

DEFINITIONS

“Long-Term Transmission Project” shall mean one or more enhancement or expansion of the Transmission System identified through the Long-Term Regional Transmission Plan process that, on an aggregate basis of all components, addresses a Long-Term Transmission Need or common set of Long-Term Transmission Needs.

“Long-Term Scenario” shall mean scenarios developed in accordance with Operating Agreement, Schedule 6D, section 1.5, that incorporate various assumptions using best available data inputs about the future electric power system over a sufficiently long-term, forward-looking transmission planning horizon to identify Long-Term Transmission Needs and enable the identification and evaluation of transmission facilities to meet such transmission needs.

“Long-Term Regional Transmission Plan” shall mean a regional transmission plan developed on a sufficiently long-term, forward-looking, and comprehensive basis that identifies Long-Term Transmission Needs, identifies transmission facilities that meet such needs, measure the benefits of those transmission facilities, and evaluate those transmission facilities for potential selection in the regional transmission plan for purposes of cost allocation as the more efficient or cost-effective regional transmission facilities to meet Long-Term Transmission Needs.

“Long-Term Transmission Need” shall mean transmission needs identified through reliability and economic analyses performed by the Office of the Interconnection, pursuant to Operating Agreement, Schedule 6D, resolution of which may require a Long-Term Transmission Project.

Core LT Needs” shall mean Long-Term Transmission Needs identified by the Office of the Interconnection in accordance with Operating Agreement, Schedule 6D, section 1.6.2(a).

Additional LT Needs shall mean the Long-Term Transmission Needs identified by the Office of the Interconnection in accordance with Operating Agreement, Schedule 6D, section 1.6.2(b).

“Core Plan” shall mean a set of Long-Term Transmission Projects addressing Core LT Needs that, as a portfolio, meet the Core Plan Benefit-to-Cost Ratio, as set forth in Operating Agreement, Schedule 6D, section 1.10(a)(1).

“All-in-One Plan” shall mean a set of Long-Term Transmission Projects addressing Core LT Needs and Additional LT Needs holistically, as determined in accordance with Operating Agreement, Schedule 6D, section 1.11.

“Core Plan Benefit-Cost-Ratio” shall mean the minimum criteria used to identify Long-Term Transmission Projects for inclusion in the Core Plan, determined in accordance with Operating Agreement, Schedule 6D, section 1.10.

“All-in-One Plan Incremental Benefit-Cost-Ratio” shall mean the minimum criteria used to identify Long-Term Transmission Projects to address Additional LT Needs and be identified for

inclusion in the All-in-One Plan determined in accordance with Operating Agreement, Schedule 6D, section 1.11.

“PJM Area Relevant State Entities Committee” shall mean the voluntary, independent committee consisting of any State entity responsible for electric utility regulation or siting electric transmission facilities within the State or portion of a State located in the PJM Region, including any State entity as may be designated for that purpose by the law of such State. The term PJM Area Relevant State Entities Committee shall mean the committee established through the Organization of PJM States, Inc. in 2024 or any succeeding committee.

“Voluntary Funding Entity” shall mean either (i) a state governmental entity that is authorized by its respective state to agree to be responsible for the allocation of all costs of a proposed Long-Term Transmission Project or (ii) a Long-Term Transmission Developer given the opportunity to voluntarily fund the cost of a Long-Term Transmission Facility that would otherwise not be selected to be part of the Long-Term Transmission Plan.

“Long-Term Transmission Developer” shall mean any non-state governmental entity that does not have captive customers and agrees to voluntarily fund a Long-Term Transmission Project in accordance with Operating Agreement, Schedule 6D, section 1.14.

“Right-Sized Replacement Facility” shall mean a Long-Term Transmission Project that (1) is identified by the Office of the Interconnection as through the Long-Term Regional Transmission Plan process; (2) replaces an In-Kind Replacement Facility Need as identified by a Transmission Owner pursuant to **[Tariff, Attachment M-5]**; (3) meets a Long-Term Need; (4) results in more than an incidental increase in capacity compared to the In-Kind Replacement Facility Need; and (5) is located in the same general right-of-way or uses or expands the existing rights-of-way of the existing Transmission Facility.

SCHEDULE 6D - LONG-TERM REGIONAL TRANSMISSION PLANNING PROTOCOL

References to section numbers in this Schedule 6D refer to sections of this Schedule 6D, unless otherwise specified.

1. LONG-TERM REGIONAL TRANSMISSION PLANNING PROTOCOL

1.1 Purpose and Objectives.

The Long-Term Regional Transmission Plan to be developed through this Schedule 6D, and in consideration of the Regional Transmission Expansion Plan developed through Schedule 6, will holistically address reliability, economic, and public policy needs of the PJM Region over the planning horizon, with full consideration of tribal, state, and local policies. This Long-Term Regional Transmission Planning Protocol shall govern the process by which the Members shall rely upon the Office of the Interconnection to prepare the Long-Term Regional Transmission Plan for the enhancement and expansion of the Transmission Facilities in order to identify and address Long-Term Transmission Needs of the PJM Region. The Office of the Interconnection will develop the Long-Term Regional Transmission Plan, with consideration of the unique requirements (e.g., long-lead development and construction timelines) associated with the planning of Long-Term Transmission Projects, to identify the Long-Term Transmission Needs, investigate potential solutions to holistically address Long-Term Transmission Needs, and select Long-Term Transmission Projects to address those needs as described in this Schedule 6D for which selection would be timely and appropriate. Throughout this long-term planning process, the Office of the Interconnection will identify Long-Term Transmission Projects for inclusion in the All-in-One Plan, then preliminarily select such identified projects for inclusion in the recommended Long-Term Regional Transmission Plan, re-assess the All-in-One Plan in light of any Voluntary Funding Agreements and the outcome of the State Opt-out mechanism, before finalizing a recommended Long-Term Regional Transmission Plan generally composed of Long-Term Transmission Projects for which selection would be timely and appropriate and Long-Term Transmission Projects supported by a Voluntary Funding Agreement pursuant to section 1.14(e). The Long-Term Regional Transmission Plan shall conform at a minimum to the applicable reliability principles, guidelines and standards of NERC, ReliabilityFirst Corporation, and SERC, and other Applicable Regional Entities in accordance with the planning and operating criteria and other procedures detailed in the PJM Manuals. The Long-Term Regional Transmission Plan will be incorporated into the Regional Transmission Expansion Plan developed in accordance with Operating Agreement, Schedule 6.

1.2 Coordination with the Transmission Expansion Advisory Committee and the PJM Area Relevant States Entities Committee.

(a) During the development of the Long-Term Regional Transmission Plan, the Office of the Interconnection shall hold periodic meetings with the Transmission Expansion Advisory Committee. The Transmission Expansion Advisory Committee 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 Long-Term Regional Transmission 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 the Long-Term Scenario and sensitivity assumption development 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 Long-Term Regional Transmission Plan. The Transmission Expansion Advisory Committee meetings shall include discussions addressing interregional long-term planning issues, as identified by the Office of the Interconnection. The Transmission Expansion Advisory Committee shall be open to participation by: (i) all Transmission Customers and applicants for transmission service; (ii) any other entity proposing to provide Transmission Facilities to be integrated into the PJM Region; (iii) all Members; (iv) the electric utility regulatory agencies within the States in the PJM Region, the PJM Area Relevant States Entities Committee, and the Independent State Agencies Committee; and (v) any other interested entities or persons. The Office of the Interconnection shall make available to the Transmission Expansion Advisory Committee reasonably required information and data utilized to develop the Long-Term Regional Transmission Plan. Such information and data shall be provided pursuant to the appropriate protection of confidentiality provisions and Office of the Interconnection's CEII process.

(b) During the development of the Long-Term Regional Transmission Plan, the Office of the Interconnection shall hold periodic meetings with the PJM Area Relevant State Entities Committee to provide updates, including discussion of: (i) the state policy and other assumptions, as may be identified in through section 1.4, to be used in developing Long-Term Scenarios for the purpose of identifying Long-Term Transmission Needs and evaluating and analyzing potential solutions to such Long-Term Transmission Needs; (ii) legislative and regulatory initiatives, as appropriate, including state regulatory agency initiated programs, and other public policies, to consider including in the Office of the Interconnection's long-term 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; (iv) alternative sensitivity studies, modeling assumptions and scenario analyses proposed by the PJM Area Relevant State Entities Committee; and (v) the Core Plan developed pursuant to section 1.10, the All-in-One Plan developed pursuant to section 1.11, and any proposals that would address Long-Term Transmission Needs not identified for inclusion in the Core Plan and/or All-in-One Plan that may be available for Voluntary Funding Opportunities pursuant to section 1.14. At such meetings, the Office of the Interconnection also shall discuss the current status of the Long-Term Regional Transmission Plan study process. The PJM Area Relevant State Entities Committee may request that the Office of Interconnection schedule additional meetings as necessary. The Office of the Interconnection shall inform the Transmission Expansion Advisory Committee, as appropriate, of the input of the PJM Area Relevant State Entities Committee and shall consider such input in developing the Long-Term Regional Transmission Plan.

