

Definition

“Critical Substation Planning Analysis Project” or “CSPA Project” shall be defined to mean a Regional RTEP Project or Subregional RTEP Project identified, developed, and selected by the Office of the Interconnection as the more efficient or cost-effective solution to address potential reliability violations stemming from the contingency loss of critical substations. Such violations are based upon NERC Reliability Standard TPL-001 (referred to as “extreme events”).

1.5.11 Critical Substation Planning Analysis Project Process

(a) The Critical Substation Planning Analysis (“CSPA”) process is designed to allow the Office of the Interconnection to identify, develop and select the more efficient or cost-effective solution to address potential reliability violations stemming from the contingency loss of critical substations; and, if appropriate consistent with Operating Agreement, Schedule 6, section 1.5.11(f), solicit and manage proposals submitted through a competitive request for proposal (“RFP”) process to allow selection of CSPA Projects by the Office of the Interconnection.

(b) The Office of the Interconnection shall conduct its annual CSPA process to identify a potential need to mitigate the impacts of potential loss of a critical substation, such substation shall be defined by analysis that includes, but is not limited to, (i) the loss of load of greater than 1,000 MW; (ii) three voltage levels of facility trips; or (iii) the model failing to converge after the substation outage.

(c) In determining whether to mitigate the impacts as a result of the potential loss of a critical substation, the Office of the Interconnection, in coordination with the potentially affected Transmission Owners and State(s), shall consider the following:

(1) The impact to customers due to the loss of the critical substation, including but not limited to, any plans for recovery from the loss of the substation that could help to restore the load, whether the load can be restored within 72 hours, and the criticality of the load to be recovered;

(2) Whether there exists distribution system-level solutions, or changes in operating procedures, or some combination thereof, to mitigate the impact resulting from the loss of the critical substation;

(3) The feasibility of developing the proposed CSPA Project;

(4) The estimated cost of the proposed CSPA Project.

(5) The affected state(s)’ ability to maintain the confidentiality of the reliability need during siting process.

(d) In determining the need to mitigate the impacts as a result of the potential loss of a critical substation, the Office of the Interconnection, in coordination with the Transmission Owner of the critical substation, shall develop transmission solution(s) that address the identified needs. The Office of the Interconnection shall select the more efficient or cost-effective solution that mitigates

the CSPA violation, including consideration of alternative transmission and non-transmission solution(s). Provided it would not potentially disclose the existence, location, or exact number and vulnerabilities associated with the critical substation contingencies and associated facilities, the Office of the Interconnection shall post on the PJM website the more efficient or cost-effective proposed solution(s) as determined by PJM to mitigate the CSPA violation. Based on review and comment by the Transmission Expansion Advisory Committee, the Office of the Interconnection, may, if necessary, conduct further study and evaluation and re-post on the PJM website and re-present to the Transmission Expansion Advisory Committee any revisions for review and comment before including the selected CSPA Project in the recommended plan submitted to the PJM Board for approval and inclusion in the Regional Transmission Expansion Plan.

(e) The Office of the Interconnection shall include the estimated costs of a CSPA Project as a part of the information: (i) posted on the PJM website and submitted to the Transmission Expansion Advisory Committee; (ii) provided to the PJM Board for approval; and (iii) included in any cost allocation filings required to be submitted to the FERC consistent with the Operating Agreement, Schedule 6, section 1.6(b).

(f) Any CSPA Project selected by the Office of the Interconnection and approved by the PJM Board shall be eligible for inclusion in an RFP proposal window process unless:

(1) The Office of the Interconnection determines that including the proposed CSPA Project in an RFP proposal window process could potentially disclose the existence, location, or exact number and vulnerabilities associated with the critical substation contingencies and associated facilities;

(2) The Office of the Interconnection determines that the proposed CSPA Project would be exempt from a proposal window under Operating Agreement, Schedule 6, sections 1.5.8(m)(1), n or p and will be designated to the incumbent Transmission Owner;
or

(3) The proposed CSPA Project must be designated to the Transmission Owner pursuant to Operating Agreement, Schedule 6, section 1.5.8(l).

(g) For any CSPA Project ineligible for inclusion in an RFP proposal window process pursuant to section 1.5.11(f) above, within 15 Business Days of the PJM Board approval of the CSPA Project, the Office of the Interconnection shall notify the incumbent transmission owner(s) in whose zone the CSPA Project will be located that it has been designated such project. 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.

