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February 29, 2012

Honorable Kimberly D. Bose, Secretary Federal Energy Regulatory Commission 888 First Street, N.E., Room 1A Washington, D.C. 20426

Re: PJM Interconnection, L.L.C., Docket No. ER12- 1178 -000

Dear Secretary Bose:

Pursuant to section 205 of the Federal Power Act, part 35 of the rules and regulations of the Federal Energy Regulatory Commission's ("Commission"), and Schedule 6 of the Amended and Restated Operating Agreement of PJM Interconnection, L.L.C. ("PJM Operating Agreement"), PJM submits for filing proposed amendments to Schedule 6 of its approved Operating Agreement to implement revisions to its transmission planning process. These changes were approved with no objections or abstentions at the January 26, 2012 PJM Members Committee meeting. PJM submits this filing under section 205 of the FPA so that it may move forward expeditiously with the reforms to its planning process as described in detail below. PJM requests an effective date of May 1, 2012 for this filing.

The proposed revisions to PJM's transmission planning process are necessary and appropriate at this time to enable PJM to expand its analyses beyond the tests currently used as part of its reliability and market efficiency analyses in the planning process. These changes

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¹ 16 U.S.C. § 824d (2002).

² 18 C.F.R. part 35 (2011).

³ Rate Schedule FERC No. 24.

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would allow PJM to perform more extensive scenario planning analysis using a broader range of assumptions that could include renewable resource integration, demand response programs or other environmental initiatives, as well as to consider "at risk" generation. PJM also proposes to provide for more transparency and clarifies opportunities for stakeholder participation at all stages of its transmission planning process. PJM is filing these changes at this time in order to ensure that they may be in place and govern the formation of the 2012 RTEP. Finally, through this filing, PJM submits proposed clean up and clarifying changes to its existing regional transmission planning process.⁴

I. Introduction and Background.

PJM plans its system under a single regional transmission expansion plan ("RTEP") for the entire PJM region, which the Commission determined satisfied its regional planning requirements under the nine regional planning principles set forth in Order No. 890. PJM's existing regional transmission expansion planning protocols ("RTEPP") are codified in Schedule 6 of the PJM Operating Agreement and described in more detail in the PJM Manuals. Currently, PJM's RTEP process identifies transmission projects that ensure reliability and operational performance and provide economic benefits such as market efficiency using specific triggers defined in the PJM Operating Agreement and Manuals.

⁴ Although PJM took note of the Commission's directives under Order No. 1000 in preparing this filing, and in reviewing same with stakeholders, PJM is submitting this filing as a section 205 filing and is not seeking a Commission Order No. 1000 compliance determination at this time. PJM will be submitting its Order No. 1000 compliance filing in October 2012 per the Order's requirements.

⁵ 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).

⁶ The PJM Manual 14 series, and all PJM Manuals, are posted on the PJM Web Site.

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Since its inception in 1997 and until recently, PJM generally found that the magnitude of uncertainty around future system conditions was limited and that the use of a singular set of assumptions in the tests used in the RTEP process could reasonably define the expected date of future reliability violations which allowed PJM to plan new transmission facilities with minimal risk of such dates changing from year to year. Due to the recent dramatic swings in economic load forecasts, the growth in demand side resources, the uncertainties and evolutions surrounding "at-risk" generation due to changes in environmental regulations, the PJM Board of Managers ("PJM Board" or "Board") directed PJM to review and consider enhancements to the existing RTEP process in order to provide more stability and certainty for stakeholders and markets.⁷ Commencing in May 2010, the PJM Members Committee recommended the re-chartering of the Regional Planning Process Working Group⁸ to undertake a meaningful stakeholder process to evaluate and make recommendations to implement additional planning criteria or procedures to include a broader range of assumptions that would be analyzed as part of an enhanced planning process including analyses of renewable resource integration, demand response programs or other environmental initiatives.

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Although through this filing PJM proposes to expand its planning process in order to model various scenarios including the impact of new environmental rules, it should be noted that nothing in this filing intends to supplant the more expedited process for ordering upgrades in response to deactivation notices (including those driven by the impact of the environmental laws) as set forth in Part V of the PJM Tariff. PJM will continue to process any transmission upgrades resulting from notices to deactivate consistent with Part V of its Tariff. Although the results of that analysis will be discussed in the formulation of the RTEP, the shortened timeframes under Part V of the Tariff, as well as shortened compliance timeframes ordered by the Environmental Protection Agency, make it impossible for PJM to simply wholescale supplant the process set forth in Part V of the PJM Tariff with the process set forth in this filing. Nevertheless, in keeping with the requirements of Order No. 890 and Order No. 1000, PJM will endeavor to make its analyses as transparent as possible under the deactivation process while still respecting the need to protect confidential, commercially sensitive material and develop transmission solutions in a timely fashion to maintain the reliability of the transmission system.

⁸ The name of the stakeholder initiative was subsequently changed to the Regional Planning Process Task Force ("RPPTF").

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More than halfway into this stakeholder process, the Commission issued Order No. 1000

on July 21, 2011, ⁹ which, among other things, also addressed the need for transmission providers

to establish a regional transmission planning process that required procedures to provide

opportunities for greater stakeholder participation and for consideration of transmission needs

driven by public policy requirements established by state or federal laws or regulations.