1.3 Contents of the Long-Term Regional Transmission Plan.

- (a) The Office of the Interconnection shall be responsible for the development of the Long-Term Regional Transmission Plan and for developing scenarios and sensitivities, and conducting the analyses on which the plan is based as well as the selection of the Long-Term Transmission Projects. The Long-Term Regional Transmission Plan shall be developed through an open and collaborative process with opportunity for meaningful participation through the Transmission Expansion Advisory Committee.
- (b) The Long-Term Regional Transmission Plan shall consolidate the Long-Term Transmission Projects that holistically address Long-Term Transmission Needs of the region into a single plan which meet long-term needs of the PJM Region by (i) maintaining the reliability of the PJM Region in an economically efficient manner; (ii) enhancing the efficiency and operational performance of wholesale electric service markets; (iii) advancing federal, tribal, state, and local public policies; and (iv) facilitating the efficient long-term integration of generation resources. The Long-Term Regional Transmission Plan shall reflect transmission enhancements and expansions included in the Regional Transmission Expansion Plan; load forecasts; and capacity projections, including projected generation additions and retirements. The Long-Term Regional Transmission Plan shall be based on analyses that consider the data and information gathered and determined in accordance with this Schedule 6D.
- (c) The Long-Term Regional Transmission Plan shall, at a minimum, include a designation of the Transmission Owner(s) and/or other entity(ies) that will construct, own, and/or finance each Long-Term Transmission Facility selected in accordance with this Schedule 6D, and identify how all reasonably incurred costs are to be recovered.

1.4 Procedures and Considerations for Commencing Development of the Long-Term Regional Transmission Plan Long-Term Scenarios.

1.4.1 Commencement of the Process.

The Office of the Interconnection shall initiate a new Long-Term Regional Transmission Plan study process at least once every five years. Except for the first Long-Term Regional Transmission Plan study process conducted pursuant to this Schedule 6D, a Long-Term Regional Transmission Plan study process commences with the initial assumptions meeting of the Transmission Expansion Advisory Committee for a given cycle, in accordance with section 1.4.4 below. The data gathering and consultation process may begin before the commencement of a Long-Term Regional Transmission Plan study process. The Office of the Interconnection shall notify the Transmission Expansion Advisory Committee participants of, as well as publicly notice, the commencement of the Long-Term Regional Transmission Plan study process.

1.4.2 Development of Long-Term Regional Transmission Plan Data, Scope, Assumptions, and Other Inputs.

- (a) The Office of the Interconnection will engage with the PJM Area Relevant State Entities Committee, relevant tribal authorities and local governmental bodies, Transmission Owners, and other relevant entities to identify any and all relevant:

- (1) tribal, state, and local laws and regulations that may affect the mix of resources of resources that are projected to qualify to provide capacity and the demand for capacity;
- (2) tribal, state, and local laws and regulations that relating to decarbonization and electrification;
- (3) integrated resource plans that have been approved by relevant state agencies, cooperative boards, and municipal utility authorities and expected supply obligation for Load Serving Entities; and
- (4) public utility policy goals and federal, tribal, state, and local policy goals.

Such engagement will include the ability for applicable tribal, state, and local bodies to send information to the Office of the Interconnection via an online portal or other suitable means as may be determined by the Office of the Interconnection. The Office of the Interconnection will also receive identification of the foregoing from any other interested stakeholder.

(b) The Office of the Interconnection will engage with interested entities, which may include tribal, state and local governmental entities, Transmission Owners, Generation Owner, Load-Serving Entities, Electric Distributors, End-Use Customers, and any other interested entities or persons to gather other necessary data to develop the Long-Term Regional Transmission Plan, including but not limited to:

- (1) trends in fuel costs and in the cost, performance, and availability of different types of Capacity Resources (e.g., Capacity Storage Resources and Generation Resources), as well as trends in electrification technologies (e.g., transportation and building);
- (2) retirements of resources;
- (3) generator interconnection requests and withdrawals; and
- (4) public utility policy goals and federal, tribal, state, and local policy goals.

The Office of the Interconnection may also gather other data and information that may be used in the development of the Long-Term Regional Transmission Plan. Such engagement may be informal and/or in accordance with the Transmission Expansion Advisory Committee stakeholder process. Such information and data may be provided upon request, as necessary, pursuant to the appropriate protection of confidentiality provisions and Office of the Interconnection's CEII process.

(c) Using the data and information collected pursuant to this section 1.4.2 and section 1.4.3 and other data and information, the Office of the Interconnection shall, in consultation with the PJM Area Relevant States Committee, develop the Long-Term Scenario assumptions for use in the Long-Term Regional Transmission Plan study process.

1.4.3 Supply of Other Data.

In addition to the data and information gathered in accordance with section 1.4.2, the Office of the Interconnection shall gather data needed to conduct each Long-Term Regional Transmission Plan study process as follows:

(a) In addition to the data and information to be provided in accordance with Schedule 6D, consistent with the requirements with Tariff, Attachment M-5, each Transmission Owner shall provide the Office of the Interconnection anticipated In-Kind Replacement Facility Needs. The Office of the Interconnection shall receive such anticipated In-Kind Replacement Facility Needs prior to development of scenarios in accordance with Operating Agreement, Schedule 6D, section 1.5. Transmission Owners may provide updated estimates of In-Kind Replacement Facilities throughout the Long-Term Regional Transmission Plan study cycle.

(b) The Office of the Interconnection also shall solicit from the PJM Area Relevant State Entities Committee (individually and as a group), Members, Transmission Customers, and other interested parties, including but not limited to electric utility regulatory agencies within the States in the PJM Region, information required by, or anticipated to be useful to, the Office of the Interconnection in its preparation of the Long-Term Regional Transmission Plan study, including laws, policies, and other information regarding potential sensitivity studies, modeling assumption variations, scenario analyses, and other information for consideration.

1.4.4 Initial Assumptions Meeting

(a) The Office of the Interconnection, through the Transmission Expansion Advisory Committee, shall hold an initial assumptions meeting to be scheduled at the commencement of the Long-Term Regional Transmission Plan study process. The Office of the Interconnection may hold additional Transmission Expansion Advisory Committee meetings to discuss assumptions, as needed. The purpose of the assumptions meetings shall be to provide an open forum to discuss inputs and methods to be used in the development of scenarios and sensitivities. Such discussions may include other updates relevant to the development of the Long-Term Regional Transmission Plan.

(b) The Office of the Interconnection shall meet with the PJM Area Relevant State Entities Committee to discuss the assumptions, inputs, and methods to be used in the development of scenarios and sensitivities. Such discussions may include other updates relevant to the development of the Long-Term Regional Transmission Plan.

(c) Following the assumptions meetings and prior to developing scenarios, the Office of the Interconnection shall determine the range of assumptions to be used in the scenarios and studies, considering the advice and recommendations of the Transmission Expansion Advisory Committee and the PJM Area Relevant State Entities Committee. The Office of the Interconnection shall document and publicly post its determination.

1.4.5 Coordination of the Long-Term Regional Transmission Plan.

(a) The Long-Term Regional Transmission 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.

(b) The Long-Term Regional Transmission 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., which is found at <http://www.pjm.com/~media/documents/agreements/joa-complete.ashx>;
- Northeastern ISO/RTO Planning Coordination Protocol, which is described at Schedule 6-B and found at <http://www.pjm.com/~media/documents/agreements/northeastern-iso-rto-planning-coordination-protocol.ashx>;
- Joint Operating Agreement Among and Between New York Independent System Operator Inc., which is found at <http://www.pjm.com/~media/documents/agreements/nyiso-pjm.ashx>;
- Interregional Transmission Coordination Between the SERTP and PJM Regions, which is found at Operating Agreement, Schedule 6-A ;
- Allocation of Costs of Certain Interregional Transmission Projects Located in the PJM and SERTP Regions, which is located at Tariff, Schedule 12-B;
- Joint Reliability Coordination Agreement Between PJM Interconnection, L.L.C., Tennessee Valley Authority, and Louisville Gas and Electric Company and Kentucky Utilities.