(h) If, pursuant to Operating Agreement, Schedule 6, section 1.5.11(f), a PJM Board-approved CSPA Project is eligible to be included in an RFP proposal window, the Office of the Interconnection shall provide notice to stakeholders of a 60-day RFP proposal window during which RFP bidders pre-qualified pursuant to Operating Agreement, Schedule 6, section 1.5.8(a) may submit specific proposals to finance, construct, own, operate, and maintain all or a portion of the PJM Board-approved CSPA Project made available through the RFP process. In evaluating whether the project bidder and its RFP proposal(s) meets the qualifications to be further evaluated, the Office of the Interconnection shall take the steps necessary for selecting the approved project bidder(s) according to the PJM Tariff and PJM Manuals for the CSPA planning process.

(i) **CSPA Project RFP Proposal Window** Following PJM Board approval of a CSPA Project, the Office of the Interconnection shall provide notice to stakeholders of a 60-day RFP window. The Office of Interconnection may shorten an RFP proposal window should the need for the CSPA Project require a shorter RFP proposal window to meet the needed in-service date of the CSPA Project, or extend an RFP proposal window as needed to accommodate updated information regarding, but not limited, system conditions. The Office of the Interconnection may shorten or lengthen an RFP proposal window that is not yet opened based on one or more of the following: (1) complexity of the CSPA Project; and (2) whether there is sufficient time remaining in the relevant planning cycle to accommodate a standard RFP proposal window and timely bid the CSPA Project. The Office of the Interconnection may lengthen a proposal window that already is opened based on or more of the following: (i) changes in assumptions or conditions relating to the underlying need for the CSPA Project, such as, but not limited to, load growth or Reliability Pricing Model auction results; (ii) availability of new or changed information regarding the nature of the identified violations driving the selection of the CSPA Project and the facilities involved; and (iii) time remaining in the relevant RFP proposal window. In the event that the Office of the Interconnection determines to lengthen or shorten an RFP proposal window, it will post on the PJM website the new RFP proposal window period and an explanation as to the reasons for the change in the window period. During these RFP proposal windows, the Office of the Interconnection will accept proposals from existing Transmission Owners and Nonincumbent Developers to finance, construct, own, operate and maintain the PJM Board-approved CSPA Project.

(i)(1) All RFP proposals submitted in the RFP proposal windows must contain: (i) the name and address of the RFP bidder; (ii) the location of proposed CSPA Project, including source and sink, if applicable; (iv) relevant engineering studies, and other relevant information as described in the PJM Manuals pertaining to the CSPA Project; (v) a proposed initial construction schedule including projected dates on which needed permits are required to be obtained in order to meet the required in-service date; (vi) cost estimates and analyses that provide sufficient detail for the Office of Interconnection to review and analyze the proposed cost of the project; and (vii) with the exception of project proposals submitted with cost estimates of \$5 million or less, a \$5,000 non-refundable deposit must be included with each project proposal submitted by a RFP bidder that indicates an intention to be the Designated Entity.

(i)(1)(i) In addition, the RFP bidder will be responsible for and must pay all actual costs incurred by the Office of the Interconnection to evaluate the submitted RFP proposal. To the extent the Office of the Interconnection incurs costs to evaluate multiple submitted RFP proposals where such costs are not severable by individual submittals, the Office of the Interconnection shall invoice equal shares of the non-severable costs among the RFP 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 RFP bidders that cause such costs to be incurred.

(i)(1)(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 RFP proposal.

(i)(1)(iii) Following the close of an RFP proposal window but before the Office of the Interconnection incurs any third-party consultant work costs to evaluate a submitted RFP proposal, the Office of the Interconnection will issue to the RFP bidder an initial invoice seeking payment of estimated costs to evaluate each submittal. The estimated costs will be determined by considering the: potential cost of consultant work, historical estimates for RFP proposals of similar scope, complexity and nature of the need, and/or technology and nature of the RFP proposal. The Office of the Interconnection may issue additional invoices to the RFP bidder prior to the completion of the evaluation activities associated with a RFP proposal if the Office of the Interconnection receives updated actual cost information and/or upon consideration of the factors specified in this section.