PJM and its stakeholders devoted over a year and a half to intensive discussions on how

to build in more certainty and stability to PJM's planning process. The result of those efforts is

contained in this filing, which proposes that PJM take a broader view of the factors driving the

needs on the transmission system by looking at a much broader array of sensitivities and scenario

analyses. Such analyses necessarily must include consideration of public policy initiatives. For

such a process to be successful, it must be built on a foundation of communication, stakeholder

involvement and transparency. These proposed changes to Schedule 6 of the PJM Operating

Agreement establish this framework. PJM also proposes several stakeholder-approved,

clarifying and clean-up changes to Schedule 6 of the Operating Agreement to better describe the

planning process, to ensure consistency in the use of terminology and to update terms consistent

with current industry terminology.

The stakeholder process has been invaluable to the development of this filing. PJM also

received valuable input from state commissions regarding suggested improvements to the RTEP

process, including an endorsement by resolution of the state commissions in the PJM Region to

form an independent committee comprised of state agencies to provide input in developing

assumptions to be used in the studies and scenario analyses. The stakeholder's intense focus on

⁹ Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities, 136 FERC

¶ 61,051 (July 21, 2011).

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the RTEP process heavily influenced the changes presented in this filing, which changes are

necessary in developing PJM's 2012 RTEP. The RPPTF is now proceeding with these

foundational elements in place to address other issues that need to be resolved in order to comply

with the Commission's Order No. 1000 directives.

II. Description of Proposed Changes to Schedule 6 of the PJM Operating Agreement.

A. Addition of Definitions for Public Policy Initiatives.

PJM proposes to add two separate definitions to the definitional section of the Operating

Agreement to allow PJM to: (i) expand the contents of the RTEP to include consideration of

Public Policy Requirements and (ii) consider public policy initiatives beyond enacted statutes or

promulgated regulations in its sensitivity studies, modeling assumption variations and scenario

planning analyses that may have potential impacts on long term planning. Thus, PJM proposes

to add the definition "Public Policy Requirements" to specifically address the types of public

policy initiatives that will be considered when consolidating the transmission needs into a single

RTEP.

PJM is not proposing to include any decision frameworks in this filing that would

describe the procedures by which transmission needs driven by Public Policy Requirements

would be identified or acted upon. Any such decision frameworks addressing transmission needs

driven by Public Policy Requirements are still being discussed in the stakeholder process and, if

endorsed, would be included in a subsequent filing.

Also included is a proposed definition for "Public Policy Objectives." This broader use

of public policy would allow PJM, in consultation with its stakeholders, the flexibility to

consider a wider range of public policy objectives beyond enacted statutes or promulgated

regulations that may have potential impacts on long term planning. PJM proposes to consider

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this broader range of public policy objectives in its sensitivity studies, modeling assumption

variations and scenario planning analyses in order to better understand the ability of the planning

transmission system to provide for these potential drivers.

In order to begin to identify transmission needs driven by public policy and evaluate

potential solutions to meet those needs, it is necessary to define each term as it will apply to the

PJM RTEP process. Defining the meaning of these terms at this time will allow PJM the

flexibility to begin to perform more extensive scenario planning analyses in the 2012 RTEP

using a broader range of sensitivity studies and modeling assumptions that could include public

policy initiatives such as renewable resource integration, demand response programs or other

environmental initiatives, as well as "at risk" generation.

B. Proposal to Expand the RTEP to Include Consideration of Scenario-Based

Analyses that Include Public Policy Requirements.

In its proposed definition, PJM specifically restricted the definition of Public Policy

Requirements to enacted statutes or regulations that drive transmission needs so as to ensure that

any public policy driven transmission facilities included in the RTEP for purposes of regional

cost allocation would be reflective of the public policy initiatives mandated by state or federal

entities. In an effort to clarify the components of PJM's RTEP, PJM proposes to move

subsection 1.4(d)(v) from section 1.4(d) to section 1.4(a) of Schedule 6 of the Operating

Agreement to better describe all of the elements that make up the RTEP, i.e., reliability, market

efficiency and operational performance and to add consideration of Public Policy Requirements.

PJM also proposes to clarify those elements of the RTEP that are considered for ten years. Thus

PJM proposes to amend section 1.4(b) to include (i) "at risk" generation, to correctly include

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demand response under the category "capacity forecasts," and to add "demand response and

reductions in demand from energy efficiency and price responsive demand."

