (i) participate in a *regional* transmission planning process that produces a *single, regional* transmission plan; (ii) evaluate, in consultation with stakeholders alternative regional transmission solutions that might be more efficient or cost effective than solutions identified at the local transmission planning level, which could include reliability requirements, economic considerations and consideration of transmission needs driven by Public Policy Requirements; (iii) evaluate proposed non-transmission alternatives on a comparable basis; and (iv) ensure that stakeholders have an opportunity to express their needs, have access to information and an opportunity to provide information, including access to models and data. *See* Order No. 1000 at P 147 – 150.

Owners, under section 205 of the FPA, in Docket No. ER13-90-000, which complements this filing and is referenced herein as a key component of this compliance filing.¹⁰

As explained in this transmittal letter, PJM's current transmission planning process, including changes recently approved by the Commission in Docket No. ER12-1178,¹¹ already satisfy many of the requirements of Order No. 1000.¹² In other areas, PJM has taken the guidance of Order No. 1000 and, after considerable input from its stakeholders and states, developed changes to Schedule 6 to clarify and document its processes where necessary and propose reforms consistent with Order No. 1000 where appropriate.¹³ This compliance filing together with the PJM Transmission Owners' section 205 filing satisfies PJM's compliance obligations relative to intra-regional cost allocation under the Final Rule.

¹⁰ See Filing Letter, *PJM Open Access Transmission Tariff Revisions to Modify Cost Allocation for PJM Required Transmission Enhancements*, Docket No. ER13-90-000 (Oct. 11, 2012) ("October 11 Section 205 Filing").

¹¹ See *PJM Interconnection, L.L.C.*, 139 FERC ¶ 61,080 (Apr. 30, 2012) ("April 30 Order").

¹² Order No. 1000 provided that to the extent existing transmission planning processes meet the requirements of Order No. 1000, Transmission Providers may describe in their compliance filing how the requirements are satisfied by reference to the Commission-filed tariff sections. See Order No. 1000 at n. 139. Consistent with the Commission's directive, PJM includes Appendix 1 with this filing. Appendix I is a chart describing the proposed revisions to specific sections of Schedule 6. Appendix 1 also describes how the proposed changes comply with Order No. 1000 and references current sections in Schedule 6 which already comply.

¹³ Section 35.28(c)(4)(ii) of the Commission's Rules and Regulations provides that if an RTO can demonstrate that its existing tariff is consistent with or superior to the revisions in the Commission's *pro forma* tariff, the RTO may make such demonstration in its compliance filing. Accordingly, PJM also submits limited revisions which are consistent with or superior to PJM's Schedule 6. See 18 C.F.R. § 35.28(c)(4)(ii); see also, Order No. 1000 at P 151.

C. The Proposed Approach to this Filing.

When reviewing this compliance filing, PJM urges the Commission to focus on the holistic nature of PJM's planning process and its synergies with PJM's overall operations and market design. Issues such as (i) the length of proposal windows, (ii) assignments of RTEP projects, and (iii) the incorporation of public policy should be judged with the understanding that PJM as an independent organization seeks to ensure that its market design and planning process operate as an integrated whole.¹⁴

PJM reads the Final Rule to leave the details of practical implementation of Order No. 1000 to each Transmission Provider and its stakeholders, subject to Commission review and acceptance, so that the solutions may meet the region's needs more efficiently or cost-effectively.¹⁵ PJM has approached this compliance filing with the goal of developing *practical* methods and processes that will meet the Commission's Order No. 1000 requirements, while at the same time, ensuring that PJM is able to carry out its other responsibilities, which includes the obligation to ensure the reliability of the system. As a result, PJM urges the Commission to provide deference to PJM's proposal to balance the

¹⁴ As an example, the need to timely designate construction, ownership and financial responsibility to project sponsors of project proposals needed within three years or less is tied to the need for PJM to timely post a complete baseline model that in turn affects prices in PJM's capacity market. *See supra* Part II.D.1(a) at 50.

¹⁵ *See* Order No. at P 61 (recognizing the "unique characteristics of each transmission planning region and, therefore, according "significant flexibility to tailor regional transmission planning and cost allocation processes to accommodate [such] regional differences.") and P 149 (providing each public utility transmission provider ("Transmission Provider") "flexibility to develop, in consultation with stakeholders, procedures by which the Transmission Providers in the region identify and evaluate the set of potential solutions that may meet the region's needs more efficiently or cost effectively."

Commission's desire for competitive solicitations with the practical needs to meet real short term deadlines to address imminent reliability needs.

D. PJM's Compliance Filing Builds on Past Reforms and Lessons Learned.

PJM's compliance filing is anchored in its rich history of already having addressed many of Order No. 1000 requirements and having learned lessons from the benefits and challenges associated with implementation of these goals. For example:

- PJM first memorialized and filed its RTEP process in the PJM Interconnection, L.L.C., Operating Agreement in 1997 ("1997 PJM Operating Agreement"). Under the 1997 PJM Operating Agreement, Article X, the PJM Members agreed to coordinate planning and operation of the bulk electric power system to obtain the "greatest practicable degree of reliability, compatible economy and other advantages" from the pooling of system loads, generating capacities and transmission facilities. Since 1997, PJM has continued to progressively evolve its regional transmission planning process. Since its inception in 1997, PJM's RTEP process has adapted to expanding geographic markets,¹⁶ new and modified market offerings¹⁷ and the effects of public policy rapidly impacting the region's traditional coal-based fleet;
- In 1999, PJM established its generation interconnection process, which was revised in 2003 to conform with the Commission's Order No. 2003 *pro forma*

¹⁶ The scope of our planning process continues to expand in order to address the number of public utility and non-public utility transmission providers that have integrated into PJM since 2002. The entities that have integrated include: Allegheny (2002), American Electric Power Service Corporation (2004), Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc. (2004), Dayton Power & Light Company (2004), Duquesne Power & Light (2005), Virginia Electric and Power Company (2005) American Transmission Systems, Incorporated (2011) and Duke Energy Ohio, Inc. and Duke Energy Kentucky, Inc. (2012). East Kentucky Power Cooperative is currently obtaining the necessary approvals and expects to integrate into PJM by June 1, 2013.

¹⁷ For example, For Capacity: Reliability Pricing Model (RPM); For Demand Response: (i) limited demand response, (ii) extended demand response and (iii) annual demand response; and Price Responsive Demand.

large generator interconnection procedures (“LGIP”) and large generator interconnection agreement (“LGIA”).

- Over nine years ago, in January 2003, PJM’s tariff was expanded to include merchant transmission interconnection procedures.¹⁸
- In August 2003, PJM submitted its compliance filing in Docket No. RT01-2-010, revising the PJM regional transmission expansion planning protocols (“RTEPP”) to include economic-based planning.¹⁹ On September 8, 2006, PJM filed proposed modifications to its RTEPP to replace its then current economic planning process with processes that would be based upon an evaluation of the economic benefits of accelerating or modifying planned reliability-based upgrades or constructing new economic-based enhancements or expansions focused on relieving congestion. PJM’s economic-based planning process was accepted by the Commission in February 20, 2009.²⁰
- In 2008, PJM expanded its stakeholder process in compliance with Order No. 890 to enhance coordinated, open and transparent planning at both regional and local levels, which included the establishment of three standing committees, the Subregional RTEP Committees (Mid-Atlantic, Western and Southern). These Subregional RTEP Committees were commissioned to review proposed upgrades of more local concerns. The Subregional RTEP Committees are open to all interested parties and meet regularly, approximately three to four times per year, to review local transmission needs on below 230 kV facilities prior to finalizing

¹⁸ PJM was one of the first RTOs to establish merchant transmission interconnection procedures. *See* PJM Filing Letter, *PJM Interconnection, L.L.C.*, Docket No. ER03-405-000 (Jan. 10, 2003).

¹⁹ *See* PJM Compliance Filing, *PJM Interconnection, L.L.C.*, Docket No. RT01-2-010 (Aug. 25, 2003).

²⁰ *See* Filing Letter, *PJM Interconnection, L.L.C.*, Docket No. ER06-1474-000 (Sept. 8, 2006). On November 21, 2006, the Commission conditionally accepted PJM’s proposed RTEP changes to its economic planning process subject to compliance. *See PJM Interconnection, L.L.C.*, 117 FERC ¶ 61,218 (Nov. 21, 2006); *see also*, *PJM Interconnection, L.L.C.*, 119 FERC ¶ 61,265 (June 11, 2007) (finding that PJM had not adequately set forth how it would weigh the metrics to determine the benefits of an economic project and directing PJM to file a formulaic approach to choose an economic project); *PJM Interconnection, L.L.C.*, 123 FERC ¶ 61,051 (Apr. 17, 2008) (accepting PJM’s formulaic approach subject to further compliance); *PJM Interconnection, L.L.C.*, 126 FERC ¶ 61,152 (Feb. 20, 2009) (accepting PJM’s compliance filing and rejecting the requests for rehearing of the April 17 Order).

the Local Plan that is integrated into the Regional Transmission Expansion Plan (“RTEP”).²¹

- PJM’s planning process includes a robust analysis of announced generation retirements, many of which have been related to the impacts of pending or enacted environmental policies. More recently, the planning process has been expanded to incorporate ongoing, scenario studies, to identify “at risk” generation proactively in order to factor related impacts into infrastructure decisions.
- PJM has already been called upon to study the implementation of federal and state public policy, ranging from implementation of the Energy Policy Act’s requirement for the provision of long term financial rights to federal environmental policy to implementing state public policy requirements, such as New Jersey’s High Electricity Demand Days (“HEDD”)²² rules and state Renewable Portfolio Standards (“RPS”) scenarios. In fact, this year the Independent State Agencies Committee (“ISAC”) requested PJM to perform studies of “at risk” generation, off-shore wind and RPS. PJM has begun to report out the results of those studies.²³
- PJM has implemented the ability for parties to acquire transmission rights to hedge transmission congestion when they agree to make the necessary transmission upgrades to make those rights feasible. This change encourages construction of incremental upgrades to address system constraints through market forces where individual parties can evaluate the cost/benefit, *e.g.*, PJM is working with transmission owners and developers to complete its first Elective

²¹ See Schedule 6 at 1.3.

²² New Jersey is a signatory to the Ozone Transport Commission (“OTC”). As a signatory, New Jersey has committed to take actions that will reduce NOx emissions on hot summer days because those days are highly correlated with high electricity demand. New Jersey focus is on generation resources (*e.g.*, oil/gas steam and oil/gas combustion turbines) that run at low capacity factors but are large additional sources of NOx on high electricity demand days. New Jersey has selected an emissions rate standard that requires considerable emission controls for those resources that do not have up-to-date controls. Control and Prohibition of Air Pollution From Oxides of Nitrogen, *See N.J.A.C. 7:27-19*.

²³ PJM’s experience with generation retirements is due, in part, to environmental standards and regulations that pre-dates the recently enacted Environmental Protection Agency’s (“EPA”) Mercury and Air Toxics Standards (“MATS”) rule. For example, since 2009, PJM has had to take into account the impact of local environmental policies, such as New Jersey’s HEDD rule, in the planning process. As a result of MATS, PJM has received generation deactivation notices requesting to deactivate more than 14,000 MW in the PJM Region by 2015.

Upgrade Auction Revenue Rights project under section 7.8 of the PJM Operating Agreement, which permits any party to elect to fully fund Network Upgrades to obtain Incremental Auction Revenue Rights.²⁴

- PJM was the first RTO in the nation to implement price responsive demand as a means for states to proactively respond to future reliability needs through targeted pricing reforms that control peak demand. The price responsive demand tariff establishes a direct tie-in to the analysis of needed reserve margins and the build-out requirements of the planning process;²⁵
- For the past two years, using its existing RTEP process, PJM has been analyzing competing proposals from incumbent transmission owners and nonincumbent transmission developers for transmission upgrades and choosing among competing projects to designate nonincumbent²⁶ and incumbent transmission owners.²⁷ The Commission recently affirmed PJM's application of its process in selecting and designating a specific project as between a nonincumbent transmission developer and an incumbent transmission owner in the *Primary Power* Order.²⁸
- PJM has experienced the difficulties of achieving consensus on cost allocation and the attendant cost of contentious litigation on this issue.²⁹ The affect of having PJM's regional cost allocation in litigation created years of uncertainty as

²⁴ See PJM Operating Agreement at section 7.8.

²⁵ See PJM Interconnection, L.L.C., 139 FERC ¶ 61,115 (May 14, 2012); *see also*, Reliability Assurance Agreement Among Load Serving Entities in the PJM Region at Schedule 6.

²⁶ In Order No. 1000, a nonincumbent transmission developer refers to “two categories of developers: (i) a transmission developer that does not have a retail distribution service territory or footprint; and (ii) a [Transmission Provider] that proposes a transmission project outside its existing retail distribution service territory or footprint, where it is not the incumbent for purposes of that project.” See Order No. 1000 at P 225.

²⁷ Order No. 1000 refers to an incumbent transmission owner as “an entity that develops a transmission project within its own retail distribution service territory or footprint. See Order No. 1000 at P 225 (footnote omitted).

²⁸ See *Primary Power v. PJM Interconnection, L.L.C.*, 140 FERC ¶ 61,054 (July 19, 2012).

²⁹ *PJM Interconnection, L.L.C.*, Opinion No. 494, 119 FERC ¶ 61,063 (2007), *vacated and remanded*, *Ill. Commerce Comm’n v. FERC*, 576 F.3d 470 (7th Cir. 2009).

to who would ultimately be responsible for the cost of transmission enhancements or expansions included in the RTEP making the proposed resolution submitted by the PJM Transmission Owners in Docket No. ER13-90-000 that much more significant.

Each of these experiences and lessons has informed PJM's approach to the requirements of Order No. 1000. PJM's compliance filing and proposed changes to Schedule 6 are grounded in these experiences and lessons as to what has worked and what will not work as a practical matter in implementing the Order No. 1000 planning reforms in the diverse 13-state PJM Region.

E. Proven Results of PJM's Planning Process.

Over the past two decades, PJM's planning process has demonstrated proven results that have strengthened the reliability and competitiveness of the transmission grid in the 13-state PJM region. Specifically,

- Over \$21 Billion in New Transmission. Since inception of the RTEP Process in 1999, the PJM Board has authorized transmission enhancements and expansions totaling over \$21.1 billion, representing over 3,300 distinct transmission projects in the PJM Region; \$17.6 billion of this total is to maintain baseline reliability. Upgrades totaling \$3.5 billion have been approved allowing developers to interconnect more than 44,200 MW of new generation - including over 11,700 MW powered by renewable fuel sources - and more than 3,000 MW of merchant transmission capability.
- Significant Growth in Renewables. PJM's transparent, non-discriminatory RTEP interconnection queue process has advanced significant growth in renewables in recent years. Currently, PJM's queues include interconnection requests for plants fueled by biomass, hydro, methane, waste, wind and wood. Today, 7,170 MW of renewable resources are in service and interconnected to the PJM transmission grid with an additional 4,533 MW under construction and over 25,649 MW active in the PJM interconnection queue.
- EHV Projects In-Service. Major extra high voltage ("EHV") transmission projects, *i.e.* 500 kV and greater, have been completed in unprecedented time over the last six years. For example, the Trans-Allegheny Interstate Line Company

(“TrAIL”) project, a 210 mile 500kV line, progressed from initial conception to being energized within a very aggressive five year schedule.³⁰ This line and, by extension, the PJM planning process that gave rise to the line, was reviewed and adjudicated in three states – Pennsylvania, West Virginia and Virginia – each of which completed their siting proceedings and approved the TrAIL project in time for PJM-determined in-service dates to be met to avoid identified reliability criteria violations;³¹

- Aging Infrastructure. To address aging infrastructure of a 100 mile 500 kV transmission line located in West Virginia, Virginia and Maryland, the PJM Board approved the Mt. Storm – Doubs rebuild in 2010. The Mt. Storm – Doubs rebuild project received a final siting order from Virginia in September, 2011. The project is currently under construction and expected to be completed by December 2014.
- Light Load Analysis. In July 2011, PJM implemented the light load reliability criteria, which established load critical system condition needs due to changes in the generation mix given the penetration of additional renewable resources in Western PJM. PJM has integrated the light load criteria into the RTEP analysis and interconnection process.³²
- Spare Transformers. Since 2006 PJM has included Probabilistic Risk Assessment (PRA) to address the aging 500/230 kV transformer fleet. Based on the results of the transformer PRA, the PJM Board approved the addition of seven new spare transformers to enhance system reliability and mitigate congestion costs in the event of a transformer failure.
- The Dynamic Nature of the RTEP. PJM revisits its RTEP at least annually to examine any need to revise, defer or cancel approved enhancements and expansion, due to revised load forecasts, changes in availability of demand-side response and energy efficiency resources and changing generation fleet portfolio. Recently, such changes have had the effect of delaying identified reliability

³⁰ The TrAIL line helped solve a critical reliability need in the Baltimore-Washington area.

³¹ By the same token, the Carson - Suffolk line, a 500kV line in Virginia went from the proposal stage to completion in just under five years.

³² PJM Manual 14B: *PJM Regional Transmission Planning Process*, Revision: 21 at 74 - 76 (Apr. 26, 2012) (“PJM Manual 14B”).

violations that gave rise to the original need for the proposed line.³³ These project cancellations evidence the integrity and adaptability of PJM's planning process. This illustrates that the process takes into account changes to system conditions brought about by load fluctuations and the advent of non-transmission alternative capacity resources such as demand side response and energy efficiency resources to displace transmission once otherwise deemed needed on a specific near-term date.

- Grid Technologies. PJM continues to assess the impact of unfolding grid technologies on the RTEP process at many levels and its potential to defer the need for new transmission investment. Examples of such technologies include lithium ion batteries, flywheel technologies, compressed air energy storage and thermal storage. Grid-scale electricity storage can improve the efficiency and reliability of the grid, lower wholesale electricity costs, enable smart grid concepts and support renewable energy sources. Electricity storage technologies can make the power generated during off-peak hours available to customers during times when it is most needed.³⁴ Moreover, PJM and its transmission owners have been leaders in the deployment of Phasor Measurement Units to improve real-time visibility of system conditions.

The additional clarifications and reforms set forth in this compliance filing build on this solid foundation and represent the considered judgment of an RTO with substantial experience and an exemplary track record in this area. The proposals advanced herein represent PJM's unbiased judgment as to the best way for an RTO, as large and as diverse as PJM, to achieve the goals of Order No. 1000. PJM urges the Commission to exercise a reasonable degree of deference to the proposals herein developed by PJM, in consultation with its states and stakeholders, given its rich history and proven past results.

³³ See, e.g., the PJM Board's decision to cancel the Branchburg-Roseland-Hudson line in 2011, Potomac-Appalachian Transmission Highline ("PATH") project in 2012 and Mid-Atlantic Power Pathway ("MAPP") line in 2012.

³⁴ PJM 2011 Regional Transmission Expansion Plan Report, Book 1 at 159-160 (Feb. 28, 2012).

F. Specific Elements of this Filing.

As detailed herein, PJM's RTEP process already largely complies with the requirements of Order No. 1000. Significantly, PJM's transmission planning process recently included specific revisions to Schedule 6 to expand PJM's analysis beyond the bright-line criteria used in its reliability and market efficiency analyses to include scenario-based analyses that consider Public Policy Requirements.³⁵ PJM incorporates those reforms, already in effect, into this compliance as described below.

To complete its compliance with Order No. 1000, PJM proposes further modifications to its Operating Agreement and the PJM Tariff to add a new proposal process under section 1.5.8 to Schedule 6 that will provide opportunity for clearer participation by nonincumbent transmission developers. This proposed process is a sponsorship model whereby both incumbent transmission owners and nonincumbent transmission developers may propose transmission projects for inclusion in the RTEP.

³⁵ In February 2012, PJM filed under section 205 of the FPA proposed revisions to Schedule 6 of the Operating Agreement to expand its analysis beyond the prescriptive tests used as part of its reliability and market efficiency analysis to include scenario-based analyses that include consideration of Public Policy Requirements. PJM also filed revisions to increase stakeholder input and participation at all stages of the RTEP process. See PJM Filing Letter, PJM Interconnection, L.L.C., Docket No. E12-1178-000 (Feb. 29, 2012) ("February 29 Filing"). The Commission conditionally accepted the tariff revisions subject to compliance. See *PJM Interconnection, L.L.C.*, 139 FERC ¶ 61,080 (Apr. 30, 2012). PJM submitted its compliance filing on May 30, 2012 in Docket No. ER12-1178. Such filing remains outstanding.

The revisions detail the process for proposing and the criteria for including in the RTEP three categories of projects: Long-lead Projects,³⁶ Short-term Projects³⁷ and Immediate-need Reliability Projects³⁸. PJM also proposes to revise other provisions of Schedule 6, as well as the definitional sections of the Operating Agreement and the PJM Tariff, as detailed below that are necessary for compliance with Order No. 1000.

³⁶ PJM proposes to define Long-lead Projects to mean: “A transmission enhancement or expansion with an in-service date more than five years from the year in which, pursuant to section 1.5.8(c) of this Schedule 6, the Office of the Interconnection posts the violations, system conditions, economic constraints and Public Policy Requirements to be addressed by the enhancement or expansion. *See* PJM Tariff at 1.17B; *see also* PJM Operating Agreement at section 1.19A, *proposed*.

³⁷ PJM proposes to define Short-term Projects to mean: “A transmission enhancement or expansion with an in-service date of more than three years but no more than five years from the year in which, pursuant to section 1.5.8(c) of this Schedule 6, the Office of the Interconnection posts the violations, system conditions, economic constraints and Public Policy Requirements to be addressed by the enhancement or expansion. *See* PJM Tariff at section 1.42.001; *see also* PJM Operating Agreement at section 1.41A.01, *proposed*.

³⁸ PJM proposes to define Immediate-need Reliability Projects to mean: “A reliability-based transmission enhancement or expansion: (i) with an in-service date of three years or less from the year the Office of the Interconnection identified the existing or projected limitations on the Transmission System that gave rise to the need for such enhancement or expansion pursuant to the study process described in section 1.5.3 of this Schedule 6; or (ii) for which the Office of the Interconnection determines that an expedited designation is required to address existing and projected limitations on the Transmission System due to immediacy of the reliability need in light of the projected time to complete the enhancement or expansion. In determining whether an expedited designation is required, the Office of the Interconnection shall consider factors such as, but not limited to, the time necessary: (i) to obtain regulatory approvals, (ii) to acquire long lead equipment; (iii) to meet construction schedules, (iv) to complete engineering plans, and (v) for other time-based factors impacting the feasibility of achieving the required in-service date. *See* PJM Operating Agreement at section 1.15A; *see also*, PJM Tariff at section 1.14A.001, *proposed*.

As explained below, PJM's existing transmission planning process, including the changes submitted and accepted by the Commission in Docket No. ER12-1178, together with the modifications to Operating Agreement and the PJM Tariff submitted with this compliance filing and the revisions to Schedule 12 of the PJM Tariff proposed by the PJM Transmission Owners in Docket No. ER13-90-000 satisfies the compliance requirements of, and are consistent with or superior to, Order No. 1000 and the principles set forth in Order No. 890.³⁹

Finally, to further the opportunities for states to participate and address state public policy requirements, PJM also is filing proposed revisions to Schedule 6 to add section 1.5.9 to establish a State Agreement Approach mechanism whereby a state(s) may voluntarily agree to sponsor a public policy project they identify and pay for such project. These provisions are not needed for compliance but, instead, represent an optional and complimentary mechanism for the PJM states to utilize to submit state-approved public policy projects for inclusion in the RTEP. This mechanism supplements the formal consideration of Public Policy Requirements and Public Policy Objectives identified by states and stakeholders,⁴⁰ which is submitted in this filing to satisfy Order No. 1000's "consideration" of Public Policy Requirement.

³⁹ Appendix I to this filing letter contains a chart describing the proposed revisions to specific sections of Schedule 6. Appendix 1 also describes how the proposed changes comply with Order No. 1000 and references current sections in Schedule 6 which already comply.

⁴⁰ See Schedule 6, sections 1.3(b), 1.4(a), 1.5.1(a), 1.5.3 and (d), 1.5.4(c), 1.5.6(b), (d), and (e), 1.5.8(b), (c), (d), and (e)(1), and 1.5.9(a),

II. PJM's Compliance with Order No. 1000.

The requirements of Order No. 1000 build upon the planning principles of Order No. 890 and expand the requirements of Transmission Providers to adopt the principles with respect to the process used to produce a *single, regional* transmission planning process.⁴¹ To address what the Commission characterizes as “Order No. 890 deficiencies,” the Final Rule requires that Transmission Providers (i) participate in a regional transmission process that produces a single, regional plan that satisfies the Order No. 890 principles;⁴² (ii) in consultation with stakeholders, evaluate alternative transmission solutions that might meet the needs of the region more efficiently or cost-effectively than solutions identified by individual Transmission Providers in their local planning process;⁴³ and (iii) in consultation with stakeholders, consider proposed non-transmission alternatives on a comparable basis.⁴⁴

A. Compliance with Order No. 890 Planning Principles.

The Commission indicated in Order No. 1000 that in evaluating procedures filed in compliance with the Final Rule, it “will review such mechanisms on compliance, using as our yardstick the statutory requirements of the FPA, Order No. 890 transmission

⁴¹ Order No. 1000 at P 151.

⁴² Consistent with Order No. 890, this Final Rule builds on the following seven transmission planning principles: (i) coordination, (ii) openness, (iii) transparency, (iv) information exchange; (v) comparability, (vi) dispute resolution and (vii) economic planning. Order No. 1000 at P 51.

⁴³ Alternative transmission solutions could include transmission facilities needed to satisfy reliability requirements, address economic considerations, and/or meet consideration of transmission needs driven by Public Policy Requirements. Order No. 1000 at P 148.

⁴⁴ Order No. 1000 at P 148.

planning principles, and our precedent regarding compliance with the Order No. 890 transmission planning principles. . . .”⁴⁵ Order No. 1000 further directed each Transmission Provider to review the orders addressing its own Order No. 890 compliance filings.⁴⁶ The Commission recognized that a Transmission Provider’s tariff may not require revisions or may require only modest revisions to fully comply with this Final Rule.⁴⁷ Accordingly, PJM submits that the revisions proposed herein, when considered in *toto* with its Order No. 890 compliance filings together with the revisions filed and accepted by the Commission in Docket No. ER12-1178, meet the PJM Region’s needs and satisfy the Commission’s Order No. 1000 objectives. Consistent with Order No. 1000’s directives and working with its stakeholders and states, PJM has reviewed the Order No. 890 principles and outlines below additional reforms adopted to enhance its compliance with those principles since the Commission’s 890 Compliance Order in Docket No. OA08-32-000.

⁴⁵ Order No. 1000 at P 149.

⁴⁶ Order No. 1000 at P 149 and n. 140.

⁴⁷ To the extent no revisions are required, the Commission directed the Transmission Provider to describe in its compliance filing how the relevant requirements are satisfied by reference to the Commission-accepted tariff sections. *See* Order No. 1000 at P 149 and n. 139; *see also, supra* Appendix 1.

Principle #1: Coordination. Transmission Providers must provide stakeholders the opportunity to participate fully in the planning process.

1. Order No. 890 Compliance

The Commission found that PJM satisfied the coordination principle of Order No. 890.⁴⁸ Specifically, the Commission determined that the information contained in Schedule 6 sufficiently detailed the responsibilities, categories of participation and general rules and processes for each PJM planning committee.⁴⁹ At the time of its Order No. 890 compliance filing, PJM had an established open and coordinated planning process that provided for stakeholder input and participation at all stages of the process through the PJM Planning Committee and the Transmission Expansion Advisory Committee (“TEAC”). In compliance with Order No. 890, PJM amended Scheduled 6 of the Operating Agreement to add three new Subregional RTEP Committees – Mid-Atlantic, Western and Southern – which committees provided a forum for surfacing and considering local planning issues.⁵⁰

⁴⁸ Order on PJM 890 Compliance at P 22.

⁴⁹ At the time of Order No. 890, the PJM planning committees included: PJM Planning Committee, Transmission Expansion Advisory Committee, and three PJM Subregional RTEP Committees: (i) Subregional RTEP Committee – Mid-Atlantic, (ii) Subregional RTEP Committee – Southern, (iii) Subregional RTEP Committee – Western. Order on PJM 890 Compliance at P 23. *See* PJM Operating Agreement, Schedule 6 at sections 1.3 (Establishment of Committees), 1.5.6(b), 1.5.6(d), and 1.5.6(e) (Development of the RTEP).

⁵⁰ *PJM 890 Compliance Filing*, PJM Interconnection, L.L.C., Docket No. OA08-32-000 at 15 (Dec. 7, 2007). (“PJM 890 Compliance Filing”).

2. *Changes Since Order No. 890 Compliance*

Since Order No. 890, PJM has amended Schedule 6 to memorialize certain processes and procedures, as well as to enhance its existing regional planning process. For example, in its February 29 Filing, PJM, in consultation with its stakeholders, amended Schedule 6 to adopt and implement greater stakeholder opportunities to participate more fully at all stages of the planning process.⁵¹ Most notable is the inclusion of a process by which state commissions, as well as stakeholders, may provide input regarding assumptions to be used and public policy initiatives to be considered. Specific to state input, the February 29 Filing memorialized the creation of a newly formed committee within the PJM stakeholder process called the Independent State Agencies Committee (“ISAC”).⁵² The ISAC is comprised of interested state agencies within the PJM Region. The details regarding the composition, role and responsibility of the ISAC were developed by the state commissions. Section 1.5.6(d) to Schedule 6 defines the interaction between the ISAC and PJM’s RTEP process. Specifically, PJM facilitates periodic meetings with the ISAC to discuss: (i) the assumptions used in performing the evaluation and analysis of potential transmission needs; (ii) regulatory initiatives, if appropriate; (iii) the impact of regulatory actions and other trends in the industry; and (iv) alternative sensitivity studies, modeling assumption variations and

⁵¹ See February 29 Filing at 8 and 9.

⁵² See February 29 Filing at 10-11 and Attachment A, Schedule 6 at section 1.5.4(e). See also, Schedule 6 at section 1.5.6(d), *proposed*. The ISAC was formed via unanimous resolution by the Organization of PJM States, Inc. (“OPSI”), which officially endorsed the formation of an Independent State Agencies Committee. The resolution is found on the OPSI website at <http://www.opsi.us/filings/2012/OPSI-2012/OPSI-2012-1.pdf>.

scenario analyses proposed by the ISAC. At such meetings, PJM also discusses the status of the RTEP study process, including any input received from the TEAC and Subregional RTEP Committees. PJM also informs the TEAC and Subregional RTEP Committees of the input received from the ISAC at such periodic meetings. Finally, PJM considers the ISAC's input in developing the range of assumptions to be used in the studies and scenario analyses of the potential enhancements and expansions to the RTEP.

Although PJM had previously engaged with its state commissions, this amendment to its RTEP process memorialized PJM's commitment to meet regularly with state representatives, not limited to state commissions, to facilitate their involvement in the PJM planning process to encourage greater input from the states and to better integrate individual state needs into the regional plans.⁵³

Finally, PJM's stakeholder process requires that all proposed amendments to the Schedule 6 planning process are fully vetted for endorsement before all stakeholders at the Markets and Reliability Committee ("MRC") and Members Committee ("MC") prior to filing.

⁵³ Order No. 1000 at P 209 and n. 189(encouraging states to participate actively in the identification of transmission needs driven by Public Policy Requirements through committees of state regulators).

Principle #2: Openness. Transmission planning meetings are required to be open to all affected parties including but not limited to, all transmission and interconnection customers, state commissions, and other stakeholders. In addition, Order No. 890 required Transmission Providers, in consultation with affected parties, to develop mechanisms to manage confidentiality and CEII concerns.

1. Order No. 890 Compliance

In the Commission's 890 Compliance Order, the Commission found that PJM fulfilled the requirements of the Openness principle through (i) its open and transparent planning committees accessible to all interested parties and (ii) the posting of all information reviewed and discussed at the planning committees which is posted on the PJM website.⁵⁴

Additionally, the Commission found that the provisions in the PJM Operating Agreement regarding the release of confidential information and critical energy infrastructure information ("CEII") satisfied the requirements of Order No. 890.⁵⁵

2. Changes Since Order No. 890 Compliance.

As detailed above, PJM has made improvements to its transmission planning process by memorializing certain procedures, which enhanced the involvement of its state commissions through the ISAC and added posting requirements for greater stakeholder input. In order to allow for timely and meaningful participation by all stakeholders,⁵⁶ PJM also amended Schedule 6 at sections 1.3(b), 1.5.4(c), (d) and (f) in its February 29 Filing to include procedures that gave stakeholders more opportunity to provide input and

⁵⁴ Order on PJM 890 Compliance at P 28.

⁵⁵ Order on PJM 890 Compliance at P 28.

⁵⁶ Order No. 1000 at P 152.

submit suggestions during the following planning stages:⁵⁷ (i) prior to the initial assumptions meetings for the assumptions to be used in the sensitivity studies, modeling assumption variations and scenario analyses;⁵⁸ (ii) upon issuance of the range of assumptions to be used in the studies and analyses;⁵⁹ (iii) on the study results, including the sensitivity studies, modeling assumption variations and scenario analyses; and (iv) on the projects to be included in the RTEP.⁶⁰

Communications regarding the study results are posted.⁶¹ In its February 29 Filing, PJM also included additional posting requirements to: (i) notice the commencement of a planning study in order to allow TEAC participants the ability to request additional transmission considerations they would like factored in to PJM's analysis;⁶² (ii) post the assumptions to be used in the studies and scenario analyses; and (iii) post the final RTEP approved by the PJM Board.⁶³ As part of this Order No. 1000 compliance filing, PJM proposes to include additional posting requirements relative to the proposal window process proposed in new section 1.5.8 of Schedule 6. Specifically, PJM proposes to post violations, system conditions and economic constraints and Public Policy Requirements identified that could be addressed by project proposals in the

⁵⁷ February 29 Filing at 8 and 9. Sections 1.5.4(d) and (f) were moved to sections 1.5.6(b) and (c), respectively, as a result of the May 30, 2012 compliance filing in Docket No. ER12-1178-000.

⁵⁸ Schedule 6 at sections 1.3(b) and 1.5.6(b).

⁵⁹ Schedule 6 at sections 1.3(b) and 1.5.4(c).

⁶⁰ Schedule 6 at section 1.3(b).

⁶¹ Schedule 6 at section 1.5.4(g).

⁶² Schedule 6 at section 1.5.1(b).

⁶³ Schedule 6 at section 1.6.

proposal windows or by the states pursuant to the State Agreement Approach in section 1.5.9 of Schedule 6, as well as an explanation as to why other suggested assumptions will not be evaluated.⁶⁴ Following the close of the proposal window, PJM proposes to post all proposals submitted.⁶⁵ PJM also proposes to post descriptions of the proposed enhancements and expansions, including Supplemental Projects and state public policy projects identified by a state(s) as well as any revised enhancements or expansions.⁶⁶

To ensure stakeholders have access to models and data used in the RTEP process as required by Order No. 1000,⁶⁷ PJM's February 29 Filing, also expanded access to information and data that is provided to and utilized by the TEAC and Subregional RTEP Committees to develop the RTEP.⁶⁸ Such access is subject to appropriate confidentiality and CEII protections.

Since Order No. 890, PJM has continued to revise its CEII process, memorialized in Manual 14B.⁶⁹ The revised CEII process facilitates the PJM members' ability to access CEII information by describing the process on the PJM website and developing an

⁶⁴ Schedule 6 at section 1.5.8(b) *proposed*.

⁶⁵ Schedule 6 at section 1.5.8(d), *proposed*.

⁶⁶ Schedule 6 at section 1.5.8(d), *proposed*.

⁶⁷ Order No. 1000 at P 150.

⁶⁸ Schedule 6 at 1.5.4(d).

⁶⁹ See PJM Manual 14B at 15.

online request process to access CEII information consistent with the requirements of Order No. 1000.⁷⁰

Principle #3: Transparency. Transmission Providers must reduce to writing and make available the methodology and processes it will use to disclose the criteria, assumptions, data and other information that underlie the transmission plans.

1. Order No. 890 Compliance

The Commission found that PJM's process complied with this transparency principle because it enabled the regular exchange of information regarding the basic criteria, assumptions and data used to develop the RTEP through the PJM Planning Committee, the TEAC, the Subregional RTEP Committees, as well as other working groups and PJM task forces.⁷¹

2. Changes Since Order No. 890 Compliance

In addition to the specific process plans, related documentation, and baseline study reports that were posted to the PJM website at the time of PJM's Order No. 890 compliance, PJM has continued to improve the planning section of its website to make available details regarding: (i) generation interconnections; (ii) merchant transmission projects;⁷² (iii) long-firm transmission service request customers; (iv) generation

⁷⁰ PJM's CEII process can be found on its website at: <http://www.pjm.com/documents/ferc-manuals/ceii.aspx>. See Order No. 1000 at P 159.

⁷¹ See Order on PJM 890 Compliance at PP 37 – 42.

⁷² As detailed above at *supra* 7, and in compliance with Order No. 1000 regarding merchant transmission projects, PJM has memorialized its merchant transmission interconnection process in Parts IV and VI of the PJM Tariff. Under its interconnection process, PJM conducts studies to assess the potential reliability and operational impacts of the merchant developer's proposed facilities on both the PJM system, as well as other neighboring systems. Such study reports are
(Cont'd . . .)

retirements; (v) auction revenue rights (“ARR”) analysis; (vi) RTEP upgrades and status; (vii) RTEP development; (viii) resource adequacy planning; (ix) planning criteria;⁷³ (x) design, engineering and construction and (xi) interregional planning. The status of project queues are listed under generation interconnection, merchant transmission, long term firm service and ARR requests. The queues are listed chronologically as active or withdrawn and offer information regarding the size, location by state and PJM substation, fuel type, project status, in-service date, analytical reports and other important information. The data on the website is able to be manipulated to facilitate searches by fuel type, status and state. Additionally, power flow cases, which include baseline cases and queue base case and contingency files are available on line with the appropriate confidentiality and CEII sign in protections. Viewers may also request access to view the recent North American Electric Reliability Corporation (NERC) multiregional modeling Working Group (MMWG) annual series of baseline cases in full or reduced format. Such

(. . . cont’d)

available on the PJM website under “Planning.” Merchant transmission customers are required to execute a *pro forma* three-party interconnection service agreement (PJM Tariff at Attachment O) or upgrade construction service agreement (PJM Tariff at Attachment GG) prior to construction and energization of its project. Once executed, the merchant transmission facilities and requisite network upgrades are included in the PJM baseline planning models. *See* Order No. 1000 at P 164.

⁷³ The planning criteria includes: (i) North American Electric Reliability Corporation (“NERC”) Planning Criteria; (ii) ReliabilityFirst Corporation (“RFC”) Reliability Principles and Standards; (iii) SERC Planning Criteria; (iv) Nuclear plant licensee requirements; (v) PJM Reliability Planning Criteria per PJM Manual 14B: *PJM Region Transmission Planning Process*, Revision: 21, (Effective Date: April 26, 2012) (“PJM Manual 14B”).

information is up-to-date and publicly available to all interested stakeholders, as appropriate.⁷⁴

PJM continues to update and expand upon the information contained on its web page regarding generator retirements. The web page entitled *Generation Retirements* offers information regarding generator deactivations, including withdrawn deactivation requests and pending deactivation requests. Included on the website is information regarding retirement summaries, study results, sensitivity studies and must run operating procedures. The PJM web page entitled RTEP Upgrades & Status⁷⁵ includes information regarding backbone projects, transmission construction status, queues under construction and cost allocation, as well as a link to the PJM RTEP Report.⁷⁶ As required by Order No. 1000, this web page provides details an entity's commitment to build a transmission facility in a regional transmission plan. Such information includes: (i) identification of the upgrade by project number as filed with the Commission; (ii) the required in-service date; (iii) a description of the project (iv) the name of the constructing party, (v) the drivers, (vi) the status of the project; (vii) location of the facilities by state(s); (viii) the status of the project and (ix) the project's estimated costs. In addition, the PJM RTEP Report now contains detailed information regarding scope and input assumptions, baseline results, scenario study results, and RTEP state summaries, which separate out on

⁷⁴ Consistent with the term as used in Order No. 1000, stakeholder is intended to include any party interested in the PJM RTEP process. *See* Order No. 1000 at n.143.

⁷⁵ Order No. 1000 at P 159.

⁷⁶ The PJM RTEP Report dates back to 2005. PJM has continuously worked to improve the report.

a state-by-state basis input parameters (for example, load and generation) and the regulatory and public policy landscape underlying PJM's transmission expansion planning. Consistent with Order No. 1000, the detail, quantity and availability of such information is consistent with Order No. 1000's directive that the regional transmission processes provide timely and meaningful input and participation of stakeholders in the development of the RTEP.⁷⁷

PJM planning criteria, as well as its transmission owners' planning criteria, are posted on the PJM website. Specifically, PJM's planning criteria includes: (i) NERC Planning Criteria; (ii) RFC Reliability Principles and Standards; (iii) SERC Planning Criteria; and (iv) nuclear plant licensee requirements. In addition, links are provided on the PJM website to access each PJM Transmission Owner's planning criteria. Design, engineering and construction standards are maintained on the PJM website, including Transmission Owner guidelines, Relay Philosophy and Design Standards and PJM Relay Testing and Maintenance Practices. Also included are links to the Transmission Owner Engineering and Construction Standards. Finally, historical and forecast capacity information is posted on PJM's planning website.

In its February 29 Filing, PJM amended Schedule 6 to enhance its process to include greater transparency as required by Order No. 1000⁷⁸ by providing that PJM will supply to the TEAC and the Subregional RTEP Committees "reasonably required

⁷⁷ Order No. 1000 at P 153.

⁷⁸ Order No. 1000 at P 150.

information and data utilized to develop the RTEP,” subject to the protection of confidentiality and CEII provisions.⁷⁹

Principle #4: Information Exchange. Network Customers are required to submit information on their projected loads and resources on a comparable basis.

1. Order No. 890 Compliance.

Under Order No. 890, the information exchange principle required that network customers provide a description of the network load at each delivery point including a load forecast for ten years.⁸⁰ Instead of requiring network customers to provide a load forecast or a list of resources, PJM prepared an independent Load Forecast Report, which PJM proposed was consistent with or superior to this Order No. 890 planning principle. The Commission found that PJM’s Tariff provisions complied with the information exchange principle because the PJM Tariff contained a reasonable methodology for providing an annual peak load and an energy forecast report published each February, covering a ten-year forecast horizon.⁸¹ That methodology was, and all subsequent enhancements have been developed through the efforts of PJM Load Analysis Subcommittee (“LAS”) and the PJM Planning Committee. The LAS is comprised of a broad representation of the PJM membership with expertise and interest in load forecasting. The LAS reviews the annual Load Forecast Report and validates the localized customer load assumptions.

⁷⁹ Schedule 6 at section 1.5.4(g).

⁸⁰ PJM Tariff at Section 29.2(iii) and (v).

⁸¹ Order on PJM Compliance at P 51.

2. *Changes Since Order No. 890 Compliance.*

Since Order No. 890, PJM has continued to improve its load forecasting process. For example, there now is a web page on www.pjm.com entitled the “Load Forecast Development Process.” This web page includes a wealth of information allowing insight into PJM forecasts. The processes for the development and implementation of the PJM forecasts are maintained on that web page along with the PJM Manual M-19, “Load Forecasting and Analysis.” PJM also maintains on that web page: (i) the normalized peak and allocations for the past several planning periods, (ii) the current Load Forecast Report, (iii) the Hourly RTO Unrestricted Load (1998-20122), and (iv) data regarding interruptible load resources. Additionally, a mid-year update of the load forecast is produced and posted, based on the most recent econometric data

Principle #5: Comparability. Demonstrate how resources will be treated on a comparable basis and identify how the Transmission Provider will determine comparability for purposes of transmission planning.

1. *Order No. 890 Compliance.*

In 890 Compliance Order, the Commission found that PJM had satisfied this comparability principle by showing that sponsors of transmission, generation and demand response resources have opportunities to provide their input regarding the development of assumptions used in the planning process, including consideration of alternatives to address the physical, economic and/or operational limitations.⁸² Additionally, the Commission found that the Operating Agreement and Manuals clearly described how

⁸² See PJM Interconnection, L.L.C., 127 FERC ¶ 61,166 at P 17 (May 21, 2009) (“May 21 Order Accepting 890 Compliance”).

PJM selected among alternatives (*i.e.*, transmission, generation and demand-side resources) on a comparable basis.⁸³

2. *Changes Since Order No. 890 Compliance.*

In addressing deficiencies in the Order No. 890 requirements, the Commission provided that if a Transmission Provider found that a regional alternative transmission solution is more efficient or cost-effective than transmission facilities in one or more local transmission plans, then the transmission facilities associated with the more efficient or cost-effective solution can be selected in the regional transmission plan for purposes of cost allocation.⁸⁴ The Commission also stated that when evaluating the merits of an alternative solution, a Transmission Provider must consider non-alternative transmission solutions on a comparable basis.⁸⁵

PJM's planning process and the associated stakeholder processes look at both regional and subregional transmission needs and solutions through the TEAC and the Subregional RTEP Committees.⁸⁶ Through this process, stakeholders are afforded the opportunity to review the RTEP and the treatment of their particular needs and interests from both a regional and subregional perspective and the evaluation of potential transmission solutions is able to consider meeting both regional and subregional needs in the most efficient manner.⁸⁷ Such efficiencies have been achieved through the

⁸³ *Id.*

⁸⁴ Order No. 1000 at P 148.

⁸⁵ Order No. 1000 at P 148.

⁸⁶ Schedule 6 at section 1.5.6(b) and (c).

⁸⁷ Schedule 6 at section 1.5.6(a).

implementation of larger scale regional solutions that resolve a range of issues including subregional transmission needs. Also factored into the process are locally proposed Supplemental Projects that, if found to most efficiently resolve transmission needs, are included in the regional plan as RTEP projects for cost allocation purposes.

PJM's planning process also provides ample opportunities for non-transmission alternatives to compete with transmission solutions on a comparable basis through various market structures. In addressing this issue, it is critical that the Commission recognize the role of the PJM market design (and particularly its capacity market design) in identifying and choosing non-transmission alternatives where such alternatives more efficiently or cost effectively ensure the overall reliability of the system. For example, the resources that have cleared PJM's capacity market produce firm commitments of new demand response, energy efficiency and generating resources to meet the year forward projected load. The availability of these resources on a forward basis is then factored into future RTEP planning analyses. Moreover, because these resources are procured on a forward basis and committed for the relevant delivery year, then can (and have) worked to pre-empt the need for transmission solutions to ensure compliance with reliability criteria. This substitution of resources is not limited to situations where transmission solutions are merely under study. As detailed below, even after transmission solutions are identified and approved by the PJM Board, non-transmission solutions can clear through the PJM markets and work to obviate the need for an RTEP-approved transmission project. In those situations, the PJM Board has acted to remove such

transmission projects from a PJM Board-approved RTEP, thus illustrating PJM's dynamic, rather than static, consideration of non-transmission alternatives.⁸⁸

The most recent and significant examples of non-transmission alternatives displacing transmission solutions are the cancellation of the PATH and MAPP projects. In 2007, PJM identified a need for the PATH and MAPP projects, totaling over \$3.2 billion of infrastructure additions. Both projects were delayed repeatedly. However, with the significant drop in load due to the 2008 - 2012 recession and the increase in demand response and energy efficiency and new generation clearing the Reliability Pricing Model auctions ("RPM Auctions") and coming on-line, subsequent evaluations revealed that the PATH and MAPP lines were no longer required. Following deliberate consideration and the functioning of RTEP processes designed to consider updated resource portfolio information into the review of past planning decisions, they were removed from the RTEP in 2012.

In section B.1below, PJM details how the PJM markets work in tandem with PJM's planning process to ensure that the most efficient or cost-effective resource is identified to meet reliability needs. PJM also outlines the supplemental reforms to the planning process which support these choices among competing resources. The growth of demand resources and growth in energy efficiency as capacity resources is testament to the success of PJM's planning process in identifying alternative resources in lieu of transmission upgrades to address the system's reliability needs.

⁸⁸ See *supra* n. 33.

Principle #6: Dispute Resolution.

1. Order No. 890 Compliance.

PJM has a formal dispute resolution process which is memorialized in its Operating Agreement and is utilized to address disputes arising under the PJM tariffs. The Commission found that PJM complied with the Order No. 890 dispute resolution principle.⁸⁹ PJM has added a specific reference to PJM's dispute resolution process in this compliance filing for a disagreeing entity to challenge PJM's determination that the entity does not satisfy the pre-qualification requirements set forth in section 1.5.8(a) to be a Designated Entity under section 1.5.8 of Schedule 6.⁹⁰

Principle #7: Economic Planning. Ensure that customers have an opportunity to request studies that evaluate potential upgrades or other investments that could reduce congestion or integrate new resources and loads on an aggregated or regional basis.

1. Order No. 890 Compliance.

In its May 15 Order on PJM 890 Compliance, the Commission found that PJM's planning process provides for the proposal of market solutions.⁹¹ Citing to its April 17, 2008 Order,⁹² the Commission found that, among other things, PJM uses its economic planning process to evaluate all projects (market and regulated) and PJM's economic planning process is transparent with opportunities for market-based project developers to review and comment on all potential RTEP projects at multiple stages of development.

⁸⁹ See Order on PJM 890 Compliance at P 63.

⁹⁰ See Schedule 6 at 1.5.8(a), *proposed*.

⁹¹ See May 15 Order on PJM 890 Compliance at PP 97 and 98.

⁹² See *PJM Interconnection, L.L.C.*, 123 FERC ¶ 61,051 at P 26-30 (Apr. 17, 2008) ("April 17 Order").

The Commission also found that PJM's economic planning process provides opportunities for merchant investments by providing additional information and forecasts about future market conditions that will aid market participants in identifying profitable and efficient market-based investment.⁹³ Under PJM's economic planning process, market participants are afforded the opportunity to proposed market-based solutions to congestion at any time.⁹⁴ The Commission approved a metric formula that will account for the benefits to customers from reductions in both energy prices and capacity prices resulting from a proposed economic-based project.⁹⁵

2. *Changes Since Order No. 890 Compliance.*

For purposes of this compliance filing, PJM, in consultation with its stakeholders, proposes revisions to its economic planning process at section 1.5.7 of Schedule 6 of the PJM Operating Agreement. Such revisions are necessary to ensure economic planning process integrates with all other drivers of transmission need through the addition of the 24-month planning cycle,⁹⁶ which is described below and shown in redline in Attachment A included with this compliance filing.

Given the Commission's finding of PJM's compliance with Order No. 890 planning principles and the subsequent enhancements detailed above and in this filing to address the additional reforms in the Final Rule, PJM asks the Commission to find that PJM's review of the Order No. 890 principles satisfies its compliance requirement.

⁹³ See *PJM Interconnection, L.L.C.*, 117 FERC ¶ 61,218 at P 36 (Nov. 21, 2006).

⁹⁴ April 17 Order at P 27.

⁹⁵ April 17 Order at P 29.

⁹⁶ See Manual 14B at 14.

B. PJM Meets Order No. 1000's "Consideration" of Public Policy Requirement.

Order No. 1000 requires that Transmission Providers amend their OATTs to “describe procedures that provide for the consideration of transmission needs driven by Public Policy Requirements in the regional transmission planning processes.”⁹⁷ According to Order No. 1000 “consideration of Public Policy Requirements” includes: (1) the *identification* of transmission needs driven by Public Policy Requirements; and (2) the *evaluation* of potential solutions to meet those needs.⁹⁸ The Commission further clarified that requiring consideration of transmission needs driven by Public Policy Requirements is not a mandate to fulfill those requirements.⁹⁹ Rather, the requirements are “facts that may affect the need for transmission services and these needs must be considered for that reason.”¹⁰⁰ As noted by the Commission, “consistent with the approach taken in Order No. 888, and reiterated in Order No. 890, [] public utility transmission providers are obligated to plan for the needs of their transmission customers,” and the Commission is “not requiring that public utility transmission providers do any more than that.”¹⁰¹

⁹⁷ See Order No. 1000 at P 203.

⁹⁸ See Order No. 1000 at P 205 (emphasis added). See also Order No. 1000 at P 220 (A separate class of transmission projects is not required to comply with Public Policy Requirements).

⁹⁹ Order No. 1000 at P 109; see also, Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities, 139 FERC ¶ 61,132 at P 204 (May 17, 2012) (“Order No. 1000-A”).

¹⁰⁰ Order No. 1000 at P 109; see also Order No. 1000-A at P 205.

¹⁰¹ Order No. 1000-A at P 205.

In order to meet Order No. 1000's dictates regarding public policy, a Transmission Provider must establish, in consultation with stakeholders, procedures for identifying Public Policy Requirements that may drive transmission needs.¹⁰² At a minimum, such procedures "must allow stakeholders an opportunity to provide input and offer proposals regarding transmission needs driven by Public Policy Requirements."¹⁰³ Further, these procedures must recognize the interaction between solutions that flow out of the normal function of markets, such as the provision of demand response and energy efficiency resources or the interconnection of new generation, and solutions that flow out of the planning process.

1. PJM's Compliance with the "Identification" and "Evaluation" Provisions of Order No. 1000.

PJM's compliance with Order No. 1000's "consideration" of Public Policy Requirements consists of many distinct components, as well as offering a new elective mechanism included herein to further enhance states' opportunities to go beyond the "consideration" requirements of Order No. 1000 to, instead, propose specific public policy projects for PJM to either include in the RTEP for cost allocation purposes or consider as a Supplemental Project¹⁰⁴ pursuant to Schedule 6.¹⁰⁵ The distinct components are summarized as follows:

¹⁰² Order No. 1000 at P 206.

¹⁰³ Order No. 1000 also provides that to the extent the procedures identify no transmission needs driven by Public Policy Requirements, the Transmission Provider is under "no obligation to evaluate potential transmission solutions." *See* Order No. 1000 at P. 207.

¹⁰⁴ Supplemental Projects are defined to mean "a Regional RTEP Project(s) or Subregional RTEP Project(s) which is not required for compliance with the
(Cont'd . . .)

- *PJM's Integrated Market Design Reflecting Public Policy Requirements* - PJM's design, as derived from the results of the markets, integrates how market participants have responded to current and future public policy initiatives. As a starting point, PJM's RTEP takes into account the following market signals: (i) current generator interconnection requests, (ii) results of future capacity auctions for generation, demand response and energy efficiency; (iii) congestion constraints actually experienced on the system; (iv) requests to hedge congestion with incremental auction revenue rights; and (v) a load forecast based on an expert consultant's forecast of economic policy impacts and announced generation retirements. These market decisions, which are reactions to the market's response to various public policy initiatives, form the bases for determining system transmission needs;
- *PJM's Explicit Identification and Evaluation of Public Policy Requirements and Public Policy Objectives* – PJM's design further recognizes that not all public policy will be fully represented by the market's current known responses and therefore, as included in Schedule 6,¹⁰⁶ scenario analyses are used to further consider the impact of public policy. PJM has expanded the current planning process to consider all direct submissions of proposed public policy to be studied at the assumptions stage of the RTEP process by states *via* the ISAC and stakeholders through the TEAC. These submissions will then form the basis for what is considered in the development of scenarios and ultimately can be factored in to the selection of the optimal reliability and market efficiency projects. These explicit policies for the submission and consideration of Public Policy Requirements and Public Policy Objectives were set forth in PJM's section 205 filing in Docket No. ER12-1178 and accepted, subject to compliance, by the Commission in its April 30 Order;¹⁰⁷ and
- *The Proposed "State Agreement" Mechanism for Identification of State Public Policy Projects* – As an additional option to further meet potential state's needs, a supplemental mechanism, not directly tied to meeting the Commission's Order No. 1000 "consideration" of Public Policy Requirement, was added to Schedule 6 as the "state agreement approach." The state agreement approach provides a

(. . . cont'd)

following PJM criteria: System reliability, operational performance or economic criteria, pursuant to a determination by the Office of the Interconnection. *See* PJM Operating Agreement at section 1.42A.01.

¹⁰⁵ See Schedule 6, section 1.5.9 *proposed*.

¹⁰⁶ Schedule 6 at section 1.5.6 (b) (c) and (d)

¹⁰⁷ PJM February 29 Filing; *see also*, April 30 Order.

vehicle for states to propose: (i) a state public policy project to PJM for inclusion in the RTEP, the costs of which shall be recovered from the customers in the states proposing the project or (ii) a Supplemental Project pursuant to section 1.5.6(g) of Schedule 6.

a. PJM's Integrated Market Design Directly Incorporates Resource Requirements Resulting from Public Policy Requirements.

PJM's existing market design has been and will continue to be a significant vehicle for the achievement of public policy. Through PJM's RPM Auction structure, 14,304 MW of demand response products and 890 MW of energy efficiency products have cleared, entering the resource mix and contributing to the satisfaction of state public policy goals. These resources are recognized in the PJM Load Forecast Report for future planning periods and are factored into reliability and market efficiency analyses, as well as the base case planning models used to identify the transmission needs driven by Public Policy Requirements. PJM's interconnection procedures have integrated over 7,170 MW of renewable resources that participate in energy and capacity markets, as well as contribute to the satisfaction of various state renewable portfolio standard ("RPS") goals. Lastly, PJM's forward capacity commitment through the RPM Auction process has worked together with PJM's generation retirement procedures to rationally manage the decisions of generation owners to remove resources from service in light of changing economic conditions and the onset of environmental regulations.¹⁰⁸

¹⁰⁸ Under Part V of the PJM Tariff, a Generation Owner is permitted to deactivate its generating unit with 90 days prior notice of such proposed deactivation regardless of whether the deactivation of such unit would adversely impact the reliability of PJM's transmission system. See PJM Tariff at section 113.1 and 113.2; see also, PJM Interconnection, L.L.C., 110 FERC ¶ 61,053 at PP 136 and 137 (2005) ("January 25 Order") (accepting procedural provisions that generators give 90
(Cont'd . . .)

b. PJM's Explicit Identification and Evaluation of Public Policy Requirements and Public Policy Objectives.

Identification of Public Policy Objectives and Requirements – Consistent with this Order No. 1000 directive, on February 29, 2012, PJM submitted revisions to Schedule 6 of its Operating Agreement in Docket No. ER12-1178 to include procedures by which transmission needs driven by Public Policy Requirements will be identified.¹⁰⁹ PJM revised Schedule 6 to further define the purpose of the initial assumptions meetings at the beginning of an RTEP cycle. Specifically, Schedule 6 affords stakeholders an opportunity prior to and at the assumptions meetings to provide input and suggestions regarding assumptions and Public Policy Objectives for consideration in the planning analyses. Additionally, the TEAC provides an “open forum” to discuss the impact of public policy, such as regulatory actions, projected changes in load growth, additions and retirements, market efficiency and other industry trends.¹¹⁰ Also, a TEAC participant may offer any alternative sensitivity studies, modeling assumption variations and scenario analyses for consideration in the planning process.¹¹¹ This filing revised Schedule 6 to provide that the identification of transmission needs driven by Public

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days' notice of their intention to deactivate and rejecting PJM's proposal to require generators to remain in operation for an indefinite period should they be needed for reliability).

¹⁰⁹ Order No. 1000 at P 205.

¹¹⁰ See Scheduled 6 at 1.5.6(b).

¹¹¹ See Schedule 6 at section 1.5.6(b).

Policy Requirements occurs prior to posting possible violations, economic constraints and Public Policy Requirements for project proposal windows.¹¹²

Evaluation of Public Policy Objectives and Requirements – In order to satisfy the requirement to evaluate potential solutions to meet transmission needs driven by Public Policy Requirements, PJM took guidance from Order No. 1000 and, while not required under Order No. 1000,¹¹³ filed revisions to Schedule 6 to expand its analyses beyond the current bright-line criteria in order to consider public policy initiatives, including public policy outside enacted statutes and regulations, in its sensitivity studies, modeling assumption variations and scenario planning analyses that may have potential impacts on long-term planning with respect to reliability and market efficiency drivers. The Commission accepted the addition of two separate definitions to the Operating Agreement to allow PJM to expand the contents of the RTEP to include consideration of Public Policy Requirements¹¹⁴ and Public Policy Objectives¹¹⁵ in its sensitivity studies, modeling assumption variations and scenario planning analyses. As defined, Public Policy Requirements comports with the term as it is used in Order No. 1000. The use of

¹¹² See Schedule 6 at section 1.5.8(b), *proposed*.