(i)(1)(iv) At the completion of the evaluation activities associated with a RFP 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.

(i)(1)(v) The RFP bidder must pay any invoiced costs within fifteen (15) calendar days of the Office of the Interconnection sending the invoice to the RFP bidder 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 RFP bidder 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 RFP bidder's pre-qualification status may be suspended and the RFP bidder will be ineligible to be a Designated Entity for any projects for which the Designated Entity has not yet executed a Designated Entity Agreement. Such a suspension and/or ineligibility will remain in place until the RFP bidder pays in full all outstanding monies owed to the Office of the Interconnection as a result of the evaluation of the RFP bidder's proposal(s).

(i)(2) RFP proposals from all bidders (both existing Transmission Owners and Nonincumbent Developers) must contain information to the extent not previously provided pursuant to the Operating Agreement, Schedule 6, section 1.5.8(a) demonstrating: (i) technical and engineering qualifications of the entity, its affiliate,

partner, or parent company relevant to construction, operation, and maintenance of the proposed project; (ii) experience of the entity, its affiliate, partner, or parent company in developing, constructing, maintaining, and operating the type of transmission facilities provided for in the approved CSPA Project; (iii) the emergency response capability of the entity that will be operating and maintaining the CSPA Project; (iv) evidence of transmission facilities the entity, its affiliate, partner, or parent company previously constructed, maintained, or operated; (v) the ability of the entity or its affiliate, partner, or parent company to obtain adequate financing relative to the CSPA Project, which may include a letter of intent from a financial institution approved by the Office of the Interconnection or such other evidence of the financial resources available to finance the construction, operation, and maintenance of the proposed project; (vi) the managerial ability of the entity, its affiliate, partner, or parent company to contain costs and adhere to construction schedules for the CSPA Project, including a description of verifiable past achievement of these goals; (vii) a demonstration of other advantages the entity may have to construct, operate, and maintain the CSPA Project, including any binding cost commitment proposal the entity may wish to submit; and (viii) any other information that may assist the Office of the Interconnection in evaluating the RFP proposal. To the extent that an entity submits a cost containment proposal with its RFP proposal, the entity shall submit sufficient information for the Office of Interconnection to determine the binding nature of the cost commitment with respect to critical elements of project development. The Office of the Interconnection may not alter the requirements for the RFP submission to require the submission of a binding cost containment 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.

(i)(3) The Office of the Interconnection may request additional reports or information from an existing Transmission Owner or Nonincumbent Developers that the Office of the Interconnection determines are reasonably necessary to evaluate the RFP bidder's specific RFP proposal pursuant to the criteria set forth in the Operating Agreement, Schedule 6, sections 1.5.11(k) and 1.5.11(l). If the Office of the Interconnection determines any of the information provided in an RFP proposal is deficient or requires additional reports or information to analyze the submitted proposal, the Office of the Interconnection shall notify the RFP bidder 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 RFP bidder shall provide the necessary information.

(i)(4) The request for additional reports or information by the Office of the Interconnection pursuant to the Operating Agreement, Schedule 6, section 1.5.8(c)(3) may be used only to clarify an RFP proposal as submitted. In response to the Office of the Information's request for additional reports or information, the RFP bidder (whether an existing Transmission Owner or Nonincumbent Developer) may not submit a new RFP proposal or modifications to an RFP proposal once the RFP window is closed. In the event that the RFP bidder fails to timely cure the deficiency or provide the requested reports or

information regarding an RFP proposal, the proposal will not be considered for inclusion in the recommended plan.

(i)(5) Within 30 days of the closing of the RFP window, the Office of the Interconnection may notify the RFP bidder that additional per proposal fees are required if the Office of the Interconnection determines the RFP bidder's submittal includes multiple RFP proposals. Within 10 Business Days of receipt of the notification of insufficient funds by the Office of the Interconnection, the RFP bidder shall submit such funds or notify the Office of the Interconnection which of the RFP proposals the Office of the Interconnection should evaluate based on the fee(s) submitted.