C. Revisions to a Strict Application of the Bright-Line Test.

Currently, PJM uses strict reliability metrics and assumptions to determine which

transmission projects should be included in the RTEP. Using those metrics, PJM tests

compliance with all NERC Reliability Standards and transmission owner criteria. When a

facility is found to reach 100 percent of the applicable limit under specified test conditions, it is

identified and PJM is required to develop a solution to address the potential violation. If a

facility remains at or below 99.9 percent there is no violation and, therefore, no transmission

solution is required. Relying on a strict application of these metrics, PJM has not previously

used sensitivity studies, modeling assumption variations or scenario analysis. Until the recent

economic downturn, PJM was able to apply these metrics and reasonably determine the expected

date of future reliability violations in order to plan new transmission facilities with some

confidence that such date would not change from year to year. 10 Recent dramatic swings in

economic load forecasts, the growth in demand side resources, the uncertainties surrounding "at-

risk" generation due to changes in environmental regulations and evolving public policies have

impeded PJM's ability to plan for its system with any certainty. The Potomac-Appalachian

Transmission Highline ("PATH")¹¹ and Mid-Atlantic Power Pathway ("MAPP")¹² abeyance

action by the PJM Board are but two prominent, public examples of this dilemma. PJM believes

there is merit in allowing for flexible planning criteria and proposes to expand its analyses

¹⁰ See, e.g., the Trans-Allegheny Interstate Line (TrAIL), which was met its in-service date of June 2011.

See PJM News Release dated February 28, 2011 at http://www.pjm.com/~/media/about-pjm/newsroom/2011-

releases/20110228-RTEP-announcement.ashx.

¹² See PJM Web Site at http://pjm.com/~/media/documents/reports/mapp-letter-to-phi.ashx.

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beyond a strict application of the reliability criteria in order to identify the most effective

transmission system upgrades to satisfy the needs of the system. This proposed balanced

approach starts with defined criteria and then allows PJM to look further to identify and evaluate

potential transmission system needs using sensitivity studies, modeling assumption variations

and scenario analyses, including Public Policy Objectives

PJM proposes to amend section 1.5.3 of Schedule 6 of the Operating Agreement to

expand beyond the current bright line criteria by using sensitivity studies, modeling assumption

variations and scenario planning analyses, including considering Public Policy Objectives, to

take into account potential changes in expected future system conditions and uncertainties arising

from estimated times to construct transmission upgrades. This proposed change is also reflected

in section 1.3(b), 1.5.1(a), 1.5.4(c) and (f). Allowing this change to the existing criteria should

minimize and perhaps eliminate the whipsaw effect of taking projects in and out of the RTEP

due to changing conditions.

Proposed Revisions to Increase Stakeholder Input and Participation D.

Throughout the RTEP Process.

In order to ensure an appropriate treatment of the anticipated range of sensitivity and

scenario analyses in the RTEP process and implement the transition from a strict application of

the reliability criteria tests and to avoid discrimination in the planning process, PJM, in

consultation with its stakeholders, proposes to expand and enhance its planning procedures with

respect to the communications and interaction around all phases of the process. In particular,

PJM proposes to enhance its process to include procedures by which transmission needs driven

by Public Policy Requirements will be identified and how potential solutions to the identified

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transmission needs will be evaluated in the RTEP process. 13 Specifically, PJM proposes to

amend Schedule 6 of the Operating Agreement at sections 1.3(b), 1.5.4(c), (d) and (f) to include

procedures under which stakeholders will have more opportunity to provide input and submit

suggestions (i) into the assumptions to be used in the studies and scenario analyses prior to the

initial assumptions meetings, 14 (ii) upon issuance of the range of assumptions to be used in the

studies and analyses; ¹⁵ and (iii) on the study results, including the sensitivity studies and scenario

analyses, 16 as well as the projects to be included in the RTEP. 17 Currently, PJM posts all

communications regarding the study results. 18 In order to provide greater transparency, PJM

proposes to provide more information at the commencement of an RTEP study by posting a

range of assumptions to be used in the studies and scenario analyses, ¹⁹ as well as posting the

final RTEP following Board approval.²⁰ PJM also proposes to:

• Expand access to information and data to be provided to the TEAC and Subregional RTEP Commissions that was utilized to develop the RTEP, subject to

appropriate confidentiality provisions.²¹

• Add discussion of interregional planning issues to the scope of the TEAC

meetings and Subregional RTEP Committees.²²

• Allow stakeholders an opportunity to provide input and offer proposals into what

they believe are transmission needs driven by Public Policy Objectives.²³

¹³ Order No. 1000 at P 205.

¹⁴ Schedule 6 at sections 1.3(b) and 1.5.4(d) proposed.

¹⁵ Schedule 6 at sections 1.3(b) and 15.4(f) proposed.

¹⁶ Schedule 6, section 1.5.4(f) proposed.

¹⁷ Schedule 6, section 1.3(b) proposed.

¹⁸ Schedule 6, section 1.5.4(g).

¹⁹ Schedule 6, section 1.5.4(d) proposed.

²⁰ Schedule 6, section 1.6 proposed.

²¹ Schedule 6, section 1.5.4(g) proposed.

²² Schedule 6, section 1.3(b) and (d) proposed.

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E. Proposed Addition of the Independent State Agencies Committee

PJM received valuable input from representatives of state commissions regarding

suggested improvements to the RTEP process. On a more formal level, the Organization of PJM

States, Inc. ("OPSI"), by unanimous resolution officially endorsed forming an Independent State

Agencies Committee ("ISAC") comprised of interested state agencies within the PJM footprint.²⁴

The details regarding the composition and role and responsibility of the ISAC were developed by

the state commissions. The PJM stakeholder process did not design the ISAC or define the roles

and responsibilities of the ISAC.