¹¹³ See Order No. 1000 at P 224.

¹¹⁴ As defined, Public Policy Requirements refer to policies pursued by state or federal entities where such policies are reflected in enacted statutes or regulations, including but not limited to, state renewable portfolio standards and requirements under Environmental Protection Agency regulations. See PJM Operating Agreement at 1.38B.

¹¹⁵ As defined, Public Policy Objectives refer to Public Policy Requirements, as well as public policy initiatives of state or federal entities that have not been codified into law or regulation but which nonetheless may have important impacts on long term planning considerations.

the term Public Policy Objectives, while not required under Order No. 1000,¹¹⁶ is intended to permit a broader use of public policy in order to allow PJM, in consultation with its stakeholders, the flexibility to consider a wider range of Public Policy Objectives beyond enacted statutes or regulations¹¹⁷

With the addition of these definitions and revisions to Schedule 6, PJM is able to perform more extensive scenario planning analyses in its 2012 RTEP using a broader range of sensitivity studies and modeling assumptions that include public policy initiatives such as renewable resource integration related to RPS, demand response programs or other environmental initiatives, as well as “at risk” generation. Using the sensitivity studies, modeling assumption variations and scenario planning analyses, including Public Policy Objectives, PJM will be able to take into account, in its decision-making with respect to reliability and market efficiency drivers, potential changes in expected future system conditions and uncertainties arising from estimated times to construction transmission upgrades.¹¹⁸

In 2010, PJM commenced a stakeholder process to discuss how to better manage the consequences of uncertainty around changing modeling assumptions. The stakeholder discussions centered on, in the context of the planning process, the consideration of all drivers impacting transmission need. While previously utilizing a

¹¹⁶ See Order No. 1000 at P 216.

¹¹⁷ See February 29 Filing at 5.

¹¹⁸ Attached as Appendix II are TEAC presentations dated April 27, 2012 and August 9, 2012 describing the sensitivity studies performed and how they were used to inform PJM’s project selection decisions. *See also*, Schedule 6 at 1.5.6(b).

“bright-line” decision approach to reliability driven projects, PJM had deferred two large transmission lines repeatedly, due to declining load growth projections and other factors, before finally removing the lines from the RTEP in 2012.¹¹⁹

Today, based on changes made to the planning process in 2011 and 2012, PJM is supplementing its reliability analysis with a range of scenario analyses in order to ensure that planning decisions result in the “optimal” project, placed in service at the “right time”. For example, a series of transmission upgrades required to mitigate violations of reliability criteria may be required years earlier if some combination of a group of potentially at-risk generators should retire. While uncertainty can accelerate or decelerate a project, consideration of all drivers, including those related to public policy requirements, is critical to a complete understanding of the possible future status of the grid.

c. Processes for Direct State Input on Public Policy Requirements and Public Policy Objectives.

PJM worked with its state commissions through OPSI to form an Independent State Agencies Committee (“ISAC”) comprised of interested state agencies within the PJM Region.¹²⁰ The purpose of the ISAC is to provide a forum for state agencies to participate in all aspects of the review and development of the RTEP. The ISAC will provide a vehicle for the state agencies to submit input into the assumptions to be used in performing the evaluation and analysis of potential transmission needs, including Public

¹¹⁹ See *supra* n. 33.

¹²⁰ See *supra* n. 52.

Policy Requirements.¹²¹ ISAC has already offered suggested scenarios for PJM's study, including "at risk" generation, off-shore wind and RPS scenarios. This approach is consistent with the Commission's desire to have state commissions actively participate in the identification of transmission needs driven by Public Policy Requirements.¹²²

d. Order No. 1000 "Consideration" of Public Policy Requirement Is Met.

As proposed, PJM's compliance filing meets the directives of Order No. 1000 regarding consideration of transmission needs driven by Public Policy Requirements because the procedures proposed herein afford stakeholders opportunity both to provide input and offer proposals regarding transmission needs driven by Public Policy Requirements and to evaluate potential solutions. In short, PJM's evaluation of Public Policy Requirements will occur in the context of sensitivity studies, model assumption variations and scenario analysis which results will be considered as alternative transmission solutions that may accelerate, decelerate or modify a potential reliability, market efficiency or operational performance expansion or enhancement.¹²³ This is entirely in keeping with Order No. 1000 and Order No. 1000-A where the Commission clarified that requiring consideration of transmission needs driven by Public Policy Requirements is not a mandate to fulfill those requirements.¹²⁴

¹²¹ See Schedule 6, section 1.5.4(e).

¹²² See Order No. 1000 at n. 189.

¹²³ See Schedule 6 at section 1.5.6(e).

¹²⁴ See discussion *supra* at II.B. Order No. 1000 at P 109; *see also*, Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities, 139 FERC ¶ 61,132 at P 204 (May 17, 2012) ("Order No. 1000-A").

In its February 29 Filing, PJM proposed, and the Commission accepted, revisions to its planning process to provide stakeholders more opportunities to provide input and submit suggestions: (i) into assumptions to be used in the studies and scenario analyses prior to the initial assumptions meetings, (ii) upon issuance of the range of assumptions to be used in the studies and analyses, (iii) on the study results, including the sensitivity studies and scenario analyses, (iv) on the evaluation and comparison of potential transmission solutions, and (v) regarding the projects to be included in the RTEP prior to PJM Board review and approval. The additional processes and procedures included in PJM's February 29 Filing are intended to ensure that stakeholders have an opportunity to provide input and offer proposals regarding transmission needs driven by Public Policy Requirements.¹²⁵

Since 2010, PJM has been performing scenario analyses to establish the impact of meeting state RPS through requests from individual states, as well as from OPSI. In 2011 and 2012, PJM has been evaluating, at the request of individual states, the performance of a specific transmission project, the Atlantic Wind Connection (AWC), with respect to the delivery of renewable energy from off-shore wind resources to satisfy RPS goals. These efforts continue and have helped to shape the future of PJM's collaborative planning with its states regarding public policy through the State Agreement Approach.¹²⁶

¹²⁵ See Order No. 1000 at P 207.

¹²⁶ The following is a link to the website to AWC's study request <http://pjm.com/~media/committees-groups/committees/teac/20120614/20120614-request-to-pjm-to-study-the-atlantic-wind-connection-project.ashx>.

Additionally, PJM has begun work with the ISAC, meeting monthly, to review the progress of the planning process and solicit input on critical planning assumptions and the scenario analyses to be performed. Under ISAC, PJM has received requests for analysis that PJM is currently performing in the context of the 2012 RTEP process. Such requests have included, for example: (i) requests for high load forecast scenario data, (ii) scenario analysis of potential “at-risk” generation, and (iii) RPS scenario analyses.

2. *State Agreement Approach.*

PJM proposes to revise Schedule 6 to add a process that states can follow to request that PJM study a project that is designed to address Public Policy Requirements identified by a state or group of states.¹²⁷ While PJM does not propose to predefine in its tariff a separate class of projects to meet public policy on a project-specific basis, PJM proposes a process that will allow a state governmental entity (or group of state governmental entities),¹²⁸ authorized by the respective state(s), to submit a project that addresses Public Policy Requirements identified by the state(s). Under the State Agreement Approach, such project proposal may be studied by PJM and, if the state(s) agrees to voluntarily assume responsibility for the allocation of all costs of the project,

¹²⁷ States may also request that PJM study a project to meet reliability or market efficiency needs through the normal course of the RTEP process.

¹²⁸ Such a project may be sponsored by one or more states. However, all states must voluntarily agree to sponsor the project and assume responsibility for the allocation of all costs of the project.

the project will be included in the RTEP either as a Supplemental Project¹²⁹ or state public policy project.

A project is included in the RTEP as a Supplemental Project if it is: (i) not needed for reliability or market efficiency;¹³⁰ (ii) not included in the RTEP for cost allocation purposes but is, instead, locally funded by retail load and financially settled outside of PJM;¹³¹ and (iii) is not reviewed or approved by the PJM Board.¹³²

On the other hand, the process allows for the development of a new category or single project, a state public policy project, that addresses specific Public Policy Requirements identified by a state or group of states, for which the state(s) agrees the costs will be allocated as proposed by the sponsoring state(s) and recovered pursuant to a FERC-accepted cost allocation either filed by the PJM Transmission Owners under section 205 of the FPA or by the state sponsor(s) under section 206 of the FPA.¹³³ While a proposed project, or class of projects, submitted *via* the State Agreement Approach may originate from a proposal submitted in a proposal window, it is not a requirement for consideration in the RTEP process.

¹²⁹ As part of its Order No. 890 Compliance Filing, PJM proposed a new category, labeled “Supplemental Projects.” This category of projects was created to allow PJM to evaluate local transmission owner planning standards and criteria to determine if local reinforcements are needed to optimally meet the local transmission planning criteria and to determine whether reinforcements may be categorized as PJM RTEP baseline or as Supplemental Projects. *See* PJM Order 890 Compliance Filing at 7 and 35.

¹³⁰ PJM Operating Agreement at 1.42A.02.

¹³¹ Schedule 6 at section 1.6 *proposed*.

¹³² Schedule 6 at 1.6 *proposed*.

¹³³ Schedule 6 at 1.5.9 *proposed*.

This approach is consistent with PJM's comments filed in Docket No. RM10-23.¹³⁴ Specifically, in its comments PJM stated that in a multi-state RTO some states have renewable portfolio standards ("RPS"), some do not.¹³⁵ PJM also stated that any states with an RPS generally have different requirements under their respective RPS. Consequently, a Transmission Provider, like PJM, can implement Public Policy Requirements only if sufficient direction is provided by the respective state(s) so that the translation of policy objective to planning criteria is reasonably evident and not heavily dependent on the exercise of subjective judgment by the transmission planner.¹³⁶

Schedule 6 addresses such projects, in order to provide a process by which transmission owners -- and in the case of the proposed State Agreement Approach -- or a state wishing to construct such transmission facilities can include them in the RTEP.¹³⁷ This State Agreement Approach proposal also provides for future development of state public policy projects, if required or desired. State public policy projects are not much different from a Supplemental Project except that if a state, or group of states, wishes to include a project in the RTEP for cost allocation purposes under the State Agreement Approach as a state public policy project it may do so pursuant to a FERC-accepted cost allocation proposed by agreement of one or more states and voluntarily agreed to by those states. The costs of a state public policy project will be recovered from customers

¹³⁴ See Comments of PJM, Transmission Planning and Cost Allocation By Transmission Owning and Operating Public Utilities, Docket No. RM10-23-000 (Sept. 29, 2010) ("September 29 Comments").

¹³⁵ September 29 Comments at 9.

¹³⁶ See, e.g., September 29 Comments at 9.

¹³⁷ See Schedule 6 at section 1.5.9(a), *proposed*.

in the sponsoring state(s) only. No costs will be recovered from customers in a state that did not agree to be responsible for such cost allocation. A state public policy project will be included in the RTEP for cost allocation purposes only if there is an associated FERC-accepted allocation permitting recovery of the costs. The state or group of states responsible for recovery of the cost allocation for a Supplemental Project or state public policy project may designate the entity or entities responsible to construct, own, operate and maintain the project from a list of pre-qualified entities supplied by PJM.

While this mechanism is not needed for compliance and PJM does not seek a specific Order No. 1000 review of this aspect of the filing, PJM is including the state agreement approach with its compliance filing to provide a mechanism by which states desire to advance a project addressing Public Policy Requirements may do so, even if the project does not meet the reliability or market efficiency standards set forth in the Schedule 6.

C. Right of First Refusal

Order No. 1000 provides that a federal right of first refusal (“ROFR”) contained in a Commission-filed transmission tariff constitutes a “rule, regulation, practice, or contract” within the meaning of Section 206 of the FPA.¹³⁸ The Commission further held, subject to certain exceptions, that federal ROFRs must be eliminated from a Transmission Provider’s tariffs as unjust, unreasonable, unduly discriminatory or preferential, or otherwise unlawful rate-related provisions.¹³⁹ Even though Schedule 6 of

¹³⁸ *Id.* at P 225.

¹³⁹ *Id.* at P 286.

the PJM Operating Agreement includes an obligation to build at section 1.4(c),¹⁴⁰ the Commission found in *Primary Power* that Schedule 6 “permits, but does not require,” PJM to designate a nonincumbent transmission developer to build an RTEP project as a baseline reliability project or economic project.¹⁴¹ More significantly, the Commission explicitly found that: “PJM’s Tariff contains no prohibition on a non-incumbent party becoming a transmission owner to receive cost-based rates.”¹⁴²

D. Nonincumbent Transmission Developers.

1. Overview of PJM’s Proposal

In keeping with the Commission’s desire to expand the planning process to provide for greater participation by nonincumbent transmission developers,¹⁴³ PJM proposes to include procedures in its RTEP process by which a nonincumbent transmission developer may submit a project proposal which, if included in the RTEP, may be designated to the project sponsor. PJM proposes to revise its planning process to provide for proposal windows through which an entity who has pre-qualified as a Designated Entity¹⁴⁴ may submit a project proposal and notify PJM whether or not such

¹⁴⁰ Order No. 1000 at P 261.

¹⁴¹ *Primary Power, LLC*, 131 FERC ¶ 61,015 at P 62 (Apr. 13, 2010) (“April 13 Order”).

¹⁴² April 13 Order at P 70.

¹⁴³ Order No. 1000 at P 291; *see also*, Order No. 1000-A, P 178, n. 480.

¹⁴⁴ PJM proposes to define Designated Entity to mean: “[t]he entity designated by the Office of the Interconnection with the responsibility to construct, own, operate, maintain and finance Immediate-need Reliability Projects, Short-term Projects and Long-lead Projects pursuant to section 1.5.8 of this Schedule 6.” *See* PJM Tariff at section 1.9A, *proposed*; *see also* PJM Operating Agreement at section 1.7A, *proposed*.

entity wishes to be designated rights to the project if the project is selected for inclusion in the RTEP.¹⁴⁵ Notably, PJM has included the potential for competitive solicitation of proposals in *every* category of project proposed in section 1.5.8 of Schedule 6, which include: (i) Long-lead Projects; (ii) Short-term Projects; and (iii) Immediate-need Reliability Projects.

In keeping with Order No. 1000's guidance, PJM has added the potential for competitive solicitation for each of the three categories of transmission projects proposed in this filing. PJM notes, however, that Order No. 1000 recognized that there must be exceptions to the requirement for competitive solicitation both to reflect the realities of maintaining reliability, as well as to respect an incumbent transmission owner's rights.¹⁴⁶ Order No. 1000 accomplishes this through a "solution-based" set of exemptions which include:

- An upgrade to an incumbent transmission owner's transmission facilities;
- An enhancement or expansion located solely within an incumbent transmission owner's Zone and the costs of the transmission facilities are allocated solely to the Zone in which the transmission facilities are located;
- An enhancement or expansion located solely within an incumbent transmission owner's Zone and the transmission facilities are not included in the RTEP for cost allocation purposes;
- An enhancement or expansion proposed to be located on an incumbent transmission owner's existing right of way and the transmission facilities would alter the incumbent transmission owner's use and control of its existing right of way under state law.¹⁴⁷

¹⁴⁵ Schedule 6 at section 1.5.8(a), *proposed*.

¹⁴⁶ Order No. 1000 at P 226.

¹⁴⁷ Order No. 1000 at P 226; *see also*, Order No. 1000-A at P 357.

As noted above, Order No. 1000 provided considerable flexibility to RTOs and others to “craft, in consultation with its stakeholders, requirements that work for their transmission planning region.”¹⁴⁸ Consistent with Order No. 1000, PJM has done just that regarding the Right of First Refusal (“ROFR”). The Commission’s solution-based set of exemptions does not comport with the sequencing of the PJM planning process. In PJM’s planning process, transmission needs are identified and vetted with stakeholders before solutions are considered. As a result, merely adopting the Commission’s list of exemptions without additional procedures would turn the RTEP process on its head by requiring PJM to identify solutions (and then letting entities know the results of its determinations) instead of putting the needs out to the market and letting the market respond with solutions. In order to adapt Order No. 1000’s exemptions to the realities and sequencing of PJM’s planning process, PJM has added a time element to each category, *i.e.*, requiring competitive solicitation unless PJM, based on a defined set of criteria and in a transparent manner, determines that there simply is not enough time to conduct a competitive solicitation before the facilities needed in-service date to address a reliability violation.¹⁴⁹

In short, PJM has attempted to comply with the Commission’s Order 1000 guidance with the practical need to ensure that projects required to meet imminent reliability needs can proceed to meet its required in-service date without delay due to the

¹⁴⁸ See Order No. P 157.

¹⁴⁹ No timeline is proposed for market efficiency projects and, as a result, all such projects would be categorized under Long-lead Projects and would be put out for competitive solicitation. See Schedule 6 at 1.5.8 *proposed*.

need to have a formal solicitation window. This balancing is necessary to ensure that Order 1000's requirements do not adversely impact PJM's ability to timely address near-term reliability needs. This concern is not abstract. PJM is currently faced with such Immediate-need Reliability Projects resulting from notices to deactivate generation as a result of dramatic changes in relative fuel prices, including changes flowing from the EPA MATS rule¹⁵⁰ and is moving forward under the very short time frames embodied in the MATS rule to develop transmission to address the retirement of over 14,000 MW of generation.

2. *Proposal Process for Submission of Projects by Nonincumbent Transmission Owners.*

PJM proposes to revise Schedule 6 to add procedures to clarify nonincumbent developers' rights to propose a project and, if the project is selected and a nonincumbent developer satisfies the criteria detailed in section 1.5.8 of Schedule 6, the nonincumbent developer will be the Designated Entity for its proposed project. Consistent with Order No. 1000, these procedures provide opportunity for a nonincumbent transmission developer to submit a project proposal through a "proposal window" and, if the project is included in the RTEP, to be designated construction, ownership and financial responsibility for its proposed project.¹⁵¹ The availability of such opportunities is limited

¹⁵⁰ In 2012, the PJM Board approved over \$2.4 billion of enhancements and expansions related to retirements. *See supra* n. 22.

¹⁵¹ The Commission declined to require the Transmission Provider to develop a specific form for the purpose of submitting a project proposal. Rather the Commission left it up to the individual Transmission Providers to develop a process that ensured consistency in the region. *See* Order No. 1000 at 325 - 328.

only by: (i) the need to address reliability; and (ii) the time likely needed to complete a project based on the scope of any criteria violations.

In order to provide for greater participation by nonincumbent transmission developers in the transmission planning, PJM, together with its stakeholders, evaluated PJM's two-phase planning cycles consisting of a 24-month planning cycle¹⁵² and a 12-month planning cycle.¹⁵³ Taking into account the time allowed under each planning cycle, PJM evaluated the time it would take to hold a proposal window. The complete process for holding a proposal window is a timely proposition, which must factor in the time required to: (i) evaluate and compare all proposals submitted in the context of a stakeholder forum, (ii) select the projects and the Designated Entities; (iii) submit the recommended plan to the PJM Board for review and approval; (iv) litigate potential challenges that may arise and

¹⁵² PJM plans its system over a 15-year horizon. PJM revised its planning process to add a 24-month planning cycle for Long-lead Projects. PJM's 24-month planning cycle includes both near-term (years one through five) and long-term (years six through fifteen) assessments of the transmission system. The long-term cases are used to evaluate the need of more significant projects requiring a longer time to develop and generally provide a more regional benefit based on system conditions that are expected to exist in eight years.

¹⁵³ For Short-term Projects and Immediate-need Reliability Projects, PJM cannot utilize a 24-month planning cycle because the analysis and baseline models must be completed and compliant with reliability criteria within a 12-month timeframe, *i.e.*, no later than December 31 each year. Unlike for Long-lead Projects, the completion of the baseline model by the end of the year for Short-term and Immediate-need Reliability Projects is critical to other analyses beginning in January of each year. For example, an incomplete baseline model at the end of a year would: interfere with the provision of service under the interconnection queue for generator and merchant interconnection projects and transmission service customers as they rely upon a "clean" baseline model at the beginning of each year to identify a violation caused by their project. Also, failure to post a complete baseline model for short-term issues by January would send inappropriate pricing signals to the market for the Baseline Reliability Auction.

require a stay PJM's ability to move forward in a timely manner; and (v) construct the facilities, which also includes for example: acquisition of rights of way, siting proceedings in state venues, acquisition of long lead time equipment, permits and the time needed to schedule system outages. Based on the time. Using such evaluation PJM determined to propose procedures based on the time it takes to hold a proposal window process and evaluate and compare proposed solutions against the urgency and need for the project.

3. *Three New Categories of Projects:*

PJM proposed to add section 1.5.8 to Schedule 6. This section of Schedule 6 sets forth a new process that includes three categories of projects in the context of proposal windows to afford a nonincumbent transmission owner an opportunity to submit project proposals and notify PJM whether or not such entity wishes to be designated rights to the project if the project is selected to be included in the RTEP.¹⁵⁴ The three categories of projects include: (i) Long-lead Projects; (ii) Short-term Projects; and (iii) Immediate-need Reliability Projects. The following is a brief description of the project categories and the proposal window process.

- *Description of Long-lead Projects Proposal Process.*

Beginning with the Long-lead Projects (needed in-service more than five years out) that are evaluated in the 24-month planning cycle, PJM determined that within that 24-month planning cycle PJM would have time to pre-qualify nonincumbent and incumbent transmission developers, hold a 120-day proposal window, evaluate and compare all proposals submitted in the context of an open stakeholder process, select the

¹⁵⁴ An entity submitting a project proposal, who does not wish to be the Designated Entity, does not have to pre-qualify.

projects and Designated Entities for PJM Board review and approval with sufficient time to construct the project.¹⁵⁵ If after the first proposal window PJM does not receive proposals to address all of the violations, economic constraints or Public Policy Requirements and, based on the project's expected in-service date, there is enough time to include the unresolved violation(s) in another planning cycle proposal window without compromising PJM's ability to have the project in service in time to preserve the integrity of the system, PJM proposes to include such unresolved violations in another proposal window.¹⁵⁶ However, if PJM determines that based on the specific criteria identified in section 1.5.8(e)(1) of Schedule 6, there is not enough time to re-evaluate and re-post the unresolved violations through another planning cycle proposal window process, PJM will identify the solution and designate such project to the incumbent transmission owner in the Zone in which the facilities are located.¹⁵⁷

- *Description of Short-term Projects Proposal Process*

Short-term Projects needed in service in years four and five to resolve reliability criteria violations will be evaluated under the 12-month planning cycle. Such issues must be resolved, with transmission solutions identified and approved in the RTEP, before December 31 each year to ensure the availability of clean (violation-free) base cases for

¹⁵⁵ Schedule 6 at section 1.5.8(c) *proposed*.

¹⁵⁶ Schedule 6 at 1.5.8(g) *proposed*.

¹⁵⁷ Pursuant to the obligation to build as provided for under section 1.7(a) of Schedule 6 of the Operating Agreement, PJM Transmission Owner's designated as "the appropriate entities to construct, own and/or finance enhancements or expansions specified in the [RTEP] shall construct, own and/or finance such facilities or enter into appropriate contracts to fulfill such obligations."

use in interconnection analyses and for RPM Auctions in the coming year.¹⁵⁸ Based on that timeframe, PJM believes that a 30-day proposal window would allow PJM to evaluate and compare the project proposals in the context of the stakeholder process and select the projects for PJM Board review and approval with sufficient time to construct the project.¹⁵⁹ If after the first proposal window PJM does not receive proposals to address all of the violations, PJM will identify the solution for the unresolved violations and designate such project to the incumbent transmission owner in the Zone in which the facilities are located.¹⁶⁰ Based on the amount of time it takes to conduct a 30-day proposal window (*i.e.*, evaluate and compare the proposals, select the project for PJM Board review and approval, as well as construct the project) and the fact that, unlike the 24-month planning cycle, the baseline model coming out of the 12-month planning cycle must be complete by the end of the year, it is not feasible to hold another proposal window for any unresolved violations without potentially affecting the reliability of the system and impacting PJM operations and markets which rely on a completed baseline model at the beginning of each year.

- *Description of Immediate-need Reliability Projects Proposal Process.*

¹⁵⁸ As described in the section above, the identification of the need for a transmission solution is done after evaluation of all non-transmission solutions, which have been committed as capacity resources. Thus, although this section of the tariff discusses the steps PJM will take to secure transmission solutions, keep in mind that this step only occurs after PJM has evaluated and determined that such non-transmission solutions will not adequately resolve the reliability violation previously identified.

¹⁵⁹ Schedule 6 at 1.5.8(c) *proposed*.

¹⁶⁰ Schedule 6 at 1.5.8(h) *proposed*.

For Immediate-need Reliability Projects (needed in service in three years or less), PJM determined that if, based on the criteria set forth in the definition of Immediate-need Reliability Projects, there is sufficient time to hold a shortened proposal window PJM will open a proposal window taking into account the project's overall timeframe.¹⁶¹ For all the reasons stated above under Short-term Projects, if PJM does not receive proposals during the shortened proposal window to address all of the violations or system conditions, PJM will identify the solution using criteria proposed in the definition of Immediate-need Reliability Projects and designate such project to the incumbent transmission owner in the Zone in which the facilities are located under the incumbent transmission owner's obligation to build as set forth in section 1.7 of Schedule 6 of the Operating Agreement.¹⁶²

PJM expects, in most cases, that solutions would be offered by incumbent transmission owners and merchant transmission developers to address the violations, economic constraints, and system conditions. As a result, PJM does not think it is likely that no solution would be submitted during a proposal window that would "efficiently or cost effectively" solve a reliability violation such that PJM would have to either re-post or else assign projects to an incumbent transmission owner. Further, based on the sequence of PJM's planning analyses, reliability criteria violations will arise in years two through five of the planning horizon only when some significant change has occurred on

¹⁶¹ Schedule 6 at section 1.5.8(m) *proposed*.

¹⁶² Schedule 6 at section 1.5.8(m) *proposed*.

the system that was not anticipated in earlier planning cycles.¹⁶³ In most cases, parties will have ample opportunity to propose solutions because reliability needs will evolve over the years and become more urgent in successive planning cycles. In fact, PJM does not expect that it would allow an evolving reliability issue to remain unresolved until it required a Short-term or Immediate-need Reliability Project. Moving forward, the PJM planning process is designed to utilize the 24-month long-term planning cycle to identify and resolve evolving issues before they require a shorter-term solution. Use of this longer cycle and the earlier identification (through the use of a longer planning horizon) of potential reliability violations will allow for more projects to fall into the short-term or long-lead project category and ameliorate the need for having to order as many Immediate-need Reliability Projects as has occurred in the past. Nevertheless, since all situations cannot be anticipated. PJM has constructed its proposed tariff with three separate categories and with time-differentiation rules surrounding competitive solicitation for each such category.

PJM recognizes the Commission's concerns with using the incumbent transmission owner as the default rather than holding another proposal window or solicitation. However, PJM has limited the use of the incumbent transmission owner as the default to those scenarios where, due to system reliability needs and time constraints, it would be impractical and even perhaps imprudent to hold another proposal window

¹⁶³ For example, a request to deactivate a generating unit within 90 days of receipt of the deactivation notice could cause an unanticipated, significant change to the system that would require an immediate solution to qualify as an Immediate-need Reliability Project.

process. This approach aligns with Order No. 1000, which provides that the function of the RTEP process is to “identify those transmission facilities that are needed to meet identified needs on a timely basis,” and, thereby enable incumbent transmission owners to meet their service obligations.¹⁶⁴

4. *A Comparison of PJM’s Proposed Time-Based Categories Versus Order No.1000’s Exceptions to Competitive Solicitation*

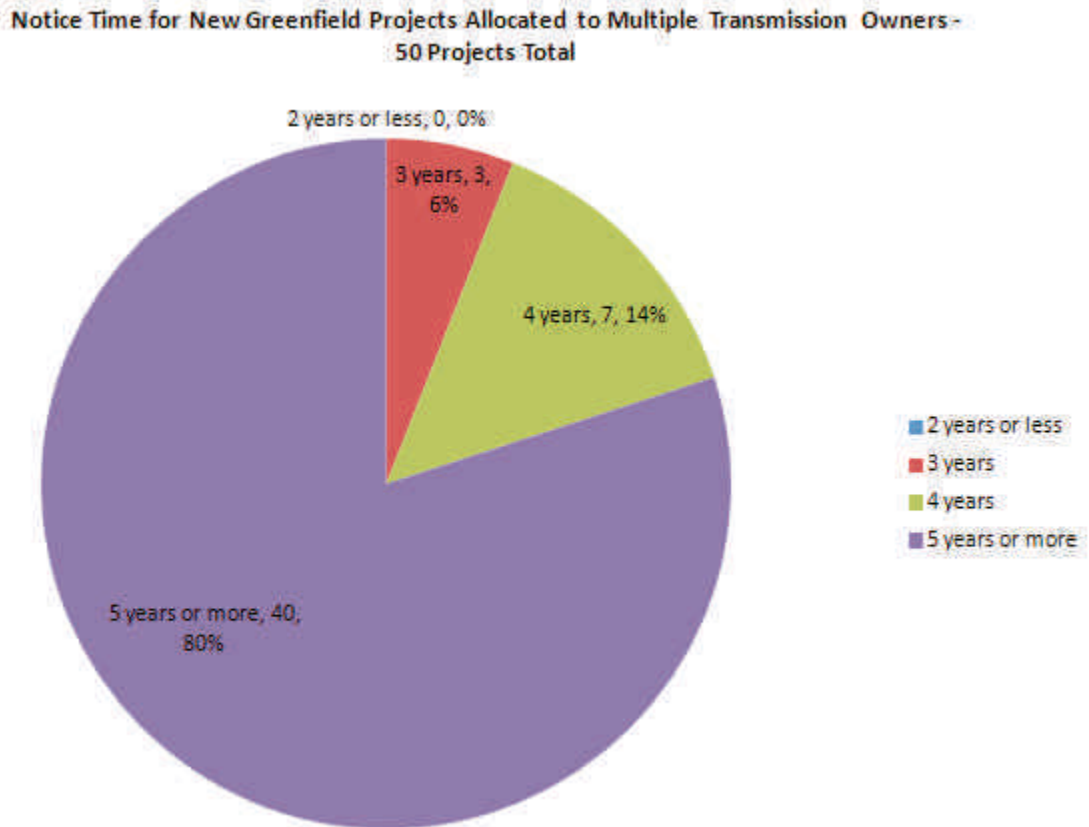
This point is further illustrated by the chart below. PJM reviewed a sample of all baseline projects from 1999 to the present as a tool to be used to compare the number of projects that would have defaulted to the incumbent transmission owner under PJM’s “time-based” criteria versus Order No. 1000’s “solutions-based” defaults to the incumbent transmission owner.¹⁶⁵ The chart below shows the number of reliability projects that would have fallen into each of the three “time-based” project categories discussed above. More importantly, this chart unequivocally demonstrates that by using PJM’s “time-based exception,”¹⁶⁶ the difference between PJM’s “time-based” defaults to the incumbent transmission owner versus Order No. 1000’s “solution-based” defaults are *de minimus* when balanced against the need to ensure the reliability of the system. The data set forth below clearly establishes that PJM’s “time-based” proposal is “consistent

¹⁶⁴ Order No. 1000 at P 264.

¹⁶⁵ PJM’s analysis of the 2700 baseline upgrades undertaken since 1999 utilized its existing database of upgrades. In undertaking the analysis, PJM utilized all upgrades for which the database included a firm date when the project was first presented to the Transmission Expansion Advisory Committee. A very limited number of the oldest projects had to be eliminated as they predated development of the database.

¹⁶⁶ PJM’s “time-based exception” refers to the projects that would default to the incumbent transmission owner outside a proposal window process.

with and superior to” Order No.1000’s requirements,¹⁶⁷ as well as consistent with the implementation flexibility authorized by Order No. 1000.



Of the 2,700 baseline upgrades in the sample,¹⁶⁸ approximately 120 projects (4.4 percent) were “new green field projects,” *i.e.*, not upgrades to existing facilities. Approximately 70 of the 120 greenfield projects were facilities located in one Zone and allocated solely to that Zone. Thus, as a result of applying the Order No. 1000 authorized defaults for upgrades to existing facilities and for upgrades allocated solely to a single

¹⁶⁷ See 18 C.F.R. § 35.28(c)(4)(ii); *see also*, Order No. 1000 at P 151.

¹⁶⁸ The 2,700 upgrades are a subset of the 3,300 upgrades identified, *supra* at 9. The difference is that the 3,300 upgrades include the interconnection-related Network Upgrades, which would not be subject to a proposal window.

zone, only 50 projects out of 2,700 in the historic sample would have been eligible to be designated to a nonincumbent transmission developer through a proposal process. Of the 50 projects, 40 projects (80 percent) were identified as required in year five of the 15-year planning horizon. Thus, on a going-forward basis, it is expected that most of these projects would have been identified through the newly implemented 24-month planning cycle, as required in year six or beyond and would have been categorized as Long-lead Projects, eligible for submission of proposals in a 120-day proposal window. Seven of the 50 projects (14 percent) were required in year four of the planning horizon and would have been categorized as Short-term Projects, eligible for submission of proposals in a 30-day proposal window. Three of the 50 projects (6 percent) were identified as required in year three of the planning horizon and would have been categorized as Immediate-need Reliability Projects. Of these three projects, two were identified prior to the integration into PJM of a new transmission Zone and were implemented by the incumbent transmission owner. Depending on the urgency of the reliability need, one project may have been deemed ineligible for the submission of proposals by nonincumbent transmission developers.

In short, an overlay of PJM's proposed "time-based" default criteria versus Order No. 1000's "solutions-based" default criteria applied to a representative sample of baseline projects ordered between 1999 to the present shows nearly a perfect match – with only a *de minimus* number of projects (three out of 2,700) not matching both standards. Given the practical need for a "time-based" default criteria to advance PJM's planning cycle and sequencing and the clear reliability basis for the PJM proposal, it is clear that PJM's proposal is "consistent with or superior to" Order No. 1000's criteria and

should be approved as a practical means for PJM to implement the Order No. 1000 default exceptions.

5. *PJM's Time-Based Treatment of Competitive Solicitation is "Consistent with and Superior to" Order No. 1000's "Solutions-Based" Exceptions to Competitive Solicitation*

PJM's "time-based" exception is a common sense approach that is designed to achieve the Commission's objective to provide greater participation opportunities for nonincumbent transmission developers while, at the same time, ensuring the reliability of the system. In order to accomplish this goal, PJM balanced the time required to hold a proposal window, evaluate alternative transmission solutions, identify the most effective solution and construct the project against the reliability-based need, *i.e.*, required in-service date. In evaluating that balance, PJM considered: (i) the desire to provide nonincumbent transmission developers more opportunity to submit project proposals and be designated to construct such projects, (ii) the fact that the majority of qualifying projects (80 percent) would fall under Long-lead Projects where PJM is able to provide a 120-day proposal window and, conditions permitting, offer a second proposal window for unresolved violations, and (iii) the fact that Long-lead Projects tend to be the more significant projects that are likely to be of interest to nonincumbent developers, PJM's proposal. Also considered was the fact that even though there was less time to offer multiple proposal windows and, in the case of the Immediate-need Reliability Projects, likely no time to offer a proposal window, the Short-term and Immediate-need Reliability Projects are typically low voltage projects, lower cost projects, and expected to be of less interest to developers. It is also expected that as PJM transitions its planning process through a full 24-month planning cycle, the number of projects identified during the four

and five year timeframe will begin to diminish because they will be resolved as a Long-lead Project – where PJM’s proposed process offers the greatest opportunity for nonincumbent transmission developers to submit project proposals. Based on the above, PJM proposes that this proposal is consistent with or superior to the Commission’s directive in Order No. 1000 because it offers “greater participation” by nonincumbent transmission developers in the transmission planning process while allowing PJM to preserve the reliability of the transmission system, and it lays the groundwork for more opportunities as PJM transitions into a full 24-month planning cycle.¹⁶⁹

6. *Proposal Window*

a. *Pre-qualification Requirement.*

As required by Order No. 1000, PJM, in consultation with its stakeholders, proposes to include a pre-qualification process to permit an entity to be designated the rights to its project should that project be selected in the RTEP for cost allocation purposes.¹⁷⁰ In order to pre-qualify, all entities¹⁷¹ must apply for pre-qualification status on an annual basis through the annual pre-qualification window, as noticed by PJM and prior to the opening of a proposal window, by submitting the requisite information detailed in section 1.5.8(a) in order to be a Designated Entity for an Immediate-need Project, Short-term Project or Long-lead Project. As provided in Order No. 1000, such information must provide a potential developer the opportunity to demonstrate it has the

¹⁶⁹ See Order No. 1000 at P 291.

¹⁷⁰ See Order No. 1000 at P 293. See also, Schedule 6 at section 1.5.8(a).

¹⁷¹ This requirement applies to both incumbent transmission owners and non-incumbent transmission owners.

necessary financial resources and technical expertise to construct, own and operate transmission facilities.¹⁷² PJM proposes such qualification demonstration include, but is not limited to: (i) identifying information about the entity¹⁷³ wishing to be designated; (ii) the entity's technical and engineering qualifications, experience, previous record, capability to adhere to industry standards, ability to remedy emergency situations and experience in acquiring rights of way, and (iii) the entity's financial liquidity.¹⁷⁴ PJM must notify the entity prior to the opening of the next proposal window whether or not the entity pre-qualified as a Designated Entity for purposes of submitting a proposal. If PJM determines that the entity is not qualified to be a Designated Entity, PJM must state the basis for its determination. An entity may submit additional information for re-evaluation to qualify. PJM must notify the entity prior to the opening of the next proposal window whether such entity cured the deficiency and pre-qualifies to be a Designated Entity. If the entity still does not pre-qualify, the entity may request dispute resolution pursuant to Schedule 5 of the PJM Operating Agreement. An entity may pre-qualify outside the annual qualification window for good cause shown as determined by PJM.¹⁷⁵

¹⁷² Order No. 1000 at P 323.

¹⁷³ Entity can mean the entity, its affiliate, partner or parent company. *See* Schedule 6 at section 1.5.8(a) *proposed*.

¹⁷⁴ Schedule 6 at section 1.5.8(a) *proposed*.

¹⁷⁵ Schedule 6 at section 1.5.8(a) *proposed*.

PJM proposes that these provisions relative to pre-qualification are fair and nondiscriminatory as they apply equally to either a nonincumbent transmission developer or an incumbent transmission owner.¹⁷⁶

b. Posting System Needs.

After the assumptions meeting and after PJM runs the studies to identify the existing and limited projections on the transmission system's physical, economic and/or operational capability or performance, including alternative sensitivity studies, modeling assumption variation and scenario analyses requested by the TEAC, Subregional RTEP Committees and the ISAC, PJM proposes to post the identified violations, constraints, system conditions and Public Policy Requirements and to provide notice to stakeholders of proposal windows for Long-lead Projects, Short-term Projects and Immediate-need Reliability Projects.¹⁷⁷

c. Project Proposal - Proposal Windows for Long-lead Projects, Short-term Projects and Immediate-need Reliability Projects.

PJM's proposes revisions to its planning process to provide a number of ways in which to propose solution options through the proposal windows. This steps comes after the evaluation and determination that such non-transmission solutions will not adequately resolve the reliability violation previously identified.¹⁷⁸

¹⁷⁶ Order No. 1000 at P 324.

¹⁷⁷ Schedule 6 at section 1.5.8(b). As described in detail below, PJM shall only open a proposal window for Immediate-need Reliability Projects when in its judgment, circumstances permit and there is sufficient to do so. *See* Schedule 6 at 1.5.8(m)(2) *proposed*.

¹⁷⁸ See *supra* n.160.

Long-lead Projects. For identified violations, economic constraints, system conditions and Public Policy Requirements,¹⁷⁹ PJM proposes to notice stakeholders of the opening of a 120-day proposal window for projects that are needed in-service greater than five years out.¹⁸⁰

Short-term Projects. For identified violations, PJM proposes to notice stakeholder of the opening of a 30-day proposal window of projects that are needed in-service greater than three years and five years or less.¹⁸¹

Immediate-need Reliability Projects. PJM proposes that if, in its judgment, there is sufficient time for a shortened proposal (less than 30 days) it will post violations that could be addressed by an Immediate-Need Reliability Project that are needed in-service within three years or less.¹⁸²

During the proposal windows, entities may submit proposals for potential enhancements or expansions to address the posted violations, constraints, system conditions and Public Policy Requirements. Schedule 6 details what information must be included to describe the proposal. If the proposer wishes to be the project's Designated Entity, the proposer must be pre-qualified and must submit, to the extent not previously provided in the pre-qualification application, more detailed information specific to the

¹⁷⁹ PJM proposes that Public Policy Requirements include: (i) federal Public Policy Requirements and (ii) state Public Policy Requirements identified or agreed to by the states in the PJM Region.

¹⁸⁰ Schedule 6 at section 1.5.8(c).

¹⁸¹ Schedule 6 at section 1.5.8(c).

¹⁸² Schedule 6 at section 1.5.8(m) *proposed*.

scope of the project proposal.¹⁸³ In addition, PJM may request any additional reports or information needed to evaluate the specific project proposal.¹⁸⁴ Any deficiencies must be cured within 10 business days of the notification from PJM.¹⁸⁵ Any response to a request for additional reports or information may clarify the proposed project submitted but may not be used to submit a new project or modify the existing project proposal once the proposal window is closed.¹⁸⁶

d. Selection and Designation of Projects.

- *Posting of Project Proposals.*

Following the close of a proposal window(s), PJM shall post all proposals submitted.¹⁸⁷ All proposals addressing state Public Policy Requirements will be provided to the applicable states for review and consideration as either a Supplemental Project or a state public policy project.¹⁸⁸

e. Review and Selection of Project Proposal

PJM will evaluate all project proposals submitted during a proposal window.¹⁸⁹ Based on that review, PJM will select, for review by the TEAC, those projects determined to provide the more efficient or cost-effective solutions based on the criteria

¹⁸³ Schedule 6 at section 1.5.8(c)(2) *proposed*.

¹⁸⁴ Schedule 6 at section 1.5.8(c)(3) *proposed*.

¹⁸⁵ Schedule 6 at section 1.5.8(c)(3) *proposed*.

¹⁸⁶ Schedule 6 at section 1.5.8(c)(4) *proposed*.

¹⁸⁷ Schedule 6 at section 1.5.8(d) *proposed*.

¹⁸⁸ Schedule 6 at section 1.5.8(d) *proposed*.

¹⁸⁹ Schedule 6 at section 1.5.8(d) *proposed*.

detailed in section 1.5.8(e) and (f).¹⁹⁰ Specifically, pursuant to the modifications proposed in Schedule 6, PJM will evaluate the extent to which

- (i) a proposal would address and solve the posted violation, system condition or economic constraint;
- (ii) the relevant benefits of the proposal meets a Benefit/Cost Ratio Threshold of at least 1.25:1 as calculated pursuant to section 1.5.7(d);
- (iii) the proposal would have secondary benefits such as addressing additional or other system reliability, operational perform, economic efficiency issues or Public Policy Requirements; and
- (iv) any other factors such as cost effectiveness, the ability to timely complete the project and the potential risk and delay associated with obtaining necessary and timely regulatory approvals.¹⁹¹

f. Designation of a Project to a Designated Entity.

If an entity indicated at the time it submitted a project proposal that it wanted to be the project's Designated Entity, PJM shall consider, based on the criteria detailed in section 1.5.8(f), whether the proposer qualifies to be the Designated Entity.¹⁹² PJM, together with its stakeholders, determined that the qualification criteria proposed in Schedule 6 best addressed the particular needs of the PJM Region.¹⁹³ In particular, consistent with Order No. 1000, this criteria requires each potential transmission

¹⁹⁰ Schedule 6 at section 1.5.8(d) *proposed*.

¹⁹¹ Schedule 6 at section 1.5.8(e)(1) *proposed*.

¹⁹² Schedule 6 at section 1.5.8(f) *proposed*.

¹⁹³ Order No. 1000 at P 324.

developer to demonstrate that it has the “necessary financial resources and technical expertise” to be a Designated Entity.¹⁹⁴ Additionally, at the suggestion of the stakeholders, the term “entity” can include an entity’s affiliate, partner or parent company.¹⁹⁵

g. If No Proposals Solve the Identified Violations and Economic Constraints.

As noted previously, PJM believes that it is highly unlikely that none of the submitted proposals will solve the identified violations or economic constraints. Nevertheless, to ensure that the tariff addresses as many circumstances as could possibly occur, the proposal specifically addresses this “what if” scenario. The details of section 1.5.8 differ by the category of projects and the differences are outlined below for each project category as proposed:

Long Lead Projects. If none of the proposals submitted during the 120-day proposal window solve the identified violations, economic constraints or system conditions and there is time to hold another proposal window for the unresolved violations, economic constraints or system conditions, including the time it takes for PJM to evaluate and select a proposal for review by the TEAC, PJM shall include such unresolved violations, economic constraints or system conditions in another window for proposals.¹⁹⁶ If PJM determines that there is not enough time to conduct another

¹⁹⁴ Order No. 1000 at P 323; *see also*, Schedule 6 at sections 1.5.8(a) and (f) *proposed*.

¹⁹⁵ Schedule 6 at 1.5.8(f) *proposed*.

¹⁹⁶ Schedule 6 at section 1.5.8(g) *proposed*.

proposal window, PJM shall propose a project to solve the posted violation, system condition or economic constraint and present such project to the TEAC for review and comment.¹⁹⁷ If after TEAC review the PJM proposed project is included in the recommended plan, PJM shall designate the Transmission Owner(s) in the Zone(s) where the project is located to be the Designated Entity.¹⁹⁸

Short-term Project. If none of the proposals submitted during the 30-day proposal window solve the identified violations, system conditions or economic constraints PJM shall identify the project to solve the posted violation or system condition and present such project to the TEAC for review and comment.¹⁹⁹ If after TEAC review the PJM proposed project is included in the recommended plan, PJM shall designate the Transmission Owner(s) in the Zone(s) where the project is located to be the Designated Entity.²⁰⁰

Immediate-need Reliability Project. If PJM determines that due to time constraints and the reliability needs of the system there is no time to conduct a proposal window, PJM shall identify the project to solve the posted violations or system condition and present such project to the TEAC for review and comment.²⁰¹ If after TEAC review the PJM proposed project is included in the recommended plan, PJM shall designate the

¹⁹⁷ Schedule 6 at section 1.5.8(g) *proposed*.

¹⁹⁸ Schedule 6 at section 1.5.8(g) *proposed*.

¹⁹⁹ Schedule 6 at section 1.5.8(h) *proposed*.

²⁰⁰ Schedule 6 at section 1.5.8(h) *proposed*.

²⁰¹ Schedule 6 at section 1.5.8(m) *proposed*.

Transmission Owner(s) in the Zone(s) where the project is located to be as a Designated Entity.²⁰²

h. PJM Board Approval and Designation of the Final RTEP

Following TEAC review of the RTEP to be submitted to the PJM Board for review and approval, PJM shall notify the Designated Entity within 10 business days whether they are the Designated Entity for projects included in the RTEP.²⁰³ Likewise, the Designated Entity must accept such designation within 30 days of receiving the designation.²⁰⁴ Considering PJM's completely transparent process that is thoroughly vetted through the TEAC and the Subregional RTEP Committees as well as posted on the PJM website, the process is sufficiently detailed from start to finish for stakeholders to understand why a particular transmission is selected or not selected in the RTEP for cost allocation purposes.²⁰⁵

i. Incumbent Transmission Owners' Obligation to Build.

In Order No. 1000, the Commission recognized that incumbent transmission owners may rely on transmission facilities included in the RTEP for purposes of cost allocation to satisfy their reliability and service obligations.²⁰⁶ As such, the Final Rule requires Transmission Providers to amend their tariffs to "describe the circumstances and procedures under which [Transmission Providers] in the RTEP process will reevaluate

²⁰² Schedule 6 at section 1.5.8(m) *proposed*.

²⁰³ Schedule 6 at section 1.5.8 (i) *proposed*.

²⁰⁴ Schedule 6 at section 1.5.8(j) *proposed*.

²⁰⁵ Order No. 1000 at P 328.

²⁰⁶ Order No. 1000 at PP 263 and 329.

the regional transmission plan to determine if delays in the development of a transmission facility selected in a regional transmission plan for purposes of cost allocation require evaluation of alternative solutions,” which could include those a Transmission Provider proposes, “to ensure the incumbent can meet the reliability needs or service obligations.”²⁰⁷ In compliance with this directive, section 1.5.8(k) proposes that if a Designated Entity fails to provide a development schedule or letter of credit or fails to meet a milestone in its development schedule that delays the project’s in-service date, PJM will reevaluate the need for the project. Based on that reevaluation, PJM may (i) retain the project in the RTEP, (ii) remove the project from the RTEP; or (iii) include an alternative solution.²⁰⁸ If PJM retains the project, PJM shall determine whether to retain the Designated Entity or to designate the project to the incumbent transmission owner in the Zone where the project is located.²⁰⁹ In the event an incumbent transmission owner is the Designated Entity, PJM shall seek recourse through the Consolidated Transmission Owners Agreement or the Commission, as appropriate.²¹⁰ All modifications to the RTEP shall be presented to the TEAC and approved by the PJM Board.²¹¹

The Final Rule also allows the incumbent transmission owner to meet its reliability needs or service obligations under the following circumstances, *i.e.*, when an

²⁰⁷ Order No. 1000 at PP 263 and 329.

²⁰⁸ Schedule 6 at section 1.5.8(k) *proposed*.

²⁰⁹ Schedule 6 at section 1.5.8(k) *proposed*.

²¹⁰ Schedule 6 at section 1.5.8(k) *proposed*.

²¹¹ Schedule 6 at section 1.5.8(k) *proposed*.

incumbent transmission owner chooses to build: (i) an upgrade to an incumbent transmission owner's own transmission facilities; (ii) new facilities located solely within incumbent transmission owner's Zone and the costs are allocated solely to the incumbent; (iii) new transmission facilities located solely in the incumbent's Zone and not included in the RTEP for cost allocation purposes;²¹² (iv) facilities located on the incumbent transmission owner's right of way and the project would alter the incumbent's use and control of its existing right of way under state law.²¹³ PJM proposes, consistent with Order No. 1000, to designate such category of projects detailed in (i) through (iv) above to the incumbent transmission owner in the Zone in which the facilities are located. Additionally, PJM provides to designate to the incumbent transmission owner when required by state law, regulation or administrative agency order.²¹⁴

III. Development of the Revised Transmission Planning Process and this Compliance Filing – Summary of a Two and One-Half Year Stakeholder Process.

In May 2010, prior to issuance of Order No. 1000, PJM convened a stakeholder process, which, among other things, addressed the need for Transmission Providers to establish a regional transmission planning process. This planning process required procedures to provide opportunities for greater stakeholder participation, for consideration of transmission needs driven by public policy requirements established by state or federal laws or regulations and to evaluate PJM's current method for designating

²¹² Order No. 1000 at P 262.

²¹³ Order No. 1000 at n. 231.

²¹⁴ Schedule 6 at section 1.5.8 (l) *proposed*.

entities to construct and own RTEP projects and choosing among competing project proposals.

PJM and its stakeholders devoted over two years to the Regional Planning Process Task Force (“RPPTF”)²¹⁵ discussing how to build in more certainty and stability to PJM’s planning process. As part of that stakeholder process, PJM revised its existing planning process to provide for – in addition to its one year planning cycle – a new two year planning cycle to allow a more orderly process for identifying long term needs and seeking transmission solutions.

Approximately one and one half years through that stakeholder process, the Commission issued Order No. 1000. PJM took guidance from Order No. 1000 and continued to work with its stakeholders to develop processes and procedures to consider Public Policy Requirements and to designate entities to construct and own RTEP projects and choose among competing project proposals. Thus, the RPPTF served as platform through which to evaluate PJM’s existing RTEP process and modify it, where necessary, to comply with Order No. 1000 directives.

The RPPTF met on a continuous basis, at intervals of approximately one month, totaling approximately 48 meetings. PJM also provided updates of its progress to the MRC and MC to discuss the proposed revisions to Schedule 6. The proposed Schedule 6 revisions were posted and reviewed by the stakeholder group.

²¹⁵ The RPPTF was initially chartered as the reliability planning process working group (“RPPWG”).

IV. Cost Allocation

The Commission requires, as part of this Final Rule, that if the “public utility transmission provider is an RTO or ISO, then the cost allocation method or methods must be set forth in the RTO or ISO OATT.”²¹⁶ The methodologies for allocating costs of transmission enhancements and expansions included in PJM’s RTEP are set forth in Schedule 12 of the PJM Tariff. Pursuant to section 9.1(a) of the PJM Tariff, PJM “Transmission Owners shall have the exclusive and unilateral rights to file pursuant to Section 205 of the [FPA] and the FERC’s rules and regulations thereunder for any changes in or relating to the establishment and recovery of the Transmission Owners’ transmission revenue requirements or the transmission rate design under the PJM Tariff.”²¹⁷ Section 9.1(d) of the PJM Tariff further specifies the PJM Transmission Owners unilateral filing rights include any changes to Schedule 12.²¹⁸ These provisions directly result from the Court of Appeal’s decision in *Atlantic City Electric Company, et al v. FERC*, 295 F.3d 1 (D.C. Cir. 2002). Consequently, PJM does not have section 205 rights to amend Schedule 12 to comply with Order No. 1000.

On October 11, 2012, in Docket No. ER13-90-000, the PJM Transmission Owners, pursuant to section 205 of the FPA, filed revisions to Schedule 12 to ensure that the costs of transmission enhancements and expansions “are allocated in a manner that is

²¹⁶ Order No. 1000 at P 558.

²¹⁷ PJM Tariff § 9.1(a). *See also, Pennsylvania-New Jersey-Maryland Interconnection*, 105 F.E.R.C. ¶ 61,294 (2003); *Atlantic City Electric Company, et al v. FERC*, 295 F.3d 1 (D.C. Cir. 2002).

²¹⁸ PJM Tariff § 9.1(d).

just, reasonable, and not unduly discriminatory or preferential, as section 205 requires, and *also complies with the requirements of Order No. 1000 relating to regional cost allocation.*”²¹⁹ PJM adopts and relies on the Schedule 12 Filing to satisfy its Order No. 1000 cost allocation compliance requirements. As explained below, PJM believes that the transmission owner proposal is a balanced and effective resolution of contentious issues surrounding cost allocation of both lower voltage and high voltage facilities. PJM defers to the transmission owner’s application of the Order 1000 principles to their proposal but sets forth below its own observations, as the independent regional transmission planner, on some of the key aspects of the PJM Transmission Owner filing. PJM urges the Commission to find that the Transmission Owner’s filing is in full compliance with Order 1000 and most importantly, will serve to complement the planning reforms set forth by PJM in this compliance filing.

A. Highlights of Transmission Owner Cost Allocation Filing.

Without repeating all the details in the Schedule 12 Filing, the PJM Transmission Owners propose to amend the cost allocation methodology in Schedule 12 as follows. First, while maintaining the distinction between Regional Facilities and Lower Voltage Facilities, the PJM Transmission Owners propose to change the definition of “Regional Facilities” from only including those facilities that operate at 500 kV and above to

²¹⁹ PJM Open Access Transmission Tariff Revisions to Modify Cost Allocation for PJM Required Transmission Enhancements, Docket No. ER13-90-000, at 1 (October 11, 2012) (“Schedule 12 Filing”) (emphasis added).

including double-circuit facilities planned to operate at voltages of at least 345 kV, but less than 500 kV, as well as all facilities planned to operate at 500 kV or above.²²⁰

Second, the proposal adopts a hybrid approach for allocating the costs of Regional Facilities and Necessary Lower Voltage Facilities that “allocates a portion of the costs of these projects to beneficiaries that PJM identifies specifically and the remainder to customers throughout the region, in recognition of the other benefits that these projects provide.”²²¹ As the PJM Transmission Owners explain, “one-half of each project’s cost is allocated on a postage-stamp basis, *i.e.*, to zones on a load ratio share basis and to merchant transmission facilities in proportion to awarded Firm Transmission Withdrawal Rights,” and the remaining half would be based on “Solution-Based” DFAX analysis for reliability-based projects and on each Zone’s and each merchant transmission facility’s share of the zonal decreases in load energy payments that result from the new facility for economic-based projects.²²²

Third, for Lower Voltage Facilities, the PJM Transmission Owners propose that the full cost of a reliability-based Lower Voltage Facility will be allocated according to the Solution-Based DFAX analysis used for reliability-based Regional Facilities and Necessary Lower Voltage Facilities.²²³ For new economic-based Lower Voltage

²²⁰ Schedule 12 Filing at 8. The PJM Transmission Owners do not propose to revise the definitions of “Necessary Lower Voltage Facilities” and “Lower Voltage Facilities.”

²²¹ Schedule 12 Filing at 8.

²²² Schedule 12 Filing at 8-9.

²²³ Schedule 12 Filing at 11.

Facilities the full costs will be allocated based on the load payment reduction analysis used for economic based Regional Facilities and Necessary Lower Voltage Facilities.²²⁴

Fourth, the PJM Transmission Owners “propose to employ the same cost allocation methodology used for alternating current (“A.C.”) transmission facilities to high voltage direct current (“D.C.”) transmission projects approved by the PJM Board for inclusion in the RTEP and made available for PJM to schedule. Consequently, “Regional Facilities and Necessary Lower Voltage Facilities that employ D.C. technology will be allocated using a hybrid methodology in which 50 percent of the costs are allocated on a postage-stamp basis and 50 percent are allocated to specifically identified beneficiaries. All of the costs of Lower Voltage Facilities using D.C. technology will be allocated to specific beneficiaries.”²²⁵

B. PJM Observations on the Transmission Owner Cost Allocation Filing.

PJM supports the Transmission Owner’s cost allocation filing as fully compliant with Order 1000’s requirements. PJM concurs with the Transmission Owner’s application of their proposal to Order 1000 principles. In addition, from the perspective of PJM as the independent Regional Transmission Organization responsible for planning to ensure the reliability and efficiency of the transmission grid, PJM urges the Commission to consider the following additional benefits of the submitted cost allocation proposal:

²²⁴ Schedule 12 Filing at 11.

²²⁵ Schedule 12 Filing at 12. D.C. projects not included in this category include those that are installed for interconnection of generation or merchant transmission or for which users subscribe for service or a share of the project’s capacity. *Id.* at fn 62.

- The Transmission Owner proposal prospectively resolves what in the past has resulted in years of litigation over cost allocation in PJM and, if accepted by the Commission, effectively resolves the issues raised by the 7th Circuit Court of Appeals in *Illinois vs. FERC*²²⁶ on a prospective basis;
- The proposal represents an historic coming together of diverse interests across PJM's very large 13-state footprint;
- Through its proposed application of both socialization and DFAX methodologies to 345 double circuit and 500kV and above EHV facilities, the proposal recognizes that higher voltage facilities can provide benefits beyond a single zone—a point recognized by the Commission (as well as the dissent) in the Commission's 7th Circuit Remand Order;
- The proposal adopts an innovative solutions-based DFAX methodology for allocating costs of lower voltage facilities and for 50% of 345 double circuit and above higher voltage facilities. The “solutions-based” DFAX methodology is far superior to today's “problem-based” DFAX methodology in that it:
 - recognizes changing flows on transmission lines over time which provides a tool to more dynamically track line usage and beneficiaries;

²²⁶ *Illinois Commerce Comm'n v. FERC*, 576 F.3d 470 (7th Cir. 2009).

- avoids problem-based DFAX's static "snapshot" one-time look at flows which can ignore the potential changing flows and beneficiaries of a given project over time;
- can be updated by PJM on a regular basis and thus capture changes in flows in a way which is administratively feasible to implement;
- eliminates PJM having to go back to reconstruct a hypothetical system removing the project in question (for purposes of application of today's 'problem-based' DFAX methodology) should the Commission reverse a particular PJM "problem-based" DFAX determination .

For these reasons, as well as those set forth by the PJM transmission owners in their filing, PJM urges the Commission to adopt the PJM Transmission Owner cost allocation proposal and find it compliant with Order 1000's cost allocation principles.