(j) **Posting and Review of CSPA Project Proposals** Following the close of an RFP window, the Office of the Interconnection shall post on the PJM website all RFP proposals submitted pursuant to the Operating Agreement, Schedule 6, section 1.5.11(h). The Office of the Interconnection shall review all RFP proposals submitted during an RFP window and determine and present to the Transmission Expansion Advisory Committee the RFP proposals that merit further consideration. In making this determination, the Office of the Interconnection shall consider the criteria set forth in the Operating Agreement, Schedule 6, sections 1.5.11(k) and 1.5.11(l). The Office of the Interconnection shall post on the PJM website and present to the Transmission Expansion Advisory Committee the proposals submitted for review and comment. After consultation with the Transmission Expansion Advisory Committee, the Office of the Interconnection shall determine the more efficient or cost-effective RFP proposal.

(k) **Criteria for Considering the RFP Project Proposal** In determining whether an RFP proposal submitted pursuant to the Operating Agreement, Schedule 6, section 1.5.11(i), individually or in combination with other RFP proposals, is the more efficient or cost-effective solution, the Office of the Interconnection, taking into account to the extent applicable: (i) the extent to which the RFP proposal is consistent with the PJM Board-approved CSPA Project addressing and mitigating the CSPA violation, (ii) the ability to timely complete the CSPA Project, and project development feasibility; and (iii) cost-effectiveness, including the quality and effectiveness of any voluntary-submitted binding cost commitment proposal related to the CSPA Project which caps project construction costs (either in whole or in part), project total return on equity (including incentive adders), or capital structure. In scrutinizing the cost of RFP proposals, the Office of Interconnection shall determine for each RFP bidder's proposal, the comparative risks to be borne by ratepayers as a result of the RFP proposal's binding cost commitment or the use of non-binding cost estimates. Such comparative analysis shall detail, in a clear and transparent manner, the method by which the Office of Interconnection scrutinized the cost and overall cost-effectiveness of each RFP 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, ROE and/or capital structure proposal, PJM is not making a determination that the cost, ROE or capital structure results in just and reasonable rates, which shall be addressed in the required rate filing with the FERC. Stakeholders seeking to dispute a particular ROE analysis utilized in the selection 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. Neither PJM, the Designated Entity nor any stakeholders are

waiving any of their respective FPA section 205 or 206 rights through this process. Challenges to the Designated Entity Agreements are subject to the just and reasonable standard.

(l) Entity-Specific Criteria for the CSPA Project

With respect to the entity submitting a proposal for the CSPA Project, the Office of the Interconnection shall consider: (i) whether the entity is pre-qualified to be a Designated Entity pursuant to Operating Agreement, Schedule 6, section 1.5.8(a); (ii) information provided either in the RFP bidder's submission pursuant to the Operating Agreement, Schedule 6, section 1.5.8(a) or 1.5.11(g) relative to the CSPA Project that demonstrates: (1) the technical and engineering experience of the entity or its affiliate, partner, or parent company, including its previous record regarding construction, maintenance, and operation of transmission facilities relative to the project proposed; (2) ability of the entity or its affiliate, partner, or parent company to construct, maintain, and operate transmission facilities, as proposed, (3) capability of the entity to adhere to standardized construction, maintenance, and operating practices, including the capability for emergency response and restoration of damaged equipment; (4) experience of the entity in acquiring rights of way; (5) evidence of the ability of the entity, its affiliate, partner, or parent company to secure a financial commitment from an approved financial institution(s) agreeing to finance the construction, operation, and maintenance of the project, if it is accepted into the recommended plan; and (iv) any other factors that may be relevant to the proposed project, including but not limited to whether the proposal includes the entity's previously designated project(s) included in the plan.

(m) Procedures if No Bid is Determined to be the More Efficient or Cost-Effective Solution

If the Office of the Interconnection determines that none of the RFP bidders submitting proposals during the RFP window are eligible to be the Designated Entity for the CSPA Project, the Office of the Interconnection may (i) re-evaluate the need for the CSPA Project and, if the project continues to be needed, open a new RFP window provided such re-evaluation and new window process would not affect the ability of the Office of the Interconnection from timely addressing the need for the project; or (ii) determine not to proceed with the proposed CSPA Project.

(n) Notification of Designated Entity. Within 15 Business Days after the Office of Interconnection notifies the PJM Board that it has selected the Designated Entity for the CSPA Project, the Office of the Interconnection shall inform the RFP bidder that it has been selected to be the Designated Entity for the CSPA Project. 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. Designated Entity shall accept such designation in accordance with Operating Agreement, Schedule 6, section 1.5.8(j).