PJM proposes to add subsection 1.5.4(e) to Schedule 6 to define the interaction between

the ISAC and PJM's RTEP process. Specifically, PJM will facilitate periodic meetings with the

ISAC to discuss (i) the assumptions to be 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 assumptions and scenario analyses proposed by the ISAC. At such meetings, PJM will

also discuss the status of RTEP study process, including any input received from the TEAC and

Subregional RTEP Committees. PJM will also inform the TEAC and Subregional RTEP

Committees of the input received from the ISAC at such periodic meetings. Finally, PJM will

consider 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.

²³ Schedule 6, section 1.3(b) proposed.

The OPSI resolution officially endorsing the formation of an Independent State Agencies Committee may be

found on the OPSI website at http://www.opsi.us/filings/2012/OPSI-2012-1.pdf

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F. Clarifying Revisions to PJM Board Approval of the Final RTEP

PJM proposes to amend section 1.6(a) to provide that the PJM Board approves the RTEP

based on the studies and analyses performed by PJM under Schedule 6. PJM also proposes to

clarify in the second paragraph under section 1.6(a) that this provision was intended to apply to

all expansions or enhancements not just economic expansions or enhancements. Finally, PJM,

with input from its stakeholders, propose to clarify that the final Board-approved RTEP should

be documented, publicly posted and provided to applicable Regional Entities.

G. Non-Substantive Clarifying and Clean Up Changes.

As part of the RPPTF, PJM, with input from its stakeholders, proposes the following

clarifying and clean-up changes, in addition to punctuation, grammatical and citation

corrections, ²⁵ to amend the following sections of Schedule 6 of the Operating Agreement as

follows:

• Subsections 1.2, 1.5.1(a) and 1.5.5(a) are amended to replace obsolete references to

"Planning Principles and Guides" with "NERC Reliability Standards," and "NERC

Regional Council" with "Regional Entity. PJM also proposes ministerial corrections to

Section 1.2 to replace references to "reliability and adequacy" to uniformly reference

such phrase as the "reliability, adequacy and security of" the system throughout Schedule

6. PJM also proposes to correct a misspelling of "FERC From No. 715" to "FERC Form No. 715." PJM proposes to update references from "reliability criteria" to "planning

criteria" or "planning and operating criteria" and replace references to Regional Entity

planning criteria" with the updated term of "Regional Entity reliability principles and

standards." PJM also clarifies at section 1.2(d) that the RTEP must conform "at a

minimum" to NERC Reliability Standards, principles and guidelines.

• Subsections 1.5.1(a), 1.5.3(g) and 1.5.6(g.01) are amended to correct references to

"economic and operational adequacy and performance" with "market efficiency and operational performance."

operational performance.

• Subsection 1.5.1(b) is amended to clarify that reference should be corrected to add TEAC

"participants."

²⁵ Schedule 6, sections 1.2(f), 1.3(b), 1.5.1(a) and 1.5.4(d).

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• Subsections 1.5.1(a) and 1.5.3(d) is amended to capitalize the word "Region" which is a

defined term in Schedule 6 at section 1.35A, i.e., PJM Region.

• Subsections 1.3(c), (d), (e), (f) and (g), and 1.5.4(d) is amended to add an "s" to

committee to recognize that there is more than one Subregional RTEP Committee.

Subsection 1.3(c) and (f) replaces "the" with "a" and "the" with "each" to reference a

Subregional RTEP Committee individually.

III. Stakeholder Support for the Proposal

PJM commenced the stakeholder process on May 13, 2010. The RPPTF met at least

once a month from May 2010 through November 2011 holding a total of approximately 33

meetings to discuss these issues germane to this filing. The proposed revisions to Schedule 6 of

the PJM Operating Agreement were then reviewed and discussed with the Markets and

Reliability Committee ("MRC") and Members Committee. On December 21, 2011, the MRC

endorsed the proposed revisions to Schedule 6 of the Operating Agreement by acclamation with

one objection and three abstentions. The proposed revisions were approved by the Members

Committee on January 26, 2012 by acclamation with no objections or abstentions.

IV. Effective Date

PJM requests an effective date of May 1, 2012 for the attached PJM Operating

Agreement, a date at least sixty (60) days after the date of this filing.

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V. Documents Enclosed

PJM encloses the following:

1. Transmittal Letter;

2. Attachment A: Revisions to Schedule 6 of the PJM Operating Agreement

(Redlined format); and

3. Attachment B: Revisions to Schedule 6 of the PJM Operating Agreement

(Non-redlined format).

VI. Correspondence and Communication

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

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VII. 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. In accordance with the Commission's regulations, ²⁶ 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 this filing to all PJM members and all state utility regulatory

²⁶ See 18 C.F.R. §§ 35.2(e) and 385.2010(f)(3).

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Craig Glazer

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commissions in the PJM Region²⁷ alerting them that this filing has been made by PJM and is

available by following such link. PJM also serves the parties listed on the Commission's official

service list for this docket. If the document is not immediately available by using the referenced

link, the document will be available through the referenced link within 24 hours of the filing.

Also, a copy of this filing will be available on the FERC's eLibrary website located at the

following link: http://www.ferc.gov/docs-filing/elibrary.asp in accordance with the

Commission's regulations and Order No. 714.