V. Ongoing Reform

PJM believes this filing fully satisfies the Order No. 1000 compliance requirements. Notwithstanding, PJM commits to continue to develop a multi-driver approach with its stakeholders, respecting the key elements of the State Agreement Approach. Inclusion of a multi-driver approach in the RTEP process may allow PJM greater flexibility in developing more efficient and cost-effective projects that could include a combination of public policy components and reliability and/or economic components with a cost allocation methodology that would identify how PJM would allocate costs to the beneficiary of each component. PJM has already begun a new round

of stakeholder discussions on this issue and pledges to focus the work of its Regional Planning Process Task Force (“RPPTF”) on this issue going forward.

VI. Effective Date/Transition.

PJM requests an effective date for the proposed revisions to coincide with the first 12-month and 24-month planning cycle after issuance of a Commission order on this compliance filing.²²⁷ With regard to the transition from PJM’s current planning process to the implementation of the process changes proposed herein, Order No. 1000 provides that this Final Rule is intended to apply to evaluation or reevaluation of new transmission facilities that occurs after the effective date of the Transmission Provider’s Order No. 1000 compliance filing.²²⁸ The Commission further clarified that because the issuance of the Final Rule is likely to issue in the middle of a planning of a planning cycle each Transmission Provider should determine “at what point a previously approved project is no longer subject to reevaluation . . . [or] the requirements of this Final Rule.”²²⁹ Thus, PJM will implement its complete set of revisions in the next full 12-month or 24-month planning cycle following a final Commission order approving this compliance filing and any associated subsequent compliance filings. As the date of the Commission action is unknown, PJM commits herein that depending upon the stage of the planning cycle, PJM will implement whatever provisions proposed herein can be

²²⁷ As this date is uncertain, PJM is including a placeholder effective date of 12/31/9998 in the metadata of the submitted eTariff sections. PJM requests, and hereby consents to, the Commission in its order on this filing replacing this date with the actual effective date determined by the Commission.

²²⁸ Order No. 1000 at P 65.

²²⁹ Order No. 1000 at P 65.

implemented without restarting a planning cycle mid-year so as not to “delay current studies being undertaken” pursuant to PJM’s existing RTEP process or “impede progress on implementing existing transmission plans.”²³⁰ PJM will clarify its exact transition upon receipt and review of the Commission’s final order on this compliance filing. As a result, projects, including proposals already received, under consideration in the planning cycle in which the Commission’s compliance order issues will be evaluated under the new rules to the extent feasible. In the interim, PJM will implement our current RTEP process consistent with our tariffs. Any changes to the PJM manuals to clarify our process to facilitate processing proposals by nonincumbent transmission developers, prior to the effective date of this compliance filing, will be vetted through the stakeholder process. Additionally, PJM will work with its states, as requested, to develop public projects, either as a Supplemental Project or an individual “one-off” project, for filing with the Commission.

Finally, PJM supports the PJM Transmission Owners requested effective date in their Schedule 12 Filing. PJM stands ready to implement the requested solutions-based DFAX upon Commission acceptance of the Schedule 12 Filing. PJM believes there are significant benefits in the form of clarity to the process and avoiding potential litigation should the solutions-based DFAX process be implemented as soon as possible consistent with the PJM Transmission Owners’ proposal.

²³⁰ Order No. 1000 at P 65.

Honorable Kimberly D. Bose, Secretary
Re: PJM OATT Order No. 1000 Compliance Filing
October 25, 2012
Page 83

VII. Correspondence and Communications.

Correspondence and communications with respect to this filing should be sent to
the following persons:

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VIII. Contents of this Filing.

PJM encloses the following:

1. This transmittal letter;
2. Attachment A – Revised PJM Operating Agreement – Definitional Section and Schedule 6 – and Part I of the PJM Tariff (in redlined form);
3. Attachment B – Revised PJM Operating Agreement – Definitional Section and Schedule 6 – and Part I of the PJM Tariff (in clean form);
4. Appendix I – Chart – “PJM Order No. 1000 Compliance Filing;” and
5. Appendix II – TEAC slide presentations dated April 27, 2012 and August 9, 2012.

IX. Service.

PJM has served a copy of this filing on all PJM Members and on all state utility regulatory commissions in the PJM Region by posting this filing electronically. Electronic service is permitted as of November 3, 2008, under the Commission’s regulations²³¹ pursuant to Order No. 714²³² and the Commission Notice of Effectiveness of Regulations issued on October 28, 2008, in Docket No. RM01-5-000. In compliance with these regulations, PJM will post a copy of this filing to the FERC filings section of its Internet site, located at the following link: <http://www.pjm.com/documents/ferc-manuals/ferc-filings.aspx> with a specific link to the newly-filed document and will send an e-mail on the same date as the filing to all PJM Members and all state utility

²³¹ See 18 C.F.R. §§ 35.2, 154.2, 154.208 and 341.2 (2009).

²³² *Electronic Tariff Filings*, Order No. 714, 124 FERC ¶ 61,270 at PP 13 and 77-78.


regulatory commissions in the PJM Region²³³ alerting them that this filing has been made by PJM today and is available by following such link.

X. Conclusion.

WHEREFORE, PJM respectfully requests that the Commission recognize the interconnected nature of PJM's planning process, recognize the significant reforms that have occurred to date and approve those reforms and the attached revisions to the Operating Agreement and PJM Tariff as fully compliant with Order No. 1000.

Respectfully submitted,

By: _____



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Dated: October 25, 2012

²³³ PJM already maintains, updates and regularly uses e-mail distribution lists for all PJM Members and affected public utility commissions.

Attachment A

Revisions to the PJM Open Access Transmission Tariff and PJM Operating Agreement

(Marked / Redline Format)

Section(s) of the
PJM Open Access Transmission Tariff
(Marked / Redline Format)

Definitions – C-D

1.3BB.03 Cancellation Costs:

The Costs and liabilities incurred in connection with: (a) cancellation of supplier and contractor written orders and agreements entered into to design, construct and install Attachment Facilities, Direct Assignment Facilities and/or Customer-Funded Upgrades, and/or (b) completion of some or all of the required Attachment Facilities, Direct Assignment Facilities and/or Customer-Funded Upgrades, or specific unfinished portions and/or removal of any or all of such facilities which have been installed, to the extent required for the Transmission Provider and/or Transmission Owner(s) to perform their respective obligations under Part IV and/or Part VI of the Tariff.

1.3C Capacity Interconnection Rights:

The rights to input generation as a Generation Capacity Resource into the Transmission System at the Point of Interconnection where the generating facilities connect to the Transmission System.

1.3D Capacity Resource:

Shall have the meaning provided in the Reliability Assurance Agreement.

1.3E Capacity Transmission Injection Rights:

The rights to schedule energy and capacity deliveries at a Point of Interconnection (as defined in Section 1.33A) of a Merchant Transmission Facility with the Transmission System. Capacity Transmission Injection Rights may be awarded only to a Merchant D.C. Transmission Facility and/or Controllable A.C. Merchant Transmission Facilities that connects the Transmission System to another control area. Deliveries scheduled using Capacity Transmission Injection Rights have rights similar to those under Firm Point-to-Point Transmission Service or, if coupled with a generating unit external to the PJM Region that satisfies all applicable criteria specified in the PJM Manuals, similar to Capacity Interconnection Rights.

1.3F Commencement Date:

The date on which Interconnection Service commences in accordance with an Interconnection Service Agreement.

1.4 Commission:

The Federal Energy Regulatory Commission.

1.5 Completed Application:

An Application that satisfies all of the information and other requirements of the Tariff, including any required deposit.

1.5.01 Confidential Information:

Any confidential, proprietary, or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy, or compilation relating to the present or planned business of a New Service Customer, Transmission Owner, or other Interconnection Party or Construction Party, which is designated as confidential by the party supplying the information, whether conveyed verbally, electronically, in writing, through inspection, or otherwise, and shall include, without limitation, all information relating to the producing party's technology, research and development, business affairs and pricing, and any information supplied by any New Service Customer, Transmission Owner, or other Interconnection Party or Construction Party to another such party prior to the execution of an Interconnection Service Agreement or a Construction Service Agreement.

1.5A Consolidated Transmission Owners Agreement:

The certain Consolidated Transmission Owners Agreement dated as of December 15, 2005, by and among the Transmission Owners and by and between the Transmission Owners and PJM Interconnection, L.L.C.

1.5B Constructing Entity:

Either the Transmission Owner or the New Services Customer, depending on which entity has the construction responsibility pursuant to Part VI and the applicable Construction Service Agreement; this term shall also be used to refer to an Interconnection Customer with respect to the construction of the Customer Interconnection Facilities.

1.5C Construction Party:

A party to a Construction Service Agreement. "Construction Parties" shall mean all of the Parties to a Construction Service Agreement.

1.5D Construction Service Agreement:

Either an Interconnection Construction Service Agreement or an Upgrade Construction Service Agreement.

1.6 Control Area:

An electric power system or combination of electric power systems to which a common automatic generation control scheme is applied in order to:

(1) match, at all times, the power output of the generators within the electric power system(s) and capacity and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s);

(2) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice;

(3) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice; and

(4) provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.

1.6A Control Zone:

Shall have the meaning given in the Operating Agreement.

1.6B Controllable A.C. Merchant Transmission Facilities:

Transmission facilities that (1) employ technology which Transmission Provider reviews and verifies will permit control of the amount and/or direction of power flow on such facilities to such extent as to effectively enable the controllable facilities to be operated as if they were direct current transmission facilities, and (2) that are interconnected with the Transmission System pursuant to Part IV and Part VI of the Tariff.

1.6C Costs:

As used in Part IV, Part VI and related attachments to the Tariff, costs and expenses, as estimated or calculated, as applicable, including, but not limited to, capital expenditures, if applicable, and overhead, return, and the costs of financing and taxes and any Incidental Expenses.

1.6D Counterparty:

PJMSettlement as the contracting party, in its name and own right and not as an agent, to an agreement or transaction with a market participant or other customer.

1.7 Curtailment:

A reduction in firm or non-firm transmission service in response to a transfer capability shortage as a result of system reliability conditions.

1.7A Customer Facility:

Generation facilities or Merchant Transmission Facilities interconnected with or added to the Transmission System pursuant to an Interconnection Request under Subparts A of Part IV of the Tariff.

1.7A.01 Customer-Funded Upgrade:

Any Network Upgrade, Local Upgrade, or Merchant Network Upgrade for which cost responsibility (i) is imposed on an Interconnection Customer or an Eligible Customer pursuant to Section 217 of the Tariff, or (ii) is voluntarily undertaken by a market participant in fulfillment of an Upgrade Request pursuant to Section 7.8 of Schedule 1 of the Operating Agreement. No Network Upgrade, Local Upgrade or Merchant Network Upgrade or other transmission expansion or enhancement shall be a Customer-Funded Upgrade if and to the extent that the costs thereof are included in the rate base of a public utility on which a regulated return is earned.

1.7A.02 Customer Interconnection Facilities:

All facilities and equipment owned and/or controlled, operated and maintained by Interconnection Customer on Interconnection Customer's side of the Point of Interconnection identified in the appropriate appendices to the Interconnection Service Agreement and to the Interconnection Construction Service Agreement, including any modifications, additions, or upgrades made to such facilities and equipment, that are necessary to physically and electrically interconnect the Customer Facility with the Transmission System.

1.7B Daily Capacity Deficiency Rate

Daily Capacity Deficiency Rate is as defined in Schedule 11 of the Reliability Assurance Agreement.

1.7C Deactivation:

The retirement or mothballing of a generating unit governed by Part V of this Tariff.

1.7D Deactivation Avoidable Cost Credit:

The credit paid to Generation Owners pursuant to section 114 of this Tariff.

1.7E Deactivation Avoidable Cost Rate:

The formula rate established pursuant to section 115 of this Tariff.

1.7F Deactivation Date:

The date a generating unit within the PJM Region is either retired or mothballed and ceases to operate.

1.7G Default:

As used in the Interconnection Service Agreement and Construction Service Agreement, the failure of a Breaching Party to cure its Breach in accordance with the applicable provisions of an Interconnection Service Agreement or Construction Service Agreement.

1.8 Delivering Party:

The entity supplying capacity and energy to be transmitted at Point(s) of Receipt.

1.9 Designated Agent:

Any entity that performs actions or functions on behalf of the Transmission Provider, a Transmission Owner, an Eligible Customer, or the Transmission Customer required under the Tariff.

1.9A Designated Entity:

“Designated Entity” shall have the same meaning provided in the Operating Agreement.

1.10 Direct Assignment Facilities:

Facilities or portions of facilities that are constructed for the sole use/benefit of a particular Transmission Customer requesting service under the Tariff. Direct Assignment Facilities shall be specified in the Service Agreement that governs service to the Transmission Customer and shall be subject to Commission approval.

Definitions – I – J - K

1.14A IDR Transfer Agreement:

An agreement to transfer, subject to the terms of Section 49B of the Tariff, Incremental Deliverability Rights to a party for the purpose of eliminating or reducing the need for Local or Network Upgrades that would otherwise have been the responsibility of the party receiving such rights.

1.14A.001 Immediate-need Reliability Project:

“Immediate-need Reliability Project” shall have the same meaning provided in the Operating Agreement.

1.14A.01 Incidental Expenses:

Shall mean those expenses incidental to the performance of construction pursuant to an Interconnection Construction Service Agreement, including, but not limited to, the expense of temporary construction power, telecommunications charges, Interconnected Transmission Owner expenses associated with, but not limited to, document preparation, design review, installation, monitoring, and construction-related operations and maintenance for the Customer Facility and for the Interconnection Facilities.

1.14B Incremental Auction Revenue Rights:

The additional Auction Revenue Rights (as defined in Section 1.3.1A of Schedule 1 of the Operating Agreement), not previously feasible, created by the addition of Incremental Rights-Eligible Required Transmission Enhancements, Merchant Transmission Facilities, or of one or more Customer-Funded Upgrades.

1.14B.01 Incremental Rights-Eligible Required Transmission Enhancements:

Regional Facilities and Necessary Lower Voltage Facilities or Lower Voltage Facilities (as defined in Schedule 12 of the Tariff) and meet one of the following criteria: (1) cost responsibility is assigned to non-contiguous Zones that are not directly electrically connected; or (2) cost responsibility is assigned to Merchant Transmission Providers that are Responsible Customers.

1.14C Incremental Available Transfer Capability Revenue Rights:

The rights to revenues that are derived from incremental Available Transfer Capability created by the addition of Merchant Transmission Facilities or of one or more Customer-Funded Upgrades.

1.14D Incremental Deliverability Rights (IDRs):

The rights to the incremental ability, resulting from the addition of Merchant Transmission Facilities, to inject energy and capacity at a point on the Transmission System, such that the injection satisfies the deliverability requirements of a Capacity Resource. Incremental Deliverability Rights may be obtained by a generator or a Generation Interconnection Customer, pursuant to an IDR Transfer Agreement, to satisfy, in part, the deliverability requirements necessary to obtain Capacity Interconnection Rights.

1.14Da Initial Operation:

The commencement of operation of the Customer Facility and Customer Interconnection Facilities after satisfaction of the conditions of Section 1.4 of Appendix 2 of an Interconnection Service Agreement.

1.14Db Initial Study:

A study of a Completed Application conducted by the Transmission Provider (in coordination with the affected Transmission Owner(s)) in accordance with Section 19 or Section 32 of the Tariff.

1.14Dc Interconnected Entity:

Either the Interconnection Customer or the Interconnected Transmission Owner; Interconnected Entities shall mean both of them.

1.14D.01 Interconnected Transmission Owner:

The Transmission Owner to whose transmission facilities or distribution facilities Customer Interconnection Facilities are, or as the case may be, a Customer Facility is, being directly connected. When used in an Interconnection Construction Service Agreement, the term may refer to a Transmission Owner whose facilities must be upgraded pursuant to the Facilities Study, but whose facilities are not directly interconnected with those of the Interconnection Customer.

1.14D.02 Interconnection Construction Service Agreement:

The agreement entered into by an Interconnection Customer, Interconnected Transmission Owner and the Transmission Provider pursuant to Subpart B of Part VI of the Tariff and in the form set forth in Attachment P of the Tariff, relating to construction of Attachment Facilities, Network Upgrades, and/or Local Upgrades and coordination of the construction and interconnection of an associated Customer Facility. A separate Interconnection Construction Service Agreement will be executed with each Transmission Owner that is responsible for construction of any Attachment Facilities, Network Upgrades, or Local Upgrades associated with interconnection of a Customer Facility.

1.14E Interconnection Customer:

A Generation Interconnection Customer and/or a Transmission Interconnection Customer.

1.14F Interconnection Facilities:

The Transmission Owner Interconnection Facilities and the Customer Interconnection Facilities.

1.14G Interconnection Feasibility Study:

Either a Generation Interconnection Feasibility Study or Transmission Interconnection Feasibility Study.

1.14G.01 Interconnection Party:

Transmission Provider, Interconnection Customer, or the Interconnected Transmission Owner. Interconnection Parties shall mean all of them.

1.14H Interconnection Request:

A Generation Interconnection Request, a Transmission Interconnection Request and/or an IDR Transfer Agreement.

1.14H.01 Interconnection Service:

The physical and electrical interconnection of the Customer Facility with the Transmission System pursuant to the terms of Part IV and Part VI and the Interconnection Service Agreement entered into pursuant thereto by Interconnection Customer, the Interconnected Transmission Owner and Transmission Provider.

1.14I Interconnection Service Agreement:

An agreement among the Transmission Provider, an Interconnection Customer and an Interconnected Transmission Owner regarding interconnection under Part IV and Part VI of the Tariff.

1.14J Interconnection Studies:

The Interconnection Feasibility Study, the System Impact Study, and the Facilities Study described in Part IV and Part VI of the Tariff.

1.15 Interruption:

A reduction in non-firm transmission service due to economic reasons pursuant to Section 14.7.

Definitions – L – M - N

1.15A List of Approved Contractors:

A list developed by each Transmission Owner and published in a PJM Manual of (a) contractors that the Transmission Owner considers to be qualified to install or construct new facilities and/or upgrades or modifications to existing facilities on the Transmission Owner's system, provided that such contractors may include, but need not be limited to, contractors that, in addition to providing construction services, also provide design and/or other construction-related services, and (b) manufacturers or vendors of major transmission-related equipment (e.g., high-voltage transformers, transmission line, circuit breakers) whose products the Transmission Owner considers acceptable for installation and use on its system.

1.16 Load Ratio Share:

Ratio of a Transmission Customer's Network Load to the Transmission Provider's total load.

1.17 Load Shedding:

The systematic reduction of system demand by temporarily decreasing load in response to transmission system or area capacity shortages, system instability, or voltage control considerations under Part II or Part III of the Tariff.

1.17A Local Upgrades:

Modifications or additions of facilities to abate any local thermal loading, voltage, short circuit, stability or similar engineering problem caused by the interconnection and delivery of generation to the Transmission System. Local Upgrades shall include:

(i) Direct Connection Local Upgrades which are Local Upgrades that only serve the Customer Interconnection Facility and have no impact or potential impact on the Transmission System until the final tie-in is complete; and

(ii) Non-Direct Connection Local Upgrades which are parallel flow Local Upgrades that are not Direct Connection Local Upgrades.

1.17B Long-lead Project:

"Long-lead Project" shall have the same meaning provided in the Operating Agreement.

1.18 Long-Term Firm Point-To-Point Transmission Service:

Firm Point-To-Point Transmission Service under Part II of the Tariff with a term of one year or more.

1.18A [RESERVED]

1.18A.01 [RESERVED]

1.18A.02 Material Modification:

Any modification to an Interconnection Request that has a material adverse effect on the cost or timing of Interconnection Studies related to, or any Network Upgrades or Local Upgrades needed to accommodate, any Interconnection Request with a later Queue Position.

1.18A.03 Maximum Facility Output:

The maximum (not nominal) net electrical power output in megawatts, specified in the Interconnection Service Agreement, after supply of any parasitic or host facility loads, that a Generation Interconnection Customer's Customer Facility is expected to produce, provided that the specified Maximum Facility Output shall not exceed the output of the proposed Customer Facility that Transmission Provider utilized in the System Impact Study.

1.18B Merchant A.C. Transmission Facilities:

Merchant Transmission Facilities that are alternating current (A.C.) transmission facilities, other than those that are Controllable A.C. Merchant Transmission Facilities.

1.18C Merchant D.C. Transmission Facilities:

Direct current (D.C.) transmission facilities that are interconnected with the Transmission System pursuant to Part IV and Part VI of the Tariff.

1.18D Merchant Network Upgrades:

Merchant A.C. Transmission Facilities that are additions to, or modifications or replacements of, physical facilities of the Interconnected Transmission Owner that, on the date of the pertinent Transmission Interconnection Customer's Interconnection Request, are part of the Transmission System or are included in the Regional Transmission Expansion Plan.

1.18E Merchant Transmission Facilities:

A.C. or D.C. transmission facilities that are interconnected with or added to the Transmission System pursuant to Part IV and Part VI of the Tariff and that are so identified on Attachment T to the Tariff, provided, however, that Merchant Transmission Facilities shall not include (i) any Customer Interconnection Facilities, (ii) any physical facilities of the Transmission System that were in existence on or before March 20, 2003 ; (iii) any expansions or enhancements of the Transmission System that are not identified as Merchant Transmission Facilities in the Regional Transmission Expansion Plan and Attachment T to the Tariff, or (iv) any transmission facilities that are included in the rate base of a public utility and on which a regulated return is earned.

1.18F Merchant Transmission Provider:

An Interconnection Customer that (1) owns, controls, or controls the rights to use the transmission capability of, Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that connect the Transmission System with another control area, (2) has elected to receive Transmission Injection Rights and Transmission Withdrawal Rights associated with such facility pursuant to Section 36 of the Tariff, and (3) makes (or will make) the transmission capability of such facilities available for use by third parties under terms and conditions approved by the Commission and stated in the Tariff, consistent with Section 38 below.

1.18G Metering Equipment:

All metering equipment installed at the metering points designated in the appropriate appendix to an Interconnection Service Agreement.

1.19 Native Load Customers:

The wholesale and retail power customers of a Transmission Owner on whose behalf the Transmission Owner, by statute, franchise, regulatory requirement, or contract, has undertaken an obligation to construct and operate the Transmission Owner's system to meet the reliable electric needs of such customers.

1.19A NERC:

The North American Electric Reliability Council or any successor thereto.

1.19B Neutral Party

Shall have the meaning provided in Section 9.3(v).

1.20 Network Customer:

An entity receiving transmission service pursuant to the terms of the Transmission Provider's Network Integration Transmission Service under Part III of the Tariff.

1.21 Network Integration Transmission Service:

The transmission service provided under Part III of the Tariff.

1.22 Network Load:

The load that a Network Customer designates for Network Integration Transmission Service under Part III of the Tariff. The Network Customer's Network Load shall include all load (including losses) served by the output of any Network Resources designated by the Network Customer. A Network Customer may elect to designate less than its total load as Network Load but may not designate only part of the load at a discrete Point of Delivery. Where an Eligible

Customer has elected not to designate a particular load at discrete points of delivery as Network Load, the Eligible Customer is responsible for making separate arrangements under Part II of the Tariff for any Point-To-Point Transmission Service that may be necessary for such non-designated load.

1.23 Network Operating Agreement:

An executed agreement that contains the terms and conditions under which the Network Customer shall operate its facilities and the technical and operational matters associated with the implementation of Network Integration Transmission Service under Part III of the Tariff.

1.24 Network Operating Committee:

A group made up of representatives from the Network Customer(s) and the Transmission Provider established to coordinate operating criteria and other technical considerations required for implementation of Network Integration Transmission Service under Part III of this Tariff.

1.25 Network Resource:

Any designated generating resource owned, purchased, or leased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis, except for purposes of fulfilling obligations under a reserve sharing program.

1.26 Network Upgrades:

Modifications or additions to transmission-related facilities that are integrated with and support the Transmission Provider's overall Transmission System for the general benefit of all users of such Transmission System. Network Upgrades shall include:

(i) **Direct Connection Network Upgrades** which are Network Upgrades that only serve the Customer Interconnection Facility and have no impact or potential impact on the Transmission System until the final tie-in is complete; and

(ii) **Non-Direct Connection Network Upgrades** which are parallel flow Network Upgrades that are not Direct Connection Network Upgrades.

1.26A New PJM Zone(s):

The Zone included in this Tariff, along with applicable Schedules and Attachments, for Commonwealth Edison Company, The Dayton Power and Light Company and the AEP East Operating Companies (Appalachian Power Company, Columbus Southern Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company and Wheeling Power Company).

1.26B New Service Customers:

All customers that submit an Interconnection Request, a Completed Application, or an Upgrade Request that is pending in the New Services Queue.

1.26C New Service Request:

An Interconnection Request, a Completed Application, or an Upgrade Request.

1.26D New Services Queue:

All Interconnection Requests, Completed Applications, and Upgrade Requests that are received within each three-month period ending on January 31, April 30, July 31, and October 31 of each year shall collectively comprise a New Services Queue.

1.26E New Services Queue Closing Date:

Each January 31, April 30, July 31, and October 31 shall be the Queue Closing Date for the New Services Queue comprised of Interconnection Requests, Completed Applications, and Upgrade Requests received during the three-month period ending on such date.

1.26F Nominal Rated Capability:

The nominal maximum rated capability in megawatts of a Transmission Interconnection Customer's Customer Facility or the nominal increase in transmission capability in megawatts of the Transmission System resulting from the interconnection or addition of a Transmission Interconnection Customer's Customer Facility, as determined in accordance with pertinent Applicable Standards and specified in the Interconnection Service Agreement.

1.27 Non-Firm Point-To-Point Transmission Service:

Point-To-Point Transmission Service under the Tariff that is reserved and scheduled on an as-available basis and is subject to Curtailment or Interruption as set forth in Section 14.7 under Part II of this Tariff. Non-Firm Point-To-Point Transmission Service is available on a stand-alone basis for periods ranging from one hour to one month.

1.27.01 Non-Firm Sale:

An energy sale for which receipt or delivery may be interrupted for any reason or no reason, without liability on the part of either the buyer or seller.

1.27A Non-Firm Transmission Withdrawal Rights:

The rights to schedule energy withdrawals from a specified point on the Transmission System. Non-Firm Transmission Withdrawal Rights may be awarded only to a Merchant D.C. Transmission Facility that connects the Transmission System to another control area.

Withdrawals scheduled using Non-Firm Transmission Withdrawal Rights have rights similar to those under Non-Firm Point-to-Point Transmission Service.

1.27AA Non-Retail Behind The Meter Generation:

Behind the Meter Generation that is used by municipal electric systems, electric cooperatives, or electric distribution companies to serve load.

1.27B Non-Zone Network Load:

Network Load that is located outside of the PJM Region.

Definitions – O – P - Q

1.27C Office of the Interconnection:

Office of the Interconnection shall have the meaning set forth in the Operating Agreement.

1.28 Open Access Same-Time Information System (OASIS):

The information system and standards of conduct contained in Part 37 and Part 38 of the Commission's regulations and all additional requirements implemented by subsequent Commission orders dealing with OASIS.

1.28A Operating Agreement of the PJM Interconnection, L.L.C. or Operating Agreement:

That agreement dated as of April 1, 1997 and as amended and restated as of June 2, 1997 and as amended from time to time thereafter, among the members of the PJM Interconnection, L.L.C.

1.28A.01 Option to Build:

The option of the New Service Customer to build certain Customer-Funded Upgrades, as set forth in, and subject to the terms of, the Construction Service Agreement.

1.28B Optional Interconnection Study:

A sensitivity analysis of an Interconnection Request based on assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement.

1.28C Optional Interconnection Study Agreement:

The form of agreement for preparation of an Optional Interconnection Study, as set forth in Attachment N-3 of the Tariff.

1.29 Part I:

Tariff Definitions and Common Service Provisions contained in Sections 2 through 12.

1.30 Part II:

Tariff Sections 13 through 27 pertaining to Point-To-Point Transmission Service in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments.

1.31 Part III:

Tariff Sections 28 through 35 pertaining to Network Integration Transmission Service in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments.

1.31A Part IV:

Tariff Sections 36 through 112 pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments.

1.31B Part V:

Tariff Sections 113 through 122 pertaining to the deactivation of generating units in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments.

1.31C Part VI:

Tariff Sections 200 through 237 pertaining to the queuing, study, and agreements relating to New Service Requests, and the rights associated with Customer-Funded Upgrades in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments.

1.32 Parties:

The Transmission Provider, as administrator of the Tariff, and the Transmission Customer receiving service under the Tariff. PJMSettlement shall be the Counterparty to Transmission Customers.

1.32.01 PJM:

PJM Interconnection, L.L.C.

1.32A PJM Administrative Service:

The services provided by PJM pursuant to Schedule 9 of this Tariff.

1.32B PJM Control Area:

The Control Area that is recognized by NERC as the PJM Control Area.

1.32C PJM Interchange Energy Market:

The regional competitive market administered by the Transmission Provider for the purchase and sale of spot electric energy at wholesale interstate commerce and related services, as more fully set forth in Attachment K – Appendix to the Tariff and Schedule 1 to the Operating Agreement.

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:

The entity that is purchasing the capacity and energy to be transmitted under the Tariff.

1.36.01 PRD Curve

PRD Curve shall have the meaning provided in the Reliability Assurance Agreement.

1.36.02 PRD Provider

PRD Provider shall have the meaning provided in the Reliability Assurance Agreement.

1.36.03 PRD Reservation Price

PRD Reservation Price shall have the meaning provided in the Reliability Assurance Agreement.

1.36.04 PRD Substation:

PRD Substation shall have the meaning provided in the Reliability Assurance Agreement.

1.36.05 Pre-Confirmed Application:

An Application that commits the Eligible Customer to execute a Service Agreement upon receipt of notification that the Transmission Provider can provide the requested Transmission Service.

1.36A Pre-Expansion PJM Zones:

Zones included in this Tariff, along with applicable Schedules and Attachments, for certain Transmission Owners – Atlantic City Electric Company, Baltimore Gas and Electric Company, Delmarva Power and Light Company, Jersey Central Power and Light Company, Metropolitan Edison Company, PECO Energy Company, Pennsylvania Electric Company, Pennsylvania Power & Light Group, Potomac Electric Power Company, Public Service Electric and Gas Company, Allegheny Power, and Rockland Electric Company.

1.36A.01 Price Responsive Demand

Price Responsive Demand shall have the meaning provided in the Reliability Assurance Agreement.

1.36A.02 Project Financing:

Shall mean: (a) one or more loans, leases, equity and/or debt financings, together with all modifications, renewals, supplements, substitutions and replacements thereof, the proceeds of which are used to finance or refinance the costs of the Customer Facility, any alteration, expansion or improvement to the Customer Facility, the purchase and sale of the Customer Facility or the operation of the Customer Facility; (b) a power purchase agreement pursuant to

which Interconnection Customer's obligations are secured by a mortgage or other lien on the Customer Facility; or (c) loans and/or debt issues secured by the Customer Facility.

1.36A.03 Project Finance Entity:

Shall mean: (a) a holder, trustee or agent for holders, of any component of Project Financing; or (b) any purchaser of capacity and/or energy produced by the Customer Facility to which Interconnection Customer has granted a mortgage or other lien as security for some or all of Interconnection Customer's obligations under the corresponding power purchase agreement.

1.36A.04 Public Policy Objectives:

"Public Policy Objectives" shall have the same meaning provided in the Operating Agreement.

1.36A.05 Public Policy Requirements:

"Public Policy Requirements" shall have the same meaning provided in the Operating Agreement.

1.36B Queue Position:

The priority assigned to an Interconnection Request, a Completed Application, or an Upgrade Request pursuant to applicable provisions of Part VI.

Definitions – R - S

1.36C Reasonable Efforts:

With respect to any action required to be made, attempted, or taken by an Interconnection Party or by a Construction Party under Part IV or Part VI of the Tariff, an Interconnection Service Agreement, or a Construction Service Agreement, such efforts as are timely and consistent with Good Utility Practice and with efforts that such party would undertake for the protection of its own interests.

1.37 Receiving Party:

The entity receiving the capacity and energy transmitted by the Transmission Provider to Point(s) of Delivery.

1.37A.01 Regional Entity

Shall have the same meaning specified in the Operating Agreement.

1.37A Regional Transmission Expansion Plan:

The plan prepared by the Office of the Interconnection pursuant to Schedule 6 of the Operating Agreement for the enhancement and expansion of the Transmission System in order to meet the demands for firm transmission service in the PJM Region.

1.38 Regional Transmission Group (RTG):

A voluntary organization of transmission owners, transmission users and other entities approved by the Commission to efficiently coordinate transmission planning (and expansion), operation and use on a regional (and interregional) basis.

1.38.01 Regulation Zone:

Any of those one or more geographic areas, each consisting of a combination of one or more Control Zone(s) as designated by the Office of the Interconnection in the PJM Manuals, relevant to provision of, and requirements for, regulation service.

1.38.01A Relevant Electric Retail Regulatory Authority:

An entity that has jurisdiction over and establishes prices and policies for competition for providers of retail electric service to end-customers, such as the city council for a municipal utility, the governing board of a cooperative utility, the state public utility commission or any other such entity.

1.38A Reliability Assurance Agreement:

The Reliability Assurance Agreement Among Load Serving Entities in the PJM Region, Rate Schedule No. 44, dated as of May 28, 2009, and as amended from time to time thereafter.

1.38B [RESERVED]

1.38C Required Transmission Enhancements:

Enhancements and expansions of the Transmission System that (1) a Regional Transmission Expansion Plan developed pursuant to Schedule 6 of the Operating Agreement or (2) the Coordinated System Plan periodically developed pursuant to the Joint Operating Agreement Between the Midwest Independent Transmission System Operator, Inc. and PJM Interconnection, L.L.C. designates one or more of the Transmission Owner(s) or the transmission owners within the Midwest Independent System Operator to construct and own or finance.

1.38C.01 Reserve Sub-zone:

Any of those geographic areas wholly contained within a Reserve Zone, consisting of a combination of a portion of one or more Control Zone(s) as designated by the Office of the Interconnection in the PJM Manuals, relevant to provision of, and requirements for, reserve service.

1.38D Reserve Zone:

Any of those geographic areas consisting of a combination of one or more Control Zone(s), as designated by the Office of the Interconnection in the PJM Manuals, relevant to provision of, and requirements for, reserve service.

1.39 Reserved Capacity:

The maximum amount of capacity and energy that the Transmission Provider agrees to transmit for the Transmission Customer over the Transmission Provider's Transmission System between the Point(s) of Receipt and the Point(s) of Delivery under Part II of the Tariff. Reserved Capacity shall be expressed in terms of whole megawatts on a sixty (60) minute interval (commencing on the clock hour) basis.

1.39A Schedule of Work:

Shall mean that schedule attached to the Interconnection Construction Service Agreement setting forth the timing of work to be performed by the Constructing Entity pursuant to the Interconnection Construction Service Agreement, based upon the Facilities Study and subject to modification, as required, in accordance with Transmission Provider's scope change process for interconnection projects set forth in the PJM Manuals.

1.39B Scope of Work:

Shall mean that scope of the work attached as a schedule to the Interconnection Construction Service Agreement and to be performed by the Constructing Entity(ies) pursuant to the Interconnection Construction Service Agreement, provided that such Scope of Work may be modified, as required, in accordance with Transmission Provider's scope change process for interconnection projects set forth in the PJM Manuals.

1.39C Secondary Systems:

Control or power circuits that operate below 600 volts, AC or DC, including, but not limited to, any hardware, control or protective devices, cables, conductors, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers.

1.39D Security:

The security provided by the New Service Customer pursuant to Section 212.4 or Section 213.4 of the Tariff to secure the New Service Customer's responsibility for Costs under the Interconnection Service Agreement or Upgrade Construction Service Agreement and Section 217 of the Tariff.

1.40 Service Agreement:

The initial agreement and any amendments or supplements thereto entered into by the Transmission Customer and the Transmission Provider for service under the Tariff.

1.41 Service Commencement Date:

The date the Transmission Provider begins to provide service pursuant to the terms of an executed Service Agreement, or the date the Transmission Provider begins to provide service in accordance with Section 15.3 or Section 29.1 under the Tariff.

1.42 Short-Term Firm Point-To-Point Transmission Service:

Firm Point-To-Point Transmission Service under Part II of the Tariff with a term of less than one year.

1.42.001 Short-term Project:

"Short-term Project" shall have the same meaning provided in the Operating Agreement.

1.42a Site:

All of the real property, including but not limited to any leased real property and easements, on which the Customer Facility is situated and/or on which the Customer Interconnection Facilities are to be located.

1.42.01 Small Inverter Facility:

An Energy Resource that is a certified small inverter-based facility no larger than 10 kW.

1.42.02 Small Inverter ISA:

An agreement among Transmission Provider, Interconnection Customer, and Interconnected Transmission Owner regarding interconnection of a Small Inverter Facility under section 112B of Part IV of the Tariff.

1.42A [RESERVED]

1.42B [RESERVED]

1.42C [RESERVED]

1.42D State:

The term “state” shall mean a state of the United States or the District of Columbia.

1.42D.01 Switching and Tagging Rules:

The switching and tagging procedures of Interconnected Transmission Owners and Interconnection Customer as they may be amended from time to time.

1.42E [RESERVED]

1.42F System Condition:

A specified condition on the Transmission Provider’s system or on a neighboring system, such as a constrained transmission element or flowgate, that may trigger Curtailment of Long-Term Firm Point-to-Point Transmission Service using the curtailment priority pursuant to Section 13.6. Such conditions must be identified in the Transmission Customer’s Service Agreement.

1.43 System Impact Study:

An assessment by the Transmission Provider of (i) the adequacy of the Transmission System to accommodate a Completed Application, an Interconnection Request or an Upgrade Request, (ii) whether any additional costs may be incurred in order to provide such transmission service or to accommodate an Interconnection Request, and (iii) with respect to an Interconnection Request, an estimated date that an Interconnection Customer’s Customer Facility can be interconnected with the Transmission System and an estimate of the Interconnection Customer’s cost responsibility for the interconnection; and (iv) with respect to an Upgrade Request, the estimated cost of the requested system upgrades or expansion, or of the cost of the system upgrades or expansion, necessary to provide the requested incremental rights.

1.43.01 System Protection Facilities:

The equipment required to protect (i) the Transmission System, other delivery systems and/or other generating systems connected to the Transmission System from faults or other electrical disturbance occurring at or on the Customer Facility, and (ii) the Customer Facility from faults or other electrical system disturbance occurring on the Transmission System or on other delivery systems and/or other generating systems to which the Transmission System is directly or indirectly connected. System Protection Facilities shall include such protective and regulating devices as are identified in the Applicable Technical Requirements and Standards or that are required by Applicable Laws and Regulations or other Applicable Standards, or as are otherwise necessary to protect personnel and equipment and to minimize deleterious effects to the Transmission System arising from the Customer Facility.

Section(s) of the
PJM Operating Agreement
(Marked / Redline Format)

Definitions C - D

1.6 Capacity Resource.

“Capacity Resource” have the meaning provided in the Reliability Assurance Agreement.

1.6A Consolidated Transmission Owners Agreement.

“Consolidated Transmission Owners Agreement” dated as of December 15, 2005, by and among the Transmission Owners and by and between the Transmission Owners and PJM Interconnection, L.L.C.

1.7 Control Area.

“Control Area” shall mean an electric power system or combination of electric power systems bounded by interconnection metering and telemetry to which a common automatic generation control scheme is applied in order to:

- (a) match the power output of the generators within the electric power system(s) and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s);
- (b) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice;
- (c) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice and the criteria of NERC and each Applicable Regional Entity;
- (d) maintain power flows on transmission facilities within appropriate limits to preserve reliability; and
- (e) provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.

1.7.01 Control Zone.

“Control Zone” shall mean one Zone or multiple contiguous Zones, as designated in the PJM Manuals.

1.7.01a Counterparty.

“Counterparty” shall mean PJMSettlement as the contracting party, in its name and own right and not as an agent, to an agreement or transaction with Market Participants or other entities, including the agreements and transactions with customers regarding transmission service and other transactions under the PJM Tariff and this Operating Agreement. PJMSettlement shall not be a counterparty to (i)

any bilateral transactions between Market Participants, or (ii) with respect to self-supplied or self-scheduled transactions reported to the Office of the Interconnection.

1.7.02 Default Allocation Assessment.

“Default Allocation Assessment” shall mean the assessment determined pursuant to section 15.2.2 of this Agreement.

1.7.03 Demand Resource.

“Demand Resource” shall have the meaning provided in the Reliability Assurance Agreement.

1.7A Designated Entity.

The entity designated by the Office of the Interconnection with the responsibility to construct, own, operate, maintain, and finance Immediate-need Reliability Projects, Short-term Projects, and Long-lead Projects pursuant to Section 1.5.8 of Schedule 6 of this Agreement.

~~[Reserved].~~

1.7B [Reserved].

Definitions I - L

1.15A Immediate-need Reliability Project.

A reliability-based transmission enhancement or expansion: (i) with an in-service date of three years or less from the year the Office of the Interconnection identified the existing or projected limitations on the Transmission System that gave rise to the need for such enhancement or expansion pursuant to the study process described in section 1.5.3 of this Schedule 6; or (ii) for which the Office of the Interconnection determines that an expedited designation is required to address existing and projected limitations on the Transmission System due to immediacy of the reliability need in light of the projected time to complete the enhancement or expansion. In determining whether an expedited designation is required, the Office of the Interconnection shall consider time-based factors such as, but not limited to, the time necessary: (i) to obtain regulatory approvals; (ii) to acquire long lead equipment; (iii) to meet construction schedules; (iv) to complete engineering plans; and (v) for other time-based factors impacting the feasibility of achieving the required in-service date.

1.16 Information Request.

“Information Request” shall mean a written request, in accordance with the terms of this Agreement for disclosure of confidential information pursuant to Section 18.17.4 of this Agreement.

1.16A Interruptible Load for Reliability.

“Interruptible Load for Reliability” or “ILR” shall have the meaning specified in the Reliability Assurance Agreement.

1.17 LLC.

“LLC” shall mean PJM Interconnection, L.L.C., a Delaware limited liability company.

1.18 Load Serving Entity.

“Load Serving Entity” shall mean an entity, including a load aggregator or power marketer, (1) serving end-users within the PJM Region, and (2) that has been granted the authority or has an obligation pursuant to state or local law, regulation or franchise to sell electric energy to end-users located within the PJM Region, or the duly designated agent of such an entity.

1.18A Local Plan.

“Local Plan” shall mean the plan as developed by the Transmission Owners. The Local Plan shall include, at a minimum, the Subregional RTEP Projects and Supplemental Projects as identified by the Transmission Owners within their zone. The Local Plan will include those projects that are developed to comply with the Transmission Owner planning criteria.

1.19 Locational Marginal Price.

“Locational Marginal Price” or “LMP” shall mean the hourly integrated market clearing marginal price for energy at the location the energy is delivered or received, calculated as specified in Section 2 of Schedule 1 of this Agreement.

1.19A Long-lead Project.

A transmission enhancement or expansion with an in-service date more than five years from the year in which, pursuant to section 1.5.8(c) of this Schedule 6, the Office of the Interconnection posts the violations, system conditions, economic constraints, and Public Policy Requirements to be addressed by the enhancement or expansion.

Definitions S – T

1.40C SERC.

“SERC” or “Southeastern Electric Reliability Council” shall mean the reliability council under section 202 of the Federal Power Act established pursuant to the SERC Agreement dated January 14, 1970, or any successor thereto.

1.41 Sector Votes.

“Sector Votes” shall mean the affirmative and negative votes of each sector of a Senior Standing Committee, as specified in Section 8.4.

1.41A Senior Standing Committees.

“Senior Standing Committees” shall mean the Members Committee, and the Markets, and Reliability Committee, as established in Sections 8.1 and 8.6.

1.41A.01 Short-term Project.

A transmission enhancement or expansion with an in-service date of more than three years but no more than five years from the year in which, pursuant to section 1.5.8(c) of this Schedule 6, the Office of the Interconnection posts the violations, system conditions, economic constraints, and Public Policy Requirements to be addressed by the enhancement or expansion.
~~[Reserved].~~

1.41A.02 [Reserved].

1.41A.03 [Reserved].

1.41B Standing Committees.

“Standing Committees” shall mean the Members Committee, the committees established and maintained under Section 8.6, and such other committees as the Members Committee may establish and maintain from time to time.

1.42 State.

“State” shall mean the District of Columbia and any State or Commonwealth of the United States.

1.42.01 State Certification.

“State Certification” shall mean the Certification of an Authorized Commission, pursuant to Section 18 of this Agreement, the form of which is appended to this Agreement as Schedule

10A, wherein the Authorized Commission identifies all Authorized Persons employed or retained by such Authorized Commission, a copy of which shall be filed with FERC.

1.42A State Consumer Advocate.

“State Consumer Advocate” shall mean a legislatively created office from any State, all or any part of the territory of which is within the PJM Region, and the District of Columbia established, inter alia, for the purpose of representing the interests of energy consumers before the utility regulatory commissions of such states and the District of Columbia and the FERC.

1.42A.01 Subregional RTEP Project.

“Subregional RTEP Project” shall mean a transmission expansion or enhancement rated below 230 kV which is required for compliance with the following PJM criteria: system reliability, operational performance or economic criteria, pursuant to a determination by the Office of the Interconnection.

1.42A.02 Supplemental Project.

“Supplemental Project” shall mean a Regional RTEP Project(s) or Subregional RTEP Project(s), which is not required for compliance with the following PJM criteria: System reliability, operational performance or economic criteria, pursuant to a determination by the Office of the Interconnection.

1.42B [Reserved].

1.43 System.

“System” shall mean the interconnected electric supply system of a Member and its interconnected subsidiaries exclusive of facilities which it may own or control outside of the PJM Region. Each Member may include in its system the electric supply systems of any party or parties other than Members which are within the PJM Region, provided its interconnection agreements with such other party or parties do not conflict with such inclusion.

1.43A Third Party Request.

“Third Party Request” shall mean any request or demand by any entity upon an Authorized Person or an Authorized Commission for release or disclosure of confidential information provided to the Authorized Person or Authorized Commission by the Office of the Interconnection or PJM Market Monitor. A Third Party Request shall include, but shall not be limited to, any subpoena, discovery request, or other request for confidential information made by any: (i) federal, state, or local governmental subdivision, department, official, agency or court, or (ii) arbitration panel, business, company, entity or individual.

1.44 Transmission Facilities.

“Transmission Facilities” shall mean facilities that: (i) are within the PJM Region; (ii) meet the definition of transmission facilities pursuant to FERC’s Uniform System of Accounts or have been classified as transmission facilities in a ruling by FERC addressing such facilities; and (iii) have been demonstrated to the satisfaction of the Office of the Interconnection to be integrated with the transmission system of the PJM Region and integrated into the planning and operation of such to serve all of the power and transmission customers within such region.

1.45 Transmission Owner.

“Transmission Owner” shall mean a Member that owns or leases with rights equivalent to ownership Transmission Facilities and is a signatory to the PJM Transmission Owners Agreement. Taking transmission service shall not be sufficient to qualify a Member as a Transmission Owner.

1.46 [Reserved.]

1.3 Establishment of Committees.

(a) The Planning Committee shall be open to participation by (i) all Transmission Customers, as that term is defined in the PJM Tariff, and applicants for transmission service; (ii) any other entity proposing to provide Transmission Facilities to be integrated into the PJM Region; (iii) all Members; (iv) the electric utility regulatory agencies within the States in the PJM Region and the State Consumer Advocates; and (v) any other interested entities or persons and shall provide technical advice and assistance to the Office of the Interconnection in all aspects of its regional planning functions. The Transmission Owners shall supply representatives to the Planning Committee, and other Members may provide representatives as they deem appropriate, to provide the data, information, and support necessary for the Office of the Interconnection to perform studies as required and to develop the Regional Transmission Expansion Plan.

(b) The Transmission Expansion Advisory Committee established by the Office of the Interconnection will meet periodically with representatives of the Office of the Interconnection to provide advice and recommendations to the Office of the Interconnection to aid in the development of the Regional Transmission Expansion Plan. The Transmission Expansion Advisory Committee participants shall be given an opportunity to provide advice and recommendations for consideration by the Office of the Interconnection regarding sensitivity studies, modeling assumption variations, scenario analyses, and Public Policy Objectives in the studies and analyses to be conducted by the Office of the Interconnection. The Transmission Expansion Advisory Committee participants shall be given the opportunity to review and provide advice and recommendations on the projects to be included in the Regional Transmission Expansion Plan. The Transmission Expansion Advisory Committee meetings shall include discussions addressing interregional planning issues, as required. The Transmission Expansion Advisory Committee shall be open to participation by: (i) all Transmission Customers, as that term is defined in the PJM Tariff, and applicants for transmission service; (ii) any other entity proposing to provide Transmission Facilities to be integrated into the PJM Region; (iii) all Members; (iv) the electric utility regulatory agencies within the States in the PJM Region, the Independent State Agencies Committee, and the State Consumer Advocates; and (v) any other interested entities or persons. The Transmission Expansion Advisory Committee shall be governed by the Transmission Expansion Advisory Committee rules and procedures set forth in the PJM Regional Planning Process Manual (PJM Manual M-14 series) and by the rules and procedures applicable to PJM committees.

(c) The Subregional RTEP Committees established by the Office of the Interconnection shall facilitate the development and review of the Subregional RTEP Projects. The Subregional RTEP Committees will be responsible for the initial review of the Subregional RTEP Projects, and to provide recommendations to the Transmission Expansion Advisory Committee concerning the Subregional RTEP Projects. A Subregional RTEP Committee may of its own accord or at the request of a Subregional RTEP Committee participant, also refer specific Subregional RTEP Projects to the

Transmission Expansion Advisory Committee for further review, advice and recommendations.

(d) The Subregional RTEP Committees shall be responsible for the timely review of each Transmission Owner's Local Plan. This review shall include, but is not limited to, the review of the criteria, assumptions and models used by the Transmission Owner to identify criteria violations and proposed solutions prior to finalizing the Local Plan, the coordination and integration of the Local Plans into the RTEP, and addressing any stakeholder issues unresolved in the Local Plan process. The Subregional RTEP Committees will be provided sufficient opportunity to review and provide written comments to the Transmission Owners on the criteria, assumptions, and models used in local planning activities prior to finalizing the Local Plan. The Subregional RTEP Committees meetings shall include discussions addressing interregional planning issues, as required. Once finalized, the Subregional RTEP Committees will be provided sufficient opportunity to review and provide written comments to the Transmission Owners on the Local Plans as integrated into the RTEP, prior to the submittal of the final Regional Transmission Expansion Plan to the PJM Board for approval.

(e) The Subregional RTEP Committees shall be open to participation by: (i) all Transmission Customers, as that term is defined in the PJM Tariff, and applicants for transmission service; (ii) any other entity proposing to provide Transmission Facilities to be integrated into the PJM Region; (iii) all Members; (iv) the electric utility regulatory agencies within the States in the PJM Region, the Independent State Agencies Committee, and the State Consumer Advocates and (v) any other interested entities or persons.

(f) Each Subregional RTEP Committee shall schedule and facilitate a minimum of one Subregional RTEP Committee meeting to review the criteria, assumptions and models used by the Transmission Owner to identify criteria violations. Each Subregional RTEP Committee shall schedule and facilitate an additional Subregional RTEP Committee meeting, per planning cycle, and as required to review the identified criteria violations and potential solutions ~~for each of the three PJM subregions—the Mid-Atlantic, West and South—per Planning Period, and as required.~~ The Subregional RTEP Committees may facilitate additional meetings to incorporate more localized areas ~~within the three subregions into~~ the subregional planning process. At the discretion of the Office of the Interconnection, a designated Transmission Owner may facilitate Subregional RTEP Committee meeting(s), or the additional meetings incorporating the more localized areas.

(g) The Subregional RTEP Committees shall be governed by the Transmission Expansion Advisory Committee rules and procedures set forth in the PJM Regional Planning Process Manual (Manual M-14 series) and by the rules and procedures applicable to PJM committees.

1.4 Contents of the Regional Transmission Expansion Plan.

- (a) The Regional Transmission Expansion Plan shall consolidate the transmission needs of the region into a single plan which is assessed on the bases of (i) maintaining the reliability of the PJM Region in an economic and environmentally acceptable manner, (ii) supporting competition in the PJM Region, (iii) striving to maintain and enhance the market efficiency and operational performance of wholesale electric service markets and (iv) considering federal and state Public Policy Requirements.
- (b) The Regional Transmission Expansion Plan shall reflect, consistent with the requirements of this Schedule 6, transmission enhancements and expansions; load forecasts; and capacity forecasts, including expected generation additions and retirements, demand response, and reductions in demand from energy efficiency and price responsive demand for at least the ensuing ten years.
- (c) The Regional Transmission Expansion Plan shall, ~~as at~~ a minimum, include a designation of the Transmission Owner ~~(s) or Owners~~ or other entity ~~(ies)~~ that will construct, own, maintain, operate, and/or finance each transmission enhancement and expansion and how all reasonably incurred costs are to be recovered.
- (d) The Regional Transmission Expansion Plan shall (i) avoid unnecessary duplication of facilities; (ii) avoid the imposition of unreasonable costs on any Transmission Owner or any user of Transmission Facilities; (iii) take into account the legal and contractual rights and obligations of the Transmission Owners; (iv) provide, if appropriate, alternative means for meeting transmission needs in the PJM Region; (v) provide for coordination with existing transmission systems and with appropriate interregional and local expansion plans; and (vi) strive for consistency in planning data and assumptions that may relieve transmission congestion across multiple regions.

1.5 Procedure for Development of the Regional Transmission Expansion Plan.

1.5.1 Commencement of the Process.

(a) The Office of the Interconnection shall initiate the enhancement and expansion study process if: (i) required as a result of a need for transfer capability identified by the Office of the Interconnection in its evaluation of requests for interconnection with the ~~T~~ransmission ~~S~~ystem or for firm transmission service with a term of one year or more; (ii) required to address a need identified by the Office of the Interconnection in its on-going evaluation of the ~~T~~ransmission ~~S~~ystem's market efficiency and operational performance; (iii) required as a result of the Office of the Interconnection's assessment of the ~~T~~ransmission ~~S~~ystem's compliance with NERC Reliability Standards, more stringent reliability criteria, if any, or PJM planning and operating criteria; (iv) required to address constraints or available transfer capability shortages, including, but not limited to, available transfer capability shortages that prevent the simultaneous feasibility of stage 1A Auction Revenue Rights allocated pursuant to Section 7.4.2(b) of Schedule 1 of this Agreement, constraints or shortages as a result of expected generation retirements, constraints or shortages based on an evaluation of load forecasts, or system reliability needs arising from proposals for the addition of Transmission Facilities in the PJM Region; or (v) expansion of the ~~T~~ransmission ~~S~~ystem is proposed by one or more Transmission Owners, Interconnection Customers, Network Service Users or Transmission Customers, or any party that funds Network Upgrades pursuant to Section 7.8 of Schedule 1 of this Agreement. The Office of the Interconnection may initiate the enhancement and expansion study process to address or consider, where appropriate, requirements or needs arising from sensitivity studies, modeling assumption variations, scenario analyses, and Public Policy Objectives.

(b) The Office of the Interconnection shall notify the Transmission Expansion Advisory Committee participants of, as well as publicly notice, the commencement of an enhancement and expansion study. The Transmission Expansion Advisory Committee participants shall notify the Office of the Interconnection in writing of any additional transmission considerations they would like to have included in the Office of the Interconnection's analyses.

1.5.2 Development of Scope, Assumptions and Procedures.

Once the need for an enhancement and expansion study has been established, the Office of the Interconnection shall consult with the Transmission Expansion Advisory Committee and the Subregional RTEP Committees, as appropriate, to prepare the study's scope, assumptions and procedures.

1.5.3 Scope of Studies.

In conducting the enhancement and expansion studies, the Office of the Interconnection shall not limit its analyses to bright line tests to identify and evaluate potential ~~T~~ransmission ~~S~~ystem limitations, violations of planning criteria, or transmission needs. In addition to the bright line tests, the Office of the Interconnection shall employ sensitivity studies, modeling assumption variations, and scenario analyses, and shall also consider Public Policy Objectives in the studies and analyses, so as to mitigate the possibility that bright line metrics may inappropriately include

or exclude transmission projects from the ~~long-term~~ transmission plan. Sensitivity studies, modeling assumption variations, and scenario analyses shall take account of potential changes in expected future system conditions, including, but not limited to, load levels, transfer levels, fuel costs, the level and type of generation, generation patterns (including, but not limited to, the effects of assumptions regarding generation that is at risk for retirement and new generation to satisfy Public Policy Objectives), demand response, and uncertainties arising from estimated times to construct transmission upgrades. *The Office of the Interconnection shall use the sensitivity studies, modeling assumption variations and scenario analyses in evaluating and choosing among alternative solutions to reliability, market efficiency and operational performance ~~transmission solutions~~needs.* The Office of the Interconnection shall provide the results of its studies and analyses to the Transmission Expansion Advisory Committee to consider the impact that sensitivities, assumptions, and scenarios may have on Transmission System needs and the need for transmission enhancements or expansions. Enhancement and expansion studies shall be completed by the Office of the Interconnection in collaboration with the affected Transmission Owners, as required. In general, enhancement and expansion studies shall include:

- (a) An identification of existing and projected limitations on the ~~T~~ransmission ~~S~~ystem's physical, economic and/or operational capability or performance, with accompanying simulations to identify the costs of controlling those limitations. Potential enhancements and expansions will be proposed to mitigate limitations controlled by non-economic means.
- (b) Evaluation and analysis of potential enhancements and expansions, including alternatives thereto, needed to mitigate such limitations.
- (c) Identification, evaluation and analysis of potential transmission expansions and enhancements, demand response programs, and other alternative technologies as appropriate to maintain system reliability.
- (d) Identification, evaluation and analysis of potential enhancements and expansions for the purposes of supporting competition, market efficiency, ~~and~~ operational performance, and Public Policy Requirements in the PJM Region.
- (e) Identification, evaluation and analysis of upgrades to support Incremental Auction Revenue Rights requested pursuant to Section 7.8 of Schedule 1 of this Agreement.
- (f) Identification, evaluation and analysis of upgrades to support all transmission customers, including native load and network service customers.
- (g) Engineering studies needed to determine the effectiveness and compliance of recommended enhancements and expansions, with the following PJM criteria: system reliability, operational performance, and market efficiency.
- (h) Identification, evaluation and analysis of potential enhancements and expansions designed to ensure that the Transmission System's capability can support the simultaneous feasibility of all stage 1A Auction Revenue Rights allocated pursuant to Section 7.4.2(b) of

Schedule 1 of this Agreement. Enhancements and expansions related to stage 1A Auction Revenue Rights identified pursuant to this ~~section~~ Section shall be recommended for inclusion in the Regional Transmission Expansion Plan together with a recommended in-service date based on the results of the ten (10) year stage 1A simultaneous feasibility analysis. Any such recommended enhancement or expansion under this Section 1.5.3(h) shall include, but shall not be limited to, the reason for the upgrade, the cost of the upgrade, the cost allocation identified pursuant to Section 1.5.6(~~k~~) of Schedule 6 of this Agreement and an analysis of the benefits of the enhancement or expansion, provided that any such upgrades will not be subject to a market efficiency cost/benefit analysis.

1.5.4 Supply of Data.

(a) The Transmission Owners shall provide to the Office of the Interconnection on an annual or periodic basis as specified by the Office of the Interconnection, any information and data reasonably required by the Office of the Interconnection to perform the Regional Transmission Expansion Plan, including but not limited to the following: (i) a description of the total load to be served from each substation; (ii) the amount of any interruptible loads included in the total load (including conditions under which an interruption can be implemented and any limitations on the duration and frequency of interruptions); (iii) a description of all generation resources to be located in the geographic region encompassed by the Transmission Owner's transmission facilities, including unit sizes, VAR capability, operating restrictions, and any must-run unit designations required for system reliability or contract reasons; the (iv) current Local Plan; and (v) all criteria, assumptions and models used in the current Local Plan. The data required under this Section shall be provided in the form and manner specified by the Office of the Interconnection.

(b) In addition to the foregoing, the Transmission Owners, those entities requesting transmission service and any other entities proposing to provide Transmission Facilities to be integrated into the PJM Region shall supply any other information and data reasonably required by the Office of the Interconnection to perform the enhancement and expansion study.