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.

1.5 Development of Scenarios.

(a) For each Long-Term Regional Transmission Plan study cycle, the Office of the Interconnection shall develop at least three Long-Term Scenarios. The scenarios will: (1) be plausible and diverse; (2) utilize a 20-year transmission planning horizon; (3) reasonably represent probable future system needs; and (4) be based on best available data and information and as collected in accordance with section 1.4. The Office of the Interconnection may utilize scenarios developed in prior near-term and long-term regional transmission plan study processes, updated with new data and inputs, as necessary. In the development of the scenarios, the Office of the Interconnection will consider all data and information gathered pursuant to sections 1.4.2 and 1.4.3. Based on the feedback received in the processes set forth in sections 1.4.3 and 1.4.4 and its own analyses and engineering judgment, the Office of the Interconnection may accord different considerations of such data and information in each scenario, but may not discount any data or information relating to the topics set forth in section 1.4.2(a)(1) through (3) above. The

Office of the Interconnection shall publish a general statement explaining how it will account for such data in the scenario development, including the extent to which it will discount any data or information relating to the topics set forth in section 1.4.2(b)(1) through (4) above in each scenario, and list of the data or information it considered but did not incorporate in the scenario development. The Office of the Interconnection shall develop at least one extreme weather sensitivity and apply it to at least three scenarios.

(b) To the extent the PJM Area Relevant State Entities Committee formally requests the development of an additional scenario to be considered as part of the Long-Term Regional Transmission Plan study process, the Office of the Interconnection shall consider developing and studying such additional scenario within the Long-Term Regional Transmission Plan study process cycle. Such request must be made within two months from the initial assumptions meeting held pursuant to section 1.4.4. While the PJM Area Relevant State Entities Committee may specify assumptions and how certain data or information should be considered differently than in any of the scenarios developed in accordance with section 1.5(a), to the extent such consideration of data or other PJM Area Relevant State Entities Committee-specific directive would result in a scenario that does not meet the requirements of this Schedule 6D, such scenario may not be used in the Long-Term Regional Transmission Plan study process for the purposes of identifying Long-Term Transmission Needs or selecting Long-Term Transmission Projects.

(c) The Office of the Interconnection will post initial draft scenarios developed in accordance with this section 1.5 for review by interested stakeholders, including the PJM Area Relevant Entities Committee, subject to the appropriate protection of confidentiality provisions and Office of the Interconnection's CEII process. The Office of the Interconnection, through the Transmission Expansion Advisory Committee, shall hold a minimum of one meeting to discuss such draft scenarios. The Transmission Expansion Advisory Committee participants will be afforded the opportunity to provide feedback on the draft scenarios.

1.6 Development of Long-Term Regional Transmission Plan Studies.

(a) The Office of the Interconnection shall conduct Long-Term Regional Transmission Plan studies in accordance with the procedures in this Schedule 6D and in the PJM Manuals. In conducting the Long-Term Regional Transmission Plan studies, the Office of the Interconnection may collaborate with Transmission Owners, as appropriate.

(i) The Office of the Interconnection shall build power flow, production cost, and other appropriate models, as necessary, for analyses of the scenarios developed in accordance with section 1.5. Such analyses may include reliability, economic, and operational performance analyses, as well as other considerations.

(ii) The Office of the Interconnection may use sensitivity studies, modeling assumption variations and scenario analyses in evaluating and choosing among solutions to Long-Term Transmission Needs.

(b) In accordance with the procedures in this Schedule 6D and in the PJM Manuals, and based on the Office of the Interconnection's engineering judgment and other information available to

the Office of the Interconnection, the Long-Term Regional Transmission Plan studies shall, identify projected limitations on the Transmission System's physical, economic, and/or operational capability or performance to identify Long-Term Transmission Needs, determined based on reliability, economic, public policy, operational, and other drivers which may include: (1) the magnitude and severity of the issue; (2) the voltage level of the transmission facility on which the issue would occur; (3) the conditions in which the issue arose in the analyses; (4) the concentration and number of the issues; (5) type and nature of the driver; and (6) evolution of the issue over time.

(c) The Office of the Interconnection shall provide the results of its Long-Term Regional Transmission Plan studies and analyses to the Transmission Expansion Advisory Committee to consider the impact that sensitivities, assumptions, and scenarios may have on Long-Term Transmission Needs and the need for Long-Term Transmission Projects. The Office of the Interconnection, through the Transmission Expansion Advisory Committee, shall hold additional meetings and provide opportunity for the committee participants to review and offer comments regarding the violations of reliability criteria and analyses of the market efficiency and operational performance of the Transmission System, as identified through the work performed by the Office of the Interconnection. These meetings will be scheduled as deemed necessary by the Office of the Interconnection or upon the request of the Transmission Expansion Advisory Committee. The Office of the Interconnection will provide updates on the status of the development of the Long-Term Regional Transmission Plan at these meetings or at the regularly scheduled meetings of the Planning Committee.

1.6.1 Re-evaluation of Long-Term Transmission Projects in the Regional Transmission Expansion Plan

(a) The Office of the Interconnection may evaluate whether a previously approved Long-Term Transmission Project should remain in the Regional Transmission Expansion Plan in each Long-Term Regional Transmission Plan process. The Office of the Interconnection shall reevaluate the continued need for a given Long-Term Transmission Project in the following circumstances:

(1) To the extent the Designated Entity fails to meet a milestone in the development schedule set forth in the Designated Entity Agreement that causes a delay of the project's in-service date such that the project is unlikely to be in-service by the requested in-service date jeopardizing system reliability, operational performance, or other obligations of the Office of the Interconnection, the Office of the Interconnection may re-evaluate the need for the Long-Term Transmission Project, and based on that re-evaluation may: (i) retain the Long-Term Transmission Project in the Regional Transmission Expansion Plan; (ii) remove the Long-Term Transmission Project from the Regional Transmission Expansion Plan; or (iii) seek an alternative solution for inclusion in the Long-Term Regional Transmission Plan.

If the Office of the Interconnection retains the Long-Term Transmission Project in the Regional Transmission Expansion Plan, it shall determine whether the delay is beyond the Designated Entity's control and whether to retain the Designated Entity or to designate the Transmission Owner(s) in the Zone(s) where the project is located as Designated Entity(ies) for the Long-Term

Transmission Project. If the Designated Entity is the Transmission Owner(s) in the Zone(s) where the project is located, the Office of the Interconnection shall seek recourse through the Consolidated Transmission Owners Agreement or FERC, as appropriate. Any modifications to the Regional Transmission Expansion Plan pursuant to this section shall be presented to the Transmission Expansion Advisory Committee for review and comment and approved by the PJM Board.

(2) To the extent the Office of the Interconnection becomes aware of a significant increase in the costs to construct and place in service an approved Long-Term Transmission Project, whether in relation to the project's benefits or on a standalone basis, the Office of the Interconnection may re-evaluate the need for the Long-Term Transmission Project, including evaluating updated costs and benefits in accordance with Operating Agreement, Schedule 6D, and based on that re-evaluation may: (i) retain the Long-Term Transmission Project in the Regional Transmission Expansion Plan; (ii) remove the Long-Term Transmission Project from the Regional Transmission Expansion Plan; or (iii) seek an alternative solution for inclusion in the Long-Term Regional Transmission Plan. If the Office of the Interconnection retains the Long-Term Transmission Project in the Regional Transmission Expansion Plan, the Designated Entity shall not change.

(3) To the extent the Office of the Interconnection becomes aware of a change in law or regulation such that the Long-Term Transmission Project may no longer meet the applicable selection criteria on which the project was initially selected, the Office of the Interconnection may re-evaluate the need for the Long-Term Transmission Project, including evaluating updated costs and benefits in accordance with Operating Agreement, Schedule 6D, sections 1.9 and 1.10 and/or 1.11, as applicable, and based on that re-evaluation may: (i) retain the Long-Term Transmission Project in the Regional Transmission Expansion Plan; (ii) remove the Long-Term Transmission Project from the Regional Transmission Expansion Plan; or (iii) seek an alternative solution for inclusion in the Long-Term Regional Transmission Plan. However, to the extent the Long-Term Transmission Need that such project was initially selected to address is expected to arise in the second half of the 20-year planning horizon of the current Long-Term Regional Transmission Plan study, then the Office of the Interconnection will conduct such evaluation as part of the next Long-Term Regional Transmission Plan process. If the Office of the Interconnection retains the Long-Term Transmission Project in the Regional Transmission Expansion Plan, the Designated Entity shall not change.