Vice President – Government Policy

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Respectfully submitted,

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cc:

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Kristen Fleet, Division of Tariffs and Market Development - East, FERC

²⁷ PJM already maintains, updates and regularly uses e-mail lists for all PJM members and affected state commission.

Sections of the PJM Operating Agreement

Marked Version / Redline

Definitions O - P

1.27 Office of the Interconnection.

"Office of the Interconnection" shall mean the LLC.

1.28 Operating Reserve.

"Operating Reserve" shall mean the amount of generating capacity scheduled to be available for a specified period of an Operating Day to ensure the reliable operation of a Control Zone, as specified in the PJM Manuals.

1.29 Original PJM Agreement.

"Original PJM Agreement" shall mean that certain agreement between certain of the Members, originally dated September 26, 1956, and as amended and supplemented up to and including December 31, 1996, relating to the coordinated operation of their electric supply systems and the interchange of electric capacity and energy among their systems.

1.30 Other Supplier.

"Other Supplier" shall mean a Member that: (i) is engaged in buying, selling or transmitting electric energy, capacity, ancillatry services, financial transmission rights or other services available under PJM's governing documents in or through the Interconnection or has a good faith intent to do so, and; (ii) does not qualify for the Generation Owner, Electric Distributor, Transmission Owner or End-Use Customer sectors.

1.31 PJM Board.

"PJM Board" shall mean the Board of Managers of the LLC, acting pursuant to this Agreement.

1.31A [Reserved].

1.32 PJM Control Area.

"PJM Control Area" shall mean the Control Area recognized by NERC as the PJM Control Area.

1.33 PJM Dispute Resolution Procedures.

"PJM Dispute Resolution Procedures" shall mean the procedures for the resolution of disputes set forth in Schedule 5 of this Agreement.

1.34 PJM Interchange Energy Market.

"PJM Interchange Energy Market" shall mean the regional competitive market administered by the Office of the Interconnection for the purchase and sale of spot electric energy at wholesale in interstate commerce and related services established pursuant to Schedule 1 to this Agreement.

1.35 P.JM Manuals.

"PJM Manuals" shall mean the instructions, rules, procedures and guidelines established by the Office of the Interconnection for the operation, planning, and accounting requirements of the PJM Region and the PJM Interchange Energy Market.

1.35.01 PJM Market Monitor.

"PJM Market Monitor" shall mean the Market Monitoring Unit established under Attachment M to the PJM Tariff.

1.35A PJM Region.

"PJM Region" shall mean the aggregate of the MAAC Control Zone, the PJM West Region, and VACAR Control Zone.

1.35B PJM South Region.

"PJM South Region" shall mean the VACAR Control Zone.

1.35C P.IMSettlement.

"PJMSettlement" shall mean PJM Settlement, Inc. (or its successor), established by PJM as set forth in Section 3.3.

1.36 PJM Tariff.

"PJM Tariff" shall mean the PJM Open Access Transmission Tariff providing transmission service within the PJM Region, including any schedules, appendices, or exhibits attached thereto, as in effect from time to time.

1.36A [Reserved.]

1.36B PJM West Region.

"PJM West Region" shall mean the aggregate of the ECAR Control Zone(s) and MAIN Control Zone(s).

1.37 Planning Period.

"Planning Period" shall initially mean the 12 months beginning June 1 and extending through May 31 of the following year, or such other period established under the procedures of, as applicable, the Reliability Assurance Agreement.

1.38 President.

"President" shall have the meaning specified in Section 9.2.

1.38A Public Policy Objectives

"Public Policy Objectives" shall 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.

1.38B Public Policy Requirements

"Public Policy Requirements" shall 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.

1.2 Conformity with NERC <u>Reliability Standards</u> and Other Applicable Reliability Criteria.

- (a) NERC establishes Planning Principles and Guides Reliability Standards to promote the reliability, and adequacy and security of the North American bulk power supply as related to the operation and planning of electric systems.
- (b) Reliability First Corporation is responsible for ensuring the <u>reliability</u>, adequacy, <u>reliability</u> and security of the bulk electric supply systems in the region encompassing the former MAAC, ECAR and MAIN regions, through coordinated operations and planning of generation and transmission facilities. Toward that end, it has adopted the NERC <u>Planning Principles and Guides Reliability Standards</u> and has established detailed Reliability Principles and Standards for Planning the Bulk Electric Supply System of the Reliability First Corporation.
- (c) [Reserved]
- (c.01) [Reserved]
- (c.02) SERC is responsible for ensuring the <u>reliability</u>, adequacy, <u>reliability</u> and security of the bulk electric supply systems in the VACAR subregion through coordinated operations and <u>planning of generation and transmission facilities of SERC</u>. Toward that end, it has adopted the NERC <u>Planning Principles and Guides Reliability Standards</u> and has established detailed Reliability Principles and Standards for Planning the Bulk Electric Supply System for SERC.
- (d) The Regional Transmission Expansion Plan shall conform <u>at a minimum</u> to the applicable reliability principles, guidelines and standards of NERC, Reliability First Corporation, <u>and</u> SERC, and other Applicable Regional Reliability Councils in accordance with the <u>planning and</u> operating criteria and other procedures detailed in the PJM Manuals.
- (e) The Regional Transmission Expansion Plan reliability planning criteria shall include, Office of the Interconnection planning procedures, NERC planning sReliability Standards, NERC Regional Council Entity planning criteria reliability principles and standards, and the individual Transmission Owner FERC filed planning criteria as filed in FERC From No. 715, and posted on -the PJM website. FERC Form No. 715 material will be posted to the PJM website, subject to applicable Critical Energy Infrastructure Information (CEII) requirements.
- (f) The Office of the Interconnection will also provide access through the PJM website, to the planning criteria and assumptions used by the Transmission Owners for the development of the current Local Plan.