(c) The Office of the Interconnection also shall solicit from the Members, Transmission Customers and other interested parties, including but not limited to electric utility regulatory agencies within the States in the PJM Region, Independent State Agencies Committee, and the State Consumer Advocates, information required by, or anticipated to be useful to, the Office of the Interconnection in its preparation of the enhancement and expansion study, including information regarding potential sensitivity studies, modeling assumption variations, scenario analyses, and Public Policy Objectives that may be considered.

(d) The Office of the Interconnection shall supply to the Transmission Expansion Advisory Committee and the Subregional RTEP Committees reasonably required information and data utilized to develop the Regional Transmission Expansion Plan. Such information and data shall be provided pursuant to the appropriate protection of confidentiality provisions and Office of the Interconnection's CEII process.

(e) The Office of the Interconnection shall provide access through the PJM website, to the Transmission Owner's Local Plan, including all criteria, assumptions and models used by the Transmission Owners in developing their respective Local Plan ("Local Plan Information"). Local Plan Information shall be provided consistent with: (1) any applicable confidentiality provisions set forth in Section 18.17 of this Operating Agreement; (2) ~~PJM~~the Office of the Interconnection's CEII process; and (3) any applicable copyright limitations. Notwithstanding the foregoing, ~~PJM~~the Office of the Interconnection may share with a third party Local Plan Information that has been designated as confidential, pursuant to the provisions for such designation as set forth in Section 18.17 of this Operating Agreement and subject to: (i) agreement by the disclosing Transmission Owner consistent with the process set forth in this Operating Agreement; and (ii) an appropriate non-disclosure agreement to be executed by ~~PJM~~Interconnection, L.L.C., the Transmission Owner and the requesting third party. With the exception of confidential, CEII and copyright protected information, Local Plan Information will be provided for full review by the Planning Committee, the Transmission Expansion Advisory Committee, and the Subregional RTEP Committees.

1.5.5 Coordination of the Regional Transmission Expansion Plan.

(a) The Regional Transmission Expansion Plan shall be developed in accordance with the principles of interregional coordination with the ~~T~~ransmission ~~S~~ystems of the surrounding Regional Entities and with the local transmission providers, through the Transmission Expansion Advisory Committee and the Subregional RTEP Committee.

(b) The Regional Transmission Expansion Plan shall be developed taking into account the processes for coordinated regional transmission expansion planning established under the following agreements: Joint Operating Agreement Between the Midwest Independent System Operator, Inc. and PJM Interconnection, L.L.C.; Northeastern ISO/RTO Planning Coordination Protocol; Joint Reliability Coordination Agreement Between the Midwest ~~I~~ndependent System Operator, Inc.; PJM Interconnection, L.L.C. and Progress Energy Carolinas. Coordinated regional transmission expansion planning shall also incorporate input from parties that may be impacted by the coordination efforts, including but not limited to, the Members, Transmission Customers, electric utility regulatory agencies in the PJM Region, and the State Consumer Advocates, in accordance with the terms and conditions of the applicable regional coordination agreements.

(c) The Regional Transmission Expansion Plan shall be developed by the Office of the Interconnection in consultation with the Transmission Expansion Advisory Committee during the enhancement and expansion study process.

(d) The Regional Transmission Expansion Plan shall be developed taking into account the processes for coordination of the ~~r~~egional and subregional systems.

1.5.6 Development of the Recommended Regional Transmission Expansion Plan.

(a) The Office of the Interconnection shall be responsible for the development of the Regional Transmission Expansion Plan and for conducting the studies, including sensitivity

studies and scenario analyses on which the plan is based. The Regional Transmission Expansion Plan, including the Regional RTEP Projects, the Subregional RTEP Projects and the Supplemental Projects shall be developed through an open and collaborative process with opportunity for meaningful participation through the Transmission Expansion Advisory Committee and the Subregional RTEP Committees^s.

(b) *The Transmission Expansion Advisory Committee and the Subregional RTEP Committees shall each facilitate a minimum of one initial assumptions meeting to be scheduled at the commencement of the ~~RTEP~~Regional Transmission Expansion Plan process. The purpose of the assumptions meeting shall be to provide an open forum to discuss the following: (i) the assumptions to be used in performing the evaluation and analysis of the potential enhancements and expansions to the Transmission Facilities; (ii) Public Policy Objectives for consideration in the Office of the Interconnection's transmission planning analyses; (iii) the impacts of regulatory actions, projected changes in load growth, demand response resources, energy efficiency programs, price responsive demand, generating additions and retirements, market efficiency and other trends in the industry; and (iv) alternative sensitivity studies, modeling assumptions and scenario analyses proposed by the Committee participants. Prior to the initial assumptions meeting, Committee participants will be afforded the opportunity to provide input and submit suggestions regarding the information identified in items (i) through (iv) of this subsection. A range of assumptions to be used in the studies and scenario analyses shall be determined by the Office of the Interconnection, considering the advice and recommendations of the Transmission Expansion Advisory Committee and Subregional RTEP Committees participants and shall be documented and publicly posted for review.*

(c) *After the assumptions meeting(s), the Transmission Expansion Advisory Committee and the Subregional RTEP Committees shall facilitate additional meetings and shall post all communications required to provide early opportunity for the committee participants (as defined in Sections 1.3(b) and 1.3(c) of this Schedule 6) to review and evaluate the following arising from the studies performed by the Office of the Interconnection, including sensitivity studies and scenario analyses: (i) any identified violations of reliability criteria and analyses of the market efficiency and operational performance of the ~~T~~ransmission ~~S~~ystem; (ii) potential transmission solutions, including any acceleration, deceleration or modifications of a potential expansion or enhancement based on the results of sensitivities studies and scenario analyses; and (iii) the proposed ~~RTEP~~Regional Transmission Expansion Plan. These meetings will be scheduled as deemed necessary by the Office of the Interconnection or upon the request of the Transmission Expansion Advisory Committee or the Subregional RTEP Committees. The Office of the Interconnection will provide updates on the status of the development of the ~~RTEP~~Regional Transmission Expansion Plan at these meetings or at the regularly scheduled meetings of the ~~PJM~~Planning Committee.*

(d) *In addition, the Office of the Interconnection shall facilitate periodic meetings with the Independent State Agencies Committee-~~(ISAC)~~ to discuss: (i) the assumptions to be used in performing the evaluation and analysis of the potential enhancements and expansions to the Transmission Facilities; (ii) regulatory initiatives, as appropriate, including state regulatory agency initiated programs, and other Public Policy Objectives, to consider including in the Office of the Interconnection's transmission planning analyses; (iii) the impacts of regulatory*

actions, projected changes in load growth, demand response resources, energy efficiency programs, generating capacity, market efficiency and other trends in the industry; and (iv) alternative sensitivity studies, modeling assumptions and scenario analyses proposed by ~~ISAC~~ Independent State Agencies Committee. At such meetings, the Office of the Interconnection also shall discuss the current status of the enhancement and expansion study process. The ~~ISAC~~ Independent State Agencies Committee may request that the Office of Interconnection schedule additional meetings as necessary. The Office of the Interconnection shall inform the Transmission Expansion Advisory Committee and the Subregional RTEP Committees, as appropriate, of the input of the ~~ISAC~~ Independent State Agencies Committee and shall consider such input in developing the range of assumptions to be used in the studies and scenario analyses described in ~~sub~~ Section (b), above.

(e) Upon completion of its studies and analysis, including sensitivity studies and scenario analyses the Office of the Interconnection shall post on the PJM website the violations, system conditions, economic constraints, and Public Policy Requirements as detailed in Section 1.5.8(b) of this Schedule 6 to afford entities an opportunity to submit proposed ~~prepare a recommended enhancement and expansion plan, which shall include~~ enhancements or expansions to address the posted violations, system conditions, economic constraints and Public Policy Requirements as provided for in Section 1.5.8(c) of this Schedule 6. Following the close of a proposal window, the Office of the Interconnection shall: (i) post all proposals submitted pursuant to Section 1.5.8(c) of this Schedule 6; (ii) consider proposals submitted during the proposal windows consistent with Section 1.5.8(d) of this Schedule 6 and develop a recommended plan ~~identified to address reliability, market efficiency and operational performance, as well as alternative transmission solutions, as applicable, developed using the results of the sensitivity studies, modeling assumption variations and scenario analyses for review by the Transmission Expansion Advisory Committee. Following review by the Transmission Expansion Advisory Committee~~ of proposals, the Office of the Interconnection, based on identified needs and the timing of such needs, and taking into account the sensitivity studies, modeling assumption variations and scenario analyses considered pursuant to Section 1.5.3 of this Schedule 6, shall determine, which more efficient or cost-effective enhancements and expansions shall be included in the recommended plan, including ~~any alternative transmission solutions identified as a result of the sensitivity studies, modeling assumption variations, and scenario analyses, that may accelerate, decelerate or modify a potential reliability, market efficiency or operational performance expansion or enhancement identified as a result of the sensitivity studies, modeling assumption variations and scenario analyses, shall be included in the recommended plan. The Office of the Interconnection shall post the proposed recommended plan for review and comment by the Transmission Expansion Advisory Committee. The Transmission Expansion Advisory Committee shall facilitate open meetings and communications as necessary to provide opportunity for the Transmission Expansion Advisory Committee participants to collaborate on the preparation of the recommended enhancement and expansion plan. The Office of the Interconnection also shall invite interested parties to submit comments on the plan to the Transmission Expansion Advisory Committee and to the Office of the Interconnection before submitting the recommended plan to the PJM Board for approval.~~

(f) The recommended plan shall separately identify enhancements and expansions for the three PJM subregions, the PJM Mid-Atlantic Region, the PJM West Region, and the PJM South Region, and shall incorporate recommendations from the Subregional RTEP Committees.

(g) The recommended plan shall separately identify enhancements and expansions that are classified as Supplemental Projects.

(h) The recommended plan shall identify enhancements and expansions that relieve transmission constraints and which, in the judgment of the Office of the Interconnection, are economically justified. Such economic expansions and enhancements shall be developed in accordance with the procedures, criteria and analyses described in Sections 1.5.7 and 1.5.8 of this Schedule 6~~below~~.

(i) The recommended plan shall identify enhancements and expansions proposed by a state or states pursuant to Section 1.5.9 of this Schedule 6.

~~(j)~~ The recommended plan shall include proposed Merchant Transmission Facilities within the PJM Region and any other enhancement or expansion of the Transmission System requested by any participant which the Office of the Interconnection finds to be compatible with the Transmission System, though not required pursuant to Section 1.1, provided that (1) the requestor has complied, to the extent applicable, with the procedures and other requirements of Parts IV and VI of the PJM Tariff; (2) the proposed enhancement or expansion is consistent with applicable reliability standards, operating criteria and the purposes and objectives of the regional planning protocol; (3) the requestor shall be responsible for all costs of such enhancement or expansion (including, but not necessarily limited to, costs of siting, designing, financing, constructing, operating and maintaining the pertinent facilities), and (4) except as otherwise provided by Parts IV and VI of the PJM Tariff with respect to Merchant Network Upgrades, the requestor shall accept responsibility for ownership, construction, operation and maintenance of the enhancement or expansion through an undertaking satisfactory to the Office of the Interconnection.

~~(j)~~ For each enhancement or expansion that is included in the recommended plan, the plan shall consider, based on the planning analysis: other input from participants, including any indications of a willingness to bear cost responsibility for such enhancement or expansion; and, when applicable, relevant projects being undertaken to ensure the simultaneous feasibility of Stage 1A ARRs, to facilitate Incremental ARRs pursuant to the provisions of Section 7.8 of Schedule 1 of this Agreement, or to facilitate upgrades pursuant to Parts II, III, or ~~VI~~ of the PJM Tariff, and designate one or more Transmission Owners or other entities to construct, own and, unless otherwise provided, finance the recommended transmission enhancement or expansion. To the extent that one or more Transmission Owners are designated to construct, own and/or finance a recommended transmission enhancement or expansion, the recommended plan shall designate the Transmission Owner that owns transmission facilities located in the Zone where the particular enhancement or expansion is to be located. Otherwise, any designation under this paragraph of one or more ~~than one~~ entities to construct, own and/or finance a recommended transmission enhancement or expansion shall also include a designation of proportional-partial responsibility among them. Nothing herein shall prevent any Transmission Owner or other entity

designated to construct, own and/or finance a recommended transmission enhancement or expansion from agreeing to undertake its responsibilities under such designation jointly with other Transmission Owners or other entities.

(~~k1~~) Based on the planning analysis and other input from participants, including any indications of a willingness to bear cost responsibility for an enhancement or expansion, the recommended plan shall, for any enhancement or expansion that is included in the plan, designate (1) the Market Participant(s) in one or more Zones, or any other party that has agreed to fully fund upgrades pursuant to this Agreement or the PJM Tariff, that will bear cost responsibility for such enhancement or expansion, as and to the extent provided by any provision of the PJM Tariff or this Agreement, (2) in the event and to the extent that no provision of the PJM Tariff or this Agreement assigns cost responsibility, the Market Participant(s) in one or more Zones from which the cost of such enhancement or expansion shall be recovered through charges established pursuant to Schedule 12 of the Tariff, and (3) in the event and to the extent that the Coordinated System Plan developed under the Joint Operating Agreement Between the Midwest Independent System Operator, Inc. and PJM Interconnection, L.L.C. assigns cost responsibility, the Market Participant(s) in one or more Zones from which the cost of such enhancement or expansion shall be recovered. Any designation under clause (2) of the preceding sentence (A) shall further be based on the Office of the Interconnection's assessment of the contributions to the need for, and benefits expected to be derived from, the pertinent enhancement or expansion by affected Market Participants and, (B), subject to FERC review and approval, shall be incorporated in any amendment to Schedule 12 of the PJM Tariff that establishes a Transmission Enhancement Charge Rate in connection with an economic expansion or enhancement developed under Sections 1.5.6(h) and 1.5.7 of this Schedule 6, (C) the costs associated with expansions and enhancements required to ensure the simultaneous feasibility of stage 1A Auction Revenue Rights allocated pursuant to Section 7 of Schedule 1 of this Agreement shall (1) be allocated across transmission zones based on each zone's stage 1A eligible Auction Revenue Rights flow contribution to the total stage 1A eligible Auction Revenue Rights flow on the facility that limits stage 1A ARR feasibility and (2) within each transmission zone the Network Service Users and Transmission Customers that are eligible to receive stage 1A Auction Revenue Rights shall be the Responsible Customers under Section (b) of Schedule 12 of the PJM Tariff for all expansions and enhancements included in the Regional Transmission Expansion Plan to ensure the simultaneous feasibility of stage 1A Auction Revenue Rights, and (D) the costs associated with expansions and enhancements required to reduce to zero the Locational Price Adder for LDAs as described in Section 15 of Attachment DD of OATT shall (1) be allocated across Zones based on each Zone's pro rata share of load in such LDA and (2) within each Zone, to all LSEs serving load in such LDA pro rata based on such load.

Any designation under clause (3), above, (A) shall further be based on the Office of the Interconnection's assessment of the contributions to the need for, and benefits expected to be derived from, the pertinent enhancement or expansion by affected Market Participants, and (B), subject to FERC review and approval, shall be incorporated in an amendment to a Schedule of the PJM Tariff which establishes a charge in connection with the pertinent enhancement or expansion. Before designating fewer than all customers using Point-to-Point Transmission Service or Network Integration Transmission Service within a Zone as customers from which the

costs of a particular enhancement or expansion may be recovered, Transmission Provider shall consult, in a manner and to the extent that it reasonably determines to be appropriate in each such instance, with affected state utility regulatory authorities and stakeholders. When the plan designates more than one responsible Market Participant, it shall also designate the proportional responsibility among them. Notwithstanding the foregoing, with respect to any facilities that the Regional Transmission Expansion Plan designates to be owned by an entity other than a Transmission Owner, the plan shall designate that entity as responsible for the costs of such facilities.

(~~m~~) Certain Regional RTEP Project(s) and Subregional RTEP Project(s) may not be required for compliance with the following PJM criteria: system reliability, market efficiency or operational performance, pursuant to a determination by the Office of the Interconnection. These Supplemental Projects shall be separately identified in the RTEP and are not subject to approval by the PJM Board.

~~(m) — Any Transmission Owner and other participants on the Transmission Expansion Advisory Committee may offer an alternative transmission solution.~~

~~(n) — The Office of the Interconnection shall offer an alternative for review by the Transmission Expansion Advisory Committee or the Subregional RTEP Committees when the Office of the Interconnection determines, in its sole discretion that an alternative exists.~~

~~(o) — If the Office of the Interconnection adopts the alternative, based upon its review of the relative costs and benefits, the ability of the alternative to supply the required level of transmission service, and its impact on the reliability of the Transmission Facilities, the Office of the Interconnection shall make any necessary changes to the recommended plan.~~

~~(p) — If, based upon its review of the relative costs and benefits, the ability of the alternative to supply the required level of transmission service, and the alternative's impact on the reliability of the Transmission Facilities, the Office of the Interconnection does not adopt an alternative proposed by a Transmission Owner or Owners, the Transmission Owner or Owners whose alternative or alternatives have not been accepted or to whom cost responsibility has been assigned and other participants on the Transmission Expansion Advisory Committee may require that its or their alternative(s) be submitted to the Dispute Resolution Procedures in Schedule 5 of the Operating Agreement.~~

~~(q) — Schedule 5 of the Operating Agreement, the Dispute Resolution Procedures may be requested by the parties to a dispute arising from the Regional Transmission Expansion Plan or its development.~~

1.5.7 Development of Economic Transmission Enhancements and Expansions.

~~(a) In June of each year, concurrent with the PJM Board's consideration and approval of the reliability-based transmission enhancement and expansions to be included in the Regional Transmission Expansion Plan, the Office of the Interconnection shall obtain PJM Board approval of Each year the Transmission Expansion Advisory Committee shall review and comment on the~~

assumptions to be used in performing the market efficiency analysis ~~described in this section~~ to identify enhancements or expansions that could relieve transmission constraints that have an economic impact (“economic constraints”). Such assumptions shall include, but not be limited to, the discount rate used to determine the present value of the Total Annual Enhancement Benefit and Total Enhancement Cost, and the annual revenue requirement, including the recovery period, used to determine the Total Enhancement Cost. The discount rate shall be based on the Transmission Owners’ most recent after-tax embedded cost of capital weighted by each Transmission Owner’s total transmission capitalization. Each year, each Transmission Owner ~~shall~~ will be requested to provide the Office of the Interconnection with the Transmission Owner’s most recent after-tax embedded cost of capital, total transmission capitalization, and levelized carrying charge rate, including the recovery period. The recovery period shall be consistent with recovery periods allowed by the Commission for comparable facilities. Prior to PJM Board consideration of such assumptions, the assumptions shall be presented to the Transmission Expansion Advisory Committee for review and comment. Following review and comment by the Transmission Expansion Advisory Committee, the Office of the Interconnection shall submit the assumptions to be used in performing the market efficiency analysis described in this Section 1.5.7 to the PJM Board for consideration.

(b) Following PJM Board ~~approval consideration~~ of the assumptions, the Office of the Interconnection shall perform a market efficiency analysis to compare the costs and benefits of: (i) accelerating reliability-based enhancements or expansions already included in the Regional Transmission Plan that if accelerated also could relieve one or more economic constraints; (ii) modifying reliability-based enhancements or expansions already included in the Regional Transmission Plan that as modified would relieve one or more economic constraints; and (iii) adding new enhancements or expansions that could relieve one or more economic constraints, but for which no reliability-based need has been identified. Economic constraints include, but are not limited to, constraints that cause: (1) significant historical gross congestion; (2) ~~significant historical unhedgeable congestion~~; (3) ~~pro-ration of Stage 1B ARR requests as described in section 7.4.2(c) of Schedule 1 of this Agreement~~; or (4) significant simulated congestion as forecasted in the market efficiency analysis. The timeline for the market efficiency analysis and comparison of the costs and benefits for items 1.5.7(b)(i-iii) is described in the PJM Manuals.

(c) The process for conducting the market efficiency analysis described in subsection (b) above shall include the following:

(i) The Office of the Interconnection shall identify and provide to the Transmission Expansion Advisory Committee a list of economic constraints to be evaluated in the market efficiency analysis.

(ii) The Office of the Interconnection shall identify any planned reliability-based enhancements or expansions already included in the Regional Transmission Expansion Plan, which if accelerated would relieve such constraints, and present any such proposed reliability-based enhancements and expansions to be accelerated to the Transmission Expansion Advisory Committee for review and comment. The PJM Board, upon consideration of the advice of the

Transmission Expansion Advisory Committee, thereafter shall consider and vote to approve any accelerations.

(iii) The Office of the Interconnection shall evaluate whether including any additional economic-based enhancements or expansions in the Regional Transmission Expansion Plan or modifications of existing Regional Transmission Expansion Plan reliability-based enhancements or expansions would relieve an economic constraint. In addition, pursuant to Section 1.5.8(c) of this Schedule 6, any market participant ~~at any time~~ may submit to the Office of the Interconnection a proposal to construct an additional economic-based enhancement or expansion to relieve an economic constraint. ~~To be considered in the market efficiency analysis commencing after approval of the Regional Transmission Expansion Plan by the PJM Board in June, market participant proposals to construct an additional economic-based enhancement or expansion must be received by the Office of the Interconnection by December 31 of the same year.~~ Upon completion of its evaluation, including consideration of any eligible market participant proposed economic-based enhancements or expansions, the Office of the Interconnection shall present to the Transmission Expansion Advisory Committee a description of ~~recommended~~ new economic-based enhancements and expansions for review and comment. Upon consideration ~~and of the~~ advice of the Transmission Expansion Advisory Committee, the PJM Board shall consider any new economic-based enhancements and expansions for inclusion in the Regional Transmission Plan and for those enhancements and expansions it approves, the PJM Board shall designate (a) the entity or entities that will be responsible for constructing and owning or financing the additional economic-based enhancements and expansions, (b) the estimated costs of such enhancements and expansions, and (c) the market participants that will bear responsibility for the costs of the additional economic-based enhancements and expansions pursuant to ~~S~~section 1.5.6(~~4~~) of this Schedule 6. In the event the entity or entities designated as responsible for construction, owning or financing a designated new economic-based enhancement or expansion declines to construct, own or finance the new economic-based enhancement or expansion, the enhancement or expansion will not be included in the Regional Transmission Expansion Plan but will be included in the report filed with the FERC in accordance with ~~sections~~ Sections 1.6 and 1.7 of this Schedule 6. This report also shall include information regarding PJM Board approved accelerations of reliability-based enhancements or expansions that an entity declines to accelerate.

(d) To determine the economic benefits of accelerating or modifying planned reliability-based enhancements or expansions or of constructing additional economic based enhancements or expansions and whether such economic-based enhancements or expansion are eligible for inclusion in the Regional Transmission Expansion Plan, the Office of the Interconnection shall perform and compare market simulations with and without the proposed accelerated or modified planned reliability-based enhancements or expansions or the additional economic-based enhancements or expansions as applicable, using the Benefit/Cost Ratio calculation set forth below in this ~~section~~ Section 1.5.7(d). An economic-based enhancement or expansion shall be considered for inclusion~~included~~ in the Regional Transmission Expansion Plan and recommended to the PJM Board, if the relative benefits and costs of the economic-based enhancement or expansion meet a Benefit/Cost Ratio Threshold of at least 1.25:1.

The Benefit/Cost Ratio shall be determined as follows:

Benefit/Cost Ratio = [Present value of the Total Annual Enhancement Benefit for each of the first 15 years of the life of the enhancement or expansion] ÷ [Present value of the Total Enhancement Cost for each of the first 15 years of the life of the enhancement or expansion]

Where

Total Annual Enhancement Benefit = Energy Market Benefit + Reliability Pricing Model Benefit

and

Energy Market Benefit = [.70] * [Change in Total Energy Production Cost] + [.30] * [Change in Load Energy Payment]

and

Change in Total Energy Production Cost = [the estimated total annual fuel costs, variable O&M costs, and emissions costs of the dispatched resources in the PJM Region without the economic-based enhancement or expansion] – [the estimated total annual fuel costs, variable O&M costs, and emissions costs of the dispatched resources in the PJM Region with the economic-based enhancement or expansion]

and

Change in Load Energy Payment = [the annual sum of (the hourly estimated zonal load megawatts for each Zone) * (the hourly estimated zonal Locational Marginal Price for each Zone without the economic-based enhancement or expansion)] – [the annual sum of (the hourly estimated zonal load megawatts for each Zone) * (the hourly estimated zonal Locational Marginal Price for each Zone with the economic-based enhancement or expansion)] – [the change in value of transmission rights for each Zone with the economic-based enhancement or expansion (as measured using currently allocated Auction Revenue Rights plus additional Auction Revenue Rights made available by the proposed acceleration or modification of the planned reliability-based enhancement or expansion or new economic based enhancement or expansion)]. For economic-based enhancements and expansions for which cost responsibility is assigned pursuant to ~~section~~ Section (b)(i) of Schedule 12 of the PJM Tariff, the Change in the Load Energy Payment shall be the sum of the Change in Load Energy Payment in all Zones. For economic-based enhancements

or expansions for which cost responsibility is assigned pursuant to ~~section~~ Section (b)(v) of Schedule 12 of the PJM Tariff, the Change in Load Energy Payment shall be the sum of the Change in the Load Energy Payment only of the Zones that show a decrease in Load Energy Payment.

and

Reliability Pricing Benefit = [.70] * [Change in Total System Capacity Cost] + [.30] * [Change in Load Capacity Payment]

and

Change in Total System Capacity Cost = [the sum of (the megawatts that are estimated to be cleared in the Base Residual Auction under Attachment DD of the PJM Tariff) * (the prices that are estimated to be contained in the Sell Offers for each such cleared megawatt without the economic-based enhancement or expansion) * (the number of days in the study year)] – [the sum of (the megawatts that are estimated to be cleared in the Base Residual Auction under Attachment DD of the PJM Tariff) * (the prices that are estimated to be contained in the Sell Offers for each such cleared megawatt with the economic-based enhancement or expansion) * (the number of days in the study year)]

and

Change in Load Capacity Payment = [the sum of (the estimated zonal load megawatts in each Zone) * (the estimated Final Zonal Capacity Prices under Attachment DD of the PJM Tariff without the economic-based enhancement or expansion) * (the number of days in the study year)] – [the sum of (the estimated zonal load megawatts in each Zone) * (the estimated Final Zonal Capacity Prices under Attachment DD of the PJM Tariff with the economic-based enhancement or expansion) * (the number of days in the study year)]. The Change in Load Capacity Payment shall take account of the change in value of Capacity Transfer Rights in each Zone, including any additional Capacity Transfer Rights made available by the proposed acceleration or modification of the planned reliability-based enhancement or expansion or new economic based enhancement or expansion. For economic-based enhancements and expansions for which cost responsibility is assigned pursuant to ~~section~~ Section (b)(i) of Schedule 12 of the PJM Tariff, the Change in the Load Capacity Payment shall be the sum of the change in Load Capacity Payment in all Zones. For economic-based enhancements or expansions for which cost

responsibility is assigned pursuant to ~~section~~ Section (b)(v) of Schedule 12 of the PJM Tariff, the Change in Load Capacity Payment shall be the sum of the change in the Load Capacity Payment only of the Zones that show a decrease in Load Capacity Payment.

and

Total Enhancement Cost (except for accelerations of planned reliability-based enhancements or expansions) = the estimated annual revenue requirement for the economic-based enhancement or expansion.

Total Enhancement Cost (for accelerations of planned reliability-based enhancements or expansions) = the estimated change in annual revenue requirement resulting from the acceleration of the planned reliability-based enhancement or expansion, taking account of all of the costs incurred that would not have been incurred but for the acceleration of the planned reliability-based enhancement or expansion.

(e) For informational purposes only, to assist the Office of the Interconnection and the Transmission Expansion Advisory Committee in evaluating the economic benefits of accelerating planned reliability-based enhancements or expansions or of constructing a new economic-based enhancement or expansion, the Office of the Interconnection shall calculate and post on the PJM ~~website~~internet site the change in the following metrics on a zonal and system-wide basis: (i) total energy production costs (fuel costs, variable O&M costs and emissions costs);(ii) total load energy payments (zonal load MW times zonal load Locational Marginal Price); (iii) total generator revenue from energy production (generator MW times generator Locational Marginal Price); (iv) Financial Transmission Right credits (as measured using currently allocated Auction Revenue Rights plus additional Auction Revenue Rights made available by the proposed acceleration or modification of a planned reliability-based enhancement or expansion or new economic based enhancement or expansion); (v) marginal loss surplus credit; and (vi) total capacity costs and load capacity payments under the Office of the Interconnection's Commission-approved capacity construct.

(f) To assure that new economic-based enhancements and expansions included in the Regional Transmission Expansion Plan continue to be cost beneficial, the Office of the Interconnection annually shall review the costs and benefits of constructing such enhancements and expansions. In the event that there are changes in these costs and benefits, the Office of the Interconnection shall review the changes in costs and benefits with the Transmission Expansion Advisory Committee and recommend to the PJM Board whether the new economic-based enhancements and expansions continue to provide measurable benefits, as determined in accordance with subsection (d), and should remain in the Regional Transmission Expansion Plan. The annual review of the costs and benefits of constructing new economic-based enhancements and expansions included in the Regional Transmission Expansion Plan shall include review of changes in cost estimates of the economic-based enhancement or expansion, and changes in system conditions, including but not limited to, changes in load forecasts, and

anticipated Merchant Transmission Facilities, generation, and demand response, consistent with the requirements of Section 1.5.7(i) of this Schedule 6~~subsection (k)~~.

~~(g) With respect to each new economic-based enhancement or expansion included in the Regional Transmission Expansion Plan, the Office of the Interconnection shall provide to the Transmission Expansion Advisory Committee the level and type of new generation and demand response that could eliminate the need for the enhancement or expansion.~~

~~(h)~~ For new economic enhancements or expansions with costs in excess of \$50 million, an independent review of such costs shall be performed to assure both consistency of estimating practices and that the scope of the new economic-based enhancements and expansions is consistent with the new economic-based enhancements and expansions as recommended in the market efficiency analysis.

~~(i) For informational purposes only, the Office of the Interconnection shall post monthly on the PJM Internet site analyses of gross and unhedgeable congestion associated with transmission constraints in the PJM Region, including the level of available economic generation used to calculate unhedgeable congestion costs.~~

~~(j)~~ At any time, market participants may submit to the Office of the Interconnection requests to interconnect Merchant Transmission Facilities or generation facilities pursuant to Parts IV and VI of the PJM Tariff that could address an economic constraint. In the event the Office of the Interconnection determines that the interconnection of such facilities would relieve an economic constraint, the Office of the Interconnection may designate the project as a “market solution” and, in the event of such designation, Section 216 ~~sections 36A or 41A~~ of the PJM Tariff, as applicable, shall apply to the project.

~~(k)~~ The assumptions used in the market efficiency analysis described in subsection (b) and any review of costs and benefits pursuant to subsection (f) shall include, but not be limited to, the following:

- (i) Timely installation of Qualifying Transmission Upgrades, as defined in ~~section~~ Section 2.5.7 of Attachment DD of the PJM Tariff, that are committed to the PJM Region as a result of any Reliability Pricing Model Auction pursuant to Attachment DD of the PJM Tariff or any FRR Capacity Plan pursuant to Schedule 8.1 of the Reliability Assurance Agreement Among Load-Serving Entities in the PJM Region (“Reliability Assurance Agreement”); ~~on file with FERC as PJM Interconnection, L.L.C. Rate Schedule FERC No. 44 (“RAA”).~~
- (ii) Availability of Generation Capacity Resources, as defined by ~~section~~ Section 1.33 of the Reliability Assurance Agreement ~~RAA~~, that are committed to the PJM Region as a result of any Reliability Pricing Model Auction pursuant to Attachment DD of the PJM

Tariff or any FRR Capacity Plan pursuant to Schedule 8.1 of the Reliability Assurance Agreement~~RAA~~.

- (iii) Availability of Demand Resources as defined in ~~section~~ Section 1.13 of the Reliability Assurance Agreement~~RAA~~ that are committed to the PJM Region as a result of any Reliability Pricing Model Auction pursuant to Attachment DD of the PJM Tariff or any FRR Capacity Plan pursuant to Schedule 8.1 of the Reliability Assurance Agreement~~RAA~~.
- (iv) ~~Availability of ILR Resources certified pursuant to section 5.13 of Attachment DD of the PJM Tariff.~~
- ~~(v)~~ Addition of Customer Facilities pursuant to an executed Interconnection Service Agreement or executed Interim Interconnection Service Agreement for which an Interconnection Service Agreement is expected to be executed.
- (~~vi~~) Addition of Customer-Funded Upgrades pursuant to an executed Interconnection Construction Service Agreement or an Upgrade Construction Service Agreement.
- (~~vii~~) Expected level of demand response over at least the ensuing fifteen years based on analyses that consider historic levels of demand response, expected demand response growth trends, impact of capacity prices, current and emerging technologies.
- (~~viii~~) Expected levels of potential new generation and generation retirements over at least the ensuing fifteen years based on analyses that consider generation trends based on existing generation on the system, generation in the PJM interconnection queues and Capacity Resource Clearing Prices under Attachment DD of the PJM Tariff. If the Office of the Interconnection finds that the PJM reserve requirement is not met in any of its future year market efficiency analyses then it will model adequate future generation based on type and location of generation in existing PJM interconnection queues.
- (~~ix~~viii) Items (i) through (~~vi~~) will be included in the market efficiency assumptions if qualified for consideration by before January 1 of the year that the assumptions are presented to the PJM Board for approval in June. In the event that any of the items listed in (i) through (~~vi~~) above qualify for inclusion in the market efficiency analysis assumptions, however, because of the timing of the qualification the item was not included in the assumptions used in developing the most recent Regional Transmission Expansion

Plan, the Office of the Interconnection, to the extent necessary, shall notify any entity constructing an economic-based enhancement or expansion that may be affected by inclusion of such item in the assumptions for the next market efficiency analysis described in subsection (b) and any review of costs and benefits pursuant to subsection (f) that the need for the economic-based enhancement or expansion may be diminished or obviated as a result of the inclusion of the qualified item in the assumptions for the next annual market efficiency analysis or review of costs and benefits.

(h) For informational purposes only, with regard to economic-based enhancements or expansions that are included in the Regional Transmission Expansion Plan pursuant to subsection (d) of this ~~section~~ Section 1.5.7, the Office of the Interconnection shall perform sensitivity analyses consistent with Section 1.5.3 of this Schedule 6~~around key inputs, such as price forecasts and expected levels of demand response, used in the market simulations to determine the Benefit/Cost Ratio for such enhancements and expansions~~ and shall provide the results of such sensitivity analyses to the Transmission Expansion Advisory Committee.

1.5.8 Development of Long-lead Projects, Short-term Projects, and Immediate-need Reliability Projects.

(a) **Pre-Qualification Requirements.** On an annual basis, entities that desire to be the Designated Entity for Immediate-need Reliability Projects, Short-term Projects, or Long-lead Projects shall submit to the Office of the Interconnection during the pre-qualification window, noticed by the Office of the Interconnection, the following information: (i) name and address of the entity; (ii) the technical and engineering qualifications of the entity or its affiliate, partner, or parent company; (iii) the demonstrated experience of the entity or its affiliate, partner, or parent company to develop, construct, maintain, and operate transmission facilities, including a list or other evidence of transmission facilities the entity, its affiliate, partner, or parent company previously developed, constructed, maintained, or operated; (iv) the previous record of the entity or its affiliate, partner, or parent company regarding construction, maintenance, or operation of transmission facilities both inside and outside of the PJM Region; (v) the capability of the entity or its affiliate, partner, or parent company to adhere to standardized construction, maintenance and operating practices; (vi) the financial statements of the entity or its affiliate, partner, or parent company for the most recent fiscal quarter, as well as the most recent three fiscal years, or the period of existence of the entity, if shorter, or such other evidence demonstrating an entity's current and expected financial capability acceptable to the Office of the Interconnection; (vii) a commitment by the entity to execute the Consolidated Transmission Owners Agreement, if the entity becomes a Designated Entity; (viii) evidence demonstrating the ability of the entity to address and timely remedy failure of facilities; (ix) a description of the experience of the entity in acquiring rights of way; and (x) such other supporting information that the Office of Interconnection requires to make the pre-qualification determinations consistent with this Section. Based on this information, and prior to the opening of the next project proposal window, the Office of the Interconnection shall determine whether an entity is qualified to be a

Designated Entity and shall notify the entity of such determination. In the event the Office of the Interconnection determines that an entity is not qualified to be a Designated Entity, the Office of the Interconnection shall include in the notification the basis for its determination. The entity shall have 30 days or other such period as may be agreed to by the Office of the Interconnection to submit additional information, which the Office of the Interconnection shall consider in re-evaluating whether the entity is qualified to be a Designated Entity. The Office of the Interconnection shall notify the entity of the results of this re-evaluation within 15 business days of receiving the additional information or such other reasonable time period as needed by the Office of the Interconnection to make the determinations required by this Section prior to the opening of the next project proposal window. If an entity is notified by the Office of the Interconnection that the entity does not qualify to be a Designated Entity, such entity may request dispute resolution pursuant to Schedule 5 of the Operating Agreement. If an entity was qualified to be a Designated Entity in the previous year, such entity is not required to re-submit information to qualify to be a Designated Entity in the current year provided, however, that such entity must submit to the Office of the Interconnection all updated information at the time the information has changed. In the event an entity submits updated information, the Office of the Interconnection shall determine whether the entity continues to qualify to be a Designated Entity and shall notify the entity of its determination within a reasonable period of time prior to the opening of the next proposal window. As determined by the Office of the Interconnection, an entity may pre-qualify outside the annual pre-qualification window for good cause shown. This Section shall not apply to entities that desire to propose projects for inclusion in the recommended plan but do not intend to be a Designated Entity.

(b) Posting of Transmission System Needs. Upon identification of existing and projected limitations on the Transmission System's physical, economic and/or operational capability or performance in the enhancement and expansion analysis process described in this Schedule 6 and the PJM Manuals, and after consideration of non-transmission solutions, the Office of the Interconnection shall post on the PJM website the violations, system conditions, and economic constraints, and Public Policy Requirements, including (i) federal Public Policy Requirements; (ii) state Public Policy Requirements identified or agreed-to by the states in the PJM Region, which could be addressed by potential Short-term Projects, Long-lead Projects or projects determined pursuant to the State Agreement Approach in Section 1.5.9 of this Schedule 6, as applicable. The Office of the Interconnection also shall post an explanation regarding why transmission needs associated with federal or state Public Policy Requirements were identified but were not selected for further evaluation.

(c) Project Proposal Windows. The Office of the Interconnection shall provide notice to stakeholders of a 30-day proposal window for Short-term Projects and a 120-day proposal window for Long-lead Projects. The Office of Interconnection may (i) shorten the proposal windows should the identified need require a shorter proposal window to meet the needed in-service date of the proposed enhancements or expansions; or (ii) extend the windows as needed to accommodate updated information regarding system conditions. During these windows, the Office of the Interconnection will accept proposals for potential enhancements or expansions to address the posted violations, system conditions, economic constraints, as well as Public Policy Requirements.

(c)(1) Proposals submitted in the proposal windows must contain: (i) the name and address of the proposing entity; (ii) a statement whether the entity intends to be the Designated Entity for the proposed project; (iii) the location of proposed project, including source and sink, if applicable; (iv) relevant engineering studies, and other relevant information as described in the PJM Manuals pertaining to the proposed project; (v) a proposed initial construction schedule including projected dates on which needed permits are required to be obtained in order to meet the required in-service date; and (vi) cost estimates and analyses that provide sufficient detail for the Office of Interconnection to review and analyze the proposed cost of the project.

(c)(2) If the proposing entity states that it intends to be a Designated Entity, the proposal also must contain information to the extent not previously provided pursuant to Section 1.5.8(a) demonstrating: (i) technical and engineering qualifications of the entity, its affiliate, partner, or parent company relevant to construction, operation, and maintenance of the proposed project; (ii) experience of the entity, its affiliate, partner, or parent company in developing, constructing, maintaining, and operating the type of transmission facilities contained in the project proposal; (iii) the emergency response capability of the entity that will be operating and maintaining the proposed project; (iv) evidence of transmission facilities the entity, its affiliate, partner, or parent company previously constructed, maintained, or operated; (v) the ability of the entity or its affiliate, partner, or parent company to obtain adequate financing relative to the proposed project, which may include a letter of intent from a financial institution approved by the Office of the Interconnection or such other evidence of the financial resources available to finance the construction, operation, and maintenance of the proposed project; (vi) the managerial ability of the entity, its affiliate, partner, or parent company to contain costs and adhere to construction schedules for the proposed project, including a description of verifiable past achievement of these goals; (vii) a demonstration of other advantages the entity may have to construct, operate, and maintain the proposed project, including any cost commitment the entity may wish to submit; and (viii) any other information that may assist the Office of the Interconnection in evaluating the proposed project.

(c)(3) The Office of the Interconnection may request additional reports or information that it determines are reasonably necessary to evaluate the specific project proposal pursuant to the criteria set forth in Sections 1.5.8(e) and 1.5.8(f) of this Schedule 6. If the Office of the Interconnection determines any of the information provided in a proposal is deficient or it requires additional reports or information to analyze the submitted proposal, the Office of the Interconnection shall notify the proposing entity of such deficiency or request. Within 10 business days of receipt of the notification of deficiency and/or request for additional reports or information, or other reasonable time period as determined by the Office of the Interconnection, the proposing entity shall provide the necessary information.

(c)(4) The request for additional reports or information by the Office of the Interconnection pursuant to Section 1.5.8(c)(3) of this Schedule 6 may be used only to clarify a proposed project as submitted. In response to the Office of the Information's request for additional reports or information, the proposing entity may not submit a new project proposal or modifications to a proposed project once the proposal window is closed. In the event that the proposing entity fails to timely cure the deficiency or provide the requested reports or

information regarding a proposed project, the proposed project will not be considered for inclusion in the recommended plan.

(d) **Posting and Review of Projects.** Following the close of a proposal window, the Office of the Interconnection shall post on the PJM website all proposals submitted pursuant to Section 1.5.8(c) of this Schedule 6. All proposals addressing state Public Policy Requirements shall be provided to the applicable states in the PJM Region for review and consideration as a Supplemental Project or a state public policy project consistent with Section 1.5.9 of this Schedule 6. The Office of the Interconnection shall review all proposals submitted during a proposal window and determine and present to the Transmission Expansion Advisory Committee the proposals that merit further consideration for inclusion in the recommended plan. In making this determination, the Office of the Interconnection shall consider the criteria set forth in Sections 1.5.8(e) and 1.5.8(f) of this Schedule 6. The Office of the Interconnection shall post on the PJM website and present to the Transmission Expansion Advisory Committee for review and comment descriptions of the proposed enhancements and expansions, including any proposed Supplemental Projects or state public policy projects identified by a state(s). Based on review and comment by the Transmission Expansion Advisory Committee, the Office of the Interconnection may, if necessary conduct further study and evaluation. The Office of the Interconnection shall post on the PJM website and present to the Transmission Expansion Advisory Committee the revised enhancements and expansions for review and comment. After consultation with the Transmission Expansion Advisory Committee, the Office of the Interconnection shall determine the more efficient or cost-effective transmission enhancements and expansions for inclusion in the recommended plan consistent with this Schedule 6.

(e) **Criteria for Considering Inclusion of a Project in the Recommended Plan.** In determining whether a Short-term Project or Long-lead Project proposed pursuant to Section 1.5.8(c), individually or in combination with other Short-term Projects or Long-lead Projects, is the more efficient or cost-effective solution and therefore should be included in the recommended plan, the Office of the Interconnection, taking into account sensitivity studies and scenario analyses considered pursuant to Section 1.5.3 of this Schedule 6, shall consider the following criteria, to the extent applicable: (i) the extent to which a Short-term Project or Long-lead Project would address and solve the posted violation, system condition, or economic constraint; (ii) the extent to which the relative benefits of the project meets a Benefit/Cost Ratio Threshold of at least 1.25:1 as calculated pursuant to Section 1.5.7(d) of this Schedule 6; (iii) the extent to which the Short-term Project or Long-lead Project would have secondary benefits, such as addressing additional or other system reliability, operational performance, economic efficiency issues or federal Public Policy Requirements or state Public Policy Requirements identified by the states in the PJM Region; and (iv) other factors such as cost-effectiveness, the ability to timely complete the project, and project development feasibility.

(f) **Entity-Specific Criteria Considered in Determining the Designated Entity for a Project.** In determining whether the entity proposing a Short-term Project or a Long-lead Project recommended for inclusion in the plan shall be the Designated Entity, the Office of the Interconnection shall consider: (i) whether in its proposal, the entity indicated its intent to be the Designated Entity; (ii) whether the entity is pre-qualified to be a Designated Entity pursuant to Section 1.5.8(a); (iii) information provided either in the proposing entity's submission pursuant

to Section 1.5.8(a) or 1.5.8(c)(2) relative to the specific proposed project that demonstrates: (1) the technical and engineering experience of the entity or its affiliate, partner, or parent company, including its previous record regarding construction, maintenance, and operation of transmission facilities relative to the project proposed; (2) ability of the entity or its affiliate, partner, or parent company to construct, maintain, and operate transmission facilities, as proposed, (3) capability of the entity to adhere to standardized construction, maintenance, and operating practices, including the capability for emergency response and restoration of damaged equipment; (4) experience of the entity in acquiring rights of way; (5) evidence of the ability of the entity, its affiliate, partner, or parent company to secure a financial commitment from an approved financial institution(s) agreeing to finance the construction, operation, and maintenance of the project, if it is accepted into the recommended plan; and (iv) any other factors that may be relevant to the proposed project.

(g) Procedures if No Long-lead Project Proposal is Determined to be the More Efficient or Cost-Effective Solution. If the Office of the Interconnection determines that none of the proposed Long-lead Projects received during the Long-lead Project proposal window would be the more efficient or cost-effective solution to resolve a posted violation, system condition, or economic constraint, the Office of the Interconnection may re-evaluate and re-post on the PJM website the unresolved violations, system conditions, or economic constraints pursuant to Section 1.5.8(b), provided such re-evaluation and re-posting would not affect the ability of the Office of the Interconnection to timely address the identified reliability need. In the event that re-posting and conducting such re-evaluation would prevent the Office of the Interconnection from timely addressing the existing and projected limitations on the Transmission System that give rise to the need for an enhancement or expansion, the Office of the Interconnection shall propose a project to solve the posted violation, system condition or economic constraint for inclusion in the recommended plan and shall present such project to the Transmission Expansion Advisory Committee for review and comment. The Transmission Owner(s) in the Zone(s) where the project is to be located shall be the Designated Entity(ies) for such project. In determining whether there is insufficient time for re-posting and re-evaluation, the Office of the Interconnection shall consider factors such as, but not limited to, the time necessary: (i) to obtain regulatory approvals, (ii) to acquire long lead equipment, (iii) to meet construction schedules, (iv) to complete the required in-service date, and (v) for other time-based factors impacting the feasibility of achieving the required in-service date.

(h) Procedures if No Short-term Project Proposal is Determined to be the More Efficient or Cost-Effective Solution. If the Office of the Interconnection determines that none of the proposed Short-term Projects received during a Short-term Project proposal window would be the more efficient or cost-effective solution to resolve a posted violation or system condition, the Office of the Interconnection shall propose a Short-term Project to solve the posted violation, or system condition for inclusion in the recommended plan and will present such Short-term Project to the Transmission Expansion Advisory Committee for review and comment. The Transmission Owner(s) in the Zone(s) where the Short-term Project is to be located shall be the Designated Entity(ies) for the Project.

(i) Notification of Designated Entity. Within 10 business days of PJM Board approval of the Regional Transmission Expansion Plan, the Office of the Interconnection shall notify the

entities that have been designated as the Designated Entities for projects included in the Regional Transmission Expansion Plan of such designations. In such notices, the Office of the Interconnection shall provide the dates by which: (i) all necessary state approvals must be obtained; and (ii) the projects must be in service.

(j) **Acceptance of Designation.** Within 30 days of receiving notification of its designation as a Designated Entity, the Designated Entity shall notify the Office of the Interconnection of its acceptance of such designation. Within 60 days of receiving notification of its designation, or other reasonable time period as determined by the Office of the Interconnection, the Designated Entity shall submit to the Office of the Interconnection a development schedule which shall include, but not be limited to: (i) construction milestones necessary to develop and construct the project to achieve the required in-service date, including milestone dates for obtaining all necessary state approvals; (ii) a letter of credit as determined by the Office of Interconnection to cover the incremental costs of construction resulting from reassignment of the project; and (iii) an executed agreement with the Office of the Interconnection setting forth the rights and obligations related to being the Designated Entity for the project.

(k) **Failure of Designated Entity to Meet Milestones.** In the event the Designated Entity fails to provide a development schedule or letter of credit pursuant to Section 1.5.8(j); or fails to meet a milestone in its development schedule that causes a delay of the project's in-service date, the Office of the Interconnection shall re-evaluate the need for the Short-term Project or Long-lead Project, and based on that re-evaluation may: (i) retain the Short-term Project or Long-lead Project in the Regional Transmission Expansion Plan; (ii) remove the Short-term Project or Long-lead Project from the Regional Transmission Expansion Plan; or (iii) include an alternative solution in the Regional Transmission Expansion Plan. If the Office of the Interconnection retains the Short-term or Long-term Project in the Regional Transmission Expansion Plan, it shall determine whether the delay is beyond the Designated Entity's control and whether to retain the Designated Entity or to designate the Transmission Owner(s) in the Zone(s) where the project is located as Designated Entity(ies) for the Short-term Project or Long-lead Project. If the Designated Entity is the Transmission Owner(s) in the Zone(s) where the project is located, the Office of the Interconnection shall seek recourse through the Consolidated Transmission Owners Agreement or FERC, as appropriate. Any modifications to the Regional Transmission Expansion Plan pursuant to this section shall be presented to the Transmission Expansion Advisory Committee for review and comment and approved by the PJM Board.

(l) **Transmission Owners Required to be the Designated Entity.** Notwithstanding anything to the contrary in this Section 1.5.8, in all events, the Transmission Owner(s) in whose Zone(s) a proposed Short-term Project or Long-lead Project is to be located will be the Designated Entity for the project, when the Short-term Project or Long-lead Project is: (i) an upgrade to a Transmission Owner's own transmission facilities; (ii) located solely within a Transmission Owner's Zone and the costs of the project are allocated solely to the Transmission Owner's Zone; (iii) located solely within a Transmission Owner's Zone and is not selected in the Regional Transmission Expansion Plan for purposes of cost allocation; or (iv) proposed to be located on a Transmission Owner's existing right of way and the project would alter the Transmission Owner's use and control of its existing right of way under state law. Transmission Owner shall be the Designated Entity when required by state law, regulation or administrative

agency order with regard to enhancements or expansions or portions of such enhancements or expansions located within that state.

(m) Immediate-need Reliability Projects:

(m)(1) The Office of the Interconnection shall develop and recommend Immediate-need Reliability Projects for inclusion in the Regional Transmission Expansion Plan pursuant to the expansion planning process set forth in Sections 1.5.1 through 1.5.6 of Schedule 6. The Office of the Interconnection shall present to the Transmission Expansion Advisory Committee for review and comment descriptions of the proposed Immediate-need Reliability Projects recommended for inclusion in the recommended plan. Based on that review, the Office of the Interconnection shall, if necessary, conduct further study and evaluation and post a revised recommended plan for review and comment by the Transmission Expansion Advisory Committee. The PJM Board shall approve the Immediate-need Reliability Projects for inclusion in the recommended plan. Transmission Owner(s) in the Zone(s) in which the Immediate-need Reliability Project is to be located shall be the Designated Entity for the Immediate-need Reliability Project included in the Regional Transmission Expansion Plan, provided the Immediate-need Reliability Project was not chosen pursuant to the expedited proposal process set forth in Section 1.5.8(m)(2).

(m)(2) If, in the judgment of the Office of the Interconnection, there is sufficient time for the Office of the Interconnection to accept proposals in a shortened proposal window for Immediate-need Reliability Projects, the Office of the Interconnection shall post on the PJM website the violations and system conditions that could be addressed by such Immediate-need Reliability Project proposals and provide notice to stakeholders of a shortened proposal window. Proposals must contain the information required in Section 1.5.8(c) and, if the entity is seeking to be the Designated Entity, such entity must have pre-qualified to be a Designated Entity pursuant to Section 1.5.8(a). In determining the more efficient or cost-effective proposed Immediate-need Reliability Project for inclusion in the recommended plan, the Office of the Interconnection shall consider the extent to which the proposed Immediate-need Reliability Project, individually or in combination with other Immediate-need Reliability Projects, would address and solve the posted violations or system conditions and other factors such as cost-effectiveness, the ability of the entity to timely complete the project, and project development feasibility in light of the required need. After PJM Board approval, the Office of the Interconnection, in accordance with Section 1.5.8(i) of this Schedule 6, shall notify the entities that have been designated as Designated Entities for Immediate-need Projects included in the Regional Transmission Expansion Plan of such designations. Designated Entities shall accept such designations in accordance with Section 1.5.8(j). In the event that (i) the Office of the Interconnection determines that no proposal resolves a posted violation or system condition; (ii) the proposing entity is not selected to be the Designated Entity; (iii) an entity does not accept the designation as a Designated Entity; or (iv) the Designated Entity fails to meet milestones that would delay the in-service date of the Immediate-need Reliability Project, the Office of the Interconnection shall develop and recommend an Immediate-need Reliability Project to solve the violation or system needs in accordance with Section 1.5.8(m)(1).

1.5.9 State Agreement Approach.

(a) State governmental entities authorized by their respective states, individually or jointly, may agree voluntarily to be responsible for the allocation of all costs of a proposed transmission expansion or enhancement that addresses state Public Policy Requirements identified or accepted by the state(s) in the PJM Region. Such transmission enhancements or expansions may be included in the recommended plan as a (i) Supplemental Project or (ii) state public policy project, which is a transmission enhancement or expansion, the costs of which will be recovered pursuant to a FERC-accepted cost allocation proposed by agreement of one or more states and voluntarily agreed to by those state(s). All costs related to a state public policy project or Supplemental Project included in the Regional Transmission Expansion Plan to address state Public Policy Requirements pursuant to this Section shall be recovered from customers in a state(s) in the PJM Region that agrees to be responsible for the projects. No such costs shall be recovered from customers in a state that did not agree to be responsible for such cost allocation. A state public policy project will be included in the Regional Transmission Expansion Plan for cost allocation purposes only if there is an associated FERC-accepted allocation permitting recovery of the costs of the state public policy project consistent with this Section.

(b) Subject to any designation reserved for Transmission Owners in Section 1.5.8(l) of this Schedule 6, the state(s) responsible for cost allocation for a Supplemental Project or a state public policy project in accordance with Section 1.5.9(a) in this Schedule 6 may submit to the Office of the Interconnection the entity(ies) to construct, own, operate and maintain the state public policy project from a list of entities supplied by the Office of the Interconnection that pre-qualified to be Designated Entities pursuant to Section 1.5.8(a) of this Schedule 6.

1.6 Approval of the Final Regional Transmission Expansion Plan.

(a) Based on the studies and analyses performed by the Office of the Interconnection under this Schedule 6, the PJM Board shall approve the Regional Transmission Expansion Plan in accordance with the requirements of this ~~Section 1.6~~Schedule 6. The PJM Board shall ~~not~~ approve the cost allocations for transmission enhancements and expansions consistent with Schedule 12 of the PJM Tariff. Supplemental Projects ~~shall be integrated into listed in the~~ Regional Transmission Expansion Plan approved by the PJM Board but shall not be included for cost allocation purposes. ~~PJM Board approval of the Regional Transmission Expansion Plan shall not represent PJM Board review or approval of the Supplemental Projects, and Supplemental Projects are not eligible for cost allocation pursuant to Schedule 12 of the PJM Tariff.~~

(b) The Office of the Interconnection shall publish the current, approved Regional Transmission Expansion Plan on the PJM Internet site. Within 30 days after each occasion when the PJM Board approves a Regional Transmission Expansion Plan, or an addition to such a plan, that designates one or more Transmission Owners or other entity(ies) to construct such expansion or enhancement, the Office of the Interconnection shall file with FERC a report identifying the expansion or enhancement, its estimated cost, the entity or entities that will be responsible for constructing and owning or financing the project, and the market participants designated under Section 1.5.6(~~4~~) above to bear responsibility for the costs of the project.

(~~b~~c) If a Regional Transmission Expansion Plan is not approved, or if the transmission service requested by any entity is not included in an approved Regional Transmission Expansion Plan, nothing herein shall limit in any way the right of any entity to seek relief pursuant to the provisions of Section 211 of the Federal Power Act.

(~~e~~d) Following PJM Board approval, the final Regional Transmission Expansion Plan shall be documented, posted publicly and provided to the Applicable Regional Entities.

1.7 Obligation to Build.

(a) Subject to the requirements of applicable law, government regulations and approvals, including, without limitation, requirements to obtain any necessary state or local siting, construction and operating permits, to the availability of required financing, to the ability to acquire necessary right-of-way, and to the right to recover, pursuant to appropriate financial arrangements and tariffs or contracts, all reasonably incurred costs, plus a reasonable return on investment, Transmission Owners designated as the appropriate entities to construct, own and/or finance enhancements or expansions specified in the Regional Transmission Expansion Plan shall construct, own and/or finance such facilities or enter into appropriate contracts to fulfill such obligations. ~~However~~Except as provided in Section 1.5.8(k) of this Schedule 6, nothing herein shall require any Transmission Owner to construct, finance or own any enhancements or expansions specified in the Regional Transmission Expansion Plan for which the plan designates an entity other than a Transmission Owner as the appropriate entity to construct, own and/or finance such enhancements or expansions.

(b) Nothing herein shall prohibit any Transmission Owner from seeking to recover the cost of enhancements or expansions on an incremental cost basis or from seeking approval of such rate treatment from any regulatory agency with jurisdiction over such rates.

(c) The Office of the Interconnection shall be obligated to collect on behalf of the Transmission Owner(s) all charges established under Schedule 12 of the PJM Tariff in connection with facilities which the Office of the Interconnection designates one or more Transmission Owners to build pursuant to this Regional Transmission Expansion Planning Protocol. Such charges shall compensate the Transmission Owner(s) for all costs related to such RTEP facilities under a FERC-approved rate and will include any FERC-approved incentives.

(d) In the event that a Transmission Owner declines to construct an economic transmission enhancement or expansion developed under Sections 1.5.6(d) and 1.5.7 of this Schedule 6 that such Transmission Owner is designated by the Regional Transmission Expansion Plan to construct (in whole or in part), the Office of the Interconnection shall promptly file with the FERC a report on the results of the pertinent economic planning process in order to permit the FERC to determine what action, if any, it should take.

Attachment B

Revisions to the PJM Open Access Transmission Tariff and PJM Operating Agreement

(Clean Format)

Section(s) of the
PJM Open Access Transmission Tariff
(Clean Format)

Definitions – C-D

1.3BB.03 Cancellation Costs:

The Costs and liabilities incurred in connection with: (a) cancellation of supplier and contractor written orders and agreements entered into to design, construct and install Attachment Facilities, Direct Assignment Facilities and/or Customer-Funded Upgrades, and/or (b) completion of some or all of the required Attachment Facilities, Direct Assignment Facilities and/or Customer-Funded Upgrades, or specific unfinished portions and/or removal of any or all of such facilities which have been installed, to the extent required for the Transmission Provider and/or Transmission Owner(s) to perform their respective obligations under Part IV and/or Part VI of the Tariff.

1.3C Capacity Interconnection Rights:

The rights to input generation as a Generation Capacity Resource into the Transmission System at the Point of Interconnection where the generating facilities connect to the Transmission System.

1.3D Capacity Resource:

Shall have the meaning provided in the Reliability Assurance Agreement.

1.3E Capacity Transmission Injection Rights:

The rights to schedule energy and capacity deliveries at a Point of Interconnection (as defined in Section 1.33A) of a Merchant Transmission Facility with the Transmission System. Capacity Transmission Injection Rights may be awarded only to a Merchant D.C. Transmission Facility and/or Controllable A.C. Merchant Transmission Facilities that connects the Transmission System to another control area. Deliveries scheduled using Capacity Transmission Injection Rights have rights similar to those under Firm Point-to-Point Transmission Service or, if coupled with a generating unit external to the PJM Region that satisfies all applicable criteria specified in the PJM Manuals, similar to Capacity Interconnection Rights.