(b) In each of these three situations, the criteria used to determine whether re-evaluation is necessary will be (i) system reliability must be preserved and (ii) benefits accounting for costs over time should be maximized without over-building facilities.

(c) Notwithstanding the foregoing, Long-Term Transmission Projects included in the Regional Transmission Expansion Plan may not be re-evaluated and removed if the Office of the Interconnection determines that cancellation of the Long-Term Transmission Project, or specific components of the project, may (1) adversely affect reliability of the Transmission System, (2) the benefits of the Long-Term Transmission Project(s) still outweigh its costs, considering sunk costs and advancement of construction activities, or (3) removal of the project from the Regional Transmission Expansion Plan would have adverse and cascading impacts to the interconnection

and transmission planning processes.

1.6.2 Identification of Core LT Needs and Additional LT Needs.

(a) The Office of the Interconnection shall classify the subset of Long-Term Transmission Needs identified in the Long-Term Regional Transmission Plan study needed to maintain system reliability as Core LT Needs. Such Long-Term Transmission Needs are associated with maintaining system reliability as determined by the following model inputs: projected transmission system topology; forecasted future demand, including load growth and firm transmission commitments; projected generation resource deactivations and additions; and a generation resource mix capable of meeting applicable reliability criteria. Core LT Needs, while driven by maintaining system reliability, can also encompass economic and policy needs.

(b) Any Long-Term Transmission Need identified in the Long-Term Regional Transmission Plan study that is not classified as a Core LT Need will be classified as an Additional LT Need.

(c) Following identification and classification of Long-Term Transmission Needs and prior to evaluating potential Long-Term Transmission Projects to address such needs, the Office of the Interconnection shall post all Long-Term Transmission Needs identified in the Long-Term Regional Transmission Plan study, whether such needs are classified as Core LT Needs or Additional LT Needs, the information related to each need as described further in the Operating Agreement, Schedule 6D, section 1.8(b), and whether a Right-Sized Replacement Facility may address a posted Long-Term Transmission Need as described further in Operating Agreement, Schedule 6D, section 1.7. Such postings shall support the role of the Transmission Expansion Advisory Committee in the development of the Long-Term Regional Transmission Plan.

1.7 Identification of Right-Sized Replacement Facilities.

The Office of the Interconnection shall identify for possible selection Right-Sized Replacement Facilities to prudently address Long-Term Transmission Needs. Identification of Right-Sized Replacement Facilities shall be as follows:

(a) Prior to the posting of Long-Term Transmission Needs as described in this Operating Agreement, Schedule 6D, section 1.8(b), the Office of the Interconnection and each Transmission Owner shall meet to review the identified Long-Term Transmission Needs and the list In-Kind Replacement Facility Needs provided pursuant to Tariff, Attachment M-5. The Office of the Interconnection will then evaluate the In-Kind Replacement Facility Needs against the Long-Term Transmission Needs identified in accordance with section 1.6.3 to evaluate whether any Long-Term Transmission Need can be addressed through Right-Sized Replacement Facilities. The Office of the Interconnection will then identify for the Transmission Expansion Advisory Committee any identified Right-Sized Replacement Facilities and explain its conclusions.

(b) A Transmission Owner that is the owner of the existing asset that has been identified and selected to be a Right-Sized Replacement Facility shall be designated to construct and own or

finance any facilities identified and selected as a Right-Sized Replacement Facility.

1.8 Development of Long-Term Transmission Projects to Address Identified Long-Term Transmission Needs.

(a) **Pre-Qualification Process.** All entities desiring to submit proposals of Long-Term Transmission Projects to address any posted Long-Term Transmission Need must pre-qualify as eligible to be a Designated Entity in accordance with the terms and conditions set forth in Operating Agreement, Schedule 6, section 1.5.8(a).

(b) **Posting of Long-Term Transmission Needs.** Following identification of Long-Term Transmission Needs in the Long-Term Regional Transmission Plan studies described in this Operating Agreement, Schedule 6D and the PJM Manuals, and after consideration of identified Long-Term Transmission Needs which can be addressed by a Right-Sized Replacement Facility pursuant to Operating Agreement, Schedule 6D, section 1.7, and as part of opening the proposal window, the Office of the Interconnection shall post on the PJM website all Long-Term Transmission Need information, including the studies for each Long-Term Scenario, a recommended set of Long-Term Needs to be addressed classified into Core LT Needs and Additional LT Needs, the system conditions considered, and policy requirements, including federal, state, tribal, and local policy objectives. For each Long-Term Transmission Need that may be addressed through right-sizing an In-Kind Replacement Facility pursuant to Operating Agreement, Schedule 6D, section 1.7, the Office of the Interconnection will post for informational purposes the Long-Term Transmission Need, the relevant In-Kind Replacement Facility, the identified Right-Sized Replacement Facility, and any incidental system impacts caused by the Right-Sized Replacement Facility that would need to be addressed. The Office of the Interconnection also shall post an explanation regarding why certain Long-Term Transmission Needs were identified but were not to be addressed through proposals for further evaluation.

(c) **Project Proposal Windows.** The Office of the Interconnection shall provide notice to stakeholders of a 120 to 180-day proposal window for all posted Long-Term Transmission Needs. The Office of the Interconnection may shorten or lengthen a proposal window that is not yet opened based on, among other things: (1) complexity of the violations or system conditions and the anticipated lead-times associated with the proposals; and (2) whether there is sufficient time remaining in the relevant planning cycle to accommodate a standard proposal window and timely address the violation or system condition. In the event that the Office of the Interconnection determines to lengthen or shorten a proposal window, it will post on the PJM website the new proposal window period and an explanation as to the reasons for the change. The Office of the Interconnection may lengthen a proposal window that already is opened based on one or more of the following criteria: (i) material changes in assumptions or conditions relating to the underlying drivers for a Long-Term Transmission Need; (ii) availability of new or changed information regarding the nature of the violations and the facilities involved; and (iii) time remaining in the relevant proposal window at the time of communicating the change. During these windows, the Office of the Interconnection will accept proposals from existing

Transmission Owners and Nonincumbent Developers for potential transmission enhancements to address the posted Long-Term Transmission Needs.

(c)(1) All proposals submitted in the proposal windows must, in accordance with the PJM Manuals, contain: (i) the name and address of the proposing entity; (ii) a statement whether the entity intends to be the Designated Entity for the proposed project; (iii) the location of proposed project, including source and sink, if applicable; (iv) relevant engineering studies, and other relevant information as described in the PJM Manuals pertaining to the proposed project; (v) to the extent any component of the proposal would operate at voltages less than 200 kV, a justification supporting the inclusion of such component(s) as necessary to address the Long-Term Transmission Need; (vi) the projected in-service date supported by, at least, a proposed initial construction schedule including projected dates on which needed permits are required to be obtained in order to meet the projected in-service date; (vi) cost estimates and analyses that provide sufficient detail for the Office of Interconnection to review and analyze the proposed cost of the project (in present day dollars); and (vii) a \$10,000 non-refundable deposit must be included with each project proposal submitted by a proposing entity that indicates an intention to be the Designated Entity.

(c)(2) In addition, each proposal must detail how the project sponsor considered the following alternative transmission technologies in addressing the Long-Term Transmission Need(s) to be addressed by the proposal: (i) dynamic line ratings; (ii) advanced power flow control devices; (3) advanced conductors; and (iv) transmission switching. To the extent such an alternative transmission technology is not part of the proposal, the proposal must provide a sufficiently detailed justification explaining why the alternative transmission technology is not part of the proposal. Such consideration and justification should be consistent with the best practices related to alternative transmission technologies set forth in the PJM Manuals and technical reference guides posted by the Office of the Interconnection.

(c)(3)(i) In addition, any proposing entity indicating its intention to be the Designated Entity will be responsible for and must pay all actual costs incurred by the Office of the Interconnection to evaluate the submitted project proposal. To the extent the Office of the Interconnection incurs costs to evaluate multiple submitted project proposals where such costs are not severable by individual project proposal, the Office of the Interconnection shall invoice equal shares of the non-severable costs among the project proposals that cause such non-severable costs to be incurred. Notwithstanding this method of invoicing non-severable costs, non-severable costs will be jointly and severally owed by the proposing entities that cause such costs to be incurred.