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.
- The Transmission Expansion Advisory Committee established by the Office of the (b) 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 shall review and provide advice and recommendations on the Regional RTEP Projects and the Subregional RTEP Projects when in the judgment of the Office of the Interconnection, these projects are determined to substantially impact power flow(s) on the regional transmission facilities. The Transmission Expansion Advisory Committee participants shall incorporate all the Regional RTEP Projects and Subregional RTEP Projects in the final RTEP for approval by the PJM Board. 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 Regional 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. The 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 and the State Consumer Advocates and (v) any other interested entities or persons.
- (f) The 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. The Each Subregional RTEP Committee shall schedule and facilitate an additional Subregional RTEP Committee meeting 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 the Subregional RTEP Committee meeting(s), or the additional meetings incorporating the more localized areas. The Subregional RTEP Committee meetings will incorporate interregional coordination as required.
- (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 and manner, and in a manner that supports(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 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; expected demand response; 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 a minimum, include a designation of the Transmission Owner or Owners or other entity that will construct, own 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) strive to maintain and, when appropriate, to enhance the economic and operational efficiency of wholesale electric service markets in the PJM region; (vi) provide for coordination with existing transmission systems and with appropriate interregional and local expansion plans; and (vii) 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.

- The Office of the Interconnection shall initiate the enhancement and expansion study (a) 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's in its on-going evaluation of the transmission system's economic market efficiency and operational adequacy and performance; (iii) required as a result of the Office of the Interconnection's assessment of the transmission system's compliance with Reliability First Corporation or SERC reliability criteria 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, that are identified by the Office of the Interconnection constraints or shortages as a result of expected generation additions or retirements, constraints or shortages based on an evaluation of load forecasts, congestion events on or operational performance of the transmission system, or system reliability needs arising from proposals for the addition of Transmission Facilities in the PJM regionRegion; 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 <u>participants</u> of, <u>as well as publicly notice</u>, the commencement of an enhancement and expansion study. The Transmission Expansion Advisory Committee <u>participants</u> shall notify the Office of the Interconnection in writing of any additional transmission considerations <u>they would</u> like to have to be 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 Committee, 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 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, 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), and uncertainties arising from estimated times to construct transmission upgrades. 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 <u>transmission</u> expansions and enhancements <u>including</u>, 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 regionRegion.
- (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 economic market efficiency.
- (h) Identification, evaluation and analysis of potential enhancements and expansions designed to ensure 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 RTEP 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(fh) 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(g) 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 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 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 process. The purpose of the assumptions meeting shall be to provide an open forum to discuss the following: (i) establish the assumptions to be used in performing the evaluation and analysis of the potential enhancements and expansions to the Transmission Facilities,—; (ii) incorporate regulatory initiatives as appropriate, including state regulatory agency initiated programs, Public Policy Objectives for consideration in the Office of the Interconnection's transmission planning analyses; (iii) provide an open forum to review the impacts of regulatory actions, projected changes in load growth, demand response resources, energy efficiency programs, price responsive demand, generating capacityadditions and retirements, market efficiency and other trends in the industry,—; and (iv) provide an open forum for the review of alternative sensitivity studies, modeling assumptions and scenarios 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. The final 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 for both the Regional RTEP Project and Subregional RTEP Project and shall be documented and publicly posted for review.

- (e) 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. At such meetings, the Office of the Interconnection also shall discuss the current status of the enhancement and expansion study process. The ISAC 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 and shall consider such input in developing the range of assumptions to be used in the studies and scenario analyses described in subsection (d), above.
- (f) ____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; (ii) and analyses of the economic market efficiency and operational performance of the transmission system; (iii) 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 (iiiv) the proposed RTEP. 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 at these meetings or at the regularly scheduled meetings of the PJM Planning Committee.
- (fg) The Office of the Interconnection shall supply to the Transmission Expansion Advisory
 Committee and the Subregional RTEP Committees reasonably required any information and data reasonably required by the Members, Transmission Customers and other impacted parties, including but not limited to, electric utility regulatory agencies within the States in the PJM Region, and the State Consumer Advocates, utilized to perform develop the Regional

Transmission Expansion Plan. Such information and data shall be provided pursuant to the appropriate protection of confidentiality provisions.

(gh) The Office of the Interconnection shall provide access throught 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's CEII process; and (3) any applicable copyright limitations. Notwithstanding the foregoing, PJM 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, 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 TEAC 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 reliability councils 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 Committee.
- (b) Upon completion of its studies and analysis, <u>including sensitivity studies and scenario</u> analyses the Office of the Interconnection shall prepare a recommended enhancement and expansion plan, which shall include alternative projects or solutions as applicable, for review 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.
- (c) 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.
- (c.01) The recommended plan shall separately identify enhancements and expansions that are classified as Supplemental Projects.
- (d) 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 Section 1.5.7 below.
- (e) 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 Part IV 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 Part IV 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.