1.3F Commencement Date:

The date on which Interconnection Service commences in accordance with an Interconnection Service Agreement.

1.4 Commission:

The Federal Energy Regulatory Commission.

1.5 Completed Application:

An Application that satisfies all of the information and other requirements of the Tariff, including any required deposit.

1.5.01 Confidential Information:

Any confidential, proprietary, or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy, or compilation relating to the present or planned business of a New Service Customer, Transmission Owner, or other Interconnection Party or Construction Party, which is designated as confidential by the party supplying the information, whether conveyed verbally, electronically, in writing, through inspection, or otherwise, and shall include, without limitation, all information relating to the producing party's technology, research and development, business affairs and pricing, and any information supplied by any New Service Customer, Transmission Owner, or other Interconnection Party or Construction Party to another such party prior to the execution of an Interconnection Service Agreement or a Construction Service Agreement.

1.5A Consolidated Transmission Owners Agreement:

The certain Consolidated Transmission Owners Agreement dated as of December 15, 2005, by and among the Transmission Owners and by and between the Transmission Owners and PJM Interconnection, L.L.C.

1.5B Constructing Entity:

Either the Transmission Owner or the New Services Customer, depending on which entity has the construction responsibility pursuant to Part VI and the applicable Construction Service Agreement; this term shall also be used to refer to an Interconnection Customer with respect to the construction of the Customer Interconnection Facilities.

1.5C Construction Party:

A party to a Construction Service Agreement. "Construction Parties" shall mean all of the Parties to a Construction Service Agreement.

1.5D Construction Service Agreement:

Either an Interconnection Construction Service Agreement or an Upgrade Construction Service Agreement.

1.6 Control Area:

An electric power system or combination of electric power systems to which a common automatic generation control scheme is applied in order to:

(1) match, at all times, the power output of the generators within the electric power system(s) and capacity and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s);

(2) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice;

(3) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice; and

(4) provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.

1.6A Control Zone:

Shall have the meaning given in the Operating Agreement.

1.6B Controllable A.C. Merchant Transmission Facilities:

Transmission facilities that (1) employ technology which Transmission Provider reviews and verifies will permit control of the amount and/or direction of power flow on such facilities to such extent as to effectively enable the controllable facilities to be operated as if they were direct current transmission facilities, and (2) that are interconnected with the Transmission System pursuant to Part IV and Part VI of the Tariff.

1.6C Costs:

As used in Part IV, Part VI and related attachments to the Tariff, costs and expenses, as estimated or calculated, as applicable, including, but not limited to, capital expenditures, if applicable, and overhead, return, and the costs of financing and taxes and any Incidental Expenses.

1.6D Counterparty:

PJMSettlement as the contracting party, in its name and own right and not as an agent, to an agreement or transaction with a market participant or other customer.

1.7 Curtailment:

A reduction in firm or non-firm transmission service in response to a transfer capability shortage as a result of system reliability conditions.

1.7A Customer Facility:

Generation facilities or Merchant Transmission Facilities interconnected with or added to the Transmission System pursuant to an Interconnection Request under Subparts A of Part IV of the Tariff.

1.7A.01 Customer-Funded Upgrade:

Any Network Upgrade, Local Upgrade, or Merchant Network Upgrade for which cost responsibility (i) is imposed on an Interconnection Customer or an Eligible Customer pursuant to Section 217 of the Tariff, or (ii) is voluntarily undertaken by a market participant in fulfillment of an Upgrade Request pursuant to Section 7.8 of Schedule 1 of the Operating Agreement. No Network Upgrade, Local Upgrade or Merchant Network Upgrade or other transmission expansion or enhancement shall be a Customer-Funded Upgrade if and to the extent that the costs thereof are included in the rate base of a public utility on which a regulated return is earned.

1.7A.02 Customer Interconnection Facilities:

All facilities and equipment owned and/or controlled, operated and maintained by Interconnection Customer on Interconnection Customer's side of the Point of Interconnection identified in the appropriate appendices to the Interconnection Service Agreement and to the Interconnection Construction Service Agreement, including any modifications, additions, or upgrades made to such facilities and equipment, that are necessary to physically and electrically interconnect the Customer Facility with the Transmission System.

1.7B Daily Capacity Deficiency Rate

Daily Capacity Deficiency Rate is as defined in Schedule 11 of the Reliability Assurance Agreement.

1.7C Deactivation:

The retirement or mothballing of a generating unit governed by Part V of this Tariff.

1.7D Deactivation Avoidable Cost Credit:

The credit paid to Generation Owners pursuant to section 114 of this Tariff.

1.7E Deactivation Avoidable Cost Rate:

The formula rate established pursuant to section 115 of this Tariff.

1.7F Deactivation Date:

The date a generating unit within the PJM Region is either retired or mothballed and ceases to operate.

1.7G Default:

As used in the Interconnection Service Agreement and Construction Service Agreement, the failure of a Breaching Party to cure its Breach in accordance with the applicable provisions of an Interconnection Service Agreement or Construction Service Agreement.

1.8 Delivering Party:

The entity supplying capacity and energy to be transmitted at Point(s) of Receipt.

1.9 Designated Agent:

Any entity that performs actions or functions on behalf of the Transmission Provider, a Transmission Owner, an Eligible Customer, or the Transmission Customer required under the Tariff.

1.9A Designated Entity:

“Designated Entity” shall have the same meaning provided in the Operating Agreement.

1.10 Direct Assignment Facilities:

Facilities or portions of facilities that are constructed for the sole use/benefit of a particular Transmission Customer requesting service under the Tariff. Direct Assignment Facilities shall be specified in the Service Agreement that governs service to the Transmission Customer and shall be subject to Commission approval.

Definitions – I – J - K

1.14A IDR Transfer Agreement:

An agreement to transfer, subject to the terms of Section 49B of the Tariff, Incremental Deliverability Rights to a party for the purpose of eliminating or reducing the need for Local or Network Upgrades that would otherwise have been the responsibility of the party receiving such rights.

1.14A.001 Immediate-need Reliability Project:

“Immediate-need Reliability Project” shall have the same meaning provided in the Operating Agreement.

1.14A.01 Incidental Expenses:

Shall mean those expenses incidental to the performance of construction pursuant to an Interconnection Construction Service Agreement, including, but not limited to, the expense of temporary construction power, telecommunications charges, Interconnected Transmission Owner expenses associated with, but not limited to, document preparation, design review, installation, monitoring, and construction-related operations and maintenance for the Customer Facility and for the Interconnection Facilities.

1.14B Incremental Auction Revenue Rights:

The additional Auction Revenue Rights (as defined in Section 1.3.1A of Schedule 1 of the Operating Agreement), not previously feasible, created by the addition of Incremental Rights-Eligible Required Transmission Enhancements, Merchant Transmission Facilities, or of one or more Customer-Funded Upgrades.

1.14B.01 Incremental Rights-Eligible Required Transmission Enhancements:

Regional Facilities and Necessary Lower Voltage Facilities or Lower Voltage Facilities (as defined in Schedule 12 of the Tariff) and meet one of the following criteria: (1) cost responsibility is assigned to non-contiguous Zones that are not directly electrically connected; or (2) cost responsibility is assigned to Merchant Transmission Providers that are Responsible Customers.

1.14C Incremental Available Transfer Capability Revenue Rights:

The rights to revenues that are derived from incremental Available Transfer Capability created by the addition of Merchant Transmission Facilities or of one of more Customer-Funded Upgrades.

1.14D Incremental Deliverability Rights (IDRs):

The rights to the incremental ability, resulting from the addition of Merchant Transmission Facilities, to inject energy and capacity at a point on the Transmission System, such that the injection satisfies the deliverability requirements of a Capacity Resource. Incremental Deliverability Rights may be obtained by a generator or a Generation Interconnection Customer, pursuant to an IDR Transfer Agreement, to satisfy, in part, the deliverability requirements necessary to obtain Capacity Interconnection Rights.

1.14Da Initial Operation:

The commencement of operation of the Customer Facility and Customer Interconnection Facilities after satisfaction of the conditions of Section 1.4 of Appendix 2 of an Interconnection Service Agreement.

1.14Db Initial Study:

A study of a Completed Application conducted by the Transmission Provider (in coordination with the affected Transmission Owner(s)) in accordance with Section 19 or Section 32 of the Tariff.

1.14Dc Interconnected Entity:

Either the Interconnection Customer or the Interconnected Transmission Owner; Interconnected Entities shall mean both of them.

1.14D.01 Interconnected Transmission Owner:

The Transmission Owner to whose transmission facilities or distribution facilities Customer Interconnection Facilities are, or as the case may be, a Customer Facility is, being directly connected. When used in an Interconnection Construction Service Agreement, the term may refer to a Transmission Owner whose facilities must be upgraded pursuant to the Facilities Study, but whose facilities are not directly interconnected with those of the Interconnection Customer.

1.14D.02 Interconnection Construction Service Agreement:

The agreement entered into by an Interconnection Customer, Interconnected Transmission Owner and the Transmission Provider pursuant to Subpart B of Part VI of the Tariff and in the form set forth in Attachment P of the Tariff, relating to construction of Attachment Facilities, Network Upgrades, and/or Local Upgrades and coordination of the construction and interconnection of an associated Customer Facility. A separate Interconnection Construction Service Agreement will be executed with each Transmission Owner that is responsible for construction of any Attachment Facilities, Network Upgrades, or Local Upgrades associated with interconnection of a Customer Facility.

1.14E Interconnection Customer:

A Generation Interconnection Customer and/or a Transmission Interconnection Customer.

1.14F Interconnection Facilities:

The Transmission Owner Interconnection Facilities and the Customer Interconnection Facilities.

1.14G Interconnection Feasibility Study:

Either a Generation Interconnection Feasibility Study or Transmission Interconnection Feasibility Study.

1.14G.01 Interconnection Party:

Transmission Provider, Interconnection Customer, or the Interconnected Transmission Owner. Interconnection Parties shall mean all of them.

1.14H Interconnection Request:

A Generation Interconnection Request, a Transmission Interconnection Request and/or an IDR Transfer Agreement.

1.14H.01 Interconnection Service:

The physical and electrical interconnection of the Customer Facility with the Transmission System pursuant to the terms of Part IV and Part VI and the Interconnection Service Agreement entered into pursuant thereto by Interconnection Customer, the Interconnected Transmission Owner and Transmission Provider.

1.14I Interconnection Service Agreement:

An agreement among the Transmission Provider, an Interconnection Customer and an Interconnected Transmission Owner regarding interconnection under Part IV and Part VI of the Tariff.

1.14J Interconnection Studies:

The Interconnection Feasibility Study, the System Impact Study, and the Facilities Study described in Part IV and Part VI of the Tariff.

1.15 Interruption:

A reduction in non-firm transmission service due to economic reasons pursuant to Section 14.7.

Definitions – L – M - N

1.15A List of Approved Contractors:

A list developed by each Transmission Owner and published in a PJM Manual of (a) contractors that the Transmission Owner considers to be qualified to install or construct new facilities and/or upgrades or modifications to existing facilities on the Transmission Owner's system, provided that such contractors may include, but need not be limited to, contractors that, in addition to providing construction services, also provide design and/or other construction-related services, and (b) manufacturers or vendors of major transmission-related equipment (e.g., high-voltage transformers, transmission line, circuit breakers) whose products the Transmission Owner considers acceptable for installation and use on its system.

1.16 Load Ratio Share:

Ratio of a Transmission Customer's Network Load to the Transmission Provider's total load.

1.17 Load Shedding:

The systematic reduction of system demand by temporarily decreasing load in response to transmission system or area capacity shortages, system instability, or voltage control considerations under Part II or Part III of the Tariff.

1.17A Local Upgrades:

Modifications or additions of facilities to abate any local thermal loading, voltage, short circuit, stability or similar engineering problem caused by the interconnection and delivery of generation to the Transmission System. Local Upgrades shall include:

(i) Direct Connection Local Upgrades which are Local Upgrades that only serve the Customer Interconnection Facility and have no impact or potential impact on the Transmission System until the final tie-in is complete; and

(ii) Non-Direct Connection Local Upgrades which are parallel flow Local Upgrades that are not Direct Connection Local Upgrades.

1.17B Long-lead Project:

"Long-lead Project" shall have the same meaning provided in the Operating Agreement.

1.18 Long-Term Firm Point-To-Point Transmission Service:

Firm Point-To-Point Transmission Service under Part II of the Tariff with a term of one year or more.

1.18A [RESERVED]

1.18A.01 [RESERVED]

1.18A.02 Material Modification:

Any modification to an Interconnection Request that has a material adverse effect on the cost or timing of Interconnection Studies related to, or any Network Upgrades or Local Upgrades needed to accommodate, any Interconnection Request with a later Queue Position.

1.18A.03 Maximum Facility Output:

The maximum (not nominal) net electrical power output in megawatts, specified in the Interconnection Service Agreement, after supply of any parasitic or host facility loads, that a Generation Interconnection Customer's Customer Facility is expected to produce, provided that the specified Maximum Facility Output shall not exceed the output of the proposed Customer Facility that Transmission Provider utilized in the System Impact Study.

1.18B Merchant A.C. Transmission Facilities:

Merchant Transmission Facilities that are alternating current (A.C.) transmission facilities, other than those that are Controllable A.C. Merchant Transmission Facilities.

1.18C Merchant D.C. Transmission Facilities:

Direct current (D.C.) transmission facilities that are interconnected with the Transmission System pursuant to Part IV and Part VI of the Tariff.

1.18D Merchant Network Upgrades:

Merchant A.C. Transmission Facilities that are additions to, or modifications or replacements of, physical facilities of the Interconnected Transmission Owner that, on the date of the pertinent Transmission Interconnection Customer's Interconnection Request, are part of the Transmission System or are included in the Regional Transmission Expansion Plan.

1.18E Merchant Transmission Facilities:

A.C. or D.C. transmission facilities that are interconnected with or added to the Transmission System pursuant to Part IV and Part VI of the Tariff and that are so identified on Attachment T to the Tariff, provided, however, that Merchant Transmission Facilities shall not include (i) any Customer Interconnection Facilities, (ii) any physical facilities of the Transmission System that were in existence on or before March 20, 2003 ; (iii) any expansions or enhancements of the Transmission System that are not identified as Merchant Transmission Facilities in the Regional Transmission Expansion Plan and Attachment T to the Tariff, or (iv) any transmission facilities that are included in the rate base of a public utility and on which a regulated return is earned.

1.18F Merchant Transmission Provider:

An Interconnection Customer that (1) owns, controls, or controls the rights to use the transmission capability of, Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that connect the Transmission System with another control area, (2) has elected to receive Transmission Injection Rights and Transmission Withdrawal Rights associated with such facility pursuant to Section 36 of the Tariff, and (3) makes (or will make) the transmission capability of such facilities available for use by third parties under terms and conditions approved by the Commission and stated in the Tariff, consistent with Section 38 below.

1.18G Metering Equipment:

All metering equipment installed at the metering points designated in the appropriate appendix to an Interconnection Service Agreement.

1.19 Native Load Customers:

The wholesale and retail power customers of a Transmission Owner on whose behalf the Transmission Owner, by statute, franchise, regulatory requirement, or contract, has undertaken an obligation to construct and operate the Transmission Owner's system to meet the reliable electric needs of such customers.

1.19A NERC:

The North American Electric Reliability Council or any successor thereto.

1.19B Neutral Party

Shall have the meaning provided in Section 9.3(v).

1.20 Network Customer:

An entity receiving transmission service pursuant to the terms of the Transmission Provider's Network Integration Transmission Service under Part III of the Tariff.

1.21 Network Integration Transmission Service:

The transmission service provided under Part III of the Tariff.

1.22 Network Load:

The load that a Network Customer designates for Network Integration Transmission Service under Part III of the Tariff. The Network Customer's Network Load shall include all load (including losses) served by the output of any Network Resources designated by the Network Customer. A Network Customer may elect to designate less than its total load as Network Load but may not designate only part of the load at a discrete Point of Delivery. Where an Eligible

Customer has elected not to designate a particular load at discrete points of delivery as Network Load, the Eligible Customer is responsible for making separate arrangements under Part II of the Tariff for any Point-To-Point Transmission Service that may be necessary for such non-designated load.

1.23 Network Operating Agreement:

An executed agreement that contains the terms and conditions under which the Network Customer shall operate its facilities and the technical and operational matters associated with the implementation of Network Integration Transmission Service under Part III of the Tariff.

1.24 Network Operating Committee:

A group made up of representatives from the Network Customer(s) and the Transmission Provider established to coordinate operating criteria and other technical considerations required for implementation of Network Integration Transmission Service under Part III of this Tariff.

1.25 Network Resource:

Any designated generating resource owned, purchased, or leased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis, except for purposes of fulfilling obligations under a reserve sharing program.

1.26 Network Upgrades:

Modifications or additions to transmission-related facilities that are integrated with and support the Transmission Provider's overall Transmission System for the general benefit of all users of such Transmission System. Network Upgrades shall include:

(i) **Direct Connection Network Upgrades** which are Network Upgrades that only serve the Customer Interconnection Facility and have no impact or potential impact on the Transmission System until the final tie-in is complete; and

(ii) **Non-Direct Connection Network Upgrades** which are parallel flow Network Upgrades that are not Direct Connection Network Upgrades.

1.26A New PJM Zone(s):

The Zone included in this Tariff, along with applicable Schedules and Attachments, for Commonwealth Edison Company, The Dayton Power and Light Company and the AEP East Operating Companies (Appalachian Power Company, Columbus Southern Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company and Wheeling Power Company).

1.26B New Service Customers:

All customers that submit an Interconnection Request, a Completed Application, or an Upgrade Request that is pending in the New Services Queue.

1.26C New Service Request:

An Interconnection Request, a Completed Application, or an Upgrade Request.

1.26D New Services Queue:

All Interconnection Requests, Completed Applications, and Upgrade Requests that are received within each three-month period ending on January 31, April 30, July 31, and October 31 of each year shall collectively comprise a New Services Queue.

1.26E New Services Queue Closing Date:

Each January 31, April 30, July 31, and October 31 shall be the Queue Closing Date for the New Services Queue comprised of Interconnection Requests, Completed Applications, and Upgrade Requests received during the three-month period ending on such date.

1.26F Nominal Rated Capability:

The nominal maximum rated capability in megawatts of a Transmission Interconnection Customer's Customer Facility or the nominal increase in transmission capability in megawatts of the Transmission System resulting from the interconnection or addition of a Transmission Interconnection Customer's Customer Facility, as determined in accordance with pertinent Applicable Standards and specified in the Interconnection Service Agreement.

1.27 Non-Firm Point-To-Point Transmission Service:

Point-To-Point Transmission Service under the Tariff that is reserved and scheduled on an as-available basis and is subject to Curtailment or Interruption as set forth in Section 14.7 under Part II of this Tariff. Non-Firm Point-To-Point Transmission Service is available on a stand-alone basis for periods ranging from one hour to one month.

1.27.01 Non-Firm Sale:

An energy sale for which receipt or delivery may be interrupted for any reason or no reason, without liability on the part of either the buyer or seller.

1.27A Non-Firm Transmission Withdrawal Rights:

The rights to schedule energy withdrawals from a specified point on the Transmission System. Non-Firm Transmission Withdrawal Rights may be awarded only to a Merchant D.C. Transmission Facility that connects the Transmission System to another control area.

Withdrawals scheduled using Non-Firm Transmission Withdrawal Rights have rights similar to those under Non-Firm Point-to-Point Transmission Service.

1.27AA Non-Retail Behind The Meter Generation:

Behind the Meter Generation that is used by municipal electric systems, electric cooperatives, or electric distribution companies to serve load.

1.27B Non-Zone Network Load:

Network Load that is located outside of the PJM Region.

Definitions – O – P - Q

1.27C Office of the Interconnection:

Office of the Interconnection shall have the meaning set forth in the Operating Agreement.

1.28 Open Access Same-Time Information System (OASIS):

The information system and standards of conduct contained in Part 37 and Part 38 of the Commission's regulations and all additional requirements implemented by subsequent Commission orders dealing with OASIS.

1.28A Operating Agreement of the PJM Interconnection, L.L.C. or Operating Agreement:

That agreement dated as of April 1, 1997 and as amended and restated as of June 2, 1997 and as amended from time to time thereafter, among the members of the PJM Interconnection, L.L.C.

1.28A.01 Option to Build:

The option of the New Service Customer to build certain Customer-Funded Upgrades, as set forth in, and subject to the terms of, the Construction Service Agreement.

1.28B Optional Interconnection Study:

A sensitivity analysis of an Interconnection Request based on assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement.

1.28C Optional Interconnection Study Agreement:

The form of agreement for preparation of an Optional Interconnection Study, as set forth in Attachment N-3 of the Tariff.

1.29 Part I:

Tariff Definitions and Common Service Provisions contained in Sections 2 through 12.

1.30 Part II:

Tariff Sections 13 through 27 pertaining to Point-To-Point Transmission Service in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments.

1.31 Part III:

Tariff Sections 28 through 35 pertaining to Network Integration Transmission Service in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments.

1.31A Part IV:

Tariff Sections 36 through 112 pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments.

1.31B Part V:

Tariff Sections 113 through 122 pertaining to the deactivation of generating units in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments.

1.31C Part VI:

Tariff Sections 200 through 237 pertaining to the queuing, study, and agreements relating to New Service Requests, and the rights associated with Customer-Funded Upgrades in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments.

1.32 Parties:

The Transmission Provider, as administrator of the Tariff, and the Transmission Customer receiving service under the Tariff. PJMSettlement shall be the Counterparty to Transmission Customers.

1.32.01 PJM:

PJM Interconnection, L.L.C.

1.32A PJM Administrative Service:

The services provided by PJM pursuant to Schedule 9 of this Tariff.

1.32B PJM Control Area:

The Control Area that is recognized by NERC as the PJM Control Area.

1.32C PJM Interchange Energy Market:

The regional competitive market administered by the Transmission Provider for the purchase and sale of spot electric energy at wholesale interstate commerce and related services, as more fully set forth in Attachment K – Appendix to the Tariff and Schedule 1 to the Operating Agreement.

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:

The entity that is purchasing the capacity and energy to be transmitted under the Tariff.

1.36.01 PRD Curve

PRD Curve shall have the meaning provided in the Reliability Assurance Agreement.

1.36.02 PRD Provider

PRD Provider shall have the meaning provided in the Reliability Assurance Agreement.

1.36.03 PRD Reservation Price

PRD Reservation Price shall have the meaning provided in the Reliability Assurance Agreement.

1.36.04 PRD Substation:

PRD Substation shall have the meaning provided in the Reliability Assurance Agreement.

1.36.05 Pre-Confirmed Application:

An Application that commits the Eligible Customer to execute a Service Agreement upon receipt of notification that the Transmission Provider can provide the requested Transmission Service.

1.36A Pre-Expansion PJM Zones:

Zones included in this Tariff, along with applicable Schedules and Attachments, for certain Transmission Owners – Atlantic City Electric Company, Baltimore Gas and Electric Company, Delmarva Power and Light Company, Jersey Central Power and Light Company, Metropolitan Edison Company, PECO Energy Company, Pennsylvania Electric Company, Pennsylvania Power & Light Group, Potomac Electric Power Company, Public Service Electric and Gas Company, Allegheny Power, and Rockland Electric Company.

1.36A.01 Price Responsive Demand

Price Responsive Demand shall have the meaning provided in the Reliability Assurance Agreement.

1.36A.02 Project Financing:

Shall mean: (a) one or more loans, leases, equity and/or debt financings, together with all modifications, renewals, supplements, substitutions and replacements thereof, the proceeds of which are used to finance or refinance the costs of the Customer Facility, any alteration, expansion or improvement to the Customer Facility, the purchase and sale of the Customer Facility or the operation of the Customer Facility; (b) a power purchase agreement pursuant to

which Interconnection Customer's obligations are secured by a mortgage or other lien on the Customer Facility; or (c) loans and/or debt issues secured by the Customer Facility.

1.36A.03 Project Finance Entity:

Shall mean: (a) a holder, trustee or agent for holders, of any component of Project Financing; or (b) any purchaser of capacity and/or energy produced by the Customer Facility to which Interconnection Customer has granted a mortgage or other lien as security for some or all of Interconnection Customer's obligations under the corresponding power purchase agreement.

1.36A.04 Public Policy Objectives:

"Public Policy Objectives" shall have the same meaning provided in the Operating Agreement.

1.36A.05 Public Policy Requirements:

"Public Policy Requirements" shall have the same meaning provided in the Operating Agreement.

1.36B Queue Position:

The priority assigned to an Interconnection Request, a Completed Application, or an Upgrade Request pursuant to applicable provisions of Part VI.

Definitions – R - S

1.36C Reasonable Efforts:

With respect to any action required to be made, attempted, or taken by an Interconnection Party or by a Construction Party under Part IV or Part VI of the Tariff, an Interconnection Service Agreement, or a Construction Service Agreement, such efforts as are timely and consistent with Good Utility Practice and with efforts that such party would undertake for the protection of its own interests.

1.37 Receiving Party:

The entity receiving the capacity and energy transmitted by the Transmission Provider to Point(s) of Delivery.

1.37A.01 Regional Entity

Shall have the same meaning specified in the Operating Agreement.

1.37A Regional Transmission Expansion Plan:

The plan prepared by the Office of the Interconnection pursuant to Schedule 6 of the Operating Agreement for the enhancement and expansion of the Transmission System in order to meet the demands for firm transmission service in the PJM Region.

1.38 Regional Transmission Group (RTG):

A voluntary organization of transmission owners, transmission users and other entities approved by the Commission to efficiently coordinate transmission planning (and expansion), operation and use on a regional (and interregional) basis.

1.38.01 Regulation Zone:

Any of those one or more geographic areas, each consisting of a combination of one or more Control Zone(s) as designated by the Office of the Interconnection in the PJM Manuals, relevant to provision of, and requirements for, regulation service.

1.38.01A Relevant Electric Retail Regulatory Authority:

An entity that has jurisdiction over and establishes prices and policies for competition for providers of retail electric service to end-customers, such as the city council for a municipal utility, the governing board of a cooperative utility, the state public utility commission or any other such entity.

1.38A Reliability Assurance Agreement:

The Reliability Assurance Agreement Among Load Serving Entities in the PJM Region, Rate Schedule No. 44, dated as of May 28, 2009, and as amended from time to time thereafter.

1.38B [RESERVED]

1.38C Required Transmission Enhancements:

Enhancements and expansions of the Transmission System that (1) a Regional Transmission Expansion Plan developed pursuant to Schedule 6 of the Operating Agreement or (2) the Coordinated System Plan periodically developed pursuant to the Joint Operating Agreement Between the Midwest Independent Transmission System Operator, Inc. and PJM Interconnection, L.L.C. designates one or more of the Transmission Owner(s) or the transmission owners within the Midwest Independent System Operator to construct and own or finance.

1.38C.01 Reserve Sub-zone:

Any of those geographic areas wholly contained within a Reserve Zone, consisting of a combination of a portion of one or more Control Zone(s) as designated by the Office of the Interconnection in the PJM Manuals, relevant to provision of, and requirements for, reserve service.

1.38D Reserve Zone:

Any of those geographic areas consisting of a combination of one or more Control Zone(s), as designated by the Office of the Interconnection in the PJM Manuals, relevant to provision of, and requirements for, reserve service.

1.39 Reserved Capacity:

The maximum amount of capacity and energy that the Transmission Provider agrees to transmit for the Transmission Customer over the Transmission Provider's Transmission System between the Point(s) of Receipt and the Point(s) of Delivery under Part II of the Tariff. Reserved Capacity shall be expressed in terms of whole megawatts on a sixty (60) minute interval (commencing on the clock hour) basis.

1.39A Schedule of Work:

Shall mean that schedule attached to the Interconnection Construction Service Agreement setting forth the timing of work to be performed by the Constructing Entity pursuant to the Interconnection Construction Service Agreement, based upon the Facilities Study and subject to modification, as required, in accordance with Transmission Provider's scope change process for interconnection projects set forth in the PJM Manuals.

1.39B Scope of Work:

Shall mean that scope of the work attached as a schedule to the Interconnection Construction Service Agreement and to be performed by the Constructing Entity(ies) pursuant to the Interconnection Construction Service Agreement, provided that such Scope of Work may be modified, as required, in accordance with Transmission Provider's scope change process for interconnection projects set forth in the PJM Manuals.

1.39C Secondary Systems:

Control or power circuits that operate below 600 volts, AC or DC, including, but not limited to, any hardware, control or protective devices, cables, conductors, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers.

1.39D Security:

The security provided by the New Service Customer pursuant to Section 212.4 or Section 213.4 of the Tariff to secure the New Service Customer's responsibility for Costs under the Interconnection Service Agreement or Upgrade Construction Service Agreement and Section 217 of the Tariff.

1.40 Service Agreement:

The initial agreement and any amendments or supplements thereto entered into by the Transmission Customer and the Transmission Provider for service under the Tariff.

1.41 Service Commencement Date:

The date the Transmission Provider begins to provide service pursuant to the terms of an executed Service Agreement, or the date the Transmission Provider begins to provide service in accordance with Section 15.3 or Section 29.1 under the Tariff.

1.42 Short-Term Firm Point-To-Point Transmission Service:

Firm Point-To-Point Transmission Service under Part II of the Tariff with a term of less than one year.

1.42.001 Short-term Project:

"Short-term Project" shall have the same meaning provided in the Operating Agreement.

1.42a Site:

All of the real property, including but not limited to any leased real property and easements, on which the Customer Facility is situated and/or on which the Customer Interconnection Facilities are to be located.

1.42.01 Small Inverter Facility:

An Energy Resource that is a certified small inverter-based facility no larger than 10 kW.

1.42.02 Small Inverter ISA:

An agreement among Transmission Provider, Interconnection Customer, and Interconnected Transmission Owner regarding interconnection of a Small Inverter Facility under section 112B of Part IV of the Tariff.

1.42A [RESERVED]

1.42B [RESERVED]

1.42C [RESERVED]

1.42D State:

The term “state” shall mean a state of the United States or the District of Columbia.

1.42D.01 Switching and Tagging Rules:

The switching and tagging procedures of Interconnected Transmission Owners and Interconnection Customer as they may be amended from time to time.

1.42E [RESERVED]

1.42F System Condition:

A specified condition on the Transmission Provider’s system or on a neighboring system, such as a constrained transmission element or flowgate, that may trigger Curtailment of Long-Term Firm Point-to-Point Transmission Service using the curtailment priority pursuant to Section 13.6. Such conditions must be identified in the Transmission Customer’s Service Agreement.

1.43 System Impact Study:

An assessment by the Transmission Provider of (i) the adequacy of the Transmission System to accommodate a Completed Application, an Interconnection Request or an Upgrade Request, (ii) whether any additional costs may be incurred in order to provide such transmission service or to accommodate an Interconnection Request, and (iii) with respect to an Interconnection Request, an estimated date that an Interconnection Customer’s Customer Facility can be interconnected with the Transmission System and an estimate of the Interconnection Customer’s cost responsibility for the interconnection; and (iv) with respect to an Upgrade Request, the estimated cost of the requested system upgrades or expansion, or of the cost of the system upgrades or expansion, necessary to provide the requested incremental rights.

1.43.01 System Protection Facilities:

The equipment required to protect (i) the Transmission System, other delivery systems and/or other generating systems connected to the Transmission System from faults or other electrical disturbance occurring at or on the Customer Facility, and (ii) the Customer Facility from faults or other electrical system disturbance occurring on the Transmission System or on other delivery systems and/or other generating systems to which the Transmission System is directly or indirectly connected. System Protection Facilities shall include such protective and regulating devices as are identified in the Applicable Technical Requirements and Standards or that are required by Applicable Laws and Regulations or other Applicable Standards, or as are otherwise necessary to protect personnel and equipment and to minimize deleterious effects to the Transmission System arising from the Customer Facility.

Section(s) of the
PJM Operating Agreement
(Clean Format)

Definitions C - D

1.6 Capacity Resource.

“Capacity Resource” have the meaning provided in the Reliability Assurance Agreement.

1.6A Consolidated Transmission Owners Agreement.

“Consolidated Transmission Owners Agreement” dated as of December 15, 2005, by and among the Transmission Owners and by and between the Transmission Owners and PJM Interconnection, L.L.C.

1.7 Control Area.

“Control Area” shall mean an electric power system or combination of electric power systems bounded by interconnection metering and telemetry to which a common automatic generation control scheme is applied in order to:

- (a) match the power output of the generators within the electric power system(s) and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s);
- (b) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice;
- (c) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice and the criteria of NERC and each Applicable Regional Entity;
- (d) maintain power flows on transmission facilities within appropriate limits to preserve reliability; and
- (e) provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.

1.7.01 Control Zone.

“Control Zone” shall mean one Zone or multiple contiguous Zones, as designated in the PJM Manuals.

1.7.01a Counterparty.

“Counterparty” shall mean PJMSettlement as the contracting party, in its name and own right and not as an agent, to an agreement or transaction with Market Participants or other entities, including the agreements and transactions with customers regarding transmission service and other transactions under the PJM Tariff and this Operating Agreement. PJMSettlement shall not be a counterparty to (i)

any bilateral transactions between Market Participants, or (ii) with respect to self-supplied or self-scheduled transactions reported to the Office of the Interconnection.

1.7.02 Default Allocation Assessment.

“Default Allocation Assessment” shall mean the assessment determined pursuant to section 15.2.2 of this Agreement.

1.7.03 Demand Resource.

“Demand Resource” shall have the meaning provided in the Reliability Assurance Agreement.

1.7A Designated Entity.

The entity designated by the Office of the Interconnection with the responsibility to construct, own, operate, maintain, and finance Immediate-need Reliability Projects, Short-term Projects, and Long-lead Projects pursuant to Section 1.5.8 of Schedule 6 of this Agreement.

1.7B [Reserved].

Definitions I - L

1.15A Immediate-need Reliability Project.

A reliability-based transmission enhancement or expansion: (i) with an in-service date of three years or less from the year the Office of the Interconnection identified the existing or projected limitations on the Transmission System that gave rise to the need for such enhancement or expansion pursuant to the study process described in section 1.5.3 of this Schedule 6; or (ii) for which the Office of the Interconnection determines that an expedited designation is required to address existing and projected limitations on the Transmission System due to immediacy of the reliability need in light of the projected time to complete the enhancement or expansion. In determining whether an expedited designation is required, the Office of the Interconnection shall consider time-based factors such as, but not limited to, the time necessary: (i) to obtain regulatory approvals; (ii) to acquire long lead equipment; (iii) to meet construction schedules; (iv) to complete engineering plans; and (v) for other time-based factors impacting the feasibility of achieving the required in-service date.

1.16 Information Request.

“Information Request” shall mean a written request, in accordance with the terms of this Agreement for disclosure of confidential information pursuant to Section 18.17.4 of this Agreement.

1.16A Interruptible Load for Reliability.

“Interruptible Load for Reliability” or “ILR” shall have the meaning specified in the Reliability Assurance Agreement.

1.17 LLC.

“LLC” shall mean PJM Interconnection, L.L.C., a Delaware limited liability company.

1.18 Load Serving Entity.

“Load Serving Entity” shall mean an entity, including a load aggregator or power marketer, (1) serving end-users within the PJM Region, and (2) that has been granted the authority or has an obligation pursuant to state or local law, regulation or franchise to sell electric energy to end-users located within the PJM Region, or the duly designated agent of such an entity.

1.18A Local Plan.

“Local Plan” shall mean the plan as developed by the Transmission Owners. The Local Plan shall include, at a minimum, the Subregional RTEP Projects and Supplemental Projects as identified by the Transmission Owners within their zone. The Local Plan will include those projects that are developed to comply with the Transmission Owner planning criteria.

1.19 Locational Marginal Price.

“Locational Marginal Price” or “LMP” shall mean the hourly integrated market clearing marginal price for energy at the location the energy is delivered or received, calculated as specified in Section 2 of Schedule 1 of this Agreement.

1.19A Long-lead Project.

A transmission enhancement or expansion with an in-service date more than five years from the year in which, pursuant to section 1.5.8(c) of this Schedule 6, the Office of the Interconnection posts the violations, system conditions, economic constraints, and Public Policy Requirements to be addressed by the enhancement or expansion.

Definitions S – T

1.40C SERC.

“SERC” or “Southeastern Electric Reliability Council” shall mean the reliability council under section 202 of the Federal Power Act established pursuant to the SERC Agreement dated January 14, 1970, or any successor thereto.

1.41 Sector Votes.

“Sector Votes” shall mean the affirmative and negative votes of each sector of a Senior Standing Committee, as specified in Section 8.4.

1.41A Senior Standing Committees.

“Senior Standing Committees” shall mean the Members Committee, and the Markets, and Reliability Committee, as established in Sections 8.1 and 8.6.

1.41A.01 Short-term Project.

A transmission enhancement or expansion with an in-service date of more than three years but no more than five years from the year in which, pursuant to section 1.5.8(c) of this Schedule 6, the Office of the Interconnection posts the violations, system conditions, economic constraints, and Public Policy Requirements to be addressed by the enhancement or expansion.

1.41A.02 [Reserved].

1.41A.03 [Reserved].

1.41B Standing Committees.

“Standing Committees” shall mean the Members Committee, the committees established and maintained under Section 8.6, and such other committees as the Members Committee may establish and maintain from time to time.

1.42 State.

“State” shall mean the District of Columbia and any State or Commonwealth of the United States.

1.42.01 State Certification.

“State Certification” shall mean the Certification of an Authorized Commission, pursuant to Section 18 of this Agreement, the form of which is appended to this Agreement as Schedule

10A, wherein the Authorized Commission identifies all Authorized Persons employed or retained by such Authorized Commission, a copy of which shall be filed with FERC.

1.42A State Consumer Advocate.

“State Consumer Advocate” shall mean a legislatively created office from any State, all or any part of the territory of which is within the PJM Region, and the District of Columbia established, inter alia, for the purpose of representing the interests of energy consumers before the utility regulatory commissions of such states and the District of Columbia and the FERC.

1.42A.01 Subregional RTEP Project.

“Subregional RTEP Project” shall mean a transmission expansion or enhancement rated below 230 kV which is required for compliance with the following PJM criteria: system reliability, operational performance or economic criteria, pursuant to a determination by the Office of the Interconnection.

1.42A.02 Supplemental Project.

“Supplemental Project” shall mean a Regional RTEP Project(s) or Subregional RTEP Project(s), which is not required for compliance with the following PJM criteria: System reliability, operational performance or economic criteria, pursuant to a determination by the Office of the Interconnection.

1.42B [Reserved].

1.43 System.

“System” shall mean the interconnected electric supply system of a Member and its interconnected subsidiaries exclusive of facilities which it may own or control outside of the PJM Region. Each Member may include in its system the electric supply systems of any party or parties other than Members which are within the PJM Region, provided its interconnection agreements with such other party or parties do not conflict with such inclusion.

1.43A Third Party Request.

“Third Party Request” shall mean any request or demand by any entity upon an Authorized Person or an Authorized Commission for release or disclosure of confidential information provided to the Authorized Person or Authorized Commission by the Office of the Interconnection or PJM Market Monitor. A Third Party Request shall include, but shall not be limited to, any subpoena, discovery request, or other request for confidential information made by any: (i) federal, state, or local governmental subdivision, department, official, agency or court, or (ii) arbitration panel, business, company, entity or individual.

1.44 Transmission Facilities.

“Transmission Facilities” shall mean facilities that: (i) are within the PJM Region; (ii) meet the definition of transmission facilities pursuant to FERC’s Uniform System of Accounts or have been classified as transmission facilities in a ruling by FERC addressing such facilities; and (iii) have been demonstrated to the satisfaction of the Office of the Interconnection to be integrated with the transmission system of the PJM Region and integrated into the planning and operation of such to serve all of the power and transmission customers within such region.

1.45 Transmission Owner.

“Transmission Owner” shall mean a Member that owns or leases with rights equivalent to ownership Transmission Facilities and is a signatory to the PJM Transmission Owners Agreement. Taking transmission service shall not be sufficient to qualify a Member as a Transmission Owner.

1.46 [Reserved.]

1.3 Establishment of Committees.

(a) The Planning Committee shall be open to participation by (i) all Transmission Customers, as that term is defined in the PJM Tariff, and applicants for transmission service; (ii) any other entity proposing to provide Transmission Facilities to be integrated into the PJM Region; (iii) all Members; (iv) the electric utility regulatory agencies within the States in the PJM Region and the State Consumer Advocates; and (v) any other interested entities or persons and shall provide technical advice and assistance to the Office of the Interconnection in all aspects of its regional planning functions. The Transmission Owners shall supply representatives to the Planning Committee, and other Members may provide representatives as they deem appropriate, to provide the data, information, and support necessary for the Office of the Interconnection to perform studies as required and to develop the Regional Transmission Expansion Plan.

(b) The Transmission Expansion Advisory Committee established by the Office of the Interconnection will meet periodically with representatives of the Office of the Interconnection to provide advice and recommendations to the Office of the Interconnection to aid in the development of the Regional Transmission Expansion Plan. The Transmission Expansion Advisory Committee participants shall be given an opportunity to provide advice and recommendations for consideration by the Office of the Interconnection regarding sensitivity studies, modeling assumption variations, scenario analyses, and Public Policy Objectives in the studies and analyses to be conducted by the Office of the Interconnection. The Transmission Expansion Advisory Committee participants shall be given the opportunity to review and provide advice and recommendations on the projects to be included in the Regional Transmission Expansion Plan. The Transmission Expansion Advisory Committee meetings shall include discussions addressing interregional planning issues, as required. The Transmission Expansion Advisory Committee shall be open to participation by: (i) all Transmission Customers, as that term is defined in the PJM Tariff, and applicants for transmission service; (ii) any other entity proposing to provide Transmission Facilities to be integrated into the PJM Region; (iii) all Members; (iv) the electric utility regulatory agencies within the States in the PJM Region, the Independent State Agencies Committee, and the State Consumer Advocates; and (v) any other interested entities or persons. The Transmission Expansion Advisory Committee shall be governed by the Transmission Expansion Advisory Committee rules and procedures set forth in the PJM Regional Planning Process Manual (PJM Manual M-14 series) and by the rules and procedures applicable to PJM committees.

(c) The Subregional RTEP Committees established by the Office of the Interconnection shall facilitate the development and review of the Subregional RTEP Projects. The Subregional RTEP Committees will be responsible for the initial review of the Subregional RTEP Projects, and to provide recommendations to the Transmission Expansion Advisory Committee concerning the Subregional RTEP Projects. A Subregional RTEP Committee may of its own accord or at the request of a Subregional RTEP Committee participant, also refer specific Subregional RTEP Projects to the

Transmission Expansion Advisory Committee for further review, advice and recommendations.

(d) The Subregional RTEP Committees shall be responsible for the timely review of each Transmission Owner's Local Plan. This review shall include, but is not limited to, the review of the criteria, assumptions and models used by the Transmission Owner to identify criteria violations and proposed solutions prior to finalizing the Local Plan, the coordination and integration of the Local Plans into the RTEP, and addressing any stakeholder issues unresolved in the Local Plan process. The Subregional RTEP Committees will be provided sufficient opportunity to review and provide written comments to the Transmission Owners on the criteria, assumptions, and models used in local planning activities prior to finalizing the Local Plan. The Subregional RTEP Committees meetings shall include discussions addressing interregional planning issues, as required. Once finalized, the Subregional RTEP Committees will be provided sufficient opportunity to review and provide written comments to the Transmission Owners on the Local Plans as integrated into the RTEP, prior to the submittal of the final Regional Transmission Expansion Plan to the PJM Board for approval.

(e) The Subregional RTEP Committees shall be open to participation by: (i) all Transmission Customers, as that term is defined in the PJM Tariff, and applicants for transmission service; (ii) any other entity proposing to provide Transmission Facilities to be integrated into the PJM Region; (iii) all Members; (iv) the electric utility regulatory agencies within the States in the PJM Region, the Independent State Agencies Committee, and the State Consumer Advocates and (v) any other interested entities or persons.

(f) Each Subregional RTEP Committee shall schedule and facilitate a minimum of one Subregional RTEP Committee meeting to review the criteria, assumptions and models used by the Transmission Owner to identify criteria violations. Each Subregional RTEP Committee shall schedule and facilitate an additional Subregional RTEP Committee meeting, per planning cycle, and as required to review the identified criteria violations and potential solutions. The Subregional RTEP Committees may facilitate additional meetings to incorporate more localized areas in the subregional planning process. At the discretion of the Office of the Interconnection, a designated Transmission Owner may facilitate Subregional RTEP Committee meeting(s), or the additional meetings incorporating the more localized areas.

(g) The Subregional RTEP Committees shall be governed by the Transmission Expansion Advisory Committee rules and procedures set forth in the PJM Regional Planning Process Manual (Manual M-14 series) and by the rules and procedures applicable to PJM committees.

1.4 Contents of the Regional Transmission Expansion Plan.

- (a) The Regional Transmission Expansion Plan shall consolidate the transmission needs of the region into a single plan which is assessed on the bases of (i) maintaining the reliability of the PJM Region in an economic and environmentally acceptable manner, (ii) supporting competition in the PJM Region, (iii) striving to maintain and enhance the market efficiency and operational performance of wholesale electric service markets and (iv) considering federal and state Public Policy Requirements.
- (b) The Regional Transmission Expansion Plan shall reflect, consistent with the requirements of this Schedule 6, transmission enhancements and expansions; load forecasts; and capacity forecasts, including expected generation additions and retirements, demand response, and reductions in demand from energy efficiency and price responsive demand for at least the ensuing ten years.
- (c) The Regional Transmission Expansion Plan shall, at a minimum, include a designation of the Transmission Owner(s) or other entity(ies) that will construct, own, maintain, operate, and/or finance each transmission enhancement and expansion and how all reasonably incurred costs are to be recovered.
- (d) The Regional Transmission Expansion Plan shall (i) avoid unnecessary duplication of facilities; (ii) avoid the imposition of unreasonable costs on any Transmission Owner or any user of Transmission Facilities; (iii) take into account the legal and contractual rights and obligations of the Transmission Owners; (iv) provide, if appropriate, alternative means for meeting transmission needs in the PJM Region; (v) provide for coordination with existing transmission systems and with appropriate interregional and local expansion plans; and (vi) strive for consistency in planning data and assumptions that may relieve transmission congestion across multiple regions.

1.5 Procedure for Development of the Regional Transmission Expansion Plan.

1.5.1 Commencement of the Process.

(a) The Office of the Interconnection shall initiate the enhancement and expansion study process if: (i) required as a result of a need for transfer capability identified by the Office of the Interconnection in its evaluation of requests for interconnection with the Transmission System or for firm transmission service with a term of one year or more; (ii) required to address a need identified by the Office of the Interconnection in its on-going evaluation of the Transmission System's market efficiency and operational performance; (iii) required as a result of the Office of the Interconnection's assessment of the Transmission System's compliance with NERC Reliability Standards, more stringent reliability criteria, if any, or PJM planning and operating criteria; (iv) required to address constraints or available transfer capability shortages, including, but not limited to, available transfer capability shortages that prevent the simultaneous feasibility of stage 1A Auction Revenue Rights allocated pursuant to Section 7.4.2(b) of Schedule 1 of this Agreement, constraints or shortages as a result of expected generation retirements, constraints or shortages based on an evaluation of load forecasts, or system reliability needs arising from proposals for the addition of Transmission Facilities in the PJM Region; or (v) expansion of the Transmission System is proposed by one or more Transmission Owners, Interconnection Customers, Network Service Users or Transmission Customers, or any party that funds Network Upgrades pursuant to Section 7.8 of Schedule 1 of this Agreement. The Office of the Interconnection may initiate the enhancement and expansion study process to address or consider, where appropriate, requirements or needs arising from sensitivity studies, modeling assumption variations, scenario analyses, and Public Policy Objectives.

(b) The Office of the Interconnection shall notify the Transmission Expansion Advisory Committee participants of, as well as publicly notice, the commencement of an enhancement and expansion study. The Transmission Expansion Advisory Committee participants shall notify the Office of the Interconnection in writing of any additional transmission considerations they would like to have included in the Office of the Interconnection's analyses.

1.5.2 Development of Scope, Assumptions and Procedures.

Once the need for an enhancement and expansion study has been established, the Office of the Interconnection shall consult with the Transmission Expansion Advisory Committee and the Subregional RTEP Committees, as appropriate, to prepare the study's scope, assumptions and procedures.

1.5.3 Scope of Studies.

In conducting the enhancement and expansion studies, the Office of the Interconnection shall not limit its analyses to bright line tests to identify and evaluate potential Transmission System limitations, violations of planning criteria, or transmission needs. In addition to the bright line tests, the Office of the Interconnection shall employ sensitivity studies, modeling assumption variations, and scenario analyses, and shall also consider Public Policy Objectives in the studies and analyses, so as to mitigate the possibility that bright line metrics may inappropriately include

or exclude transmission projects from the transmission plan. Sensitivity studies, modeling assumption variations, and scenario analyses shall take account of potential changes in expected future system conditions, including, but not limited to, load levels, transfer levels, fuel costs, the level and type of generation, generation patterns (including, but not limited to, the effects of assumptions regarding generation that is at risk for retirement and new generation to satisfy Public Policy Objectives), demand response, and uncertainties arising from estimated times to construct transmission upgrades. *The Office of the Interconnection shall use the sensitivity studies, modeling assumption variations and scenario analyses in evaluating and choosing among alternative solutions to reliability, market efficiency and operational performance needs.* The Office of the Interconnection shall provide the results of its studies and analyses to the Transmission Expansion Advisory Committee to consider the impact that sensitivities, assumptions, and scenarios may have on Transmission System needs and the need for transmission enhancements or expansions. Enhancement and expansion studies shall be completed by the Office of the Interconnection in collaboration with the affected Transmission Owners, as required. In general, enhancement and expansion studies shall include:

- (a) An identification of existing and projected limitations on the Transmission System's physical, economic and/or operational capability or performance, with accompanying simulations to identify the costs of controlling those limitations. Potential enhancements and expansions will be proposed to mitigate limitations controlled by non-economic means.
- (b) Evaluation and analysis of potential enhancements and expansions, including alternatives thereto, needed to mitigate such limitations.
- (c) Identification, evaluation and analysis of potential transmission expansions and enhancements, demand response programs, and other alternative technologies as appropriate to maintain system reliability.
- (d) Identification, evaluation and analysis of potential enhancements and expansions for the purposes of supporting competition, market efficiency, operational performance, and Public Policy Requirements in the PJM Region.
- (e) Identification, evaluation and analysis of upgrades to support Incremental Auction Revenue Rights requested pursuant to Section 7.8 of Schedule 1 of this Agreement.
- (f) Identification, evaluation and analysis of upgrades to support all transmission customers, including native load and network service customers.
- (g) Engineering studies needed to determine the effectiveness and compliance of recommended enhancements and expansions, with the following PJM criteria: system reliability, operational performance, and market efficiency.
- (h) Identification, evaluation and analysis of potential enhancements and expansions designed to ensure that the Transmission System's capability can support the simultaneous feasibility of all stage 1A Auction Revenue Rights allocated pursuant to Section 7.4.2(b) of Schedule 1 of this Agreement. Enhancements and expansions related to stage 1A Auction

Revenue Rights identified pursuant to this Section shall be recommended for inclusion in the Regional Transmission Expansion Plan together with a recommended in-service date based on the results of the ten (10) year stage 1A simultaneous feasibility analysis. Any such recommended enhancement or expansion under this Section 1.5.3(h) shall include, but shall not be limited to, the reason for the upgrade, the cost of the upgrade, the cost allocation identified pursuant to Section 1.5.6(l) of Schedule 6 of this Agreement and an analysis of the benefits of the enhancement or expansion, provided that any such upgrades will not be subject to a market efficiency cost/benefit analysis.

1.5.4 Supply of Data.

(a) The Transmission Owners shall provide to the Office of the Interconnection on an annual or periodic basis as specified by the Office of the Interconnection, any information and data reasonably required by the Office of the Interconnection to perform the Regional Transmission Expansion Plan, including but not limited to the following: (i) a description of the total load to be served from each substation; (ii) the amount of any interruptible loads included in the total load (including conditions under which an interruption can be implemented and any limitations on the duration and frequency of interruptions); (iii) a description of all generation resources to be located in the geographic region encompassed by the Transmission Owner's transmission facilities, including unit sizes, VAR capability, operating restrictions, and any must-run unit designations required for system reliability or contract reasons; the (iv) current Local Plan; and (v) all criteria, assumptions and models used in the current Local Plan. The data required under this Section shall be provided in the form and manner specified by the Office of the Interconnection.

(b) In addition to the foregoing, the Transmission Owners, those entities requesting transmission service and any other entities proposing to provide Transmission Facilities to be integrated into the PJM Region shall supply any other information and data reasonably required by the Office of the Interconnection to perform the enhancement and expansion study.

(c) The Office of the Interconnection also shall solicit from the Members, Transmission Customers and other interested parties, including but not limited to electric utility regulatory agencies within the States in the PJM Region, Independent State Agencies Committee, and the State Consumer Advocates, information required by, or anticipated to be useful to, the Office of the Interconnection in its preparation of the enhancement and expansion study, including information regarding potential sensitivity studies, modeling assumption variations, scenario analyses, and Public Policy Objectives that may be considered.

(d) The Office of the Interconnection shall supply to the Transmission Expansion Advisory Committee and the Subregional RTEP Committees reasonably required information and data utilized to develop the Regional Transmission Expansion Plan. Such information and data shall be provided pursuant to the appropriate protection of confidentiality provisions and Office of the Interconnection's CEII process.

(e) The Office of the Interconnection shall provide access through the PJM website, to the Transmission Owner's Local Plan, including all criteria, assumptions and models used by the

Transmission Owners in developing their respective Local Plan (“Local Plan Information”). Local Plan Information shall be provided consistent with: (1) any applicable confidentiality provisions set forth in Section 18.17 of this Operating Agreement; (2) the Office of the Interconnection’s CEII process; and (3) any applicable copyright limitations. Notwithstanding the foregoing, the Office of the Interconnection may share with a third party Local Plan Information that has been designated as confidential, pursuant to the provisions for such designation as set forth in Section 18.17 of this Operating Agreement and subject to: (i) agreement by the disclosing Transmission Owner consistent with the process set forth in this Operating Agreement; and (ii) an appropriate non-disclosure agreement to be executed by PJM Interconnection, L.L.C., the Transmission Owner and the requesting third party. With the exception of confidential, CEII and copyright protected information, Local Plan Information will be provided for full review by the Planning Committee, the Transmission Expansion Advisory Committee, and the Subregional RTEP Committees.

1.5.5 Coordination of the Regional Transmission Expansion Plan.

- (a) The Regional Transmission Expansion Plan shall be developed in accordance with the principles of interregional coordination with the Transmission Systems of the surrounding Regional Entities and with the local transmission providers, through the Transmission Expansion Advisory Committee and the Subregional RTEP Committee.
- (b) The Regional Transmission Expansion Plan shall be developed taking into account the processes for coordinated regional transmission expansion planning established under the following agreements: Joint Operating Agreement Between the Midwest Independent System Operator, Inc. and PJM Interconnection, L.L.C.; Northeastern ISO/RTO Planning Coordination Protocol; Joint Reliability Coordination Agreement Between the Midwest Independent System Operator, Inc.; PJM Interconnection, L.L.C. and Progress Energy Carolinas. Coordinated regional transmission expansion planning shall also incorporate input from parties that may be impacted by the coordination efforts, including but not limited to, the Members, Transmission Customers, electric utility regulatory agencies in the PJM Region, and the State Consumer Advocates, in accordance with the terms and conditions of the applicable regional coordination agreements.
- (c) The Regional Transmission Expansion Plan shall be developed by the Office of the Interconnection in consultation with the Transmission Expansion Advisory Committee during the enhancement and expansion study process.
- (d) The Regional Transmission Expansion Plan shall be developed taking into account the processes for coordination of the regional and subregional systems.

1.5.6 Development of the Recommended Regional Transmission Expansion Plan.

- (a) The Office of the Interconnection shall be responsible for the development of the Regional Transmission Expansion Plan and for conducting the studies, including sensitivity studies and scenario analyses on which the plan is based. The Regional Transmission Expansion Plan, including the Regional RTEP Projects, the Subregional RTEP Projects and the

Supplemental Projects shall be developed through an open and collaborative process with opportunity for meaningful participation through the Transmission Expansion Advisory Committee and the Subregional RTEP Committees.

(b) *The Transmission Expansion Advisory Committee and the Subregional RTEP Committees shall each facilitate a minimum of one initial assumptions meeting to be scheduled at the commencement of the Regional Transmission Expansion Plan process. The purpose of the assumptions meeting shall be to provide an open forum to discuss the following: (i) the assumptions to be used in performing the evaluation and analysis of the potential enhancements and expansions to the Transmission Facilities; (ii) Public Policy Objectives for consideration in the Office of the Interconnection's transmission planning analyses; (iii) the impacts of regulatory actions, projected changes in load growth, demand response resources, energy efficiency programs, price responsive demand, generating additions and retirements, market efficiency and other trends in the industry; and (iv) alternative sensitivity studies, modeling assumptions and scenario analyses proposed by the Committee participants. Prior to the initial assumptions meeting, Committee participants will be afforded the opportunity to provide input and submit suggestions regarding the information identified in items (i) through (iv) of this subsection. A range of assumptions to be used in the studies and scenario analyses shall be determined by the Office of the Interconnection, considering the advice and recommendations of the Transmission Expansion Advisory Committee and Subregional RTEP Committees participants and shall be documented and publicly posted for review.*

(c) *After the assumptions meeting(s), the Transmission Expansion Advisory Committee and the Subregional RTEP Committees shall facilitate additional meetings and shall post all communications required to provide early opportunity for the committee participants (as defined in Sections 1.3(b) and 1.3(c) of this Schedule 6) to review and evaluate the following arising from the studies performed by the Office of the Interconnection, including sensitivity studies and scenario analyses: (i) any identified violations of reliability criteria and analyses of the market efficiency and operational performance of the Transmission System; (ii) potential transmission solutions, including any acceleration, deceleration or modifications of a potential expansion or enhancement based on the results of sensitivities studies and scenario analyses; and (iii) the proposed Regional Transmission Expansion Plan. These meetings will be scheduled as deemed necessary by the Office of the Interconnection or upon the request of the Transmission Expansion Advisory Committee or the Subregional RTEP Committees. The Office of the Interconnection will provide updates on the status of the development of the Regional Transmission Expansion Plan at these meetings or at the regularly scheduled meetings of the Planning Committee.*

(d) *In addition, the Office of the Interconnection shall facilitate periodic meetings with the Independent State Agencies Committee to discuss: (i) the assumptions to be used in performing the evaluation and analysis of the potential enhancements and expansions to the Transmission Facilities; (ii) regulatory initiatives, as appropriate, including state regulatory agency initiated programs, and other Public Policy Objectives, to consider including in the Office of the Interconnection's transmission planning analyses; (iii) the impacts of regulatory actions, projected changes in load growth, demand response resources, energy efficiency programs, generating capacity, market efficiency and other trends in the industry; and (iv) alternative*

sensitivity studies, modeling assumptions and scenario analyses proposed by Independent State Agencies Committee. At such meetings, the Office of the Interconnection also shall discuss the current status of the enhancement and expansion study process. The Independent State Agencies Committee may request that the Office of Interconnection schedule additional meetings as necessary. The Office of the Interconnection shall inform the Transmission Expansion Advisory Committee and the Subregional RTEP Committees, as appropriate, of the input of the Independent State Agencies Committee and shall consider such input in developing the range of assumptions to be used in the studies and scenario analyses described in Section (b), above.