(o) Failure of Designated Entity to Meet Milestones In the event the Designated Entity fails to comply with one or more of the requirements of the Operating Agreement, Schedule 6, section 1.5.8(j); or 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, the Office of the

Interconnection shall re-evaluate the need for the CSPA Project. Based on that re-evaluation, the Office of the Interconnection may: (i) retain the CSPA Project; (ii) remove the CSPA Project; or (iii) include an alternative solution in the Regional Transmission Expansion Plan. If the Office of the Interconnection retains the CSPA Project, 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 the Designated Entity (ies) for the CSPA 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, provided that such presentation shall not disclose the existence, location, or exact number and vulnerabilities associated with the critical substation contingencies and associated facilities, and approved by the PJM Board.

(p) **Consultation with State Commissions.** The Office of the Interconnection shall ensure that all consultations with State Commissions as set forth in this Operating Agreement, Schedule 6, section 1.5.11(p) are subject to appropriate confidential safeguards. The Office of the Interconnection shall be required to engage in consultations with or provide information to a State Commission upon request by the State Commission if and to the extent the Office of the Interconnection can ensure that such consultations and information will be subject to appropriate confidential safeguards.

(1) Upon completion of its review and selection of a proposed CSPA Project, the Office of the Interconnection may seek to meet with any State Commission with jurisdiction in the Zone in which the proposed CSPA Project will be located. Transmission Owner in the Zone in which the proposed CSPA Project will be located shall be invited to participate in any such meeting(s). Topics for discussion may include, but are not be limited to, the Office of the Interconnection's assessment of the need for an CSPA Project, the proposed solution and alternatives considered, the proposed CSPA Project and whether the proposed CSPA Project is eligible to be included in an RFP proposal window.

(2) For CSPA Projects not eligible to be included in an RFP proposal window must be designated to the Transmission Owner in the Zone in which the proposed CSPA Project will be located, the designated Transmission Owner, prior to initiating construction, shall seek to meet with the State Commission with jurisdiction in the Zone in which the proposed CSPA Project will be constructed. The Office of the Interconnection shall be invited to participate in any such meeting. Topics for discussion may include, but are not be limited to, the Office of the Interconnection's assessment of the need for and selection of the CSPA Project, the rationale for location of and specifications of the proposed CSPA Project and potential siting issues, particularly those that could affect the estimated project cost and need date. To facilitate the discussion and enable an understanding of the benefits of costs assessed, the Transmission Owner(s) shall be prepared to present an explanation of the reasons and rationale for its intention to proceed to construct the proposed CSPA Project and the reasonableness of that proposal. The Transmission Owner shall be prepared to address the following:

- (i) The customer impact that would result from the loss of the critical substation, taking into account any plans for recovering from the loss of the critical substation that could help to restore all or some of the load that was lost, the amount of time that it would take for such load to be restored and the nature of the load to be recovered or not able to be recovered, as compared to these same factors as they relate to that station or substation assuming that the proposed CSPA Project is constructed;
- (ii) Whether there exists distribution system-level solutions, or changes in operating procedures, or some combination, to mitigate the loss of the critical substation;
- (iii) Whether the proposed CSPA Project requires new or expanded right-of-way;
- (iv) Whether the proposed CSPA Project requires a greenfield project;
- (v) Whether the proposed CSPA Project will displace costs associated with maintaining physical security for stations/substations on the CIP-014 List; and
- (vi) The estimated cost of the proposed CSPA Project.

(q) **Confidentiality for CSPA Projects.** With respect to CSPA Projects designated pursuant to this Operating Agreement, Schedule 6, section 1.5.11:

- (1) For CSPA Projects that the Office of Interconnection determines are not eligible for inclusion in an RFP proposal window process pursuant to Operating Agreement, Schedule 6, section 1.5.11(f)(1), the Transmission Owner designated to carry out construction of such project shall take the necessary safeguards to ensure confidentiality of the CSPA Project as appropriate until the CSPA Project is placed in service.
- (2) For all other CSPA Projects, the Transmission Owner or Nonincumbent Developer shall take the necessary safeguards to ensure confidentiality of the need of the CSPA Project.
- (3) If at any step in the process, the level of confidentiality needed is eliminated with respect to elements of CSPA Project information, such confidentiality restrictions shall be reduced or eliminated, as applicable.