- (f) 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 IV 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 more than one entity to construct, own and/or finance a recommended transmission enhancement or expansion shall also include a designation of proportional 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.
- Based on the planning analysis and other input from participants, including any (g) 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(d) 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.

- (g.01) 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, or economic efficiency, 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.
- (h) Any Transmission Owner and other participants on the Transmission Expansion Advisory Committee may offer an alternative.
- (h.01) 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.
- (i) 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.
- (j) 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.

(k) 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.

- In June of each year, concurrent with the PJM Board's consideration and approval of the (a) 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 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 Transmission Owner shall 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.
- (b) Following PJM Board approval 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) 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 forecast in the market efficiency analysis.
- (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.
- The Office of the Interconnection shall evaluate whether including any additional (iii) 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, 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 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 economicbased enhancements and expansions pursuant to section 1.5.6(g) 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. 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 included in the Regional Transmission Expansion Plan 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 expansions]. 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 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 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 Part IV 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, 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 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, 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 1.33 of the 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 RAA.
- (iii) Availability of Demand Resources as defined in section 1.13 of the 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 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 Interim Interconnection Service Agreement.
- (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) Items (i) through (vi) will be included in the market efficiency assumptions if qualified 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.

(l) 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 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.

1.6 Approval of the Final Regional Transmission Expansion Plan.

(a) <u>Based on the studies and analyses performed by the Office of the Interconnection under this Schedule 6, The the PJM Board shall approve the final-Regional Transmission Expansion Plan, including any alternatives therein, and any additions of economic transmission enhancements or expansions pursuant to Sections 1.5.6(d) and 1.5.7 above, in accordance with the requirements of this Section 1.6. The PJM Board shall not approve the Supplemental Projects listed in the Regional Transmission Expansion Plan. 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.</u>

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 to construct an economic expansion or enhancement developed pursuant to Sections 1.5.6(d) and 1.5.7 above, the Office of the Interconnection shall file with FERC a report identifying the economic 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(g) above to bear responsibility for the costs of the project.

- (b) 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.
- (c) Following PJM Board approval, the final Regional Transmission Expansion Plan shall be submitted documented, posted publicly and provided to the Applicable Applicable Reliability Council for verification that all enhancements or expansions conform with or exceed all reliability principles and standards of the Applicable Regional Reliability Council Regional Entities.

Sections of the PJM Operating Agreement

Clean Version

Definitions O - P

1.27 Office of the Interconnection.

"Office of the Interconnection" shall mean the LLC.

1.28 Operating Reserve.

"Operating Reserve" shall mean the amount of generating capacity scheduled to be available for a specified period of an Operating Day to ensure the reliable operation of a Control Zone, as specified in the PJM Manuals.

1.29 Original PJM Agreement.

"Original PJM Agreement" shall mean that certain agreement between certain of the Members, originally dated September 26, 1956, and as amended and supplemented up to and including December 31, 1996, relating to the coordinated operation of their electric supply systems and the interchange of electric capacity and energy among their systems.

1.30 Other Supplier.

"Other Supplier" shall mean a Member that: (i) is engaged in buying, selling or transmitting electric energy, capacity, ancillatry services, financial transmission rights or other services available under PJM's governing documents in or through the Interconnection or has a good faith intent to do so, and; (ii) does not qualify for the Generation Owner, Electric Distributor, Transmission Owner or End-Use Customer sectors.

1.31 PJM Board.

"PJM Board" shall mean the Board of Managers of the LLC, acting pursuant to this Agreement.

1.31A [Reserved].

1.32 PJM Control Area.

"PJM Control Area" shall mean the Control Area recognized by NERC as the PJM Control Area.

1.33 PJM Dispute Resolution Procedures.

"PJM Dispute Resolution Procedures" shall mean the procedures for the resolution of disputes set forth in Schedule 5 of this Agreement.

1.34 PJM Interchange Energy Market.

"PJM Interchange Energy Market" shall mean the regional competitive market administered by the Office of the Interconnection for the purchase and sale of spot electric energy at wholesale in interstate commerce and related services established pursuant to Schedule 1 to this Agreement.

1.35 P.JM Manuals.

"PJM Manuals" shall mean the instructions, rules, procedures and guidelines established by the Office of the Interconnection for the operation, planning, and accounting requirements of the PJM Region and the PJM Interchange Energy Market.

1.35.01 PJM Market Monitor.

"PJM Market Monitor" shall mean the Market Monitoring Unit established under Attachment M to the PJM Tariff.

1.35A PJM Region.

"PJM Region" shall mean the aggregate of the MAAC Control Zone, the PJM West Region, and VACAR Control Zone.

1.35B PJM South Region.

"PJM South Region" shall mean the VACAR Control Zone.

1.35C P.IMSettlement.

"PJMSettlement" shall mean PJM Settlement, Inc. (or its successor), established by PJM as set forth in Section 3.3.