(e) Upon completion of its studies and analysis, including sensitivity studies and scenario analyses the Office of the Interconnection shall post on the PJM website the violations, system conditions, economic constraints, and Public Policy Requirements as detailed in Section 1.5.8(b) of this Schedule 6 to afford entities an opportunity to submit proposed *enhancements or expansions* to address the posted violations, system conditions, economic constraints and Public Policy Requirements as provided for in Section 1.5.8(c) of this Schedule 6. Following the close of a proposal window, the Office of the Interconnection shall: (i) post all proposals submitted pursuant to Section 1.5.8(c) of this Schedule 6; (ii) consider proposals submitted during the proposal windows consistent with Section 1.5.8(d) of this Schedule 6 and develop a recommended plan. *Following review by the Transmission Expansion Advisory Committee of proposals, the Office of the Interconnection, based on identified needs and the timing of such needs, and taking into account the sensitivity studies, modeling assumption variations and scenario analyses considered pursuant to Section 1.5.3 of this Schedule 6, shall determine, which more efficient or cost-effective enhancements and expansions shall be included in the recommended plan, including solutions identified as a result of the sensitivity studies, modeling assumption variations, and scenario analyses, that may accelerate, decelerate or modify a potential reliability, market efficiency or operational performance expansion or enhancement identified as a result of the sensitivity studies, modeling assumption variations and scenario analyses, shall be included in the recommended plan.* The Office of the Interconnection shall post the proposed recommended plan for review and comment by the Transmission Expansion Advisory Committee. *The Transmission Expansion Advisory Committee shall facilitate open meetings and communications as necessary to provide opportunity for the Transmission Expansion Advisory Committee participants to collaborate on the preparation of the recommended enhancement and expansion plan. The Office of the Interconnection also shall invite interested parties to submit comments on the plan to the Transmission Expansion Advisory Committee and to the Office of the Interconnection before submitting the recommended plan to the PJM Board for approval.*

(f) The recommended plan shall separately identify enhancements and expansions for the three PJM subregions, the PJM Mid-Atlantic Region, the PJM West Region, and the PJM South Region, and shall incorporate recommendations from the Subregional RTEP Committees.

(g) The recommended plan shall separately identify enhancements and expansions that are classified as Supplemental Projects.

(h) The recommended plan shall identify enhancements and expansions that relieve transmission constraints and which, in the judgment of the Office of the Interconnection, are

economically justified. Such economic expansions and enhancements shall be developed in accordance with the procedures, criteria and analyses described in Sections 1.5.7 and 1.5.8 of this Schedule 6.

(i) The recommended plan shall identify enhancements and expansions proposed by a state or states pursuant to Section 1.5.9 of this Schedule 6.

(j) The recommended plan shall include proposed Merchant Transmission Facilities within the PJM Region and any other enhancement or expansion of the Transmission System requested by any participant which the Office of the Interconnection finds to be compatible with the Transmission System, though not required pursuant to Section 1.1, provided that (1) the requestor has complied, to the extent applicable, with the procedures and other requirements of Parts IV and VI of the PJM Tariff; (2) the proposed enhancement or expansion is consistent with applicable reliability standards, operating criteria and the purposes and objectives of the regional planning protocol; (3) the requestor shall be responsible for all costs of such enhancement or expansion (including, but not necessarily limited to, costs of siting, designing, financing, constructing, operating and maintaining the pertinent facilities), and (4) except as otherwise provided by Parts IV and VI of the PJM Tariff with respect to Merchant Network Upgrades, the requestor shall accept responsibility for ownership, construction, operation and maintenance of the enhancement or expansion through an undertaking satisfactory to the Office of the Interconnection.

(k) For each enhancement or expansion that is included in the recommended plan, the plan shall consider, based on the planning analysis: other input from participants, including any indications of a willingness to bear cost responsibility for such enhancement or expansion; and, when applicable, relevant projects being undertaken to ensure the simultaneous feasibility of Stage 1A ARRs, to facilitate Incremental ARRs pursuant to the provisions of Section 7.8 of Schedule 1 of this Agreement, or to facilitate upgrades pursuant to Parts II, III, or VI of the PJM Tariff, and designate one or more Transmission Owners or other entities to construct, own and, unless otherwise provided, finance the recommended transmission enhancement or expansion. To the extent that one or more Transmission Owners are designated to construct, own and/or finance a recommended transmission enhancement or expansion, the recommended plan shall designate the Transmission Owner that owns transmission facilities located in the Zone where the particular enhancement or expansion is to be located. Otherwise, any designation under this paragraph of one or more entities to construct, own and/or finance a recommended transmission enhancement or expansion shall also include a designation of partial responsibility among them. Nothing herein shall prevent any Transmission Owner or other entity designated to construct, own and/or finance a recommended transmission enhancement or expansion from agreeing to undertake its responsibilities under such designation jointly with other Transmission Owners or other entities.

(l) Based on the planning analysis and other input from participants, including any indications of a willingness to bear cost responsibility for an enhancement or expansion, the recommended plan shall, for any enhancement or expansion that is included in the plan, designate (1) the Market Participant(s) in one or more Zones, or any other party that has agreed to fully fund upgrades pursuant to this Agreement or the PJM Tariff, that will bear cost

responsibility for such enhancement or expansion, as and to the extent provided by any provision of the PJM Tariff or this Agreement, (2) in the event and to the extent that no provision of the PJM Tariff or this Agreement assigns cost responsibility, the Market Participant(s) in one or more Zones from which the cost of such enhancement or expansion shall be recovered through charges established pursuant to Schedule 12 of the Tariff, and (3) in the event and to the extent that the Coordinated System Plan developed under the Joint Operating Agreement Between the Midwest Independent System Operator, Inc. and PJM Interconnection, L.L.C. assigns cost responsibility, the Market Participant(s) in one or more Zones from which the cost of such enhancement or expansion shall be recovered. Any designation under clause (2) of the preceding sentence (A) shall further be based on the Office of the Interconnection's assessment of the contributions to the need for, and benefits expected to be derived from, the pertinent enhancement or expansion by affected Market Participants and, (B) subject to FERC review and approval, shall be incorporated in any amendment to Schedule 12 of the PJM Tariff that establishes a Transmission Enhancement Charge Rate in connection with an economic expansion or enhancement developed under Sections 1.5.6(h) and 1.5.7 of this Schedule 6, (C) the costs associated with expansions and enhancements required to ensure the simultaneous feasibility of stage 1A Auction Revenue Rights allocated pursuant to Section 7 of Schedule 1 of this Agreement shall (1) be allocated across transmission zones based on each zone's stage 1A eligible Auction Revenue Rights flow contribution to the total stage 1A eligible Auction Revenue Rights flow on the facility that limits stage 1A ARR feasibility and (2) within each transmission zone the Network Service Users and Transmission Customers that are eligible to receive stage 1A Auction Revenue Rights shall be the Responsible Customers under Section (b) of Schedule 12 of the PJM Tariff for all expansions and enhancements included in the Regional Transmission Expansion Plan to ensure the simultaneous feasibility of stage 1A Auction Revenue Rights, and (D) the costs associated with expansions and enhancements required to reduce to zero the Locational Price Adder for LDAs as described in Section 15 of Attachment DD of OATT shall (1) be allocated across Zones based on each Zone's pro rata share of load in such LDA and (2) within each Zone, to all LSEs serving load in such LDA pro rata based on such load.

Any designation under clause (3), above, (A) shall further be based on the Office of the Interconnection's assessment of the contributions to the need for, and benefits expected to be derived from, the pertinent enhancement or expansion by affected Market Participants, and (B), subject to FERC review and approval, shall be incorporated in an amendment to a Schedule of the PJM Tariff which establishes a charge in connection with the pertinent enhancement or expansion. Before designating fewer than all customers using Point-to-Point Transmission Service or Network Integration Transmission Service within a Zone as customers from which the costs of a particular enhancement or expansion may be recovered, Transmission Provider shall consult, in a manner and to the extent that it reasonably determines to be appropriate in each such instance, with affected state utility regulatory authorities and stakeholders. When the plan designates more than one responsible Market Participant, it shall also designate the proportional responsibility among them. Notwithstanding the foregoing, with respect to any facilities that the Regional Transmission Expansion Plan designates to be owned by an entity other than a Transmission Owner, the plan shall designate that entity as responsible for the costs of such facilities.

(m) Certain Regional RTEP Project(s) and Subregional RTEP Project(s) may not be required for compliance with the following PJM criteria: system reliability, market efficiency or operational performance, pursuant to a determination by the Office of the Interconnection. These Supplemental Projects shall be separately identified in the RTEP and are not subject to approval by the PJM Board.

1.5.7 Development of Economic Transmission Enhancements and Expansions.

(a) Each year the Transmission Expansion Advisory Committee shall review and comment on the assumptions to be used in performing the market efficiency analysis to identify enhancements or expansions that could relieve transmission constraints that have an economic impact (“economic constraints”). Such assumptions shall include, but not be limited to, the discount rate used to determine the present value of the Total Annual Enhancement Benefit and Total Enhancement Cost, and the annual revenue requirement, including the recovery period, used to determine the Total Enhancement Cost. The discount rate shall be based on the Transmission Owners’ most recent after-tax embedded cost of capital weighted by each Transmission Owner’s total transmission capitalization. Each year, each Transmission Owner will be requested to provide the Office of the Interconnection with the Transmission Owner’s most recent after-tax embedded cost of capital, total transmission capitalization, and levelized carrying charge rate, including the recovery period. The recovery period shall be consistent with recovery periods allowed by the Commission for comparable facilities. Prior to PJM Board consideration of such assumptions, the assumptions shall be presented to the Transmission Expansion Advisory Committee for review and comment. Following review and comment by the Transmission Expansion Advisory Committee, the Office of the Interconnection shall submit the assumptions to be used in performing the market efficiency analysis described in this Section 1.5.7 to the PJM Board for consideration.

(b) Following PJM Board consideration of the assumptions, the Office of the Interconnection shall perform a market efficiency analysis to compare the costs and benefits of: (i) accelerating reliability-based enhancements or expansions already included in the Regional Transmission Plan that if accelerated also could relieve one or more economic constraints; (ii) modifying reliability-based enhancements or expansions already included in the Regional Transmission Plan that as modified would relieve one or more economic constraints; and (iii) adding new enhancements or expansions that could relieve one or more economic constraints, but for which no reliability-based need has been identified. Economic constraints include, but are not limited to, constraints that cause: (1) significant historical gross congestion; (2) pro-ratio of Stage 1B ARR requests as described in section 7.4.2(c) of Schedule 1 of this Agreement; or (3) significant simulated congestion as forecasted in the market efficiency analysis. The timeline for the market efficiency analysis and comparison of the costs and benefits for items 1.5.7(b)(i-iii) is described in the PJM Manuals.

(c) The process for conducting the market efficiency analysis described in subsection (b) above shall include the following:

(i) The Office of the Interconnection shall identify and provide to the Transmission Expansion Advisory Committee a list of economic constraints to be evaluated in the market efficiency analysis.

(ii) The Office of the Interconnection shall identify any planned reliability-based enhancements or expansions already included in the Regional Transmission Expansion Plan, which if accelerated would relieve such constraints, and present any such proposed reliability-based enhancements and expansions to be accelerated to the Transmission Expansion Advisory Committee for review and comment. The PJM Board, upon consideration of the advice of the Transmission Expansion Advisory Committee, thereafter shall consider and vote to approve any accelerations.

(iii) The Office of the Interconnection shall evaluate whether including any additional economic-based enhancements or expansions in the Regional Transmission Expansion Plan or modifications of existing Regional Transmission Expansion Plan reliability-based enhancements or expansions would relieve an economic constraint. In addition, pursuant to Section 1.5.8(c) of this Schedule 6, any market participant may submit to the Office of the Interconnection a proposal to construct an additional economic-based enhancement or expansion to relieve an economic constraint. Upon completion of its evaluation, including consideration of any eligible market participant proposed economic-based enhancements or expansions, the Office of the Interconnection shall present to the Transmission Expansion Advisory Committee a description of new economic-based enhancements and expansions for review and comment. Upon consideration and advice of the Transmission Expansion Advisory Committee, the PJM Board shall consider any new economic-based enhancements and expansions for inclusion in the Regional Transmission Plan and for those enhancements and expansions it approves, the PJM Board shall designate (a) the entity or entities that will be responsible for constructing and owning or financing the additional economic-based enhancements and expansions, (b) the estimated costs of such enhancements and expansions, and (c) the market participants that will bear responsibility for the costs of the additional economic-based enhancements and expansions pursuant to Section 1.5.6(1) of this Schedule 6. In the event the entity or entities designated as responsible for construction, owning or financing a designated new economic-based enhancement or expansion declines to construct, own or finance the new economic-based enhancement or expansion, the enhancement or expansion will not be included in the Regional Transmission Expansion Plan but will be included in the report filed with the FERC in accordance with Sections 1.6 and 1.7 of this Schedule 6. This report also shall include information regarding PJM Board approved accelerations of reliability-based enhancements or expansions that an entity declines to accelerate.

(d) To determine the economic benefits of accelerating or modifying planned reliability-based enhancements or expansions or of constructing additional economic based enhancements or expansions and whether such economic-based enhancements or expansion are eligible for inclusion in the Regional Transmission Expansion Plan, the Office of the Interconnection shall perform and compare market simulations with and without the proposed accelerated or modified planned reliability-based enhancements or expansions or the additional economic-based enhancements or expansions as applicable, using the Benefit/Cost Ratio calculation set forth below in this Section 1.5.7(d). An economic-based enhancement or expansion shall be

considered for inclusion in the Regional Transmission Expansion Plan and recommended to the PJM Board, if the relative benefits and costs of the economic-based enhancement or expansion meet a Benefit/Cost Ratio Threshold of at least 1.25:1.

The Benefit/Cost Ratio shall be determined as follows:

Benefit/Cost Ratio = [Present value of the Total Annual Enhancement Benefit for each of the first 15 years of the life of the enhancement or expansion] ÷ [Present value of the Total Enhancement Cost for each of the first 15 years of the life of the enhancement or expansion]

Where

Total Annual Enhancement Benefit = Energy Market Benefit + Reliability Pricing Model Benefit

and

Energy Market Benefit = [.70] * [Change in Total Energy Production Cost] + [.30] * [Change in Load Energy Payment]

and

Change in Total Energy Production Cost = [the estimated total annual fuel costs, variable O&M costs, and emissions costs of the dispatched resources in the PJM Region without the economic-based enhancement or expansion] – [the estimated total annual fuel costs, variable O&M costs, and emissions costs of the dispatched resources in the PJM Region with the economic-based enhancement or expansion]

and

Change in Load Energy Payment = [the annual sum of (the hourly estimated zonal load megawatts for each Zone) * (the hourly estimated zonal Locational Marginal Price for each Zone without the economic-based enhancement or expansion)] – [the annual sum of (the hourly estimated zonal load megawatts for each Zone) * (the hourly estimated zonal Locational Marginal Price for each Zone with the economic-based enhancement or expansion)] – [the change in value of transmission rights for each Zone with the economic-based enhancement or expansion (as measured using currently allocated Auction Revenue Rights plus additional Auction Revenue Rights made available by the proposed acceleration or modification of the planned reliability-based enhancement or expansion or new economic based enhancement or

expansion)). For economic-based enhancements and expansions for which cost responsibility is assigned pursuant to Section (b)(i) of Schedule 12 of the PJM Tariff, the Change in the Load Energy Payment shall be the sum of the Change in Load Energy Payment in all Zones. For economic-based enhancements or expansions for which cost responsibility is assigned pursuant to Section (b)(v) of Schedule 12 of the PJM Tariff, the Change in Load Energy Payment shall be the sum of the Change in the Load Energy Payment only of the Zones that show a decrease in Load Energy Payment.

and

Reliability Pricing Benefit = [.70] * [Change in Total System Capacity Cost] + [.30] * [Change in Load Capacity Payment]

and

Change in Total System Capacity Cost = [the sum of (the megawatts that are estimated to be cleared in the Base Residual Auction under Attachment DD of the PJM Tariff) * (the prices that are estimated to be contained in the Sell Offers for each such cleared megawatt without the economic-based enhancement or expansion) * (the number of days in the study year)] – [the sum of (the megawatts that are estimated to be cleared in the Base Residual Auction under Attachment DD of the PJM Tariff) * (the prices that are estimated to be contained in the Sell Offers for each such cleared megawatt with the economic-based enhancement or expansion) * (the number of days in the study year)]

and

Change in Load Capacity Payment = [the sum of (the estimated zonal load megawatts in each Zone) * (the estimated Final Zonal Capacity Prices under Attachment DD of the PJM Tariff without the economic-based enhancement or expansion) * (the number of days in the study year)] – [the sum of (the estimated zonal load megawatts in each Zone) * (the estimated Final Zonal Capacity Prices under Attachment DD of the PJM Tariff with the economic-based enhancement or expansion) * (the number of days in the study year)]. The Change in Load Capacity Payment shall take account of the change in value of Capacity Transfer Rights in each Zone, including any additional Capacity Transfer Rights made available by the proposed acceleration or modification of the planned reliability-based enhancement or expansion or new economic based enhancement or expansion. For economic-based

enhancements and expansions for which cost responsibility is assigned pursuant to Section (b)(i) of Schedule 12 of the PJM Tariff, the Change in the Load Capacity Payment shall be the sum of the change in Load Capacity Payment in all Zones. For economic-based enhancements or expansions for which cost responsibility is assigned pursuant to Section (b)(v) of Schedule 12 of the PJM Tariff, the Change in Load Capacity Payment shall be the sum of the change in the Load Capacity Payment only of the Zones that show a decrease in Load Capacity Payment.

and

Total Enhancement Cost (except for accelerations of planned reliability-based enhancements or expansions) = the estimated annual revenue requirement for the economic-based enhancement or expansion.

Total Enhancement Cost (for accelerations of planned reliability-based enhancements or expansions) = the estimated change in annual revenue requirement resulting from the acceleration of the planned reliability-based enhancement or expansion, taking account of all of the costs incurred that would not have been incurred but for the acceleration of the planned reliability-based enhancement or expansion.

(e) For informational purposes only, to assist the Office of the Interconnection and the Transmission Expansion Advisory Committee in evaluating the economic benefits of accelerating planned reliability-based enhancements or expansions or of constructing a new economic-based enhancement or expansion, the Office of the Interconnection shall calculate and post on the PJM website the change in the following metrics on a zonal and system-wide basis: (i) total energy production costs (fuel costs, variable O&M costs and emissions costs); (ii) total load energy payments (zonal load MW times zonal load Locational Marginal Price); (iii) total generator revenue from energy production (generator MW times generator Locational Marginal Price); (iv) Financial Transmission Right credits (as measured using currently allocated Auction Revenue Rights plus additional Auction Revenue Rights made available by the proposed acceleration or modification of a planned reliability-based enhancement or expansion or new economic based enhancement or expansion); (v) marginal loss surplus credit; and (vi) total capacity costs and load capacity payments under the Office of the Interconnection's Commission-approved capacity construct.

(f) To assure that new economic-based enhancements and expansions included in the Regional Transmission Expansion Plan continue to be cost beneficial, the Office of the Interconnection annually shall review the costs and benefits of constructing such enhancements and expansions. In the event that there are changes in these costs and benefits, the Office of the Interconnection shall review the changes in costs and benefits with the Transmission Expansion Advisory Committee and recommend to the PJM Board whether the new economic-based enhancements and expansions continue to provide measurable benefits, as determined in accordance with subsection (d), and should remain in the Regional Transmission Expansion

Plan. The annual review of the costs and benefits of constructing new economic-based enhancements and expansions included in the Regional Transmission Expansion Plan shall include review of changes in cost estimates of the economic-based enhancement or expansion, and changes in system conditions, including but not limited to, changes in load forecasts, and anticipated Merchant Transmission Facilities, generation, and demand response, consistent with the requirements of Section 1.5.7(i) of this Schedule 6.

(g) For new economic enhancements or expansions with costs in excess of \$50 million, an independent review of such costs shall be performed to assure both consistency of estimating practices and that the scope of the new economic-based enhancements and expansions is consistent with the new economic-based enhancements and expansions as recommended in the market efficiency analysis.

(h) At any time, market participants may submit to the Office of the Interconnection requests to interconnect Merchant Transmission Facilities or generation facilities pursuant to Parts IV and VI of the PJM Tariff that could address an economic constraint. In the event the Office of the Interconnection determines that the interconnection of such facilities would relieve an economic constraint, the Office of the Interconnection may designate the project as a “market solution” and, in the event of such designation, Section 216 of the PJM Tariff, as applicable, shall apply to the project.

(i) The assumptions used in the market efficiency analysis described in subsection (b) and any review of costs and benefits pursuant to subsection (f) shall include, but not be limited to, the following:

- (i) Timely installation of Qualifying Transmission Upgrades, as defined in Section 2.5.7 of Attachment DD of the PJM Tariff, that are committed to the PJM Region as a result of any Reliability Pricing Model Auction pursuant to Attachment DD of the PJM Tariff or any FRR Capacity Plan pursuant to Schedule 8.1 of the Reliability Assurance Agreement Among Load-Serving Entities in the PJM Region (“Reliability Assurance Agreement”).
- (ii) Availability of Generation Capacity Resources, as defined by Section 1.33 of the Reliability Assurance Agreement, that are committed to the PJM Region as a result of any Reliability Pricing Model Auction pursuant to Attachment DD of the PJM Tariff or any FRR Capacity Plan pursuant to Schedule 8.1 of the Reliability Assurance Agreement.
- (iii) Availability of Demand Resources as defined in Section 1.13 of the Reliability Assurance Agreement that are committed to the PJM Region as a result of any Reliability Pricing Model Auction pursuant to Attachment DD of the PJM Tariff or any FRR Capacity Plan pursuant to Schedule 8.1 of the Reliability Assurance Agreement.

- (iv) Addition of Customer Facilities pursuant to an executed Interconnection Service Agreement or executed Interim Interconnection Service Agreement for which an Interconnection Service Agreement is expected to be executed.
- (v) Addition of Customer-Funded Upgrades pursuant to an executed Interconnection Construction Service Agreement or an Upgrade Construction Service Agreement.
- (vi) Expected level of demand response over at least the ensuing fifteen years based on analyses that consider historic levels of demand response, expected demand response growth trends, impact of capacity prices, current and emerging technologies.
- (vii) Expected levels of potential new generation and generation retirements over at least the ensuing fifteen years based on analyses that consider generation trends based on existing generation on the system, generation in the PJM interconnection queues and Capacity Resource Clearing Prices under Attachment DD of the PJM Tariff. If the Office of the Interconnection finds that the PJM reserve requirement is not met in any of its future year market efficiency analyses then it will model adequate future generation based on type and location of generation in existing PJM interconnection queues.
- (viii) Items (i) through (v) will be included in the market efficiency assumptions if qualified for consideration by the PJM Board. In the event that any of the items listed in (i) through (v) above qualify for inclusion in the market efficiency analysis assumptions, however, because of the timing of the qualification the item was not included in the assumptions used in developing the most recent Regional Transmission Expansion Plan, the Office of the Interconnection, to the extent necessary, shall notify any entity constructing an economic-based enhancement or expansion that may be affected by inclusion of such item in the assumptions for the next market efficiency analysis described in subsection (b) and any review of costs and benefits pursuant to subsection (f) that the need for the economic-based enhancement or expansion may be diminished or obviated as a result of the inclusion of the qualified item in the assumptions for the next annual market efficiency analysis or review of costs and benefits.

(j) For informational purposes only, with regard to economic-based enhancements or expansions that are included in the Regional Transmission Expansion Plan pursuant to subsection (d) of this Section 1.5.7, the Office of the Interconnection shall perform sensitivity

analyses consistent with Section 1.5.3 of this Schedule 6 and shall provide the results of such sensitivity analyses to the Transmission Expansion Advisory Committee.

1.5.8 Development of Long-lead Projects, Short-term Projects, and Immediate-need Reliability Projects.

(a) **Pre-Qualification Requirements.** On an annual basis, entities that desire to be the Designated Entity for Immediate-need Reliability Projects, Short-term Projects, or Long-lead Projects shall submit to the Office of the Interconnection during the pre-qualification window, noticed by the Office of the Interconnection, the following information: (i) name and address of the entity; (ii) the technical and engineering qualifications of the entity or its affiliate, partner, or parent company; (iii) the demonstrated experience of the entity or its affiliate, partner, or parent company to develop, construct, maintain, and operate transmission facilities, including a list or other evidence of transmission facilities the entity, its affiliate, partner, or parent company previously developed, constructed, maintained, or operated; (iv) the previous record of the entity or its affiliate, partner, or parent company regarding construction, maintenance, or operation of transmission facilities both inside and outside of the PJM Region; (v) the capability of the entity or its affiliate, partner, or parent company to adhere to standardized construction, maintenance and operating practices; (vi) the financial statements of the entity or its affiliate, partner, or parent company for the most recent fiscal quarter, as well as the most recent three fiscal years, or the period of existence of the entity, if shorter, or such other evidence demonstrating an entity's current and expected financial capability acceptable to the Office of the Interconnection; (vii) a commitment by the entity to execute the Consolidated Transmission Owners Agreement, if the entity becomes a Designated Entity; (viii) evidence demonstrating the ability of the entity to address and timely remedy failure of facilities; (ix) a description of the experience of the entity in acquiring rights of way; and (x) such other supporting information that the Office of Interconnection requires to make the pre-qualification determinations consistent with this Section. Based on this information, and prior to the opening of the next project proposal window, the Office of the Interconnection shall determine whether an entity is qualified to be a Designated Entity and shall notify the entity of such determination. In the event the Office of the Interconnection determines that an entity is not qualified to be a Designated Entity, the Office of the Interconnection shall include in the notification the basis for its determination. The entity shall have 30 days or other such period as may be agreed to by the Office of the Interconnection to submit additional information, which the Office of the Interconnection shall consider in re-evaluating whether the entity is qualified to be a Designated Entity. The Office of the Interconnection shall notify the entity of the results of this re-evaluation within 15 business days of receiving the additional information or such other reasonable time period as needed by the Office of the Interconnection to make the determinations required by this Section prior to the opening of the next project proposal window. If an entity is notified by the Office of the Interconnection that the entity does not qualify to be a Designated Entity, such entity may request dispute resolution pursuant to Schedule 5 of the Operating Agreement. If an entity was qualified to be a Designated Entity in the previous year, such entity is not required to re-submit information to qualify to be a Designated Entity in the current year provided, however, that such entity must submit to the Office of the Interconnection all updated information at the time the information has changed. In the event an entity submits updated information, the Office of the

Interconnection shall determine whether the entity continues to qualify to be a Designated Entity and shall notify the entity of its determination within a reasonable period of time prior to the opening of the next proposal window. As determined by the Office of the Interconnection, an entity may pre-qualify outside the annual pre-qualification window for good cause shown. This Section shall not apply to entities that desire to propose projects for inclusion in the recommended plan but do not intend to be a Designated Entity.

(b) **Posting of Transmission System Needs.** Upon identification of existing and projected limitations on the Transmission System's physical, economic and/or operational capability or performance in the enhancement and expansion analysis process described in this Schedule 6 and the PJM Manuals, and after consideration of non-transmission solutions, the Office of the Interconnection shall post on the PJM website the violations, system conditions, and economic constraints, and Public Policy Requirements, including (i) federal Public Policy Requirements; (ii) state Public Policy Requirements identified or agreed-to by the states in the PJM Region, which could be addressed by potential Short-term Projects, Long-lead Projects or projects determined pursuant to the State Agreement Approach in Section 1.5.9 of this Schedule 6, as applicable. The Office of the Interconnection also shall post an explanation regarding why transmission needs associated with federal or state Public Policy Requirements were identified but were not selected for further evaluation.

(c) **Project Proposal Windows.** The Office of the Interconnection shall provide notice to stakeholders of a 30-day proposal window for Short-term Projects and a 120-day proposal window for Long-lead Projects. The Office of Interconnection may (i) shorten the proposal windows should the identified need require a shorter proposal window to meet the needed in-service date of the proposed enhancements or expansions; or (ii) extend the windows as needed to accommodate updated information regarding system conditions. During these windows, the Office of the Interconnection will accept proposals for potential enhancements or expansions to address the posted violations, system conditions, economic constraints, as well as Public Policy Requirements.

(c)(1) Proposals submitted in the proposal windows must contain: (i) the name and address of the proposing entity; (ii) a statement whether the entity intends to be the Designated Entity for the proposed project; (iii) the location of proposed project, including source and sink, if applicable; (iv) relevant engineering studies, and other relevant information as described in the PJM Manuals pertaining to the proposed project; (v) a proposed initial construction schedule including projected dates on which needed permits are required to be obtained in order to meet the required in-service date; and (vi) cost estimates and analyses that provide sufficient detail for the Office of Interconnection to review and analyze the proposed cost of the project.

(c)(2) If the proposing entity states that it intends to be a Designated Entity, the proposal also must contain information to the extent not previously provided pursuant to Section 1.5.8(a) demonstrating: (i) technical and engineering qualifications of the entity, its affiliate, partner, or parent company relevant to construction, operation, and maintenance of the proposed project; (ii) experience of the entity, its affiliate, partner, or parent company in developing, constructing, maintaining, and operating the type of transmission facilities contained in the project proposal;

(iii) the emergency response capability of the entity that will be operating and maintaining the proposed project; (iv) evidence of transmission facilities the entity, its affiliate, partner, or parent company previously constructed, maintained, or operated; (v) the ability of the entity or its affiliate, partner, or parent company to obtain adequate financing relative to the proposed project, which may include a letter of intent from a financial institution approved by the Office of the Interconnection or such other evidence of the financial resources available to finance the construction, operation, and maintenance of the proposed project; (vi) the managerial ability of the entity, its affiliate, partner, or parent company to contain costs and adhere to construction schedules for the proposed project, including a description of verifiable past achievement of these goals; (vii) a demonstration of other advantages the entity may have to construct, operate, and maintain the proposed project, including any cost commitment the entity may wish to submit; and (viii) any other information that may assist the Office of the Interconnection in evaluating the proposed project.

(c)(3) The Office of the Interconnection may request additional reports or information that it determines are reasonably necessary to evaluate the specific project proposal pursuant to the criteria set forth in Sections 1.5.8(e) and 1.5.8(f) of this Schedule 6. If the Office of the Interconnection determines any of the information provided in a proposal is deficient or it requires additional reports or information to analyze the submitted proposal, the Office of the Interconnection shall notify the proposing entity of such deficiency or request. Within 10 business days of receipt of the notification of deficiency and/or request for additional reports or information, or other reasonable time period as determined by the Office of the Interconnection, the proposing entity shall provide the necessary information.

(c)(4) The request for additional reports or information by the Office of the Interconnection pursuant to Section 1.5.8(c)(3) of this Schedule 6 may be used only to clarify a proposed project as submitted. In response to the Office of the Information's request for additional reports or information, the proposing entity may not submit a new project proposal or modifications to a proposed project once the proposal window is closed. In the event that the proposing entity fails to timely cure the deficiency or provide the requested reports or information regarding a proposed project, the proposed project will not be considered for inclusion in the recommended plan.

(d) **Posting and Review of Projects.** Following the close of a proposal window, the Office of the Interconnection shall post on the PJM website all proposals submitted pursuant to Section 1.5.8(c) of this Schedule 6. All proposals addressing state Public Policy Requirements shall be provided to the applicable states in the PJM Region for review and consideration as a Supplemental Project or a state public policy project consistent with Section 1.5.9 of this Schedule 6. The Office of the Interconnection shall review all proposals submitted during a proposal window and determine and present to the Transmission Expansion Advisory Committee the proposals that merit further consideration for inclusion in the recommended plan. In making this determination, the Office of the Interconnection shall consider the criteria set forth in Sections 1.5.8(e) and 1.5.8(f) of this Schedule 6. The Office of the Interconnection shall post on the PJM website and present to the Transmission Expansion Advisory Committee for review and comment descriptions of the proposed enhancements and expansions, including any proposed Supplemental Projects or state public policy projects identified by a state(s). Based on review

and comment by the Transmission Expansion Advisory Committee, the Office of the Interconnection may, if necessary conduct further study and evaluation. The Office of the Interconnection shall post on the PJM website and present to the Transmission Expansion Advisory Committee the revised enhancements and expansions for review and comment. After consultation with the Transmission Expansion Advisory Committee, the Office of the Interconnection shall determine the more efficient or cost-effective transmission enhancements and expansions for inclusion in the recommended plan consistent with this Schedule 6.

(e) **Criteria for Considering Inclusion of a Project in the Recommended Plan.** In determining whether a Short-term Project or Long-lead Project proposed pursuant to Section 1.5.8(c), individually or in combination with other Short-term Projects or Long-lead Projects, is the more efficient or cost-effective solution and therefore should be included in the recommended plan, the Office of the Interconnection, taking into account sensitivity studies and scenario analyses considered pursuant to Section 1.5.3 of this Schedule 6, shall consider the following criteria, to the extent applicable: (i) the extent to which a Short-term Project or Long-lead Project would address and solve the posted violation, system condition, or economic constraint; (ii) the extent to which the relative benefits of the project meets a Benefit/Cost Ratio Threshold of at least 1.25:1 as calculated pursuant to Section 1.5.7(d) of this Schedule 6; (iii) the extent to which the Short-term Project or Long-lead Project would have secondary benefits, such as addressing additional or other system reliability, operational performance, economic efficiency issues or federal Public Policy Requirements or state Public Policy Requirements identified by the states in the PJM Region; and (iv) other factors such as cost-effectiveness, the ability to timely complete the project, and project development feasibility.

(f) **Entity-Specific Criteria Considered in Determining the Designated Entity for a Project.** In determining whether the entity proposing a Short-term Project or a Long-lead Project recommended for inclusion in the plan shall be the Designated Entity, the Office of the Interconnection shall consider: (i) whether in its proposal, the entity indicated its intent to be the Designated Entity; (ii) whether the entity is pre-qualified to be a Designated Entity pursuant to Section 1.5.8(a); (iii) information provided either in the proposing entity's submission pursuant to Section 1.5.8(a) or 1.5.8(c)(2) relative to the specific proposed project that demonstrates: (1) the technical and engineering experience of the entity or its affiliate, partner, or parent company, including its previous record regarding construction, maintenance, and operation of transmission facilities relative to the project proposed; (2) ability of the entity or its affiliate, partner, or parent company to construct, maintain, and operate transmission facilities, as proposed, (3) capability of the entity to adhere to standardized construction, maintenance, and operating practices, including the capability for emergency response and restoration of damaged equipment; (4) experience of the entity in acquiring rights of way; (5) evidence of the ability of the entity, its affiliate, partner, or parent company to secure a financial commitment from an approved financial institution(s) agreeing to finance the construction, operation, and maintenance of the project, if it is accepted into the recommended plan; and (iv) any other factors that may be relevant to the proposed project.

(g) **Procedures if No Long-lead Project Proposal is Determined to be the More Efficient or Cost-Effective Solution.** If the Office of the Interconnection determines that none of the proposed Long-lead Projects received during the Long-lead Project proposal window would be

the more efficient or cost-effective solution to resolve a posted violation, system condition, or economic constraint, the Office of the Interconnection may re-evaluate and re-post on the PJM website the unresolved violations, system conditions, or economic constraints pursuant to Section 1.5.8(b), provided such re-evaluation and re-posting would not affect the ability of the Office of the Interconnection to timely address the identified reliability need. In the event that re-posting and conducting such re-evaluation would prevent the Office of the Interconnection from timely addressing the existing and projected limitations on the Transmission System that give rise to the need for an enhancement or expansion, the Office of the Interconnection shall propose a project to solve the posted violation, system condition or economic constraint for inclusion in the recommended plan and shall present such project to the Transmission Expansion Advisory Committee for review and comment. The Transmission Owner(s) in the Zone(s) where the project is to be located shall be the Designated Entity(ies) for such project. In determining whether there is insufficient time for re-posting and re-evaluation, the Office of the Interconnection shall consider factors such as, but not limited to, the time necessary: (i) to obtain regulatory approvals, (ii) to acquire long lead equipment, (iii) to meet construction schedules, (iv) to complete the required in-service date, and (v) for other time-based factors impacting the feasibility of achieving the required in-service date.

(h) Procedures if No Short-term Project Proposal is Determined to be the More Efficient or Cost-Effective Solution. If the Office of the Interconnection determines that none of the proposed Short-term Projects received during a Short-term Project proposal window would be the more efficient or cost-effective solution to resolve a posted violation or system condition, the Office of the Interconnection shall propose a Short-term Project to solve the posted violation, or system condition for inclusion in the recommended plan and will present such Short-term Project to the Transmission Expansion Advisory Committee for review and comment. The Transmission Owner(s) in the Zone(s) where the Short-term Project is to be located shall be the Designated Entity(ies) for the Project.

(i) Notification of Designated Entity. Within 10 business days of PJM Board approval of the Regional Transmission Expansion Plan, the Office of the Interconnection shall notify the entities that have been designated as the Designated Entities for projects included in the Regional Transmission Expansion Plan of such designations. In such notices, the Office of the Interconnection shall provide the dates by which: (i) all necessary state approvals must be obtained; and (ii) the projects must be in service.

(j) Acceptance of Designation. Within 30 days of receiving notification of its designation as a Designated Entity, the Designated Entity shall notify the Office of the Interconnection of its acceptance of such designation. Within 60 days of receiving notification of its designation, or other reasonable time period as determined by the Office of the Interconnection, the Designated Entity shall submit to the Office of the Interconnection a development schedule which shall include, but not be limited to: (i) construction milestones necessary to develop and construct the project to achieve the required in-service date, including milestone dates for obtaining all necessary state approvals; (ii) a letter of credit as determined by the Office of Interconnection to cover the incremental costs of construction resulting from reassignment of the project; and (iii) an executed agreement with the Office of the Interconnection setting forth the rights and obligations related to being the Designated Entity for the project.

(k) **Failure of Designated Entity to Meet Milestones.** In the event the Designated Entity fails to provide a development schedule or letter of credit pursuant to Section 1.5.8(j); or fails to meet a milestone in its development schedule that causes a delay of the project's in-service date, the Office of the Interconnection shall re-evaluate the need for the Short-term Project or Long-lead Project, and based on that re-evaluation may: (i) retain the Short-term Project or Long-lead Project in the Regional Transmission Expansion Plan; (ii) remove the Short-term Project or Long-lead Project from the Regional Transmission Expansion Plan; or (iii) include an alternative solution in the Regional Transmission Expansion Plan. If the Office of the Interconnection retains the Short-term or Long-term Project in the Regional Transmission Expansion Plan, it shall determine whether the delay is beyond the Designated Entity's control and whether to retain the Designated Entity or to designate the Transmission Owner(s) in the Zone(s) where the project is located as Designated Entity(ies) for the Short-term Project or Long-lead Project. If the Designated Entity is the Transmission Owner(s) in the Zone(s) where the project is located, the Office of the Interconnection shall seek recourse through the Consolidated Transmission Owners Agreement or FERC, as appropriate. Any modifications to the Regional Transmission Expansion Plan pursuant to this section shall be presented to the Transmission Expansion Advisory Committee for review and comment and approved by the PJM Board.

(l) **Transmission Owners Required to be the Designated Entity.** Notwithstanding anything to the contrary in this Section 1.5.8, in all events, the Transmission Owner(s) in whose Zone(s) a proposed Short-term Project or Long-lead Project is to be located will be the Designated Entity for the project, when the Short-term Project or Long-lead Project is: (i) an upgrade to a Transmission Owner's own transmission facilities; (ii) located solely within a Transmission Owner's Zone and the costs of the project are allocated solely to the Transmission Owner's Zone; (iii) located solely within a Transmission Owner's Zone and is not selected in the Regional Transmission Expansion Plan for purposes of cost allocation; or (iv) proposed to be located on a Transmission Owner's existing right of way and the project would alter the Transmission Owner's use and control of its existing right of way under state law. Transmission Owner shall be the Designated Entity when required by state law, regulation or administrative agency order with regard to enhancements or expansions or portions of such enhancements or expansions located within that state.

(m) **Immediate-need Reliability Projects:**

(m)(1) The Office of the Interconnection shall develop and recommend Immediate-need Reliability Projects for inclusion in the Regional Transmission Expansion Plan pursuant to the expansion planning process set forth in Sections 1.5.1 through 1.5.6 of Schedule 6. The Office of the Interconnection shall present to the Transmission Expansion Advisory Committee for review and comment descriptions of the proposed Immediate-need Reliability Projects recommended for inclusion in the recommended plan. Based on that review, the Office of the Interconnection shall, if necessary, conduct further study and evaluation and post a revised recommended plan for review and comment by the Transmission Expansion Advisory Committee. The PJM Board shall approve the Immediate-need Reliability Projects for inclusion in the recommended plan. Transmission Owner(s) in the Zone(s) in which the Immediate-need Reliability Project is to be located shall be the Designated Entity for the Immediate-need

Reliability Project included in the Regional Transmission Expansion Plan, provided the Immediate-need Reliability Project was not chosen pursuant to the expedited proposal process set forth in Section 1.5.8(m)(2).

(m)(2) If, in the judgment of the Office of the Interconnection, there is sufficient time for the Office of the Interconnection to accept proposals in a shortened proposal window for Immediate-need Reliability Projects, the Office of the Interconnection shall post on the PJM website the violations and system conditions that could be addressed by such Immediate-need Reliability Project proposals and provide notice to stakeholders of a shortened proposal window. Proposals must contain the information required in Section 1.5.8(c) and, if the entity is seeking to be the Designated Entity, such entity must have pre-qualified to be a Designated Entity pursuant to Section 1.5.8(a). In determining the more efficient or cost-effective proposed Immediate-need Reliability Project for inclusion in the recommended plan, the Office of the Interconnection shall consider the extent to which the proposed Immediate-need Reliability Project, individually or in combination with other Immediate-need Reliability Projects, would address and solve the posted violations or system conditions and other factors such as cost-effectiveness, the ability of the entity to timely complete the project, and project development feasibility in light of the required need. After PJM Board approval, the Office of the Interconnection, in accordance with Section 1.5.8(i) of this Schedule 6, shall notify the entities that have been designated as Designated Entities for Immediate-need Projects included in the Regional Transmission Expansion Plan of such designations. Designated Entities shall accept such designations in accordance with Section 1.5.8(j). In the event that (i) the Office of the Interconnection determines that no proposal resolves a posted violation or system condition; (ii) the proposing entity is not selected to be the Designated Entity; (iii) an entity does not accept the designation as a Designated Entity; or (iv) the Designated Entity fails to meet milestones that would delay the in-service date of the Immediate-need Reliability Project, the Office of the Interconnection shall develop and recommend an Immediate-need Reliability Project to solve the violation or system needs in accordance with Section 1.5.8(m)(1).

1.5.9 State Agreement Approach.

(a) State governmental entities authorized by their respective states, individually or jointly, may agree voluntarily to be responsible for the allocation of all costs of a proposed transmission expansion or enhancement that addresses state Public Policy Requirements identified or accepted by the state(s) in the PJM Region. Such transmission enhancements or expansions may be included in the recommended plan as a (i) Supplemental Project or (ii) state public policy project, which is a transmission enhancement or expansion, the costs of which will be recovered pursuant to a FERC-accepted cost allocation proposed by agreement of one or more states and voluntarily agreed to by those state(s). All costs related to a state public policy project or Supplemental Project included in the Regional Transmission Expansion Plan to address state Public Policy Requirements pursuant to this Section shall be recovered from customers in a state(s) in the PJM Region that agrees to be responsible for the projects. No such costs shall be recovered from customers in a state that did not agree to be responsible for such cost allocation. A state public policy project will be included in the Regional Transmission Expansion Plan for

cost allocation purposes only if there is an associated FERC-accepted allocation permitting recovery of the costs of the state public policy project consistent with this Section.

(b) Subject to any designation reserved for Transmission Owners in Section 1.5.8(l) of this Schedule 6, the state(s) responsible for cost allocation for a Supplemental Project or a state public policy project in accordance with Section 1.5.9(a) in this Schedule 6 may submit to the Office of the Interconnection the entity(ies) to construct, own, operate and maintain the state public policy project from a list of entities supplied by the Office of the Interconnection that pre-qualified to be Designated Entities pursuant to Section 1.5.8(a) of this Schedule 6.

1.6 Approval of the Final Regional Transmission Expansion Plan.

- (a) Based on the studies and analyses performed by the Office of the Interconnection under this Schedule 6, the PJM Board shall approve the Regional Transmission Expansion Plan in accordance with the requirements of this Schedule 6. The PJM Board shall approve the cost allocations for transmission enhancements and expansions consistent with Schedule 12 of the PJM Tariff. Supplemental Projects shall be integrated into the Regional Transmission Expansion Plan approved by the PJM Board but shall not be included for cost allocation purposes.
- (b) The Office of the Interconnection shall publish the current, approved Regional Transmission Expansion Plan on the PJM Internet site. Within 30 days after each occasion when the PJM Board approves a Regional Transmission Expansion Plan, or an addition to such a plan, that designates one or more Transmission Owners or other entity(ies) to construct such expansion or enhancement, the Office of the Interconnection shall file with FERC a report identifying the expansion or enhancement, its estimated cost, the entity or entities that will be responsible for constructing and owning or financing the project, and the market participants designated under Section 1.5.6(1) above to bear responsibility for the costs of the project.
- (c) If a Regional Transmission Expansion Plan is not approved, or if the transmission service requested by any entity is not included in an approved Regional Transmission Expansion Plan, nothing herein shall limit in any way the right of any entity to seek relief pursuant to the provisions of Section 211 of the Federal Power Act.
- (d) Following PJM Board approval, the final Regional Transmission Expansion Plan shall be documented, posted publicly and provided to the Applicable Regional Entities.

1.7 Obligation to Build.

- (a) Subject to the requirements of applicable law, government regulations and approvals, including, without limitation, requirements to obtain any necessary state or local siting, construction and operating permits, to the availability of required financing, to the ability to acquire necessary right-of-way, and to the right to recover, pursuant to appropriate financial arrangements and tariffs or contracts, all reasonably incurred costs, plus a reasonable return on investment, Transmission Owners designated as the appropriate entities to construct, own and/or finance enhancements or expansions specified in the Regional Transmission Expansion Plan shall construct, own and/or finance such facilities or enter into appropriate contracts to fulfill such obligations. Except as provided in Section 1.5.8(k) of this Schedule 6, nothing herein shall require any Transmission Owner to construct, finance or own any enhancements or expansions specified in the Regional Transmission Expansion Plan for which the plan designates an entity other than a Transmission Owner as the appropriate entity to construct, own and/or finance such enhancements or expansions.
- (b) Nothing herein shall prohibit any Transmission Owner from seeking to recover the cost of enhancements or expansions on an incremental cost basis or from seeking approval of such rate treatment from any regulatory agency with jurisdiction over such rates.
- (c) The Office of the Interconnection shall be obligated to collect on behalf of the Transmission Owner(s) all charges established under Schedule 12 of the PJM Tariff in connection with facilities which the Office of the Interconnection designates one or more Transmission Owners to build pursuant to this Regional Transmission Expansion Planning Protocol. Such charges shall compensate the Transmission Owner(s) for all costs related to such RTEP facilities under a FERC-approved rate and will include any FERC-approved incentives.
- (d) In the event that a Transmission Owner declines to construct an economic transmission enhancement or expansion developed under Sections 1.5.6(d) and 1.5.7 of this Schedule 6 that such Transmission Owner is designated by the Regional Transmission Expansion Plan to construct (in whole or in part), the Office of the Interconnection shall promptly file with the FERC a report on the results of the pertinent economic planning process in order to permit the FERC to determine what action, if any, it should take.

Appendix I

PJM Order No. 1000 Compliance Filing

Section Title	Revision	Reason for Revision and/or Compliance
PJM Tariff Sections		
OATT Definitions C - D	This Section is revised to reference the new definition added in OA of <i>Designated Entity</i> .	This definition is necessary for consistency with OA and for compliance with Order Nos. 1000, 1000-A, and 1000-B.
OATT Definitions I - J - K	This Section is revised to reference the new definition added in OA of <i>Immediate-need Reliability Project</i> .	This definition is necessary for consistency with OA and for compliance with Order Nos. 1000, 1000-A, and 1000-B.
OATT Definitions L - M - N	This Section is revised to reference the new definition added in OA of <i>Long-lead Project</i> .	This definition is necessary for consistency with OA and for compliance with Order Nos. 1000, 1000-A, and 1000-B.
OATT Definitions O - P - Q	These Sections are added to reference two existing definitions in OA of <i>Public Policy Objectives</i> and <i>Public Policy Requirements</i> .	This revision is necessary for consistency with OA and for compliance with Order Nos. 1000, 1000-A, and 1000-B. These definitions are consistent with paragraph 2 of Order No. 1000 and paragraph 319 of Order No. 1000-A.
OATT Definitions R - S	These Sections are added to reference the new definition added in OA of <i>Short-term Project</i> .	This revision is necessary for consistency with OA and for compliance with Order Nos. 1000, 1000-A, and 1000-B.
Consolidated Transmission Owners Agreement		
Section 3.1 – Parties	No change.	This section of the Consolidated Transmission Owners Agreement provides: “it is the agreement of the Parties and PJM that any entity that: (i) owns, or, in the case of leased facilities, has rights equivalent to ownership in, Transmission Facilities; (ii) has in place all equipment and facilities necessary for safe and reliable operation of such Transmission Facilities as part of the PJM Region; and (iii) has committed to transfer functional control of its Transmission Facilities to PJM shall become a Party to this Agreement.” This Section of the Consolidated Transmission Owners Agreement along with Section 11.6 and Schedule 12 of the Operating Agreement comply with the enrollment process requirement in Order No. 1000-A. <i>See</i> Order No 1000-A at P 275.

Section Title	Revision	Reason for Revision and/or Compliance
PJM Operating Agreement Sections		
OA Definitions C - D	This Section is revised to add new definition of <i>Designated Entity</i> .	This definition is necessary to accommodate new Section 1.5.8 of Schedule 6 and for compliance with Order Nos. 1000, 1000-A, and 1000-B.
OA Definitions I - L	This Section is revised to add two new definitions of <i>Immediate-need Reliability Project</i> and <i>Long-lead Project</i> .	These definitions are necessary to accommodate new Section 1.5.8 of Schedule 6 and for compliance with Order Nos. 1000, 1000-A, and 1000-B.
OA Definitions O - P	Existing Definitions of “Public Policy Objectives” and “Public Policy Requirement.” These definitions are not being modified in this filing.	These definitions are consistent with Order No. 1000 P 2 and Order No. 1000-A P 319.
OA Definitions S – T	This Section is revised to add new definition of <i>Short-term Project</i> .	This definition is necessary to accommodate new Section 1.5.8 of Schedule 6 and for compliance Order Nos. 1000, 1000-A, and 1000-B.
Section 11.6 – Membership Requirements	No change.	This Section of the Operating Agreement sets forth the requirements and procedures for becoming a PJM member. This Section along with Schedule 12 of the OA and Section 3.1 of the Consolidated Transmission Owners Agreement complies with the requirement in Order No. 1000-A for an enrollment process for becoming part of the PJM regional planning process. <i>See</i> Order No 1000-A at P 275. To participate in the PJM regional planning process, an entity must become a member of PJM.
Schedule 12 – Membership List	No change.	The Schedule along with Section 11.6 of the OA and Section 3.1 of the Consolidated Transmission Owners Agreement complies with the enrollment process requirement in Order No. 1000-A. Specifically Schedule 12 complies with the requirement to provide a list of all the public utility and non-public utility transmission providers that have enrolled as transmission providers in a transmission planning region. <i>See</i> Order No 1000-A at P 275. Once a public utility or non-public utility transmission provider becomes a member of PJM, it will be included in this list.

Section Title	Revision	Reason for Revision and/or Compliance
SCHEDULE 6		
Schedule 6	As modified.	Schedule 6 of the Operating Agreement sets forth “a regional transmission planning process that produces a regional transmission plan and that complies with the transmission planning principles of Order No. 890” and thus complies with Order No. 1000. Order No. 1000 at P 146. As explained in the transmittal letter, PJM’s current transmission process, including changes recently approved by the Commission in Docket No. ER12-1178, meets the Order No. 890 principles and already satisfy many of the requirements of Order No. 1000. Order No. 1000 at P 146. Schedule 6 as modified meets the objectives of Order No. 1000 to: “(1) ensure that transmission planning processes at the regional level consider and evaluate, on a non-discriminatory basis, possible transmission alternatives and produce a transmission plan that can meet transmission needs more efficiently and cost-effectively; and (2) ensure that the costs of transmission solutions chosen to met regional transmission needs are allocated fairly to those who receive benefits from them.” <i>See</i> Order No. 1000 at P 4.
Section 1.3 – Establishment of Committees.	This Section is revised to: (i) add references to the Independent State Agency Committee in subsections (b) and (e); and (ii) remove references to three PJM subregions in subsection (f).	<p>Section 1.3 establishes committees to facilitate stakeholder and state participation in the transmission planning process, which is consistent with the Order No. 890 principles and Order No. 1000. The revisions in subsections (b) and (e) clarify that the Independent State Agencies Committee along with individual electric utility regulatory agencies and State Consumer Advocates may participate in the Transmission Expansion Advisory Committee and the Subregional RTEP Committees. These revisions facilitate state participation in the transmission planning process. <i>See</i> Order No. 1000 at PP 209, 212; Order No. 1000-A at PP 337, 338. The establishment of the various committees and their participation throughout the transmission planning process results in determinations regarding the inclusion of proposed transmission facilities in the regional transmission plan that permit “stakeholders to understand why a particular transmission project was selected or not selected in the regional transmission plan.” Order No. 1000 at P 328.</p> <p>The change in subsection (f) is required to accommodate the new planning cycle and to clarify the role of the Subregional RTEP Committees. These changes enhance the transparency of the PJM regional planning process.</p>

Section Title	Revision	Reason for Revision and/or Compliance
Section 1.4 – Contents of the Regional Transmission Expansion Plan	This Section is revised to: (i) specify “federal and state” Public Policy Requirements in subsection (a); (ii) delete reference to “Owners”; (iii) pluralize “Transmission Owner(s)” and “other entity(ies);” and (iv) add “maintain” and “operate” in subsection (c).	The revisions to Section 1.4(a) clarify that both federal and state Public Policy Requirements will be considered when assessing the transmission needs of the PJM Region. This change is consistent with the requirements of Order No. 1000. <i>See</i> Order No. 1000 at PP 82, 207, 215. The revisions to subsection (c) clarify that entities other than existing Transmission Owners may be designated to own, maintain, operate, and/or finance transmission enhancements and expansions. This change is necessary as PJM is proposing a process whereby nonincumbent transmission owners may propose and be designated to construct enhancements and expansions (<i>see</i> proposed Section 1.5.8 of Schedule 6).
Section.1.5 – Procedure for Development of the Regional Transmission Expansion Plan	Universal change to capitalize “Transmission System.” Universal change to spell out “ISAC” as “Independent State Agencies Committee.” Universal change of “section” to “Section.” Universal change from “PJM internet site” to “PJM website.” Universal change from “RAA” to “Reliability Assurance Agreement.”	The universal changes to this Section ensure the proper use of defined terms or are for consistency with terms used in other sections.
Section 1.5.2 – Development of Scope, Assumptions and Procedures	Pluralizing “Subregional RTEP Committees.”	The change to this Section is necessary because there is more than one Subregional RTEP Committee.

Section Title	Revision	Reason for Revision and/or Compliance
Section 1.5.3 – Scope of Studies	This Section is revised to specify that the sensitivity studies shall take into account “fuel costs, the level and type of generation,” and “demand response.” It further is amended to provide that PJM shall provide the results of the studies to the Transmission Enhancement Advisory Committee so that it may consider the impact that the sensitivities, assumptions and scenarios have on the Transmission System and the need for enhancements or expansions.	<p>As revised in Docket No. ER12-1178, this Section defines the scope of the enhancement and expansion studies to be conducted by PJM. In particular, it provides that PJM will employ sensitivity studies, modeling assumptions variations, and scenario analyses, and shall consider Public Policy Objectives to ensure that the appropriate transmission projects are included in the regional transmission plan. This Section is consistent with the requirement in Order No. 1000 that transmission providers’ OATTs provide for consideration of transmission needs relating to Public Policy Requirements and provide stakeholders the opportunity for input regarding Public Policy Requirements. <i>See</i> Order No. 1000 at PP 82, 206, 207, 208.</p> <p>The amendments to this Section specify that fuel cost, the level and type of generation, and demand response will be considered up front in the analysis. The amendments also specify that PJM will provide the Transmission Enhancement Advisory Committee with the results of the sensitivity analyses, thus providing stakeholders an opportunity to assess the impact of the various sensitivities in reviewing the needs of the Transmission System. This enhances stakeholder coordination and the transparency of the planning process. <i>See</i> Order No. 1000 at P 326.</p>
Section 1.5.4 – Supply of Data		This Section addresses the supply of data between PJM, Transmission Owners, other stakeholders, and the states necessary to conduct transmission studies. This Section meets the Order No. 890 and Order No. 1000 principles of openness and transparency.
Section 1.5.4(c)	This Section is revised to add the Independent State Agencies Committee to the list of interested parties from which PJM shall solicit information that would be useful in preparing the enhancement and expansion plans.	While the Independent State Agencies Committee was established through the filing in Docket No. ER12-1178, this revision enhances PJM’s coordination with the states in PJM’s transmission planning process. <i>See</i> Order No. 1000 at PP 209, 212; Order No. 1000-A at PP 337, 338.
Sections 1.5.4(d) and (e)	These Sections are revised to substitute the phrase “Office of the Interconnection” for “PJM;” lengthen the reference to “PJM” to “PJM Interconnection, L.L.C.,” and to spell out “TEAC” as “Transmission Expansion Advisory Committee.”	The changes to these Sections are made for consistency with the use of the terms elsewhere in Schedule 6.

Section Title	Revision	Reason for Revision and/or Compliance
Section 1.5.5 – Coordination of Regional Transmission Plan	This Section is revised to capitalize “Transmission System” in subsection 1.5.5(a); capitalize “Independent” in subsection 1.5.5(b); and to lowercase “regional” in subsection 1.5.5(d).	<p>This Section provides that the regional transmission plan shall be developed in accordance with the principles of interregional coordination with surrounding regions. PJM shall take into account processes for coordinating with other regions when developing its regional transmission plan as well as input from parties that could be impacted by the coordination efforts, such as Members, Transmission Customers, electric utility regulatory agencies in the PJM Region, and the State Consumer Advocates. It further provides that PJM’s regional plan will be developed in consultation with the Transmission Enhancement Advisory Committee. This Section ensures stakeholder involvement and coordination in the development of the plan. <i>See</i> Order No. 1000 at P 148. This Section further complies with the Order No. 1000 that the transmission planning process “must identify consequences for other transmission planning regions.” <i>See</i> Order No. 1000 at P 657.</p> <p>The revisions to this Section are merely to correct typographical errors.</p>
Section 1.5.6 – Development of the Regional Transmission Expansion Plan		<p>This Section sets forth the process for developing PJM’s regional transmission expansion plan. It provides for open forum assumptions meetings with the Transmission Expansion Advisory Committee and the Subregional RTEP Committees. It also facilitates meetings with the Independent State Agencies Committee to discuss assumptions, regulatory initiatives for consideration in the assumptions, the impact of other factors such as changes in load growth and demand response, and the status of the planning process. This Section provides the process for determining the enhancements and expansions that will be included in the recommended plan for PJM Board approval, which includes the opportunity for stakeholder comments. It further addresses cost allocation and the determination of the more efficient and cost-effective enhancement or expansion for inclusion in the plan. The committee process established in this Section provides stakeholders, including the states, with mechanisms to participate and have input in the regional planning process and for PJM to consult with stakeholders in developing the regional transmission plan as required by Order No. 1000. <i>See</i> Order No. 1000 at PP 148, 209, 212, 328. The committee process complies with the transparency and openness principles set forth in Order No. 890 and embraced by Order No. 1000.</p>

Section Title	Revision	Reason for Revision and/or Compliance
Sections 1.5.6(b), (c), and (d)	These Sections are revised to spell out “RTEP” and “ISAC” as “Regional Transmission Expansion Plan” and “Independent State Advisory Committee,” respectively.	The revisions to the Sections are for clarification and consistency with other Sections of Schedule 6.
Section 1.5.6(e)	This Section is revised to add the requirement that PJM shall post on the PJM website: (i) the violations, system conditions, economic constraints, and Public Policy Requirements as detailed in Section 1.5.8(b); (ii) all proposals submitted pursuant to Section 1.5.8(c); and (iii) the recommended plan for review and comment by the Transmission Expansion Advisory Committee. This Section is further revised to provide that following review by the Transmission Expansion Advisory Committee of proposals, PJM, based on identified needs and the timing of such needs, and taking into account the sensitivity studies, modeling assumption variations and scenario analyses, shall determine, which more efficient or cost-effective enhancements and expansions should be included in the transmission expansion plan.	The revisions to this Section are necessary for consistency with, and to facilitate the proposal process set forth in Section 1.5.8. They further ensure stakeholder involvement in the transmission planning process and facilitate openness and transparency as required by Order No. 890 and Order No. 1000. <i>See, e.g.,</i> Order No. 1000 at P 148 The purpose of this Section is to ensure the transparency of PJM’s evaluation of alternatives and decision-making process when choosing a project for inclusion in the regional transmission plan.
Section 1.5.6(h)	This Section is revised to add “and 1.5.8 of this Schedule 6.”	This revision is necessary because stakeholders will be able to propose economic-based enhancements and expansions pursuant to Section 1.5.8.
Section 1.5.6(i)	This new Section is added to state that: “The recommended plan shall identify enhancements and expansions proposed by a state or states pursuant to Section 1.5.9 of this Schedule 6.”	This revision is necessary to accommodate the State Agreement Approach set forth in new Section 1.5.9.
Section 1.5.6(j) (formerly Section 1.5.6(i))	This Section is revised to add “and Part VI” after “Part IV.”	This change makes this section more accurate as both Parts IV and VI apply to Merchant Transmission Facilities.
Section 1.5.6(k) (formerly Section 1.5.6(j))	This section is revised to amend the following sentence as redlined: “Otherwise, any designation under this paragraph of more than one or more <u>entity</u> ies to construct, own and/or finance a recommended transmission enhancement or expansion shall also include a designation of proportional <u>partial</u> responsibility among them.”	This revision is to make the section more accurate and correct.