(c)(3)(ii) All non-refundable deposits will be credited towards the actual costs incurred by the Office of the Interconnection as a result of the evaluation of a submitted project proposal.

(c)(3)(iii) Following the close of a proposal window but before the Office of the Interconnection incurs any third-party consultant work costs to evaluate a submitted project proposal, the Office of the Interconnection will issue to the proposing entity an initial invoice seeking payment of estimated costs to evaluate each submitted project proposal. The estimated costs will be determined by considering the: potential cost of consultant work, historical

estimates for project proposals of similar scope, complexity and nature of the need, and/or technology and nature of the project proposal. The Office of the Interconnection may issue additional invoices to the proposing entity prior to the completion of the evaluation activities associated with a project proposal if the Office of the Interconnection receives updated actual cost information and/or upon consideration of the factors specified in this section.

(c)(3)(iv) At the completion of the evaluation activities associated with a project proposal, the Office of the Interconnection will reconcile the actual costs with monies paid and, to the extent necessary, issue either a final invoice or refund.

(c)(3)(v) The proposing party must pay any invoiced costs within fifteen (15) calendar days of the Office of the Interconnection sending the invoice to the proposing entity or its agent. For good cause shown, this fifteen (15) calendar day time period may be extended by the Office of the Interconnection. If the proposing entity fails to pay any invoice within the time period specified and/or extended by the Office of the Interconnection in accordance with this section, the proposing entity's pre-qualification status may be suspended and the proposing entity will be ineligible to be a Designated Entity for any projects that do not yet have an executed Designated Entity Agreement. Such a suspension and/or ineligibility will remain in place until the proposing entity pays in full all outstanding monies owed to the Office of the Interconnection as a result of the evaluation of the proposing entity's project proposal(s).

(c)(4) Proposals from all entities (both existing Transmission Owners and Nonincumbent Developers) that indicate the entity intends to be a Designated Entity, also must contain information to the extent not previously provided pursuant to section 1.8(a) demonstrating: (i) technical and engineering qualifications of the entity, its affiliate, partner, or parent company relevant to construction, operation, and maintenance of the proposed project; (ii) experience of the entity, its affiliate, partner, or parent company in developing, constructing, maintaining, and operating the type of transmission facilities contained in the project proposal; (iii) evidence of transmission facilities the entity, its affiliate, partner, or parent company previously constructed, maintained, or operated; (iv) the ability of the entity or its affiliate, partner, or parent company to obtain adequate financing relative to the proposed project, which may include a letter of intent from a financial institution approved by the Office of the Interconnection or such other evidence of the financial resources available to finance the construction, operation, and maintenance of the proposed project; (v) the managerial ability of the entity, its affiliate, partner, or parent company to contain costs and adhere to construction schedules for the proposed project, including a description of verifiable past achievement of these goals; (vi) a demonstration of other advantages the entity may have to construct, operate, and maintain the proposed project, including any binding cost commitment proposal the entity may wish to submit; and (vii) any other information that may assist the Office of the Interconnection in evaluating the proposed project. To the extent that an entity submits a cost commitment proposal the entity shall submit sufficient information for the Office of Interconnection to determine the binding nature of the proposal with respect to critical elements of project development. The Office of the Interconnection may not alter the requirements for proposal submission to require the submission of a binding cost commitment proposal, in whole or in part, or otherwise mandate or unilaterally alter the terms of any such proposal or the

requirements for proposal submission, the submission of any such proposals at all times remaining voluntary.

(c)(5) The Office of the Interconnection may request additional reports or information from an existing Transmission Owner or Nonincumbent Developers that it determines are reasonably necessary to evaluate its specific project proposal pursuant to the criteria set forth in sections 1.9, 1.10, 1.11, and 1.15. If the Office of the Interconnection determines any of the information provided in a proposal is deficient, including the information required by section 1.8(c)(2) regarding alternative transmission technologies, or it requires additional reports or information to analyze the submitted proposal, the Office of the Interconnection shall notify the proposing entity of such deficiency or request. Within 10 Business Days of receipt of the notification of deficiency and/or request for additional reports or information, or other reasonable time period as determined by the Office of the Interconnection, the proposing entity shall provide the necessary information.

(c)(6) The request for additional reports or information by the Office of the Interconnection pursuant to section 1.8(c)(5) may be used only to clarify a proposed project as submitted. In response to the Office of the Information's request for additional reports or information, the proposing entity (whether an existing Transmission Owner or Nonincumbent Developer) may not submit a new project proposal or modifications to a proposed project once the proposal window is closed. In the event that the proposing entity fails to timely cure the deficiency or provide the requested reports or information regarding a proposed project, the proposed project will not be considered for inclusion in the recommended Long-Term Regional Transmission Plan.

(c)(7)(i) The Office of the Interconnection may work with one or more project sponsors to modify submitted proposals so as to adjust the submitted proposed projects to best address the posted Long-Term Transmission Needs in a more efficient or cost-effective manner.

(c)(7)(ii) The Office of the Interconnection shall consult with the Transmission Owner listing an In-Kind Replacement Facility Need to review and/or consider modifying an identified Right-Sized Replacement Facility. To the extent the Office of the Interconnection, through its review of proposals, determines that there may be an additional opportunity for right-sizing of an In-Kind Replacement Facility Need to address a posted Long-Term Transmission Need, the Office of the Interconnection shall consult with the Transmission Owner listing such In-Kind Replacement Facility Need regarding identification of an additional Right-Sized Replacement Facility. As part of consultations under this section regarding a Right-Sized Replacement Facility, the Transmission Owner shall provide the Office of the Interconnection with estimated cost of an anticipated replacement facility that would otherwise address the associated In-Kind Replacement Need absent the Right-Sized Replacement Facility.

(c)(8) Within 60 days of the closing of the proposal window, the Office of the Interconnection may notify the proposing entity that additional per project fees are required if the Office of the Interconnection determines the proposing entity's submittal includes multiple project proposals or components. Within 15 Business Days of receipt of the notification of insufficient funds by the Office of the Interconnection, the proposing entity shall submit such

funds or notify the Office of the Interconnection which of the project proposals the Office of the Interconnection should evaluate based on the fee(s) submitted.

(d) **Posting and Review of Proposals.** Following the close of a proposal window, the Office of the Interconnection shall post on the PJM website all proposals submitted pursuant to section 1.8(c). The Office of the Interconnection shall review and evaluate all proposals submitted during a proposal window, including the justification for the inclusion or exclusion of alternative transmission technologies based on the information submitted in accordance with Operating Agreement, Schedule 6D, section 1.8(c)(2). In accordance with sections 1.9, 1.10, and 1.11 below, the Office of the Interconnection shall evaluate each proposal and identify those proposals identified for inclusion in the Core Plan and the All-in-One Plan. Proposals that were not identified for inclusion in the All-in-One Plan shall be separately identified and eligible for Voluntary Funding Opportunities, where the Office of the Interconnection deems appropriate, in accordance with section 1.14.

1.9 Evaluation of Proposals to Address Posted Long-Term Transmission Needs.

(a) The Office of the Interconnection may evaluate proposals individually or in conjunction with other proposals, including any identified Right-Sized Replacement Facilities, to determine a reasonable means for addressing the identified Long-Term Transmission Needs. In determining whether a proposal submitted pursuant to section 1.8(c), individually or in combination with other proposals, is the more efficient or cost-effective solution and therefore should be included in the recommended Long-Term Regional Transmission Plan, the Office of the Interconnection, based on its engineering judgment and taking into account sensitivity studies and scenario analyses considered pursuant to section 1.6, shall consider, at a minimum, the following criteria and as further described in the PJM Manuals, to the extent applicable: (i) the extent to which the proposal would address and solve the posted Long-Term Transmission Need and not create or exacerbate other Long-Term Transmission Needs, including the proposal's expected in-service date relative to the requested in-service date; (ii) the extent to which the proposal would have secondary benefits, such as addressing additional or other system reliability, operational performance, or economic efficiency needs; (iii) the ability to timely complete the project and project development feasibility; (iv) the robustness of the proposal, including the expandability of the proposed transmission facility(ies); (v) constructability, including the maximization of existing rights-of-way; (vi) the benefits, as determined in part in accordance with section 1.9(b), including the maximization of benefits other things equal; (vii) costs, including costs and other impacts to landowners; and (viii) other factors such as cost-effectiveness, including the quality and effectiveness of any voluntarily-submitted binding cost commitment proposal related to Transmission Facilities which caps project construction costs (either in whole or in part), project total return on equity (including incentive adders), or capital structure. The Office of the Interconnection shall use its engineering judgment in evaluating the proposals. In scrutinizing the cost of project proposals, the Office of Interconnection shall determine for each proposal, the comparative risks to be borne by ratepayers as a result of the proposal's binding cost commitment or the use of non-binding cost estimates. Such comparative analysis shall summarize, in a clear and transparent manner, the rationale by which the Office of Interconnection scrutinized the cost and overall cost-effectiveness of each finalist's proposal, including any binding cost commitments. Such comparative analysis shall be presented to the

Transmission Expansion Advisory Committee for review and comment. In evaluating any cost, return on equity and/or capital structure proposal, the Office of the Interconnection is not making a determination that the cost, return on equity or capital structure results in just and reasonable rates, which shall be addressed in the required rate filing with the Commission. Stakeholders seeking to dispute a particular return on equity analysis utilized in the evaluation process may address such disputes with the Designated Entity in the applicable rate proceeding where the Designated Entity seeks approval of such rates from the Commission. The Office of the Interconnection may modify the technical specifications of a proposal, in accordance with the PJM Manuals and in consultation with the proposing entity, which may result in the modified proposal being determined to be the more efficient or cost-effective proposal for recommendation to the PJM Board.