1.36 PJM Tariff.

"PJM Tariff" shall mean the PJM Open Access Transmission Tariff providing transmission service within the PJM Region, including any schedules, appendices, or exhibits attached thereto, as in effect from time to time.

1.36A [Reserved.]

1.36B PJM West Region.

"PJM West Region" shall mean the aggregate of the ECAR Control Zone(s) and MAIN Control Zone(s).

1.37 Planning Period.

"Planning Period" shall initially mean the 12 months beginning June 1 and extending through May 31 of the following year, or such other period established under the procedures of, as applicable, the Reliability Assurance Agreement.

1.38 President.

"President" shall have the meaning specified in Section 9.2.

1.38A Public Policy Objectives

"Public Policy Objectives" shall 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.

1.38B Public Policy Requirements

"Public Policy Requirements" shall 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.

1.2 Conformity with NERC Reliability Standards and Other Applicable Reliability Criteria.

- (a) NERC establishes Reliability Standards to promote the reliability, adequacy and security of the North American bulk power supply as related to the operation and planning of electric systems.
- (b) Reliability First Corporation is responsible for ensuring the reliability, adequacy and security of the bulk electric supply systems in the region encompassing the former MAAC, ECAR and MAIN regions, through coordinated operations and planning of generation and transmission facilities. Toward that end, it has adopted the NERC Reliability Standards and has established detailed Reliability Principles and Standards for Planning the Bulk Electric Supply System of the Reliability First Corporation.
- (c) [Reserved]
- (c.01) [Reserved]
- (c.02) SERC is responsible for ensuring the reliability, adequacy and security of the bulk electric supply systems in the VACAR subregion of SERC. Toward that end, it has adopted the NERC Reliability Standards and has established detailed Reliability Principles and Standards for Planning the Bulk Electric Supply System for SERC.
- (d) The Regional Transmission Expansion Plan shall conform at a minimum to the applicable reliability principles, guidelines and standards of NERC, Reliability First Corporation and SERC, and other Applicable Regional Reliability Councils in accordance with the planning and operating criteria and other procedures detailed in the PJM Manuals.
- (e) The Regional Transmission Expansion Plan planning criteria shall include, Office of the Interconnection planning procedures, NERC Reliability Standards, Regional Entity reliability principles and standards, and the individual Transmission Owner FERC filed planning criteria as filed in FERC Form No. 715, and posted on the PJM website. FERC Form No. 715 material will be posted to the PJM website, subject to applicable Critical Energy Infrastructure Information (CEII) requirements.
- (f) The Office of the Interconnection will also provide access through the PJM website, to the planning criteria and assumptions used by the Transmission Owners for the development of the current Local Plan.

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.
- 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 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 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 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 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 a minimum, include a designation of the Transmission Owner or Owners or other entity that will construct, own 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.

- The Office of the Interconnection shall initiate the enhancement and expansion study (a) 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 Committee, 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 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, 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), and uncertainties arising from estimated times to construct transmission upgrades. 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 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 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 RTEP 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(g) 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 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 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 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.

- In addition, the Office of the Interconnection shall facilitate periodic meetings with the (e) 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. At such meetings, the Office of the Interconnection also shall discuss the current status of the enhancement and expansion study process. The ISAC 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 and shall consider such input in developing the range of assumptions to be used in the studies and scenario analyses described in subsection (d), above.
- (f) 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 RTEP. 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 at these meetings or at the regularly scheduled meetings of the PJM Planning Committee.
- (g) 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.
- (h) 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's CEII process; and

(3) any applicable copyright limitations. Notwithstanding the foregoing, PJM 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, 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 TEAC 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 Committee.

- (b) Upon completion of its studies and analysis, including sensitivity studies and scenario analyses the Office of the Interconnection shall prepare a recommended enhancement and expansion plan, which shall include alternative projects or solutions as applicable, for review 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.
- (c) 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.
- (c.01) The recommended plan shall separately identify enhancements and expansions that are classified as Supplemental Projects.
- (d) 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 Section 1.5.7 below.
- (e) 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 Part IV 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 Part IV 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.
- (f) 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 IV 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 more than one entity to construct, own and/or finance a recommended transmission enhancement or expansion shall also include a designation of proportional 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.

(g) 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(d) 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.

- (g.01) 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.
- (h) Any Transmission Owner and other participants on the Transmission Expansion Advisory Committee may offer an alternative.
- (h.01) 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.
- (i) 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.
- (j) 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.
- (k) 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 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 Transmission Owner shall 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.
- (b) Following PJM Board approval 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) 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 forecast in the market efficiency analysis.
- (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, 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 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 economicbased enhancements and expansions pursuant to section 1.5.6(g) 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. 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 included in the Regional Transmission Expansion Plan 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 economicbased 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 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 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 Part IV 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, 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 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, 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 1.33 of the 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 RAA.
 - (iii) Availability of Demand Resources as defined in section 1.13 of the 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 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 Interim Interconnection Service Agreement.
- (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) Items (i) through (vi) will be included in the market efficiency assumptions if qualified 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.

(l) 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 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.

1.6 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. The PJM Board shall not approve the Supplemental Projects listed in the Regional Transmission Expansion Plan. 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.

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 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(g) above to bear responsibility for the costs of the project.

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