Section Title	Revision	Reason for Revision and/or Compliance
Sections 1.5.6(m), (n), (o), and (p)	Sections 1.5.6(m) through (p) are deleted.	Sections 1.5.6(m) through (p) are deleted because stakeholders and PJM will not offer alternative transmission solutions during the evaluation of projects proposed pursuant to Section 1.5.8; only proposed projects will be evaluated for inclusion in the regional transmission plan. As a result these sections are no longer applicable.
Section 1.5.6(q)	Section 1.5.6(q) is deleted.	This Section is deleted because in light of the new project proposal mechanism in Section 1.5.8, dispute resolution no longer will be an effective mechanism for resolving disputes that may arise in the transmission plan development process. Disputes with regard to which project is chosen for inclusion in the transmission enhancement plan will not only impact PJM and the party with grievance but other entities that also proposed projects. Therefore a dispute resolution between PJM and the aggrieved party likely would not adequately address all of the issues or interests of other parties.
1.5.7 – Development of Economic Transmission Enhancements and Expansions		This section in general complies with Order No. 890 Principle 7 and complies with Order No. 1000 that regional planning must engage in economic planning. <i>See</i> Order No. 1000 at P 147.
Section 1.5.7(a)	<p>This Section is revised to delete the requirement that PJM will obtain approval from the PJM Board each June regarding the assumptions to be used in the market efficiency analysis. The section now requires that: “Each year the Transmission Expansion Advisory Committee shall review and comment on the assumptions to be used in performing the market efficiency analysis to identify enhancements or expansions that could relieve transmission constraints that have an economic impact (‘economic constraints’).” It further provides that following review and comment by the Transmission Enhancement Advisory Committee, PJM shall submit the assumptions to be used in the market efficiency analysis for PJM Board consideration.</p> <p>This Section also is revised to provide that each year each Transmission Owner will be requested to provide PJM with its most recent after-tax embedded cost of capital, total transmission capitalization, and levelized carrying charge rate, including the recovery period.</p>	The change to this Section is necessary to accommodate PJM’s 24 month planning cycle and to clarify that the Transmission Advisory Committee will have the opportunity to review and comment upon the assumptions to be used in the market-efficiency analysis thereby providing stakeholders with a better understanding and facilitating a more meaningful proposal and planning process and enhancing stakeholder coordination and involvement.

Section Title	Revision	Reason for Revision and/or Compliance
Section 1.5.7(b)	This Section is revised to: (i) clarify that the PJM Board will “consider” rather than “approve” the market efficiency analysis assumptions; (ii) delete “significant historical unhedgeable congestion” from the list of economic constraints; and (iii) specify that the timeline for the market efficiency analysis and comparison of the costs and benefits for items 1.5.7(b)(i-iii) is described in the PJM Manuals.	The deletion of “significant historical unhedgeable congestion” from the list of economic constraints in this Section is appropriate because the cost/benefit analysis conducted pursuant to Section 1.5.7(d) determines both gross and net congestion and separately determining unhedgeable congestion is no longer part of the market efficiency process.
Section 1.5.7(c)(iii)	<p>This Section is revised to specify that market participants may propose economic-based enhancements and expansions only pursuant to Section 1.5.8. It further is revised to delete references to conducting the market efficiency analysis in June and requiring proposals by December of the prior year.</p> <p>The word “recommended” also is deleted and a citation is corrected due to the renumbering of Section 1.5.7.</p>	<p>This Section is revised to reflect that the only mechanism for proposing economic projects will be through the new proposal process in Section 1.5.8, which provides a method for evaluating transmission alternatives and developing a plan that meets transmission needs on a more efficient and cost-effective manner. <i>See</i> Order No. 1000 at P 4. It further is revised to accommodate PJM’s planning cycles.</p> <p>The deletion of the word “recommended” is to clarify that the Transmission Expansion Advisory Committee will have the opportunity to review and provide comments on all potential economic-based upgrades, not just those that are “recommended.”</p>
Section 1.5.7(d)	This Section is revised to replace “included” with “considered for inclusion.”	The change to this Section is for clarity because PJM will be considering other factors in addition to the Benefit/Cost Ratio when choosing among project proposals in determining whether to include an economic-based enhancement or expansion in the regional transmission plan.
Section 1.5.7(f)	This Section is revised to amend a citation to another section.	The amendment to this Section is necessary due to the renumbering of Section 1.5.7.
Section 1.5.7(g)	This Section is deleted.	This Section is deleted because PJM will provide the Transmission Expansion Advisory Committee with the type and level of new generation and demand response that that will be considered in the sensitivity analyses, which will assess the need for all types of enhancements and expansion and not just for economic-based enhancements and expansions.
Section 1.5.7(i)	This Section is deleted.	This Section is deleted because the separate determination of “unhedgeable congestion” is no longer part of the market efficiency process (<i>see</i> Section 1.5.7(b)).
Section 1.5.7(h) (formerly 1.5.7(j))	This Section is revised to add “and Part VI” after “Part IV” and to correct a Tariff reference.	This change makes this section more accurate as both Parts IV and VI apply to Merchant Transmission Facilities and corrects a Tariff reference.

Section Title	Revision	Reason for Revision and/or Compliance
Section 1.5.7(i) (formerly 1.5.7(k))	This Section is revised (i) to correct citations; (ii) to delete from the list of assumptions for the review of costs and benefits the availability of ILR Resources certified pursuant to Section 5.1.3 of in Attachment DD of the PJM Tariff; (iii) to clarify that an executed Interim Interconnection Service Agreement for which an Interconnection Service Agreement is expected to be executed shall be included in the assumptions; and (iv) to remove the requirement that assumptions must qualify for consideration by the PJM Board by January 1.	The changes to this Section clarify the assumptions to be used in the market efficiency analysis and to accommodate PJM's 2 month planning cycle. This clarification enhances the transparency and openness of the economic planning process
Section 1.5.7(l) (formerly 1.5.7(j))	This Section is revised to clarify that the sensitivity analyses will be performed consistent with Section 1.5.3 of Schedule 6.	The revision to this Section is a clarifying change, which enhances the transparency of PJM's planning process.
Section 1.5.8 – Development of Long-lead Projects, Short-term Projects, and Immediate-need Reliability Projects		This new Section 1.5.8 is added to implement PJM's proposed procedures by which nonincumbent transmission developers and existing Transmission Owners may submit project proposals and may be designated as the project sponsor. <i>See</i> Order No. 1000 at PP 259, 336. This Section meets the objective of Order No. 1000 to “ensure that transmission planning processes at the regional level consider and evaluate, on a non-discriminatory basis, possible transmission alternatives and produce a transmission plan that can meet transmission needs efficiently and cost-effectively.” <i>See</i> Order No. 1000 at P 4. The proposal process set forth in new Section 1.5.8 provides a transparent and not unduly discriminatory process for evaluating proposed transmission facilities for inclusion in the regional transmission plan. <i>See</i> Order No. 1000 at P 328.

Section Title	Revision	Reason for Revision and/or Compliance
Section 1.5.8(a) – Pre-Qualification Requirements	<p>This new Section sets forth pre-qualification requirements for <i>any</i> entity (nonincumbent transmission developer or existing Transmission Owner) that desires to propose a Long-lead Project, a Short-term Project, or an Immediate-need Reliability Project. The qualification requirements include demonstration of: (i) the technical and engineering qualifications of the entity or its affiliate, partner, or parent company; (ii) the experience of the entity or its affiliate, partner, or parent company to develop, construct, maintain, and operate transmission facilities, including a list or other evidence of transmission facilities the entity, its affiliate, partner, or parent company previously developed, constructed, maintained, or operated; (iii) the previous record of the entity or its affiliate, partner, or parent company regarding construction, maintenance, or operation of transmission facilities both inside and outside of the PJM Region; (iv) the capability of the entity or its affiliate, partner, or parent company to adhere to standardized construction, maintenance and operating practices; (v) the financial statements of the entity or its affiliate, partner, or parent company for the most recent fiscal quarter, as well as the most recent three fiscal years, or the period of existence of the entity, if shorter, or such other evidence demonstrating an entity’s current and expected financial capability acceptable to PJM; (vi) a commitment by the entity to execute the Consolidated Transmission Owners Agreement, if the entity becomes a Designated Entity; (vii) a commitment by the entity to register with NERC for performance of applicable reliability functions of a transmission owner; (viii) evidence demonstrating the ability of the entity to address and timely remedy failure of facilities; (ix) a description of the experience of the entity in acquiring rights of way; and (x) such other supporting information that PJM requires to make the pre-qualification determinations consistent with this Section.</p> <p>(cont’d...)</p>	<p>This Section 1.5.8(a) meets the Order No. 1000 requirement to establish “appropriate qualification criteria for determining an entity’s eligibility to propose a transmission project for selection in the regional transmission plan for purposes of cost allocation, whether that entity is an incumbent transmission provider or a non-incumbent transmission developer.” Order No. 1000 at P 323; <i>see also</i> Order No. 1000-A at P 439. Consistent with Order No. 1000, the pre-qualification criteria further require that “each potential transmission developer the opportunity to demonstrate that it has the necessary financial resources and technical expertise to develop, construct, own, operate and maintain transmission facilities.” <i>Id.</i> This Section also is consistent with Order No. 1000 because it allows entities that were pre-qualified in the previous year to remain pre-qualified (subject re-evaluation based on updated information). <i>See</i> Order No. 1000 at P 324. This section further provides an opportunity for an entity to remedy deficiencies in the information it provides to be pre-qualified. <i>Id.</i> In accordance with Order No. 1000, this Section does not apply to entities desiring to submit proposed projects but not intending to develop the projects. <i>See</i> Order No. 1000 at P 324 n.304.</p>

Section Title	Revision	Reason for Revision and/or Compliance
	<p>(...cont'd)</p> <p>This new Section also provides a re-evaluation process if PJM determines an entity does not meet the qualification requirements; and that an entity does not have to provide pre-qualification information if it pre-qualified in the previous year (subject to providing any updated information that will be evaluated to determine whether the entity remains eligible for pre-qualification).</p>	
Section 1.5.8(b) – Posting Transmission System Needs	<p>This new Section provides that PJM shall post on the PJM website the violations, system conditions, and economic constraints, and Public Policy Requirements, including (i) federal Public Policy Requirements; (ii) state Public Policy Requirements identified or agreed-to by the states in the PJM Region that could be addressed by potential Short-term Projects, Long-lead Projects or projects determined pursuant to the State Agreement Approach in Section 1.5.9 of this Schedule 6, as applicable; and (iii) an explanation regarding why transmission needs associated with federal or state Public Policy Requirements were identified but not selected for further evaluation.</p>	<p>This new Section provides the information necessary for market participants to submit proposals to address reliability and economic-related transmission needs, and state and federal Public Policy Requirements and is consistent with the transparency principle of Order No. 890 and provides a non-discriminatory basis upon which all stakeholders may propose projects. This Section further complies with the Order No. 1000 requirement that PJM post on its website an explanation of how other transmission needs driven by Public Policy Requirements introduced by stakeholders were considered during the identification stage and why they were not selected for further evaluation. <i>See</i> Order No. 1000 at PP 209, 325; Order No. 1000-A at P 325.</p>

Section Title	Revision	Reason for Revision and/or Compliance
Section 1.5.8(c) – Project Proposal Windows	<p>This new Section (i) establishes the proposal windows for Long-lead Projects and Short-term Projects; (ii) specifies the information project proposals must contain (<i>see</i> Sections 1.5.8(c)(1) and (c)(2)); and (iii) provides PJM with the ability to request additional information regarding proposals (but does not permit entities to propose new projects or to modify proposal in response to such requests) (<i>see</i> Sections 1.5.8(c)(3) and (c)(4)).</p>	<p>New Sections 1.5.8(c)(1) and (c)(2) comply with the requirement in Order No. 1000 that the OATT specify “the information that must be submitted by a prospective transmission developer in support of a transmission project it proposes in the regional transmission planning project.” Order No. 1000 at P 325. These sections further meet the requirement in paragraph 326 of Order No. 1000 that the information requirements identify in sufficient detail the information necessary to evaluate proposed projects on a comparable basis. The requirements in new Sections 1.5.8(c)(1) and (c)(2) strike the balance between being too cumbersome to prohibit proposals and too lax to allow for unsupported proposals. They further require the minimum requirements of “relevant engineering studies and cost analyses” as suggested by Order No. 1000. <i>See</i> Order No. 1000 at P 327. New Section 1.5.8(c) also meets the requirement to specify a date by which the information must be submitted. <i>Id.</i> Specifically new Section 1.5.8(c) provides for windows during which stakeholders (existing Transmission Owners and other nonincumbant developers) may submit proposals for potential projects for inclusion in the regional transmission plan.</p> <p>Pursuant to this Section, stakeholders may propose projects to address Public Policy Requirements. This is consistent with the Commission’s requirement that stakeholders be allowed to offer proposals to address transmission needs they believe are driven by Public Policy Requirements. <i>See</i> Order No. 1000 at P 207.</p>

Section Title	Revision	Reason for Revision and/or Compliance
Section 1.5.8(d) – Posting and Review of Projects	<p>This new Section provides that: (i) following the close of a proposal window, PJM will post on its website all proposals submitted pursuant to Section 1.5.8(c); (ii) PJM shall provide all proposals addressing state Public Policy Requirements to the applicable states for review pursuant to Section 1.5.9; (iii) PJM shall determine the projects that warrant further consideration using the criteria in Sections 1.5.8(e) and (f) and post such projects for review and comment by the Transmission Expansion Advisory Committee; (iv) based on comments from the Transmission Expansion Advisory Committee, PJM may conduct further study and evaluation; (v) PJM shall post on its website and present to the Transmission Expansion Advisory Committee revised enhancement and expansions; and (vi) after consultation with the Transmission Expansion and Advisory Committee, PJM shall determine the more efficient or cost-effective transmission enhancement or expansion for inclusion in the regional transmission expansion plan.</p>	<p>This Section enhances transparency of the process by which PJM will choose the more efficient and cost-effective solution and provides the stakeholders ability to review and input with respect to project proposals. This Section along with Sections 1.5.8(e) and (f) provide “a transparent and not unduly discriminatory process for evaluating whether to select a proposed transmission facility in the regional transmission plan for purposes of cost allocation.” Order No. 1000 at P 328.</p> <p>This Section facilitates stakeholder coordination in the planning and review process consistent with the requirements of Order No. 1000 and enhances transparency. <i>See id.</i></p>
Section 1.5.8(e) – Criteria for Considering Inclusion of a Project in the Recommended Plan	<p>This new Section sets forth the following criteria that PJM will consider in determining which proposal submitted pursuant to Section 1.5.8(c), individually or in combination with other proposals, is the more efficient or cost-effective solution: (i) the extent to which a Short-term Project or Long-lead Project would address and solve the posted violation, system condition, or economic constraint; (ii) the extent to which the relative benefits of the project meets a Benefit/Cost Ratio Threshold of at least 1.25:1 as calculated pursuant to Section 1.5.7(d) of this Schedule 6; (iii) the extent to which the Short-term Project or Long-lead Project would have secondary benefits, such as addressing additional or other system reliability, operational performance, economic efficiency issues or federal Public Policy Requirements or state Public Policy Requirements identified by the states in the PJM Region; and (iv) other factors such as cost-effectiveness, the ability to timely complete the project, and project development feasibility.</p>	<p>This new Section meets the Order No. 1000 requirement that to ensure comparable treatment of all resources by including in its OATT “language that identifies how they will evaluate and select among competing solutions and resources.” Order No. 1000 at PP 315, 328.</p> <p>This Section further complies with the requirement to set forth the criteria by which the transmission provider evaluates solutions offered during the transmission process. <i>See</i> Order No. 1000 at P 323.</p>

Section Title	Revision	Reason for Revision and/or Compliance
Section 1.5.8(f) – Entity-Specific Criteria Considered in Determining the Designated Entity for a Project	<p>This new Section sets forth the criteria that PJM will consider in determining whether an entity proposing a project shall be the Designated Entity for that project. Specifically, it provides that PJM shall consider the following: (i) whether in its proposal, the entity indicated its intent to be the Designated Entity; (ii) whether the entity is pre-qualified to be a Designated Entity pursuant to Section 1.5.8(a); (iii) information provided either in the proposing entity’s submission pursuant to Section 1.5.8(a) or 1.5.8(c)(2) relative to the specific proposed project that demonstrates: (1) the technical and engineering experience of the entity or its affiliate, partner, or parent company, including its previous record regarding construction, maintenance, and operation of transmission facilities, relative to the project proposed; (2) ability of the entity or its affiliate, partner, or parent company to construct, maintain and operate transmission facilities, as proposed, (3) capability of the entity to adhere to standardized construction, maintenance and operating practices, including the capability for emergency response and restoration of damaged equipment; (4) experience of the entity in acquiring rights of way; (5) evidence of the ability of the entity, its affiliate, partner, or parent company to secure a financial commitment from an approved financial institution(s) agreeing to finance the construction, operation and maintenance of the project if it is accepted into the recommended plan; and (iv) any other factors that may be relevant to the proposed project.</p>	<p>This Section complies with Order No. 1000 as it specifies the criteria PJM will consider in determining the entities that will be designated to construct, own, and maintain a project. <i>See</i> Order No. 1000 at PP 315, 328.</p> <p>This Section also is consistent with paragraph 439 of Order No. 1000-A, which affirmed the requirement that the public utility transmission providers in each transmission planning region establish “appropriate qualification criteria for determining an entity’s eligibility to propose a transmission project for selection in the regional transmission plan for purposes of cost allocation.” <i>See also</i> Order No. 1000 at P 328.</p>

Section Title	Revision	Reason for Revision and/or Compliance
Section 1.5.8(g) – Procedures if No Long-lead Project Proposal is Determined to be the More Efficient or Cost-Effective Solution	The new Section sets forth the procedures to be implemented if PJM determines that none of the proposed Long-lead Projects would be the more efficient or cost-effective solution to resolve a posted violation, system condition, or economic constraint. In such case, if time permits, PJM will re-evaluate and re-post on the PJM website the unresolved violations, system conditions, or economic constraints pursuant to Section 1.5.8(b). However, if re-posting and conducting such re-evaluation would prevent PJM from timely addressing the existing and projected limitations on the Transmission System that give rise to the need for an enhancement or expansion, PJM shall propose a project to solve the posted violation, system condition or economic constraint for inclusion in the recommended plan and shall present such project to the Transmission Expansion Advisory Committee for review and comment. For such projects the Transmission Owner(s) in the Zone(s) where the project is to be located shall be the Designated Entity(ies) for such project. In determining whether there is insufficient time for re-posting and re-evaluation, PJM shall consider factors such as, but not limited to, the time necessary: (i) to obtain regulatory approvals; (ii) to acquire long lead equipment; (iii) to meet construction schedules; (iv) to complete the required in-service date; and (v) for other time-based factors impacting the feasibility of achieving the required in-service date.	This Section ensures that stakeholders have every possible opportunity to propose Long-lead Projects. For those instances where no proposal provides the more efficient or cost-effective solution and the need must be timely met and there is no time for re-evaluation or another proposal window, this Section provides that PJM shall propose a project to solve the violation, system condition, or economic constraint, which is consistent with the function of the regional planning process which is “to identify those transmission facilities that are needed to meet identified needs on a timely basis, and in turn enable public utility providers to meet their service obligations.” Order No. 1000 at P 264.
Section 1.58(h) – Procedures if No Short-term Project Proposal is Determined to be the More Efficient or Cost-Effective Solution	This new Section sets forth the procedures if PJM determines that none of the proposed Short-term Projects received during a Short-term Project proposal window would be the more efficient or cost-effective solution to resolve a posted violation or system condition. In such a case, under this Section, PJM shall propose a Short-term Project to solve the posted violation, or system condition for inclusion in the recommended plan and will present such Short-term Project to the Transmission Expansion Advisory Committee for review and comment and the Transmission Owner(s) in the Zone(s) where the Short-term Project is to be located shall be the Designated Entity(ies) for the Project.	This new Section is necessary to timely meet the needs of the Transmission System and is consistent with the function of the regional planning process which is “to identify those transmission facilities that are needed to meet identified needs on a timely basis, and in turn enable public utility providers to meet their service obligations.” Order No. 1000 at P 264.

Section Title	Revision	Reason for Revision and/or Compliance
Section 1.5.8(i) – Notification of Designated Entity	The new Section provides that within 10 business days of PJM Board approval of the Regional Transmission Expansion Plan, PJM shall notify the entities that have been designated as the Designated Entities for a projects included in the Regional Transmission Expansion Plan of such designations. In such notices, the PJM shall, provide the dates by which: (i) all necessary state approvals must be obtained; and (ii) the project must be in service.	The requirement in this Section that PJM provide the dates by which: (i) all necessary state approvals must be obtained; and (ii) the project must be in service is consistent with paragraph 442 of Order No. 1000-A, which provides that “the public utility transmission providers in a transmission planning region must establish a date by which state approvals to construct must have been achieved that is tied to when construction must begin to timely meet the need that the project is selected to address.”
Section 1.5.8(j) – Acceptance of Designation	This new Section provides the procedures for accepting the designation as a Designated Entity. Specifically, within 30 days of receiving notification that it is a Designated Entity, the Designated Entity shall notify PJM of its acceptance of such designation. Within 60 days of receiving notification of its designation, or other reasonable time period as determined by PJM, the Designated Entity shall submit to PJM a development schedule which shall include, but not be limited to: (i) construction milestones necessary to develop and construct the project to achieve the required in-service date, including milestone dates for obtaining all necessary state approvals; (ii) a letter of credit as determined by PJM to cover the incremental costs of construction resulting from reassignment of the project; and (iii) an executed agreement with PJM setting forth the rights and obligations related to being the Designated Entity for the project.	This Section is consistent with paragraph 442 of Order No. 1000-A that provides “the transmission developer of that transmission facility must submit a development schedule that indicates the required steps, such as the granting of state approvals, necessary to develop and construct the transmission facility such that it meets the transmission needs of the region.”

Section Title	Revision	Reason for Revision and/or Compliance
Section 1.5.9(k) – Failure of Designated Entity to Meet Milestones	<p>This new Section provides the process PJM will follow in the event that a Designated Entity fails to provide a development schedule or letter of credit pursuant to Section 1.5.8(j); or fails to meet a milestone in its development schedule that causes a delay of the project’s in-service date. Pursuant to this Section, PJM shall re-evaluate the need for the Short-term Project or Long-lead Project, and based on that re-evaluation may: (i) retain the Short-term Project or Long-lead Project in the Regional Transmission Expansion Plan; (ii) remove the Short-term Project or Long-lead Project from the regional transmission plan; or (iii) include an alternative solution in the Regional Transmission Expansion Plan. If PJM retains the Short-term or Long-term Project in the regional transmission plan, it shall determine whether the delay is beyond the Designated Entity’s control and whether to retain the Designated Entity or to designate the Transmission Owner(s) in the Zone(s) where the project is located as Designated Entity(ies) for the Short-term Project or Long-lead Project. If the Designated Entity is the Transmission Owner(s) in the Zone(s) where the project is located, PJM shall seek recourse through the Consolidated Transmission Owners Agreement or FERC, as appropriate. Any modifications to the Regional Transmission Expansion Plan pursuant to this Section shall be presented to the Transmission Expansion Advisory Committee for review and comment and approved by the PJM Board.</p>	<p>This new Section is consistent with the requirement in Order No. 1000 that each public utilities’ OATT should contain procedures for re-evaluating the regional transmission plan to determine if delays in the development of a transmission facility requires re-evaluation of alternative solutions. Order No. 1000 at P 329; <i>see also id.</i> at P 442.</p>

Section Title	Revision	Reason for Revision and/or Compliance
Section 1.5.8(l) – Transmission Owners Required to be the Designated Entity	<p>The Section provides the circumstances under which the Transmission Owner(s) in whose Zone a Long-lead Project or a Short-term Project is located always will be the Designated Entity. These circumstances are when the project is: (i) an upgrade to a Transmission Owner’s own transmission facilities; (ii) located solely within a Transmission Owner’s Zone and the costs of the project are allocated solely to the Transmission Owner’s Zone; (iii) located solely within a Transmission Owner’s Zone and is not selected in the Regional Transmission Expansion Plan for purposes of cost allocation; or (iv) proposed to be located on a Transmission Owner’s existing right of way and the project would alter the Transmission Owner’s use and control of its existing right of way under state law. Transmission Owner shall be the Designated Entity when required by state law, regulation or administrative agency order with regard to enhancements or expansions or portions of such enhancements or expansions located within that state.</p>	<p>This new Section is consistent with the circumstances enumerated in Order No. 1000 where it is permissible to designate the incumbent transmission provider. <i>See</i> Order No. 1000 at PP 226, 262, 319, 329; Order No. 1000-A at P 427.</p>
Section 1.5.8(m) – Immediate-need Reliability Projects	<p>This new Section provides the procedures for the development and inclusion in the regional transmission plan of reliability-based projects that (i) are required to be in service three years or less from the year PJM identified the existing or projected limitations on the Transmission System that gave rise to the need for such enhancement or expansion or (ii) an expedited designation is required to address existing and projected limitations on the Transmission System due to immediacy of the reliability need in light of the projected time to complete the enhancement or expansion.</p>	<p>This new Section is necessary to timely meet the reliability needs of the Transmission System and is consistent with the function of the regional planning process which is “to identify those transmission facilities that are needed to meet identified needs on a timely basis, and in turn enable public utility providers to meet their service obligations.” Order No. 1000 at P 264.</p>

Section Title	Revision	Reason for Revision and/or Compliance
Section 1.5.8(m)(1)	<p>This new Section provides: (1) PJM shall develop and recommend Immediate-need Reliability Projects for inclusion in the regional transmission expansion plan; (ii) PJM shall present to the Transmission Expansion Advisory Committee for review and comment descriptions of the proposed Immediate-need Reliability Projects recommended for inclusion in the recommended plan; and (iii) Transmission Owner(s) in the Zone(s) in which the Immediate-need Reliability Project is to be located shall be the Designated Entity for the Immediate-need Reliability Project included in the regional transmission plan, provided the Immediate-need Reliability Project was not chosen pursuant to the expedited proposal process set forth in Section 1.5.8(m)(2).</p>	<p>This new Section is necessary to timely meet the reliability needs of the Transmission System and is consistent with the function of the regional planning process which is “to identify those transmission facilities that are needed to meet identified needs on a timely basis, and in turn enable public utility providers to meet their service obligations.” Order No. 1000 at P 264.</p>

Section Title	Revision	Reason for Revision and/or Compliance
Section 1.5.8(m)(2)	<p>This new Section provides for an expedited proposal window process for Immediate-need Reliability Projects. Specifically, this Section provides: (i) if, in PJM’s judgment, there is sufficient time for a shortened proposal window, PJM shall post on the PJM website the violations and system conditions that could be addressed by Immediate-need Reliability Project proposals and provide notice to stakeholders of a shortened proposal window; (ii) proposals must contain the information required in Section 1.5.8(c); (iii) if an entity is seeking to be the Designated Entity, such entity must have pre-qualified to be a Designated Entity pursuant to Section 1.5.8(a); (iv) in determining the more efficient or cost-effective proposed Immediate-need Reliability Project for inclusion in the regional transmission plan, PJM shall consider the extent to which the proposed Immediate-need Reliability Project , individually, or in combination with other Immediate-need Reliability Projects, would address and solve the posted violations or system conditions and other factors such as cost-effectiveness, the ability of the entity to timely complete the project, and project development feasibility in light of the required need; and (v) Sections 1.5.8(i) and 1.5.8(j) apply when an entity is designated as the Designated Entity. The Section further provides, that in the event that (i) PJM determines that no proposal resolves a posted violation or system condition; (ii) the proposing entity is not selected to be the Designated Entity; (iii) an entity does not accept the designation as a Designated Entity; or (iv) the Designated Entity fails to meet milestones that would delay the in-service date of the Immediate-need Reliability Project, PJM shall develop and recommend an Immediate-need Reliability Project to solve the violation or system needs in accordance with Section 1.5.8(m)(1).</p>	<p>This Section is consistent with Order No. 1000 in that it provides a sponsorship process for Immediate-need Reliability Projects, when feasible. <i>See</i> Order No. 1000 at P 336.</p>
Section 1.5.9 – State Agreement Approach	<p>This new Section provides a mechanism by which states may agree to be responsible for the cost allocation of projects that meet Public Policy Requirements.</p>	<p>While this Section is not required for compliance with Order No. 1000, it further provides a mechanism to submit input into the planning process and address state Public Policy Requirements. <i>See</i> Order No. 1000 at P 212.</p>

Section Title	Revision	Reason for Revision and/or Compliance
Section 1.5.9(a)	<p>New Section 1.5.9(a) provides: (i) state governmental entities authorized by their respective states, individually or jointly, may agree voluntarily to be responsible for the allocation of all costs of a proposed transmission expansion or enhancement that addresses state Public Policy Requirements identified or accepted by the state(s) in the PJM Region; (ii) such transmission enhancements or expansions may be included in the recommended plan as a (a) Supplemental Project or (b) state public policy project, which is a transmission enhancement or expansion, the costs of which will be recovered pursuant to a FERC-accepted cost allocation proposed by agreement of one or more states and voluntarily agreed to by those state(s); (iii) all costs related to a state public policy project or Supplemental Project included in the regional transmission plan to address state Public Policy Requirements pursuant to this Section shall be recovered from customers in a state(s) in the PJM Region that agrees to be responsible for the projects; (iv) no costs of a project shall be recovered from customers in a state that did not agree to be responsible for the costs of a project; and (v) a state public policy project will be included in the regional transmission plan for cost allocation purposes only if there is an associated FERC-accepted allocation permitting recovery of the costs of the state public policy project consistent with this Section.</p>	
Section 1.5.9(b)	<p>The New Section provides that subject to designations reserved for Transmission Owners in Section 1.5.8(l), the state(s) responsible for cost allocation for a Supplemental Project or a state public policy project may submit to PJM the entity(ies) to construct, own, operate and maintain the state public policy project from a list of entities pre-qualified to be Designated Entities pursuant to Section 1.5.8(a).</p>	
Section 1.6 – Approval of the Final Regional Transmission Expansion Plan		

Section Title	Revision	Reason for Revision and/or Compliance
Section 1.6(a)	This existing Section is revised as follows: (i) “Section 1.6” is replaced with “Schedule 6”; (ii) the Section now states that “the PJM Board shall approve the cost allocations for transmission enhancements and expansions consistent with Schedule 12 of the PJM Tariff; (ii) the Section clarifies that Supplemental Projects will be integrated into the Regional Transmission Expansion Plan but shall not be included for cost allocation purposes.”	This Section is revised to provide more clarity regarding PJM Board actions concerning cost allocation approvals and that Supplemental Projects will not be included in the regional transmission plan for cost allocation purposes.
Section 1.6(b)	This Section is revised to add “or other entity(ies)” after Transmission Owners.	The revision to this Section clarifies that entities that are not existing Transmission Owners may be designated to construct projects included in the regional transmission plan.
Sections 1.6(c) & (d)	These sections are renumbered.	These Sections were renumbered because 1.6(b) became its own section rather than being part of 1.6(a).
Section 1.7 – Obligation to Build	Existing Section 1.7(a) is revised to replace word “However” with “Except as provided in Section 1.5.8(k) of this Schedule 6.”	The revision to this Section is necessary because pursuant to new Section 1.5.8(k), the Transmission Owner may be designated a project that originally was designated to another entity if that entity fails to meet milestones.

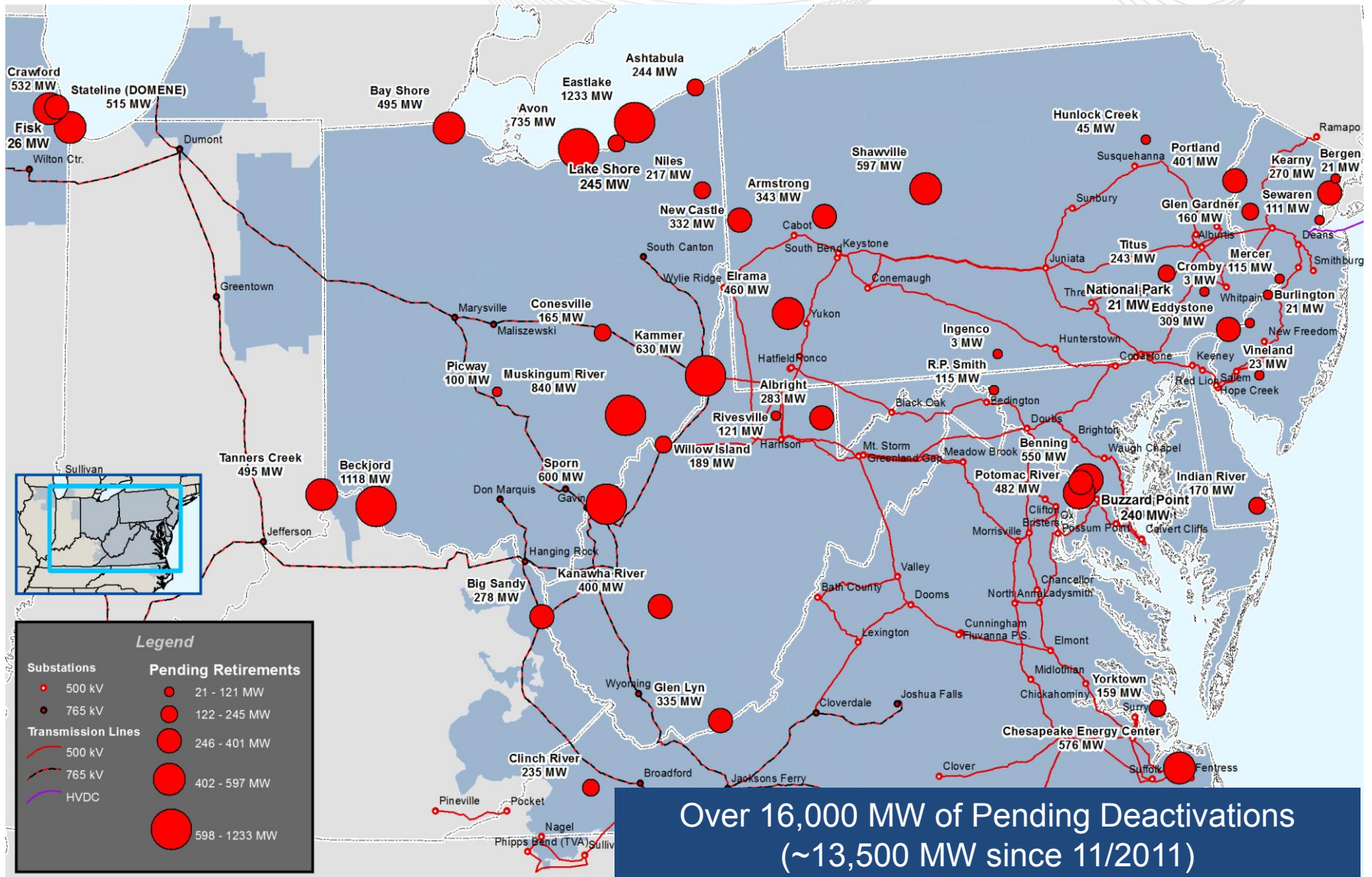
Appendix II

Transmission Expansion Advisory Committee

April 27, 2012

Generation Deactivation Notification (Retirements) Update

All Pending Generator Deactivations



Unit	Trans Zone	Requested Deactivation Date	PJM Reliability Status
Chesapeake 1 & 2, Yorktown 1	DOM	12/31/2014	Reliability Analysis complete. Impacts identified. Upgrades expected to be completed by June 2015.
Chesapeake 3 & 4	DOM	12/31/2015	Reliability Analysis complete. Impacts identified. Upgrades expected to be completed by June 2016.
Bergen 3; Burlington 8; National Park 1; Mercer 3; Sewaren 6	PSEG	6/1/2015	Reliability Analysis Complete. Impacts identified and expected to be resolved in three - four years. Working with affected TO to finalize upgrade schedule.
Armstrong 1 & 2; Ashtabula 5; Bayshore 2-4; Eastlake 1-5; Lake Shore 18; R Paul Smith 3 & 4;	AP	9/1/2012	Reliability analysis complete. Impacts identified and expected to be resolved by June 2016. Further refinement of the reliability analysis, required upgrades, and generator deactivation schedule continues.
Walter C Beckjord 1	DEOK	5/1/2012	Reliability Analysis complete - no impacts identified.
Walter C Beckjord 2-6	DEOK	4/1/2015	Reliability Analysis complete - impacts identified - upgrades scheduled to be completed by June 2014
Albright 1-3; Rivesville 5 & 6; Willow Island 1 & 2	APS	9/1/2012	Reliability Analysis complete - impacts identified - upgrades scheduled to be completed by May 2013
New Castle 3-5; New Castle Diesels A & B	ATSI	4/16/2015	Reliability Analysis complete - impacts identified - upgrades scheduled to be completed by June 2015

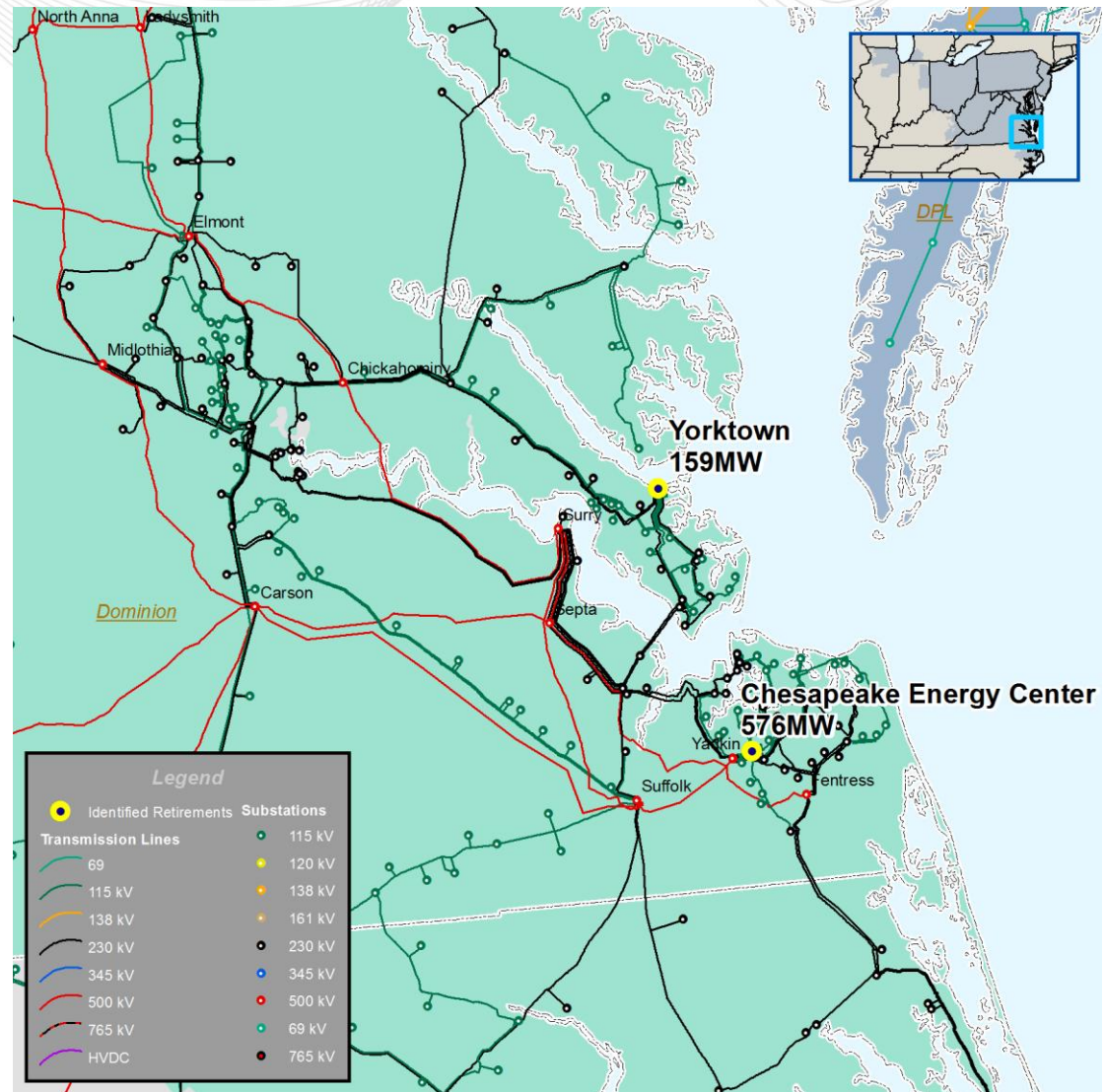
Unit	Trans Zone	Requested Deactivation Date	PJM Reliability Status
Portland 1 & 2; Glen Gardner CT 1-8	MetEd	1/7/2015	Reliability Analysis complete - impacts identified - upgrades scheduled to be completed by June 2016
Elrama 1-4	DUQ	6/1/2012	Reliability Analysis complete - impacts identified - upgrades scheduled to be completed by June 2014
Shawville 1-4; Titus 1-3	PenElec	4/16/2015	Reliability Analysis complete - impacts identified - upgrades scheduled to be completed by June 2016
Niles 1 & 2	ATSI	6/1/2012	Reliability Analysis complete - impacts identified - upgrades scheduled to be completed by June 2014
Fisk Street 19, Crawford 7 & 8	ComEd	12/31/2012	Reliability Analysis Complete. No impacts identified.
Conesville 3	AEP	12/31/2012	Reliability Analysis Underway
Big Sandy 1; Clinch River 3; Glen Lyn 5 & 6; Kammer 1-3; Kanawha River 1 & 2; Muskingum River 1-4; Pickway 5; Sporn 1-4; Tanner Creek 1-3	AEP	6/1/2015	Reliability Analysis Underway

Unit	Trans Zone	Requested Deactivation Date	PJM Reliability Status
Avon Lake 7 & 9	ATSI	4/16/2015	Reliability Analysis Underway
Sewaren 1-4	PSEG	6/1/2015	Reliability Analysis Underway. PSEG also contemplating re-use of Capacity Rights for a new generation project
Cedar 1 & 2; Deepwater 1 & 6; Missouri Ave CT B, C & D	AE	5/31/2015	Reliability Analysis Underway

Chesapeake #1-4 & Yorktown #1 Deactivation

Chesapeake and Yorktown Deactivation Notifications

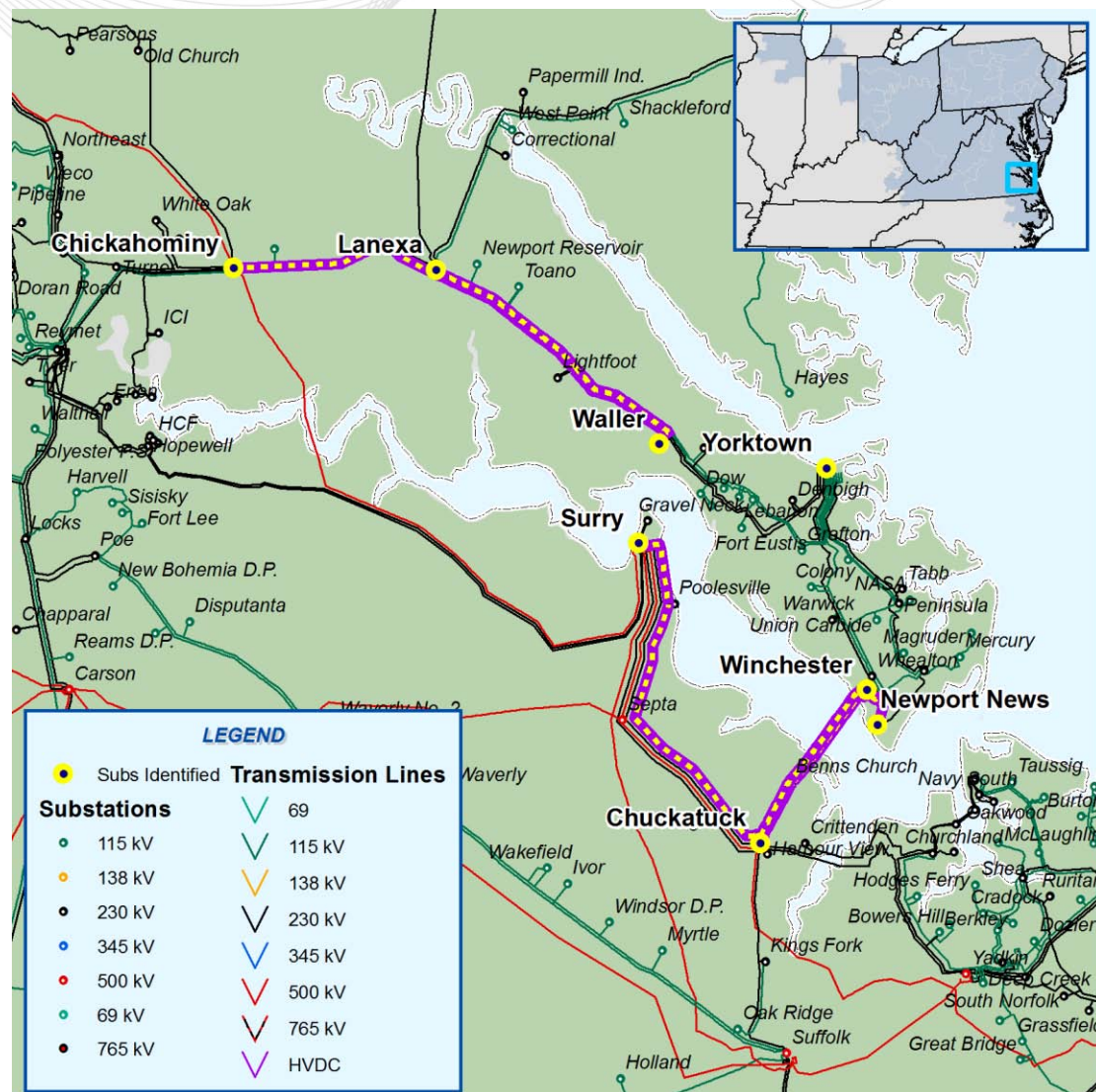
- Deactivation Notifications:
 - Chesapeake Units 1-2 & Yorktown 1
 - 381 MW
 - Requested Retirement Date: December 31, 2014
 - Chesapeake 3&4
 - 354 MW
 - Requested Retirement Date: December 31, 2015





Dominion Transmission Zone James River Crossing Alternatives

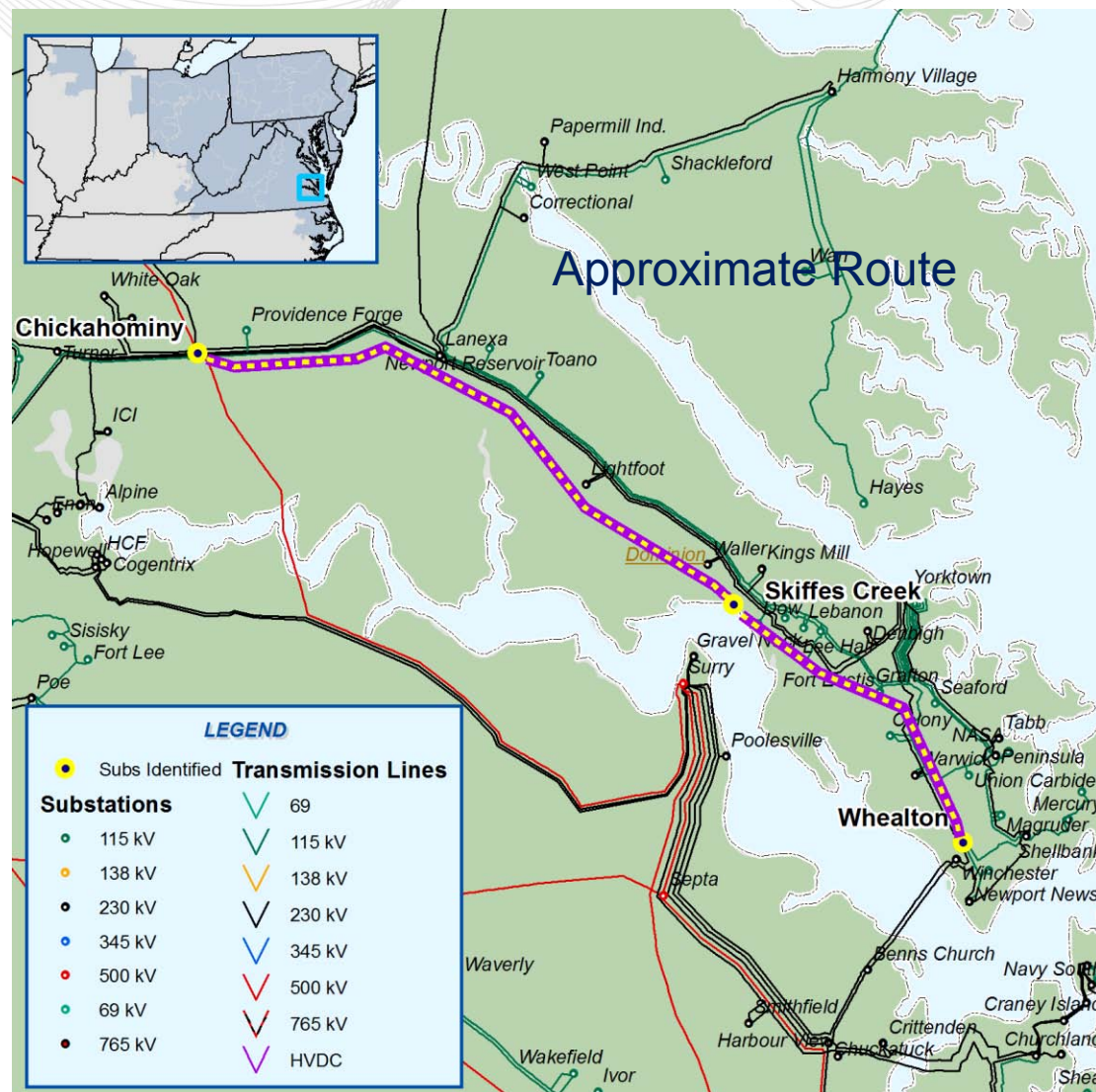
- Dominion Criteria – critical system conditions of Yorktown #3 outage
- N-1 Thermal Overloads (All conductor limits)
 - Chuckatuck – Newport News 230 kV is overloaded for the loss of Surry – Winchester 230 kV
 - Surry - Winchester 230 kV is overloaded for the loss of Chuckatuck – Newport News 230 kV
 - Lanexa – Waller 230 kV is overloaded for the loss of Chickahominy – Waller 230 kV
- James River Crossing Double Circuit Towerline overloads (All conductor limits)
 - Chickahominy – Waller 230 kV, Lanexa – Waller 230 kV, and Yorktown – Wheelton 230 kV
- Also, voltage collapse for the James River Crossing Double Circuit Towerline outage
- Several solution alternatives evaluated





Chickahominy 500 kV Alternative

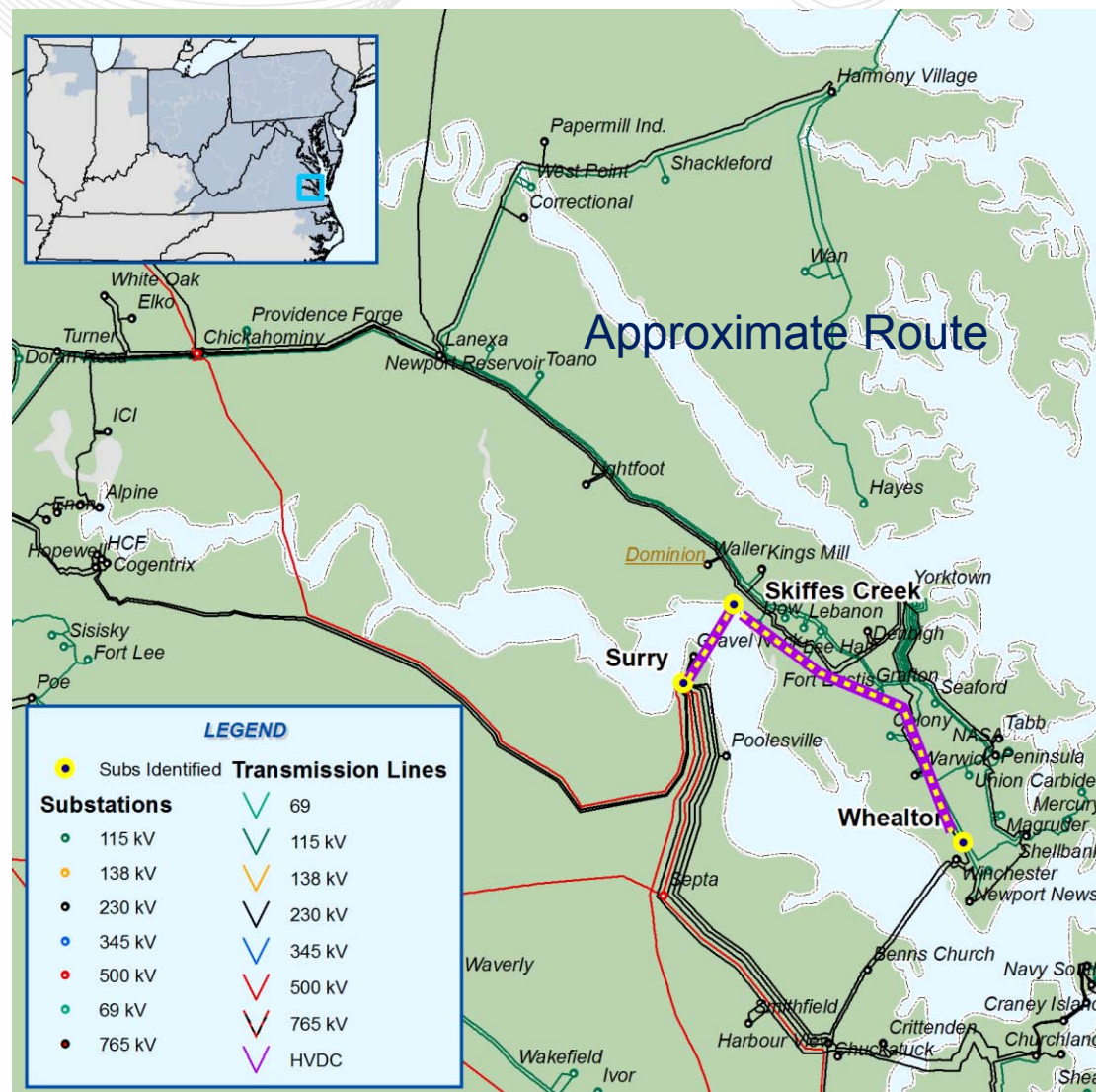
- Dominion Proposed Solution
- Chickahominy to Skiffes Creek 500 kV Line \$116 M
 - (38 miles total, already Dominion owned)
- Chickahominy 500 kV Station 500 kV Breakers \$4.6 M
- Skiffes Creek 500-230 kV Tx and Switching Station \$42.4 M
- New Skiffes Creek - Whealton 230 kV Line \$46.4 M
- Whealton 230 kV Breakers \$2.1 M
- Yorktown 230 kV Work \$0.2 M
- Lanexa 115 kV Work \$0.13M
- Surry 230 kV Work \$0.13 M
- Kings Mill, Peninmen, Toano, Waller, Warwick \$ 0.03 M
- Estimated project cost: \$211.99 M





Surry 500 kV Alternative

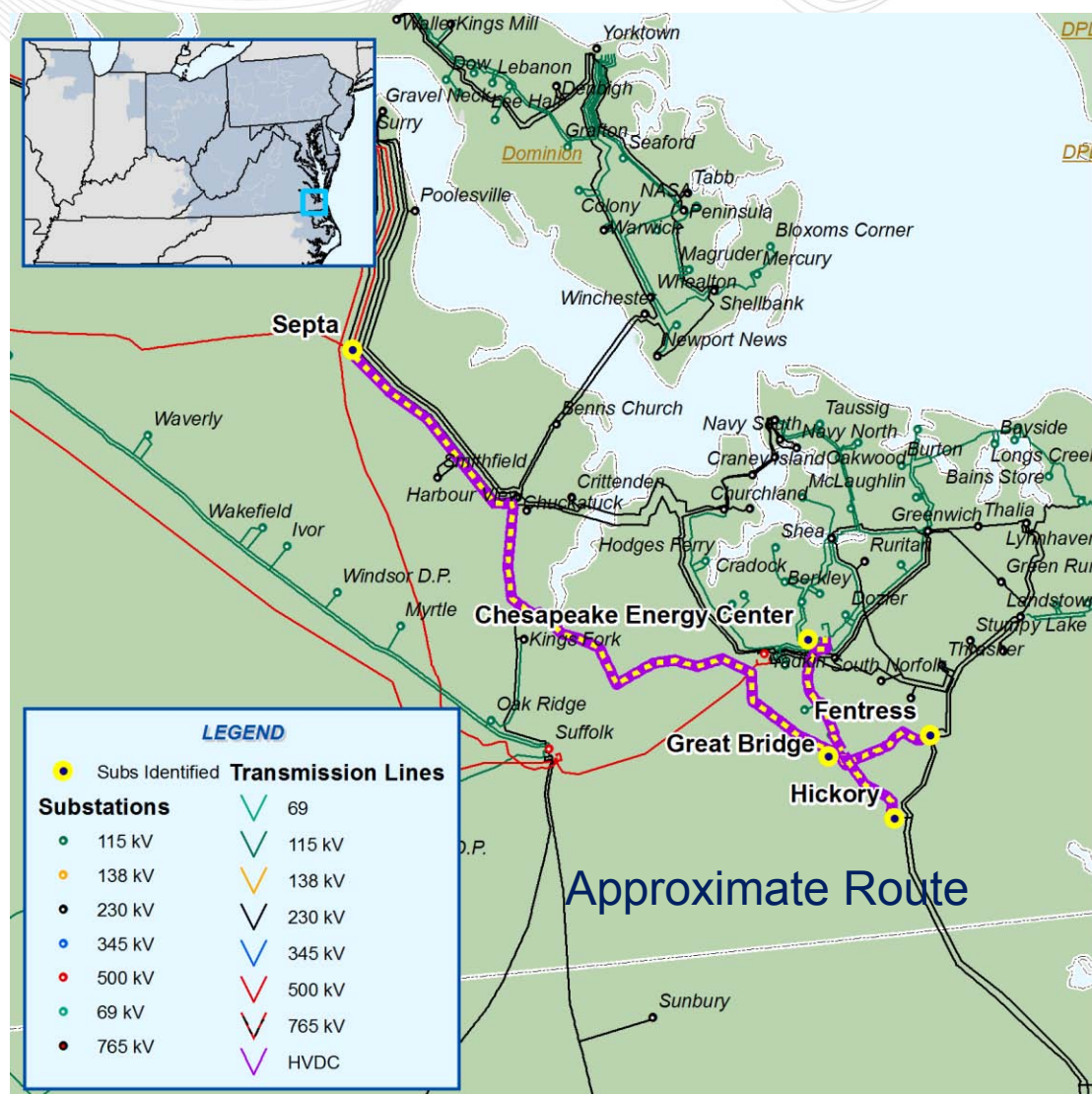
- Dominion Proposed Solution
- Surry to Skiffes Creek 500 kV Line \$58.3 M
 - 7.7 miles total (3 miles already existing Dominion ROW)
- Surry 500 kV Station Work \$1.5 M
- Skiffes Creek 500-230 kV Tx and Switching Station \$42.4 M
- New Skiffes Creek - Whealton 230 kV Line \$46.4 M
- Whealton 230 kV Breakers \$2.1 M
- Yorktown 230 kV Work \$0.2 M
- Lanexa 115 kV Work \$0.13M
- Surry 230 kV Work \$0.13 M
- Kings Mill, Peninmen, Toano, Waller, Warwick \$ 0.03 M
- Estimated project cost: \$151.19 M