(b) For each proposal submitted pursuant to section 1.8(c), the Office of the Interconnection will evaluate, at a minimum, the following benefits associated with installation of the proposal over a 20-year planning horizon starting from the estimated in-service date of the Long-Term Transmission Project: (i) the avoidance or deferral of any transmission facilities and/or replacement of aging transmission infrastructure, including cost savings associated with accelerating the development of a Long-Term Transmission Project start date in lieu of implementing a Short-Term Project or replacement facility; (ii) reduction in loss of load probability or planning reserve margin; (iii) production cost savings; (iv) reduction in transmission energy losses; (v) any reduction in transmission congestion resulting from transmission outages; (vi) mitigation of extreme weather events and unexpected system conditions; (vii) capacity cost benefits from reduced peak energy losses or the corresponding reduced loss of load benefit; and (viii) any other financially quantifiable benefit to customers resulting from a Long-Term Transmission Project. The Office of the Interconnection, in accordance with the PJM Manuals, may measure the foregoing benefits through a production cost simulation model, accounting for both normal operating conditions and extreme weather events, except with respect to the benefit in section (b)(i) which may be measured on an avoided cost basis.

1.10 Criteria for Considering Inclusion of a Project in the Core Plan.

(a) After the close of the competitive window described in section 1.8, the Office of the Interconnection, based on its evaluation of proposals in accordance with section 1.9 and in accordance with the PJM Manuals and its engineering judgment, shall develop a Core Plan addressing the posted Core LT Needs, such that the Core Plan, when considered as a portfolio of Long-Term Transmission Projects, shall address identified Core Needs while meeting a Core Plan Benefit-to-Cost Ratio of not less than 1:1.

(1) The Core Plan Benefit-to-Cost Ratio shall be equal to the quotient of [the sum of all benefits of all Long-Term Transmission Projects included in the Core Plan] divided by [the sum of all costs of all Long-Term Transmission Projects included in the Core Plan], where benefits will be the present value of all benefits determined in accordance with sections 1.9(b) provided by all Long-Term Transmission Projects included in the Core Plan for the first 20 years' of the

project's life, and costs will be the present value of all costs determined in accordance with section 1.9(a) for the first 20 years' of the project's life.

(2) For any Core LT Need that would not be addressed by proposal that could address a posted Core LT Need but was not identified for inclusion in the Core Plan, the Office of the Interconnection shall provide an explanation why such proposal was not identified for inclusion.

(b) To the extent the Core Plan does not include a Long-Term Transmission Project addressing a posted Core LT Need, the Office of the Interconnection may identify a proposal to address such need outside the Core Plan for inclusion in the recommended Long-Term Regional Transmission Plan or, as may be reasonably necessary, refer the proposed solution and underlying need to the Regional Transmission Expansion Plan process in Operating Agreement, Schedule 6.

(c) If the Office of the Interconnection determines that none of the proposed Long-Term Transmission Projects received during a proposal window would sufficiently address a posted Core LT Need that the Office of the Interconnection determines should be addressed, the Office of the Interconnection may propose a Long-Term Transmission Project to solve the posted Core LT Need for inclusion in the recommended Long-Term Regional Transmission Plan and will present such Long-Term Transmission Project to the Transmission Expansion Advisory Committee for review and comment. If the Office of the Interconnection proposes a specific project to address such need, the Transmission Owner(s) in the Zone(s) where the Long-Term Transmission Project is to be located shall be the Designated Entity(ies) for the Project. Alternatively, the Office of the Interconnection may open a 30-day (or longer) window, in accordance with the PJM Manuals, to solicit proposals to address such need. In such event, the Office of the Interconnection shall present to the Transmission Expansion Advisory Committee the results of such window, including any Long-Term Transmission Project identified by the Office of the Interconnection as the more efficient or cost effective solution.

(d) In evaluating proposals to address a Core LT Need, to the extent the Office of the Interconnection determines that the more efficient or cost effective solution to address such need may be a Short-Term Project either proposed pursuant to section 1.8 above or developed through the Regional Transmission Expansion Plan Protocol in Operating Agreement, Schedule 6, the Office of the Interconnection may address such Core LT Need through the Regional Transmission Expansion Plan process in Operating Agreement, Schedule 6.

1.11 Criteria for Considering Inclusion of a Project in the All-in-One Plan.

(a) After the close of the competitive window described in section 1.8, the Office of the Interconnection, based on its evaluation of proposals in accordance with section 1.9 and in accordance with the PJM Manuals and its engineering judgment, shall develop an All-in-One Plan that addresses the posted Core LT Needs plus those Additional LT Needs holistically in accordance with the criteria in this section. Any Long-Term Transmission Project (or portion thereof) included in the All-in-One Plan to address Additional LT Needs, in whole or in part, shall have an All-in-One Incremental Plan Benefit-to-Cost Ratio of no less than 1.25:1. To the extent no Additional LT Need may be addressed in whole or in part through a proposal submitted

pursuant to section 1.8 for failure to meet the All-in-One Plan Incremental Benefit-to-Cost Ratio, the All-in-One Plan will be identical to the Core Plan.

(1) The All-in-One Plan Incremental Benefit-to-Cost Ratio shall equal the quotient of [the sum of all the incremental benefits of the Long-Term Transmission Project's facilities associated with addressing Additional LT Need(s) as compared to the benefits of such Long-Term Transmission Project's facilities associated with addressing Core LT Need(s)] divided by [the sum of all the incremental costs of the Long-Term Transmission Project's facilities associated with addressing Additional LT Need(s) as compared to the costs of such Long-Term Transmission Project's facilities associated with addressing Core LT Need(s)], where benefits will be the present value of all benefits determined in accordance with section 1.9(b) determined for at least the first 20 years' of the Long-Term Transmission Project's life, and costs will be the present value of the costs determined in accordance with section 1.9(a) determined for the timeframe as the benefits.

(2) For any proposal that could address a posted Additional LT Need but was not identified for inclusion in the initial All-in-One Plan, the Office of the Interconnection shall provide an explanation why such proposal was not identified.

(b) To the extent the All-in-One Plan does not include a Long-Term Transmission Project addressing a posted Additional LT Need, such proposal may be deemed eligible by the Office of the Interconnection for Voluntary Funding in accordance with section 1.14, and upon a demonstration of willingness to fund the project made in accordance with section 1.14 and subsequent review by the Office of the Interconnection, the Long-Term Transmission Project would be eligible for inclusion in the recommended Long-Term Regional Transmission Plan.

(c) If none of the proposed Long-Term Transmission Projects received during a proposal window would sufficiently address a posted Additional LT Need, the Office of the Interconnection may propose a Long-Term Transmission Project to solve the posted Additional LT Need for inclusion in the recommended Long-Term Regional Transmission Plan and will present such Long-Term Transmission Project to the Transmission Expansion Advisory Committee for review and comment. If the Office of the Interconnection proposes a specific project to address such need, the Transmission Owner(s) in the Zone(s) where the Long-Term Transmission Project is to be located shall be the Designated Entity(ies) for the Project. Alternatively, the Office of the Interconnection may open a 30-day (or longer) window, in accordance with the PJM Manuals, to solicit proposals to address such need. In such event, the Office of the Interconnection shall present to the Transmission Expansion Advisory Committee the results of such window, including any Long-Term Transmission Project identified by the Office of the Interconnection as the more efficient or cost effective solution. The project(s) identified shall meet the All-in-One Incremental Plan Benefit-to-Cost Ratio.