Great Bridge & Surry 230 kV Alternative

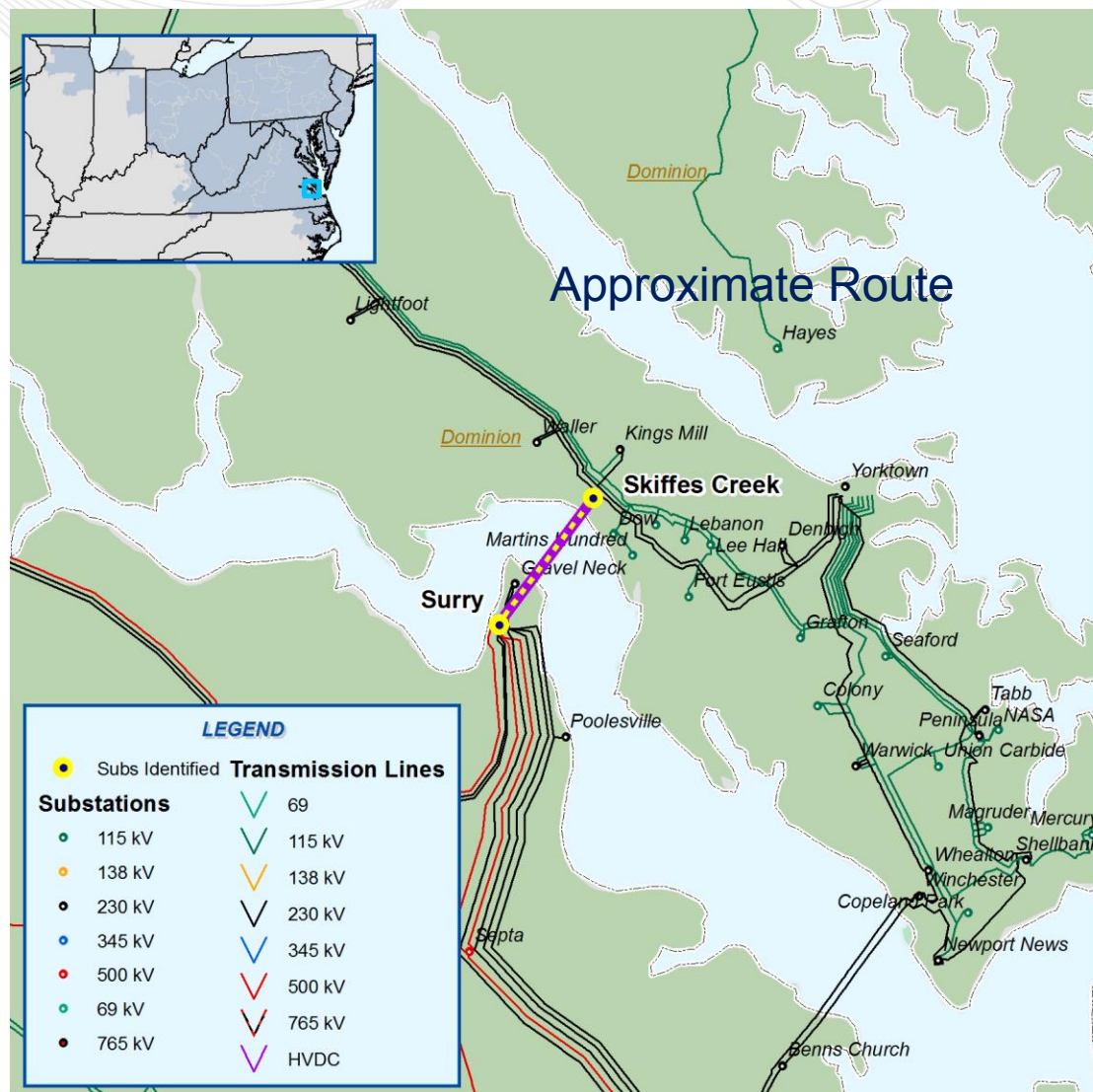
- LS Power / Northeast Transmission Development Proposed
- Build a new Great Bridge 500 kV substation (3 breaker ring bus) along existing Fentress-Septa 500 kV circuit.
- Build a new Great Bridge 115 kV substation at the intersection of the Fentress-Septa 500 kV circuit and the Hickory-Great Bridge 115 kV circuit.
- Install a new Great Bridge 500/115 kV transformer.
- Reconductor Great Bridge-Chesapeake 115 kV with high temperature conductor.
- Install a second Yorktown 230/115 kV transformer.
- New Surry-Skiffes Creek single circuit 230 kV line in series with a PAR at Surry.
- \$99 M for Surry – Skiffes Creek 230 kV plus the cost of the Great Bridge and Yorktown area work





Surry 230 kV Partial Alternative

- 230 kV Alternative to the 500 kV portions of the Chickahominy 500 kV and Surry 500 kV proposals
- Construct a New Surry - Skiffes Creek single circuit 230 kV line \$84 M
 - Total length approximately 7.33 miles
 - ~3 miles underground/underwater
- Construct a Phase Angle Regulator in series with Surry – Skiffes Creek 230 kV at Surry \$15 M
- Estimated project cost: \$99 M





- Great Bridge & Surry 230 kV Alternative
 - Does not address several key criteria violations
- Analytical focus on other three alternatives
 - Chickahominy 500 kV Alternative
 - Surry 500 kV Alternative
 - Surry 230 kV Partial Alternative



Alternative Performance Comparison

- Chickahominy 500 kV Alternative, Surry 500 kV Alternative and Surry 230 kV Partial Alternative performance in the near term
 - All solved the applicable criteria violations
 - N-1-1
 - Generator Deliverability
 - Load Deliverability
 - Dominion Critical Condition criteria
 - Surry 230 kV Partial Alternative solution acceptable in near term but with small margin on thermal limits
- Sensitivity of at-risk generation (Yorktown #2)
 - Surry 230 kV Partial Alternative demonstrates a thermal overload of Lanexa – Waller 230 kV and the proposed Phase Angle Regulator
 - No performance issues for Chickahominy 500 kV and Surry 500 kV



- Proposed Alternative to Dominion 500 kV scope of work
 - Surry 500 kV scope of work
 - Surry to Skiffes Creek 500 kV Line (7 miles overhead) \$58.3 M
 - Surry 500 kV Station Work \$1.5 M
 - Skiffes Creek 500-230 kV Tx and Switching Station \$25 M
 - **Total Surry 500 kV alternative and associated work: \$84.8 M as estimated by Dominion**
 - Surry 230 kV scope of work
 - New Surry to Skiffes Creek 230 kV Line (4 miles overhead / 3 miles underwater) \$84 M
 - Install new 230 kV Phase Angle Regulator (PAR) in series with the new Surry to Skiffes Creek 230 kV \$15 M
 - **Total Surry 230 kV alternative and associated work: \$99 M as estimated by LS Power**



Proposed Solution Considerations

Chickahominy 500 kV

Surry 500 kV

Surry 230 kV Partial

- ROW
 - Dominion Owned
 - Siting process / timeline
 - Estimated cost: \$134.8
- ROW
 - mostly Dominion Owned
 - Siting process / timeline
 - Estimated cost: \$84.8 M
- ROW
 - Expansion limitations at Surry 230 kV
 - Phase Angle Regulator
 - Siting
 - Added operational complexity of a PAR
 - Siting process / timeline
 - Estimated cost: \$99 M



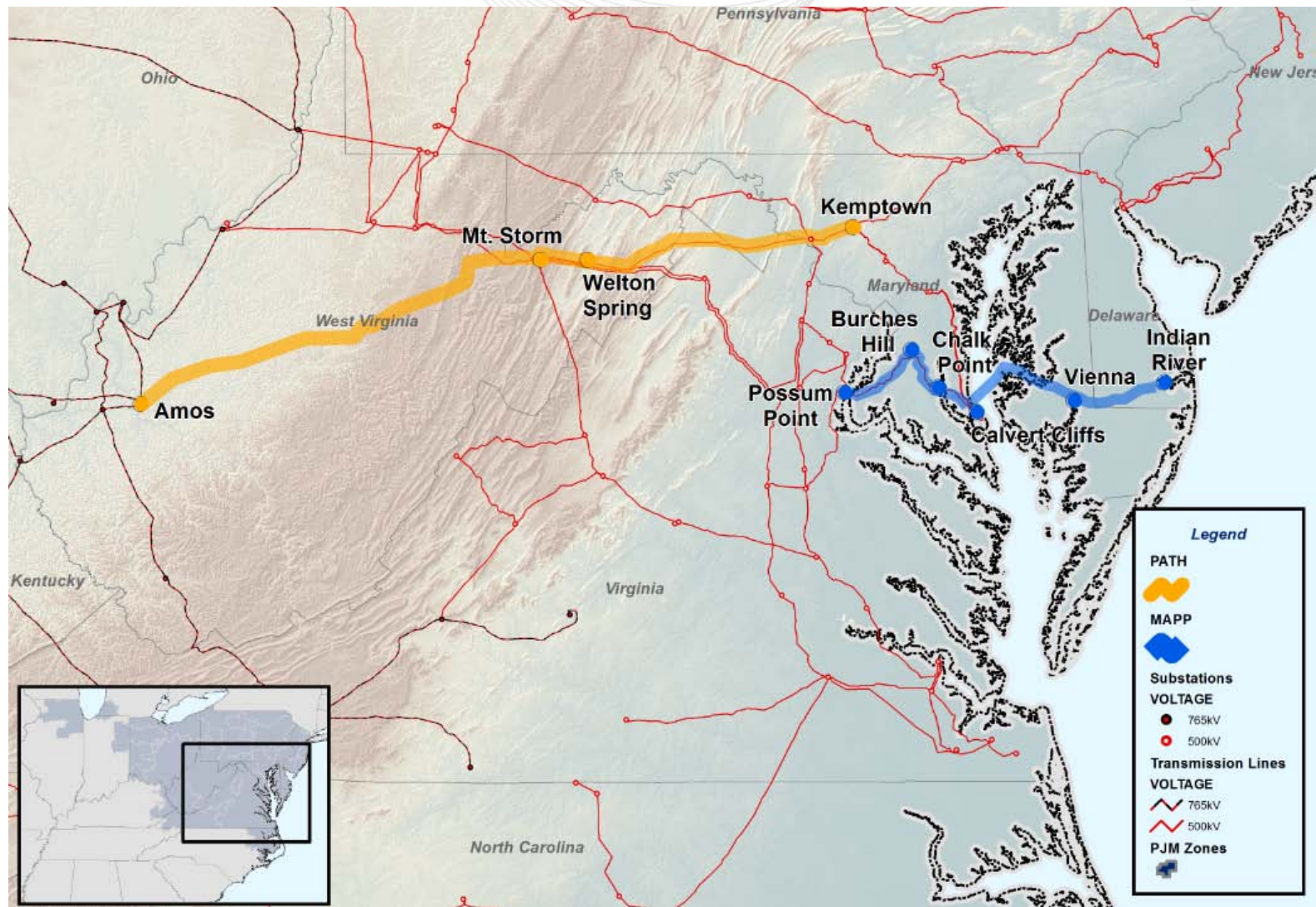
- Recommended solution:
 - Surry 500 kV alternative
- Assign construction responsibility to Dominion

Transmission Expansion Advisory Committee

August 9, 2012

Issues Tracking

- Open Issues
 - None
- New Issues



PATH Project Analysis Update

2010 RTEP Thermal Violations

From Bus	To Bus	Voltage	First Thermal Violation Date	Load Deliverability Area Violation(s)
Lexington	Dooms	500 kV	2017	Dominion Load Deliverability
Mt. Storm	T157 Tap	500 kV	2015	MAAC Load Deliverability PEPCO Load Deliverability SWMAAC Load Deliverability
T157 Tap	Dooms	500 kV	2015	MAAC Load Deliverability SWMAAC Load Deliverability
Pruntytown	Mt. Storm	500 kV	2020	Dominion Load Deliverability PEPCO Load Deliverability SWMAAC Load Deliverability MAAC Load Deliverability
Jacks Mountain	Juniata #1	500 kV	2018	EMAAC Load Deliverability
Jacks Mountain	Juniata #2	500 kV	2020	EMAAC Load Deliverability
Greenland Gap	Meadow Brook	500 kV	2025	MAAC Load Deliverability
Mt. Storm	Greenland Gap	500 kV	>2025	MAAC Load Deliverability
Bath County	Valley	500 kV	2022	Dominion Load Deliverability
Keystone	Jacks Mountain	500 kV	2022	EMAAC Load Deliverability
Harrison	Pruntytown	500 kV	>2025	PEPCO Load Deliverability MAAC Load Deliverability
Keystone	Conemaugh	500 kV	2025	EMAAC Load Deliverability

• 2010 RTEP MAAC Load Deliverability Voltage TEST

- Over 40 non-converged contingency pairs for the 2010 RTEP MAAC load deliverability voltage test

Non-Converged Contingencies

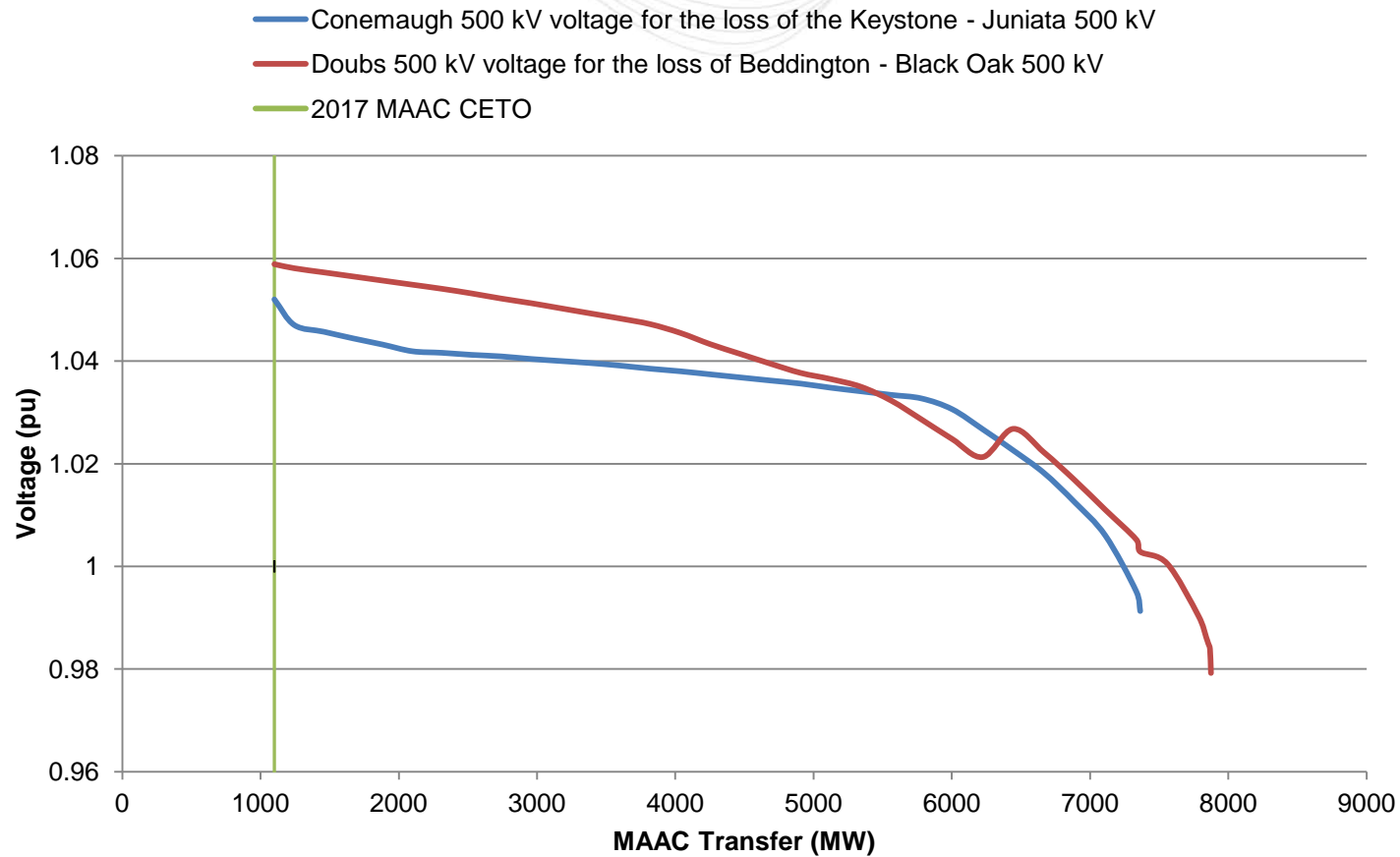
Bath County – Valley
Bedington – Doubs
Bedington Cap
Black Oak – Bedington
Black Oak – Black Oak SV
Brighton – Conastone
Brighton – Doubs
Brister – Chancellor
Brister – Ox
Burches Hill – Possum Point
Cabot – Cranberry
Calvert Cliffs – Waugh Chapel
Calvert Cliffs #1 generator
Calvert Cliffs #2 generator
Conemaugh – Hunterstown
Conemaugh – Jacks Mountain
Conemaugh – Keystone
Cunningham – Dooms
Cunningham – Elmont
Doubs Cap
Elmont – Ladysmith
Fort Martin – Ronco
Hatfield's Ferry – Black Oak

Hatfield's Ferry – Brown Run
Hatfield's Ferry – Fort Martin
Hatfield's Ferry – Ronco
Hunterstown – Conastone
Jacks Mountain – Juniata #1
Jacks Mountain – Juniata #2
Keystone – Jacks Mountain
Keystone – South Bend
Ladysmith – Chancellor
Ladysmith – Possum Point
Loudoun – Meadow Brook
Loudoun – Morrisville
Loudoun – Pleasant View
Meadow Brook – Greenland Gap
Midlothian – North Anna
Morrisville – North Anna
Morrisville Cap
Mt. Storm – Greenland Gap
Mt. Storm – Meadow Brook
Mt. Storm – T157_Tap
T157_Tap – Doubs
T174_Tap – Brown Run
Wylie Ridge – Cranberry
Yukon – South Bend
Yukon – T174_Tap

- Assumption:
 - PATH and MAPP not modeled

- Result
 - 2012 RTEP 15 Year Thermal Analysis Result
 - ✓ All previous thermal overloads resolved
 - ✓ No thermally overloaded 500 kV facilities in years 2013 – 2027
 - 2017 Load Deliverability
 - Thermal and Voltage
 - All contingencies converged
 - CETL > CETO
 - 2017 N-1-1 Analysis
 - No thermal or voltage violations identified for 500 kV contingencies

MAAC PV Result

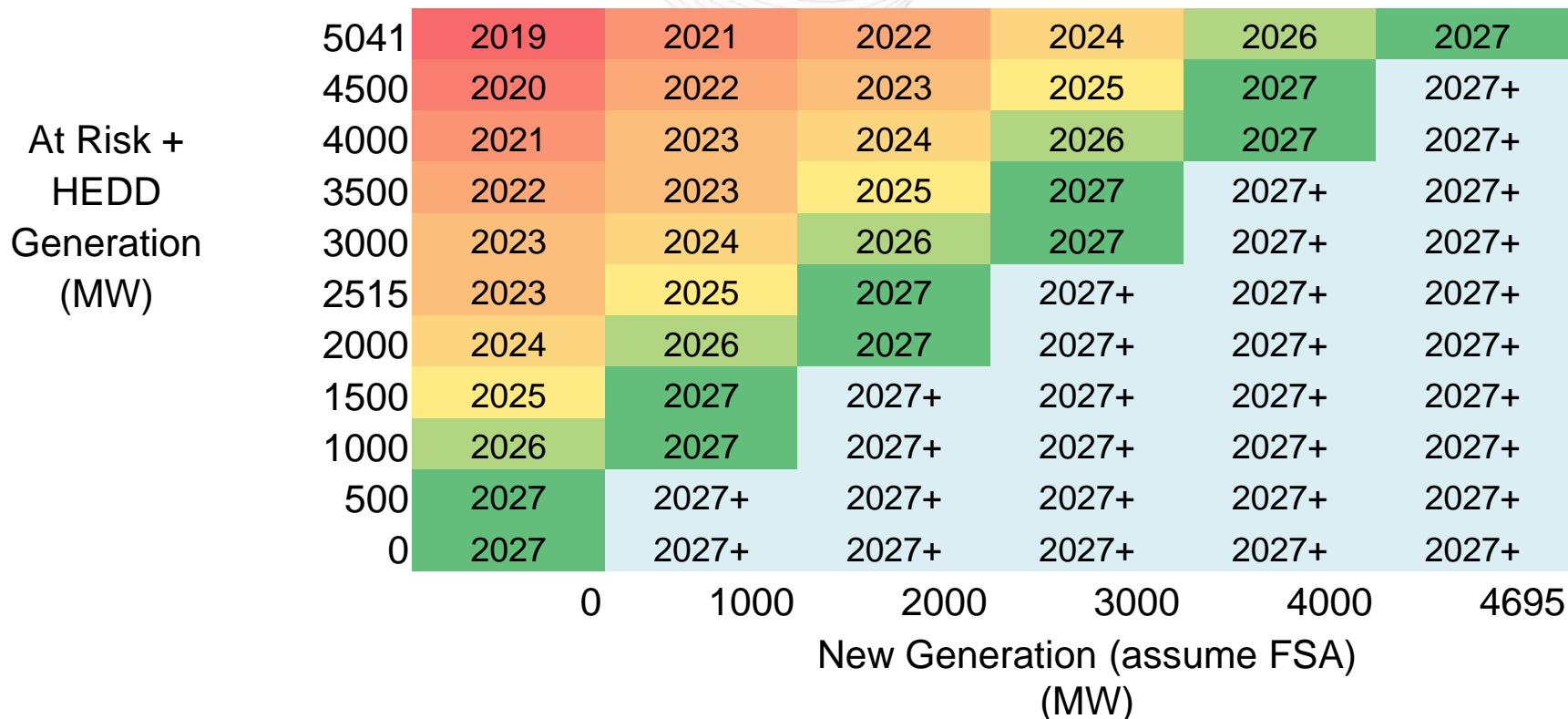


MAAC 2017 CETO = 1100 MW

- At Risk Generators sensitivity analysis
 - At-risk generation
 - HEDD generation (in addition to at-risk above, also considered to be at-risk)
 - Potential new generation
- Sensitivity study of MAAC voltage analysis

- Calculate load deliverability voltage test margin in 2017
 - $\text{Margin} = \text{CETL} - \text{CETO}$
- Consider sensitivity factors
 - Load growth
 - At-risk generation
 - Potential new generation
- Determine sensitivity year voltage violation
- Consider potential voltage mitigation
 - SVC, synchronous condenser, etc.

First Voltage Violation Year Sensitivity



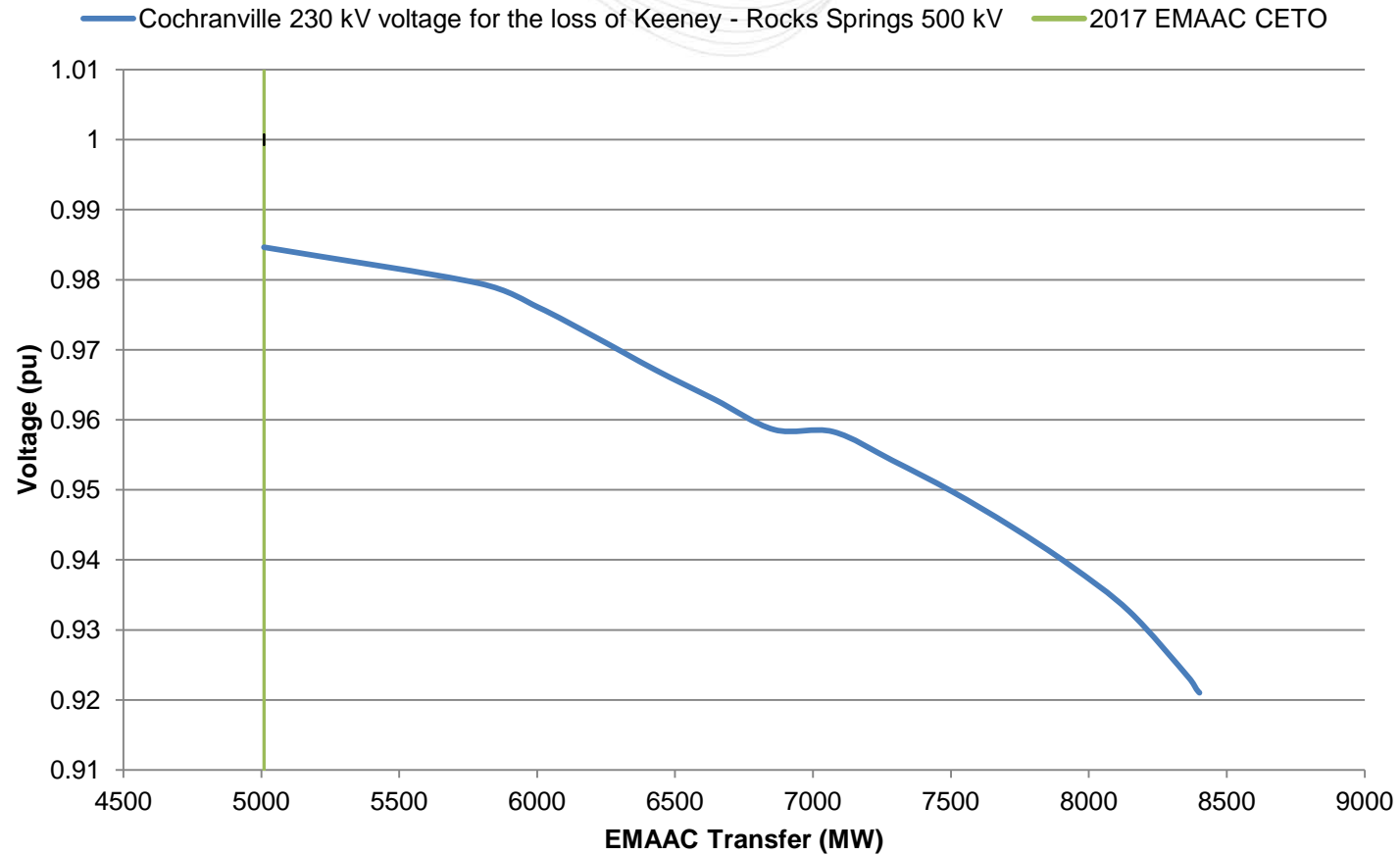
- MAAC (not including HEDD) at-risk generation is approximately 2,500 MW
- HEDD at-risk generation is an additional approximate 2,500 MW
- MAAC FSA generation is approximately 4,700 MW

- PJM staff will be recommending to the PJM Board at their Friday, August 24th, 2012 meeting to cancel the PATH project
- Provide any written comments to RTEP@pjm.com by Monday, August 20th

MAPP Project Analysis Update

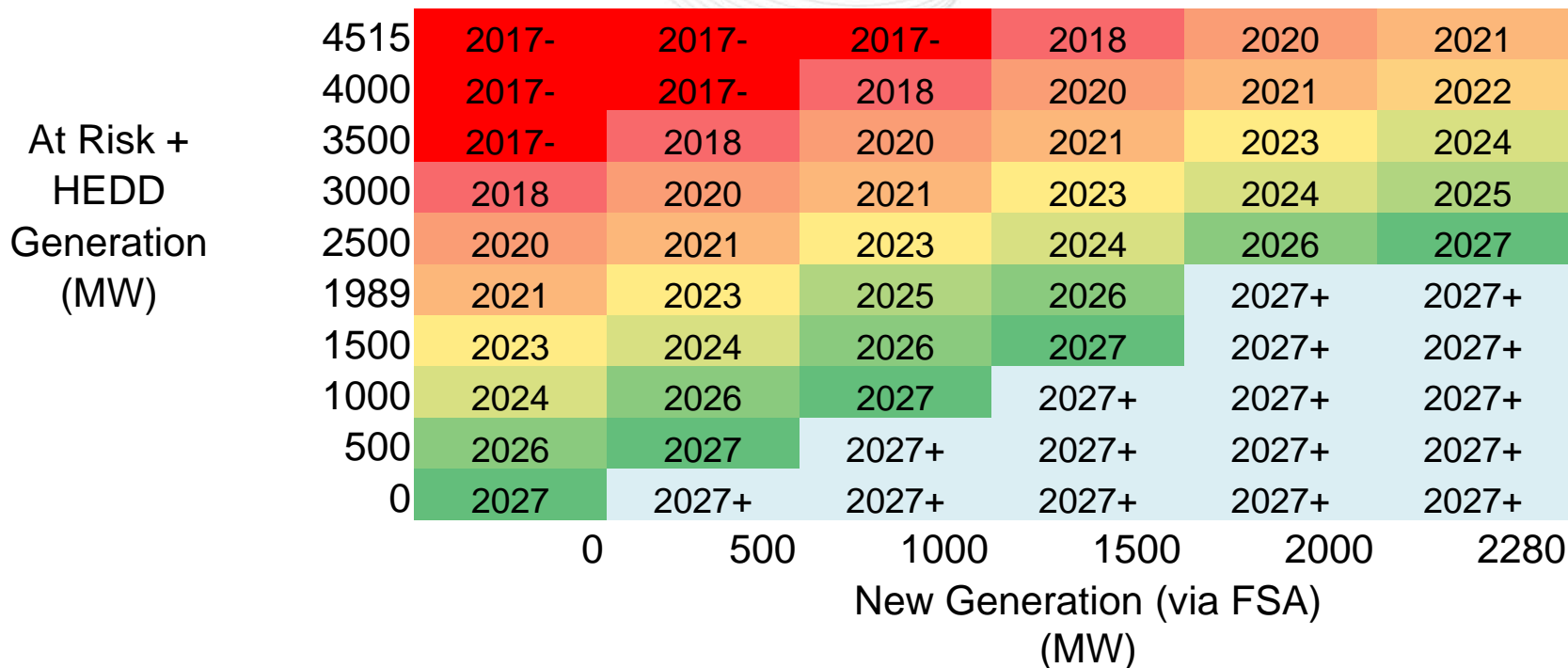
- Previous 2010 RTEP
 - EMAAC load deliverability voltage violations
- Current 2012 RTEP
 - No EMAAC load deliverability voltage violations
 - Worst contingency is Keeney – Rock Springs 500 kV
 - CETL > CETO
 - What is the CETL margin?
 - No 15 Year thermal violations
 - No N-1-1 thermal or voltage violation for 500 kV contingencies

EMAAC PV Result



EMAAC 2017 CETO = 5010 MW

First Voltage Violation Year Sensitivity



- EMAAC (not including HEDD) at-risk generation is approximately 2,000 MW
- HEDD at-risk generation is an additional approximate 2,500 MW
- EMAAC FSA generation is approximately 2,300 MW

- PJM staff will be recommending to the PJM Board at their Friday, August 24th, 2012 meeting to cancel the MAPP project
- Provide any written comments to RTEP@pjm.com by Monday, August 20th

Stage 1A 10-Year ARR Analysis

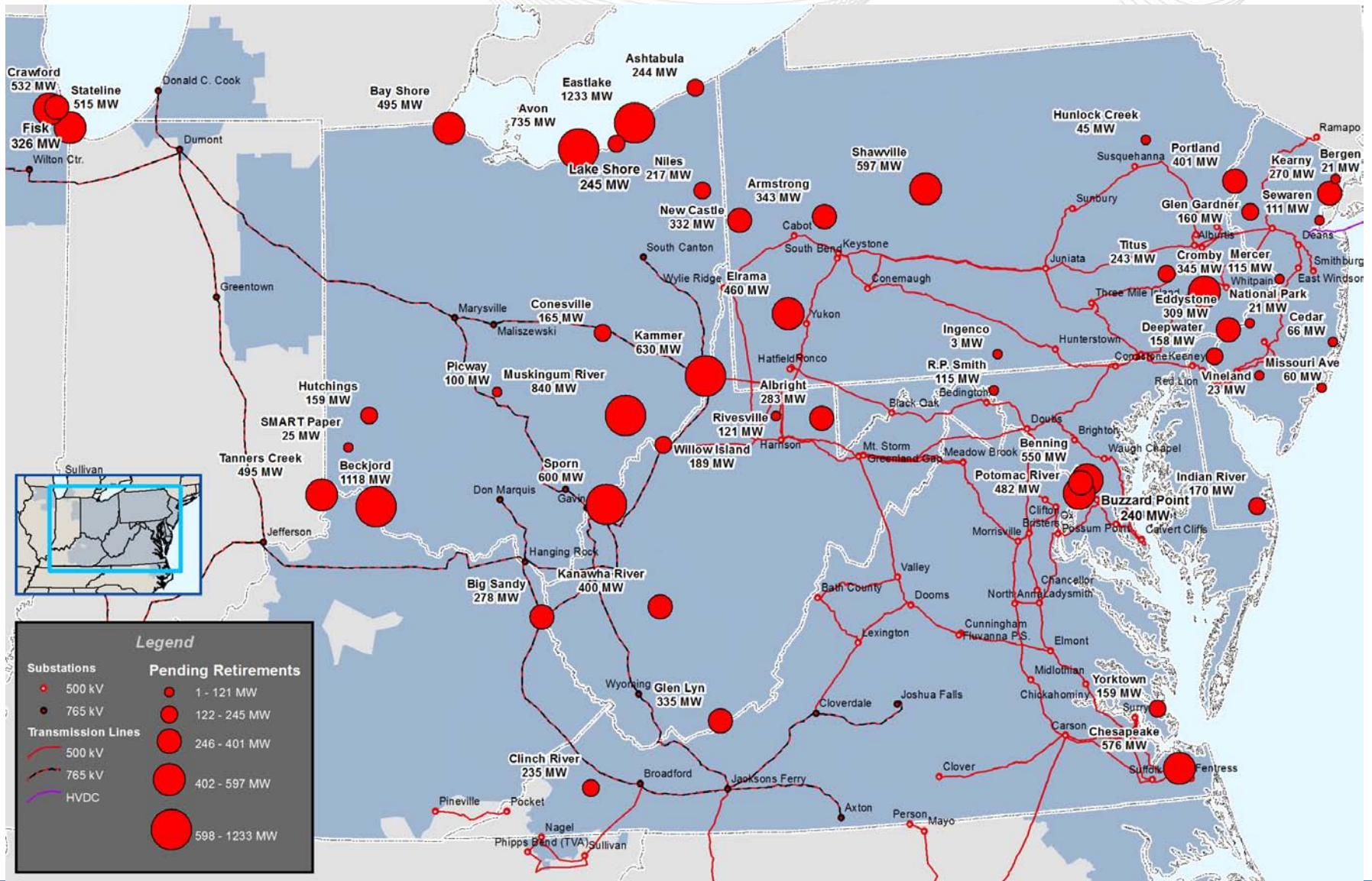
- COMED Zone
 - Following projects were studied
 - New Byron - Wayne 345 kV circuit
 - New Byron - Cherry Valley - Pleasant Valley 345 kV circuit
 - New Byron - Cherry Valley 345 kV circuit
 - New Cherry Valley - Pleasant Valley 345 kV circuit
 - New Byron - Pleasant Valley 345 kV circuit
 - New Byron – Pleasant Valley 345 kV circuit + Tampico – Normandy 345 kV
 - At the June TEAC, Byron-Wayne 345 kV was identified as the most optimal project to fix 10-Year ARR violations.
 - Eliminates all COMED violations
 - Since then PJM staff has been evaluating the reliability impacts

- Byron – Wayne 345 kV
 - Preliminary results suggest no additional facilities needed due to reliability
- Byron – Pleasant Valley 345 kV, new Silver Lake 345/138 kV transformer and uprate of Pleasant Valley – Silver Lake 345 kV
 - Preliminary results suggest an overload of Byron – Cherry Valley “Blue” 345 kV and an overload of the Pleasant Valley 345/138 kV TR #81

- June 2012 – LS Power proposes Byron – Pleasant Valley 345 kV, new Silver Lake 345/138 kV transformer and uprate of Pleasant Valley – Silver Lake 345 kV
- July 2012 – LS Power modifies proposal to include Tampico – Normandy 345 kV
- August 2012 – LS Power modifies proposal to include second Pleasant Valley 345/138 kV transformer
- August 2012 – LS Power modifies proposal to remove Tampico – Normandy 345 kV and switch the proposed Byron – Pleasant Valley 345 kV termination at Byron from the red bus to the blue bus

- Reliability evaluations
- Cost evaluation
 - Independent feasibility study and cost estimate for Byron – Wayne is in-progress
- Finalize 10-year ARR Infeasibility Analysis

Generation Deactivation Notification (Retirements) Update



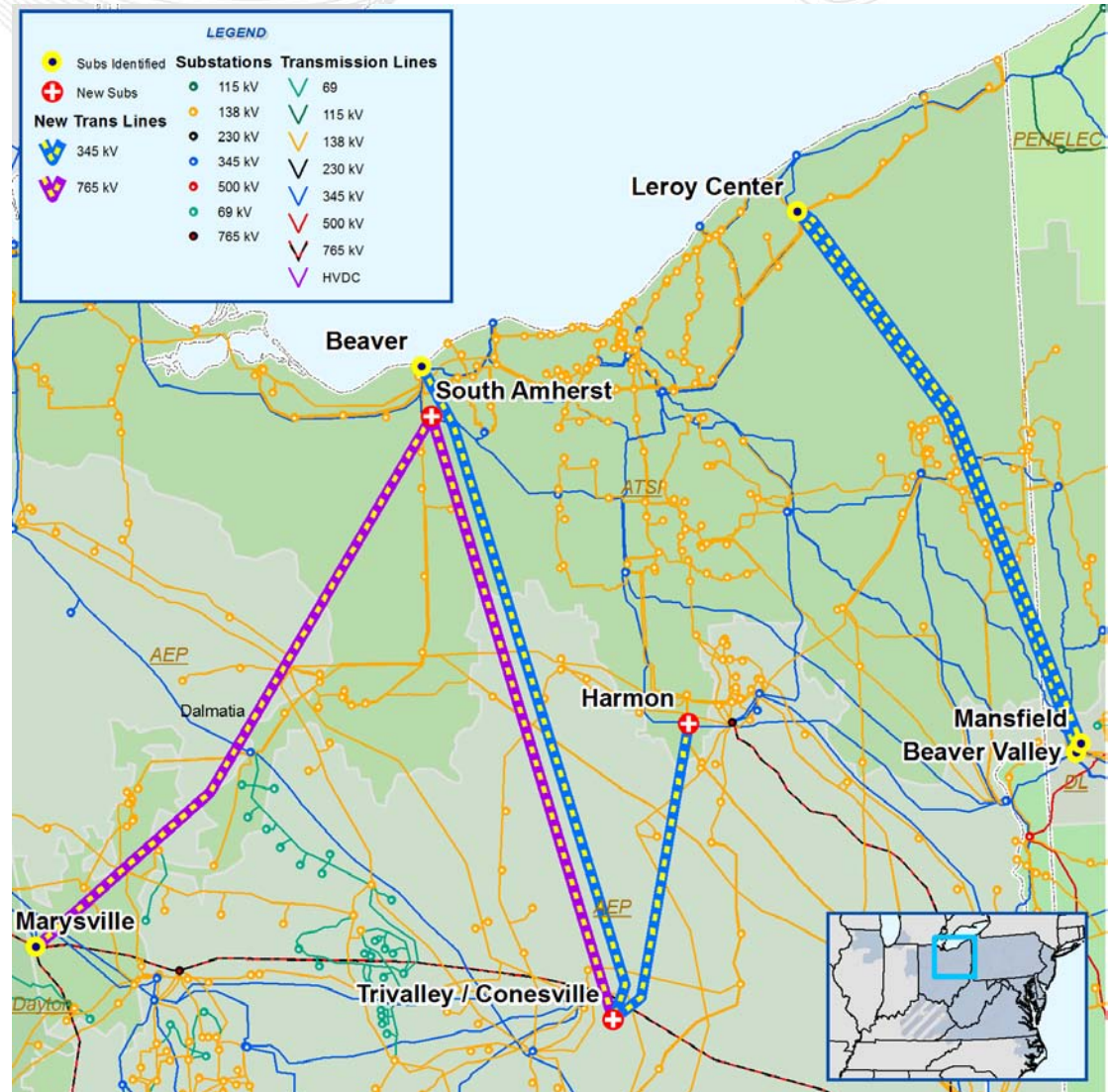
- Cost allocation posted to PJM.com
- <http://www.pjm.com/planning/generation-retirements/~media/planning/gen-retire/niles-1-and-elrama-4-zonal-cost-allocation-for-2012.ashx>

Ohio Area Deactivation Upgrade Alternative Analysis

- New Beaver Valley - Leroy Center 345kV + Mansfield - Leroy Center 345kV lines
- Estimated Project Cost: \$393M
- Proposed in-service date: 6-1-2018
- Short term: Temporary Operating Procedure to Open Cloverdale-Barberton 138kV until 345kV lines are built
- Status: Alternative Evaluation in progress



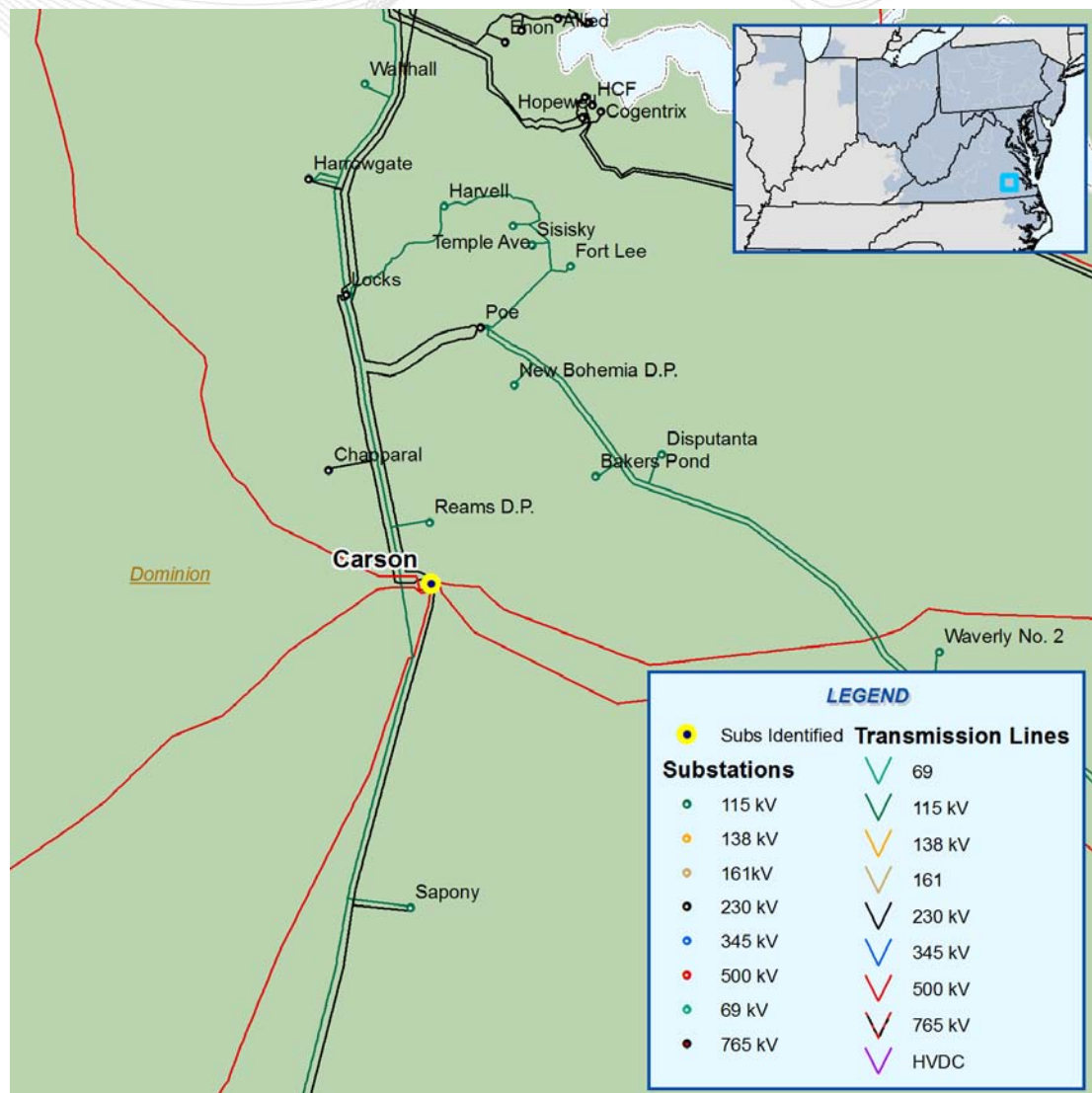
- Marysville – South Amherst 765 kV
 - Also includes 2-5 miles of 345 kV from South Amherst – Beaver 345 kV
- Trivalley – South Amherst 765 kV
 - Trivalley will intersect Kammer – Vassell 765 kV near Conesville 345 kV
 - Also includes 2-5 miles of 345 kV from South Amherst – Beaver 345 kV
- Conesville – Beaver 345 kV
- Conesville – Harmon 345 kV
- Beaver Valley - Leroy Center 345kV + Mansfield – Leroy Center 345kV line



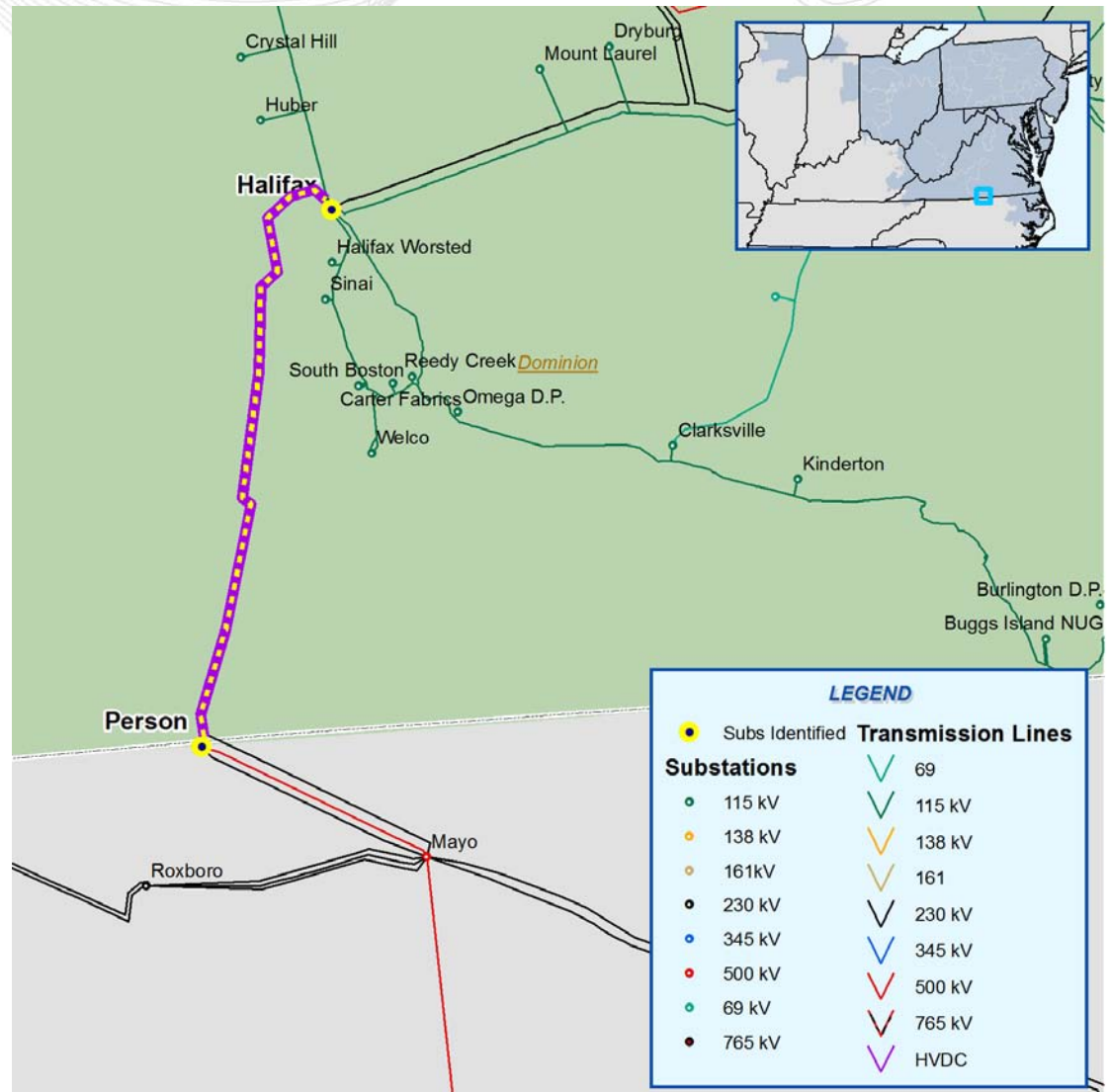
- Case creation complete for each of the 5 alternatives
- Analysis
 - N-1-1 thermal is underway
 - Baseline contingency analysis, generator deliverability analysis, and common mode outage analysis are complete. PJM staff is preparing to distribute results and coordinate feedback.
 - Load deliverability thermal/voltage and N-1-1 voltage will begin soon

Supplemental Projects

- Upgrade the 500kV wave trap at Carson on Tie Line #570 to 4000 amp to make Dominion's segment of the line rating 3454 MVA.
- Projected IS Date: Oct 2013
- Estimated cost \$ 100,000



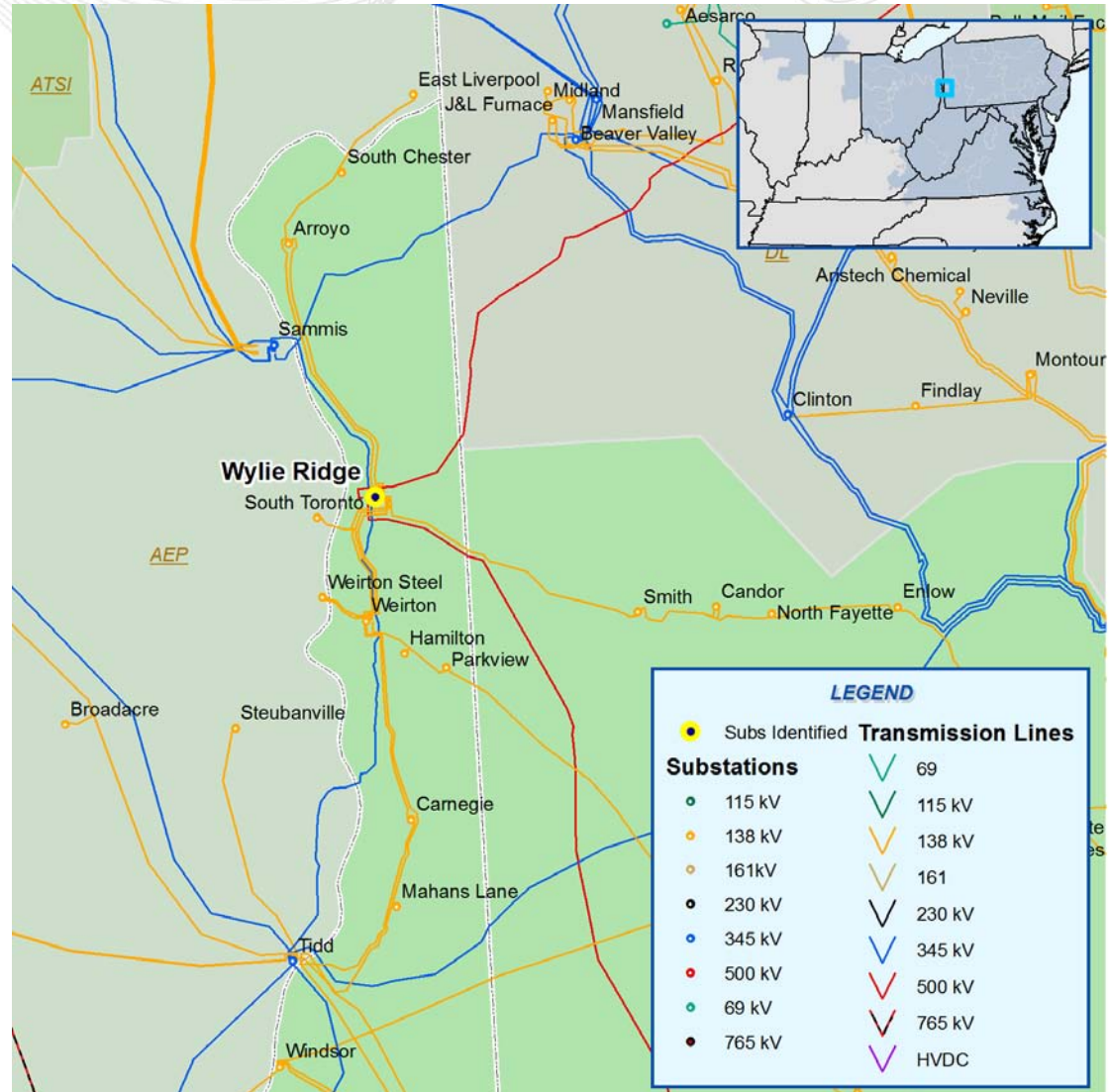
- Upgrade the Dominion segment of Tie Line #296 Person to Halifax 230 kV (20.4 miles) to a minimum of 712 MVA which matches the rating of Progress's segment of Line #296. Reconductoring with 477 ACSS and matching the existing sag will minimize structure work. Preliminary review shows 35 of 176 structures will need to be replaced.
- Projected IS Date: Feb 2015
- Estimated cost \$ 12.0 M



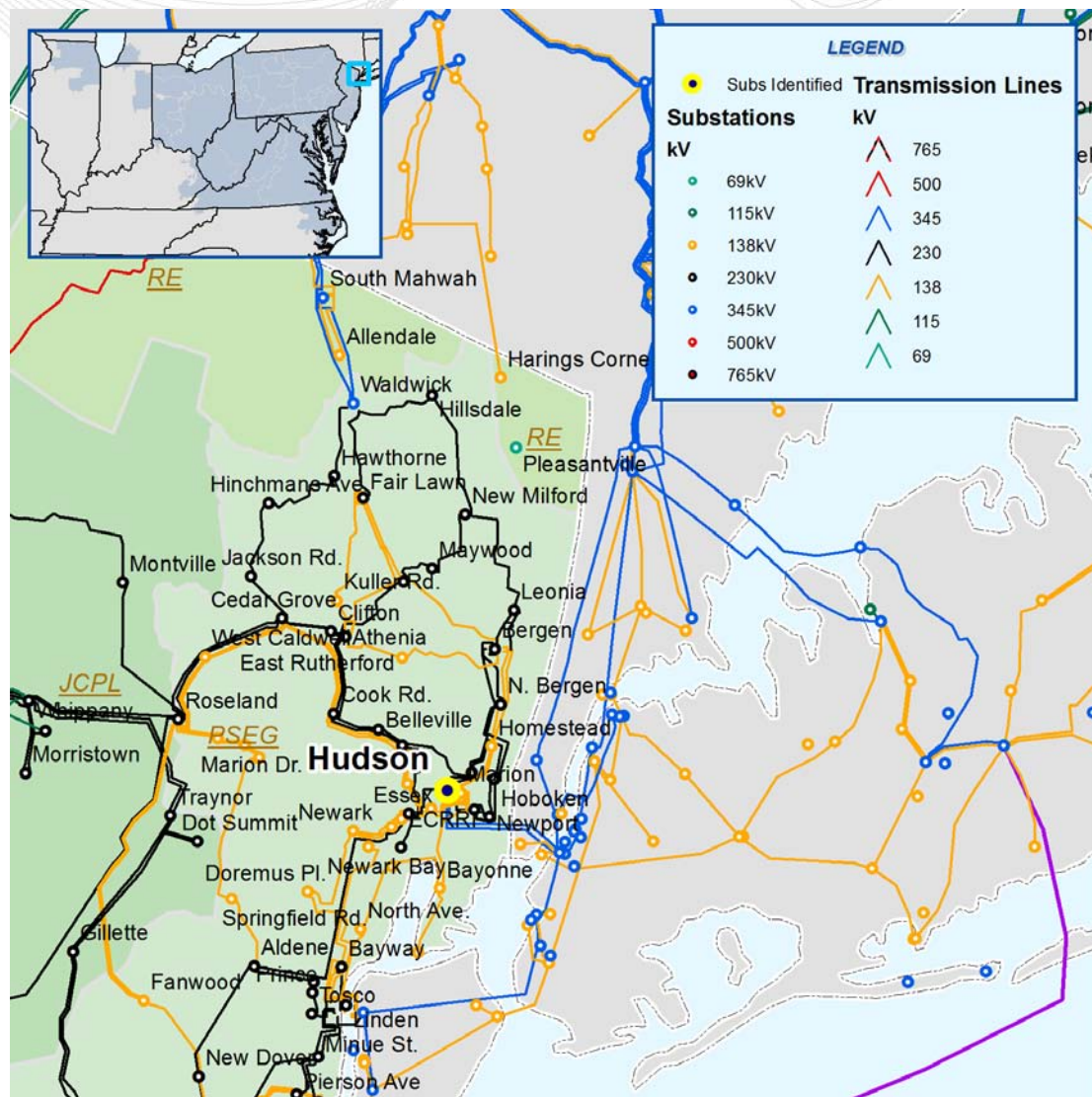
Short Circuit

-
- LEGEND**
- Subs Identified**
- 69 kV
 - 115 kV
 - 138 kV
 - 230 kV
 - 345 kV
 - 500 kV
 - 765 kV
- Transmission Lines**
- 69 kV
 - 115 kV
 - 138 kV
 - 230 kV
 - 345 kV
 - 500 kV
 - 765 kV
 - HVDC
- Substations**
- 69 kV
 - 115 kV
 - 138 kV
 - 230 kV
 - 345 kV
 - 500 kV
 - 765 kV
 - HVDC
- Map Labels:** Drewersburg, Dayton, Willey, Morgan, Hebron, Buffington, Longbranch, Boone, East Bend, Tanners Creek, Dearborn, E.K.P. Hebron, Greendale, Miami Fort, Lawrenceburg, Miami Fort Gas Turbine, Ham Mun, Seward, Port Union, Fairfield, Hall, Mulhauser, Kemper, Evendale, Finneytown, Mt. Healthy, Terminal, Henkel, Mitchell, Cumminsville, Rochelle, Ashland, Charles, West End, Queensgate, Wilder, York, Crescent, Constance, Donaldson, Webster, Mt. Zion, Kenton, Hands, EKPC, DEOK, EKPC.

- The Wylie Ridge 345 kV breakers 'WK-1' through 'WK-6' are overstressed
- Proposed Solution: Replace Wylie Ridge 345 kV breakers with 63kA rated breakers (b2106-b2110, b2112)
- Estimated Project Cost: \$808 K per breaker
- Expected IS Date: 06/01/2017



- Cancelled upgrade:
Advance n0666.5,
n0666.3, and n0666.10
(Replace Hudson 230kV
breakers '1HB', '2HA',
and '2HB' with 80kA
breakers) (b1750-b1752)
- Reason for cancellation:
Fault current levels
decrease as a result of
the Hudson Unit 1
retirement



- Stage 1A 10-Year ARR Analysis
- Ohio Area alternative analysis
- High voltage evaluation
- RTEP reliability analysis
- Scenario analysis

Questions?

Email: RTEP@pjm.com