1.12 Posting and Review of the Core Plan and the All-in-One Plan

(a) The Office of the Interconnection shall post on the PJM website and present to both the PJM Area Relevant State Entities Committee and the Transmission Expansion Advisory Committee for review and comment the Core Plan and the All-in-One Plan and any proposals that would

address Long-Term Transmission Needs not identified for inclusion in the Core Plan and/or All-in-One Plan. Such posting shall occur within three years of the commencement of the Long-Term Reliability Transmission Plan study process, as provided in section 1.4.1.

(b) Prior to posting the Core Plan and the All-in-One Plan in accordance with section 1.12(a), the Office of the Interconnection shall preliminarily evaluate, considering the criteria in section 1.9, each Long-Term Transmission Project identified in the Core Plan and/or All-in-One Plan to determine whether selection would be timely and appropriate of any such project in the recommended Long-Term Regional Transmission Plan. In such evaluation for preliminary selection, the Office of the Interconnection shall consider each Long-Term Transmission Project's development and implementation timeline, with particular consideration of whether such timeline must commence prior to the completion of the next Long-Term Regional Transmission Plan cycle. As part of the information posted in accordance with section 1.12(a), the Office of the Interconnection shall identify whether each Long-Term Transmission Project included in the Core Plan and/or All-in-One Plan has been preliminarily selected for inclusion in the recommended Long-Term Regional Transmission Plan.

(c) Based on review and comment by both the PJM Area Relevant State Entities Committee and the Transmission Expansion Advisory Committee, the Office of the Interconnection may, if it deems necessary, conduct further study and evaluation. The Office of the Interconnection shall post on the PJM website and present to both the PJM Area Relevant State Entities Committee and the Transmission Expansion Advisory Committee any revised Core Plan and the All-in-One Plan for review and comment. After consultation with both the PJM Area Relevant State Entities Committee and the Transmission Expansion Advisory Committee, the Office of the Interconnection shall determine the final Core Plan or the All-in-One Plan, if any, for determining the recommended Long-Term Regional Transmission Plan consistent with this Operating Agreement, Schedule 6D.

1.13 State Opt-Out from Cost Responsibility for Long-Term Transmission Project(s) Addressing Additional LT Needs.

[To be added as cost allocation approach is finalized.]

1.14 Voluntary Funding.

(a)(1) State governmental entities authorized by their respective states, individually or jointly, may agree voluntarily to be responsible for the costs of a proposed Long-Term Transmission Project that has not been preliminarily selected for inclusion in the recommended Long-Term Regional Transmission Plan in accordance with section 1.12(b). The Office of the Interconnection retains discretion to determine whether inclusion of such Long-Term Transmission Project in the recommended Long-Term Regional Transmission Plan is reasonable and appropriate given the expected interaction of such project with the Regional Transmission Expansion Plan and the rest of the recommended Long-Term Regional Transmission Plan. [Language regarding cost allocation is the responsibility of the PJM Transmission Owners.]

(a)(2) Subject to any designation reserved for Transmission Owners in the Operating Agreement, Schedule 6D, section 1.15.2(c), the state(s) responsible for the costs of a state-identified Long-Term Transmission Project in accordance with section 1.14(a)(1) may submit to the Office of the Interconnection the entity(ies) to construct, own, operate and maintain the state-identified Long-Term Transmission Project from a list of entities supplied by the Office of the Interconnection that pre-qualified to be Designated Entities pursuant to section 1.8(a).

(b)(1) Long-Term Transmission Developer(s) may agree voluntarily to be responsible for the costs of a proposed Long-Term Transmission Project that has not been preliminarily selected for inclusion in the recommended Long-Term Regional Transmission Plan in accordance with section 1.12(b). The Office of the Interconnection retains discretion to determine whether inclusion of such Long-Term Transmission Project in the recommended Long-Term Regional Transmission Plan is reasonable and appropriate given the expected interaction of such project with the Regional Transmission Expansion Plan and the rest of the recommended Long-Term Regional Transmission Plan. [Language regarding cost allocation is the responsibility of the PJM Transmission Owners.]

(b)(2) Subject to any designation reserved for Transmission Owners in the Operating Agreement, Schedule 6D, section 1.15.2(c), the Long-Term Transmission Developer(s) responsible for the costs of a Long-Term Transmission Project in accordance with the Operating Agreement, Schedule 6, section 1.14(b)(1) may submit to the Office of the Interconnection the entity(ies) to construct, own, operate and maintain the identified Long-Term Transmission Project from a list of entities supplied by the Office of the Interconnection that pre-qualified to be Designated Entities pursuant to section 1.8(a).

(c)(1) State governmental entities and Long-Term Transmission Developer(s) may jointly agree voluntarily to be responsible for costs of a proposed Long-Term Transmission Project that has not been preliminarily selected for inclusion in the recommended Long-Term Regional Transmission Plan in accordance with section 1.12(b). The Office of the Interconnection retains discretion to determine whether inclusion of such Long-Term Transmission Project in the recommended Long-Term Regional Transmission Plan is reasonable and appropriate given the expected interaction of such project with the Regional Transmission Expansion Plan and the rest of the recommended Long-Term Regional Transmission Plan. [Language regarding cost allocation is the responsibility of the PJM Transmission Owners.]

(c)(2) Subject to any designation reserved for Transmission Owners in the Operating Agreement, Schedule 6D, section 1.15.2(c), the entities responsible for the costs of a Long-Term Transmission Project in accordance with the Operating Agreement, Schedule 6, section 1.14(c)(1) may submit to the Office of the Interconnection the entity(ies) to construct, own, operate and maintain the identified Long-Term Transmission Project from a list of entities supplied by the Office of the Interconnection that pre-qualified to be Designated Entities pursuant to section 1.8(a).

(d) Within 90 days from the Office of the Interconnection posting for review the Core Plan and the All-in-One Plan in accordance with Operating Agreement, Schedule 6D, section 1.12, each Voluntary Funding Entity agreeing to be responsible for the costs of a Long-Term

Transmission Project pursuant to this section 1.14 shall notify the Office of the Interconnection those Long-Term Transmission Projects that the Voluntary Funding Entity commits, in whole or in part, to be responsible for the costs and submit to the Office of the Interconnection, in accordance with the PJM Manuals, a certification of such cost responsibility commitment.

(e) Within 30 days of submitting the written notice in section 1.14(d), the Voluntary Funding Entity must execute the *pro forma* Voluntary Funding Agreement, or request the submission of an unexecuted Voluntary Funding Agreement with the Commission no later than 15 days of submitting such notice. For good cause, the Office of the Interconnection may extend the deadline for providing an executed *pro forma* Voluntary Funding Agreement. The *pro forma* Voluntary Funding Agreement shall be posted on PJM website. The Voluntary Funding Agreement establishes the terms and conditions pursuant to which the Voluntary Funding Entity agrees to be responsible for the cost of the selected Long-Term Transmission Project(s) and shall be executed by an authorized officer or equivalent official with the authority to bind its organization or state. Any request to file the Voluntary Funding Agreement unexecuted shall be filed with the Commission together with an explanation of any matters to which the Voluntary Funding Entity and the Office of the Interconnection disagree no later than 30 days after receiving such request from the Voluntary Funding Entity. An unexecuted Voluntary Funding Agreement should contain terms and conditions deemed appropriate by the Office of the Interconnection for the Long-Term Transmission Project(s) at issue. As a condition of directing the Office of the Interconnection to submit an unexecuted Voluntary Funding Agreement to the Commission, the Voluntary Funding Entity agrees to be bound by any final Commission decision, meaning the Commission decision is no longer subject to judicial review, or the decision of any court of competent jurisdiction.

1.15 Identification of the Designated Entity for a Long-Term Transmission Project.

1.15.1 Entity-Specific Criteria Considered in Determining the Designated Entity for a Long-Term Transmission Project.

(a) In determining whether the entity proposing a Long-Term Transmission Project recommended for inclusion in the plan shall be the Designated Entity, the Office of the Interconnection shall consider: (i) whether in its proposal, the entity indicated its intent to be the Designated Entity; (ii) whether the entity is pre-qualified to be a Designated Entity pursuant to Operating Agreement, Schedule 6D, section 1.8(a); (iii) information provided either in the proposing entity's submission pursuant to the Operating Agreement, Schedule 6D, section 1.8(a) or 1.8(c)(4) relative to the specific proposed project that demonstrates: (1) the technical and engineering experience of the entity or its affiliate, partner, or parent company, including its previous record regarding construction, maintenance, and operation of transmission facilities relative to the project proposed; (2) ability of the entity or its affiliate, partner, or parent company to construct, maintain, and operate transmission facilities, as proposed, (3) capability of the entity to adhere to standardized construction, maintenance, and operating practices, including the capability for emergency response and restoration of damaged equipment; (4) experience of the entity in acquiring rights of way; and (iv) any other factors that may be relevant to the proposed

project, including but not limited to whether the proposal includes the entity's previously selected project(s) included in the plan.

1.15.2 Designated Entity.

(a) **Notification of Designated Entity.** Within 15 Business Days of PJM Board approval of the Long-Term Regional Transmission Plan, the Office of the Interconnection shall notify the entities that have been designated as the Designated Entities for projects included in the Long-Term Regional Transmission Plan of such designations. In such notices, the Office of the Interconnection shall provide: (i) the needed in-service date of the project; and (ii) a date by which all necessary state approvals should be obtained to timely meet the needed in-service date of the project. The Office of the Interconnection shall use these dates as part of its on-going monitoring of the progress of the project to ensure that the project is completed by its needed in-service date.

(b) **Acceptance of Designation.** Within 30 days of receiving notification of its designation as a Designated Entity, the existing Transmission Owner or Nonincumbent Developer shall notify the Office of the Interconnection of its acceptance of such designation and submit to the Office of the Interconnection a development schedule, which shall include, but not be limited to, milestones necessary to develop and construct the project to achieve the required in-service date, including milestone dates for obtaining all necessary authorizations and approvals, including but not limited to, state approvals. For good cause, the Office of the Interconnection may extend the deadline for submitting the development schedule. The Office of the Interconnection then shall review the development schedule and within 15 days or other reasonable time as required by the Office of the Interconnection: (i) notify the Designated Entity of any issues regarding the development schedule identified by the Office of the Interconnection that may need to be addressed to ensure that the project meets its needed in-service date; and (ii) tender to the Designated Entity an executable Designated Entity Agreement setting forth the rights and obligations of the parties. To retain its status as a Designated Entity, within 60 days of receiving an executable Designated Entity Agreement (or other such period as mutually agreed upon by the Office of the Interconnection and the Designated Entity), the Designated Entity (both existing Transmission Owners and Nonincumbent Developers) shall submit to the Office of the Interconnection a form of security as necessary and in accordance with the terms of the Designated Entity Agreement, to cover the incremental costs of construction resulting from reassignment of the project, and return to the Office of the Interconnection an executed Designated Entity Agreement containing a mutually agreed upon development schedule. *[PJM is evaluating possible adjustments to the Designated Entity Agreement security/credit provision in recognition of the long-lead time, the cost of Long-Term Transmission Projects, and the significant costs to load associated with maintaining posted security over the long development/construction timelines of such projects.]* In the alternative, the Designated Entity may request dispute resolution pursuant to the Operating Agreement, Schedule 5, or request that the Designated Entity Agreement be filed unexecuted with the Commission. Challenges to the Designated Entity Agreements are subject to the FPA's just and reasonable standard.

(c) **Transmission Owners Required to be the Designated Entity.** Notwithstanding anything to the contrary in this Operating Agreement, Schedule 6D, in all events, the Transmission Owner(s) in whose Zone(s) a project (or a discrete component of a project) proposed pursuant to the Operating Agreement, Schedule 6D, section 1.5.8(c) is to be located will be the Designated Entity for the project (or a discrete component of the project), when the Long-Term Transmission Project or project component is: (i) a Transmission Owner Upgrade; (ii) located solely within a Transmission Owner's Zone and the costs of the project are allocated solely to the Transmission Owner's Zone; (iii) located solely within a Transmission Owner's Zone and is not selected in the Regional Transmission Expansion Plan for purposes of cost allocation; or (iv) proposed to be located on a Transmission Owner's existing right of way and the project would alter the Transmission Owner's use and control of its existing right of way under state law. Transmission Owner shall be the Designated Entity when required by state law, regulation or administrative agency order with regard to Long-Term Transmission Projects or portions of such Long-Term Transmission Projects located within that state.

1.16 Development of the Recommended Long-Term Regional Transmission Plan.

(a) The Office of the Interconnection shall be responsible for the development of the Long-Term Regional Transmission Plan. Following the development of the Core Plan and the All-in-One Plan and subject to the outcome(s) of the State Opt-out mechanism in section 1.13 and any Voluntary Funding Agreements, the Office of the Interconnection shall develop a recommended Long-Term Regional Transmission Plan for incorporation into the Regional Transmission Expansion Plan and approval by the PJM Board. Prior to presenting any recommended Long-Term Regional Transmission Plan to the PJM Board, the Office of the Interconnection shall consult with the Transmission Expansion Advisory Committee on such recommended plan.

(b) To develop such recommended plan, the Office of the Interconnection may re-assess the All-in-One Plan consistent with (1) the outcome of the State Opt-out mechanism in section 1.13; (2) any Voluntary Funding Agreements to arrive at the more efficient or cost effective set of solutions; and (3) any Long-Term Transmission Project addressing a posted Core LT Need that is not otherwise addressed in the All-in-One Plan. Then, the Office of the Interconnection shall evaluate, considering the criteria in section 1.9, each Long-Term Transmission Project identified in the re-assessed All-in-One Plan to determine whether selection would be timely and appropriate for recommendation of any such Long-Term Transmission Projects for inclusion in the recommended Long-Term Regional Transmission Plan. In such evaluation, the Office of the Interconnection shall consider each Long-Term Transmission Project's development and implementation timeline, with particular consideration of whether such timeline must commence prior to the completion of the next Long-Term Regional Transmission Plan cycle.

(c) The recommended Long-Term Regional Transmission Plan shall be based on (1) all Long-Term Transmission Projects in the All-in-One Plan selected in accordance with section 1.16(b); (2) all Long-Term Transmission Projects supported by a Voluntary Funding Agreement pursuant to section 1.14(e); and (3) any Long-Term Transmission Project addressing a posted Core LT Need that is not otherwise addressed in the All-in-One Plan.

(c) The recommended Long-Term Regional Transmission Plan shall identify the Transmission Owner and/or Designated Entity to construct, own and, unless otherwise provided, finance each recommended Long-Term Transmission Project.

(d) The recommended Long-Term Regional Transmission Plan shall identify, for each recommended Long-Term Transmission Project, the cost allocations consistent with [Tariff, Schedule 12].

1.17 Approval of the recommended Long-Term Regional Transmission Plan.

(a) Based on the studies and analyses performed by the Office of the Interconnection under Operating Agreement, Schedule 6D, the PJM Board shall approve the recommended Long-Term Regional Transmission Plan as part of the Regional Transmission Expansion Plan; provided, however, that such approval shall be conditional as to Long-Term Transmission Projects supported by Voluntary Funding Agreements for which the FERC has not accepted a cost allocation methodology. The PJM Board shall approve the cost allocations for transmission enhancements and expansions consistent with [Tariff, Schedule 12].

(b) The Office of the Interconnection shall publish the current, approved Long-Term Regional Transmission Plan on the PJM website. Within 60 days after each occasion when the PJM Board approves a Long-Term Regional Transmission Plan, or an addition to such a plan, that designates one or more Transmission Owner(s) or Designated Entity(ies) to construct a Long-Term Transmission Project (in whole or in part), the Office of the Interconnection shall file with FERC a report identifying the component of the Long-Term Transmission Project, its estimated cost, the entity or entities that will be responsible for constructing and owning or financing the component, and the cost responsibility assignments for each included Long-Term Transmission Project.

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

1.18 Obligation to Build Long-Term Transmission Projects.

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

Owner as the appropriate entity to construct, own and/or finance such enhancements or expansions.

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

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

1.19 Interregional Expansions

[reserved]

1.20 Relationship to the PJM Open Access Transmission Tariff.

Nothing herein shall modify the rights and obligations of an Eligible Customer or a Transmission Customer with respect to required studies and completion of necessary enhancements or expansions. An Eligible Customer or Transmission Customer electing to follow the procedures in the PJM Tariff instead of the procedures provided herein, shall also be responsible for the related costs. The enhancement and expansion study process under this Protocol shall be funded as a part of the operating budget of the Office of the Interconnection.