

PJM Manual 14F:

Competitive Planning Process

Revision: 0

Effective Date:

Prepared by

Organization

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Introduction

Welcome to the **PJM Manual for the Competitive Planning Process**. In this Introduction, you will find the following information:

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

About PJM Manuals

The PJM Manuals are the instructions, rules, procedures and guidelines established by PJM for the operation, planning and accounting requirements of the PJM RTO and the PJM Energy Market. The manuals are grouped under the following categories:

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

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

About This Manual

The PJM Competitive Planning Process Manual is part of the Manual 14 series of manuals that encompass PJM transmission planning protocol. This manual focuses on the process to conduct competitive proposal windows consistent with Order 1000.

The Competitive Process Manual consists of nine sections. The sections are listed in the table of contents beginning on page ii.

NOTE: While the PJM Manuals provide instructions and summaries of the various rules, procedures and guidelines for all phases of PJM's planning process, the PJM Operating Agreement and the PJM Open Access Transmission Tariff (OATT) contain the authoritative provisions.

Intended Audience

The intended audiences for this PJM Region Transmission Planning Process Manual include:

- Generation and Transmission Interconnection Customers and their engineering staff
- Transmission Owners (TOs) and their engineering staff.

NOTE: The term "Transmission Interconnection Customer", as defined in the PJM Open Access Transmission Tariff, refers to those separate and independent entities proposing to install new or upgrade existing transmission facilities rather than an existing Transmission Owner on the PJM System that installs Regional Transmission Expansion Plan "baseline," "economic," "system performance" or "Supplemental projects".

- Transmission Owners and their respective engineering staff
- Transmission Developers
- Federal and state regulatory bodies
- PJM Members
- PJM staff

References

There are other PJM documents that provide both background and detail on specific topics that may be related to topics in this manual. References with related information include:

- [PJM Manual 1: Control Center and Data Exchange Requirements](#)
- [PJM Manual 2: Transmission Service Request](#)
- [PJM Manual 3: Transmission Operations](#)
- [PJM Manual 14A: Generation and Transmission Interconnection Process](#)
- [PJM Manual 14B: PJM Region Transmission Planning Process](#)
- [PJM Manual 14C: Generation and Transmission Interconnection Facility Construction](#)
- [PJM Manual 14D: Generator Operational Requirements](#)

- [PJM Manual 14E: Merchant Transmission Specific Requirements](#)
- [PJM Manual 21: Rules and Procedures for Determination of Generating Capability](#)

Using This Manual

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

What You Will Find In This Manual

- A table of contents.
- An approval page that lists the required approvals and a brief outline of the current revision.
- This Introduction and sections containing the specific transmission planning process details including assumptions, criteria, procedures and stakeholder interactions.
- Attachments that include additional supporting documents, forms, or tables.
- A section at the end detailing all previous revisions of this PJM Manual.

Section 1: Proposal Window Overview

The Federal Energy Regulatory Commission (FERC) issued Order 1000 on July 21, 2011. The order requires that PJM consider transmission alternatives in its regional transmission planning process, produce a regional transmission plan and implement a fair cost allocation methodology. FERC required that the process accomplish the following main objectives:

- Ensure that transmission planning processes at the regional level consider and evaluate, on a non-discriminatory basis, possible transmission alternatives and produce a transmission plan that can meet transmission needs more efficiently and cost-effectively;
- Ensure that the costs of transmission solutions chosen to meet regional transmission needs are allocated fairly to those who receive benefits from them.

This manual describes PJM's competitive planning process.

1.1 Proposal Window Type and Duration

The expected type of system enhancement and required in-service data dictates window duration:

- *Long-Lead Projects*: PJM will open a 120-day proposal window for projects with required in-service dates greater than five years out that address identified reliability criteria violations, economic constraints, RPM limitations, system conditions and public policy requirements. Please note that the 120-day proposal window is a default. PJM, as the Office of Interconnection, may shorten or extend the window as needed.
- *Short-Term Projects*: PJM will open a 30-day proposal window for projects to address reliability driven upgrades with required in-service dates between three and five years out. Please note that the 30-day proposal window is a default. PJM, as the Office of Interconnection, may shorten or extend the window as needed.
- *Immediate-Need Reliability Projects*: If PJM determines that insufficient time remains for a short-term project proposal to be implemented, PJM may post reliability violations that could be addressed by a project required to be in service within three years. Proposals would be submitted within a shortened window specified by PJM.

During each window, developers may submit solution proposals to solve posted violations, constraints, system conditions and public policy requirements. PJM may then also request any additional reports or information needed to evaluate the specific project proposal. Any deficiencies must be addressed within 10 business days of notification from PJM. PJM may also (i) shorten proposal windows should it be required to meet the needed in-service date of the proposed enhancements or expansions; or (ii) extend the windows as needed to accommodate updated information regarding system conditions.

Window Scope

PJM conducts RTEP analysis on an annual basis, including all reliability testing and market efficiency analysis as described in PJM Manual 14B. All Reliability Criteria violations identified in the near term and long term -- i.e., not immediate need-- are included in RTEP Proposal Windows, except for the following.

Reliability violations identified on facilities below 200 kV will be excluded from the competitive planning process unless one of the following exception criteria applies to thermal reliability violations identified on multiple transmission lines and/or transformers below 200 kV:

- Multiple facilities are impacted by a common contingent element such that multiple reliability violations could be addressed by one or more solutions, including but not limited to a higher voltage solution; or
- PJM determines, given the location and violation type, one or more solutions could potentially address or reduce the flow on multiple lower voltage facilities, thereby eliminating multiple reliability violations

PJM will provide for a meaningful opportunity for stakeholders to review the facilities below 200 kV, that PJM expects to exclude from the proposal window, and provide feedback.

Interregional Proposals

PJM is interconnected to the three systems adjoining it via three interfaces: Mid-Continent Independent System Operator to the west, New York Independent System Operator (and through it, Independent System Operator - New England) to the north and the Southeast Region Transmission Planning organization to the south. PJM conducts interregional planning activities with each adjacent planning region pursuant to Tariff, Operating Agreement and joint agreement provisions applicable to each interface. Interregional studies can identify opportunities for transmission proposals that address issues and provide benefits to both PJM and a particular neighbor.

“Interregional proposals” for transmission projects on an interface that address issues in PJM must be submitted to PJM as part of a defined window. Such projects must also engage the adjacent region’s respective planning process as well. Entering proposals in both regions will trigger joint evaluation to determine the most efficient, cost effective solution to identified issues

Frequency of Windows

PJM conducts proposal windows on both annual and 24 month cycles, as shown in **Exhibit xxx**. Annual windows address NERC and regional reliability criteria violations and Transmission Owner criteria violations that occur over a five to 15 year forward time frame. The scope of annual RTEP analyses typically yield two to four 30-day windows. However, PJM retains the right to open windows on an as-needed basis.

PJM also conducts 24 month long-term proposal windows that address Market Efficiency criteria and long term reliability criteria violations. Each such window opens in November of even-numbered years and closes after 120 days.

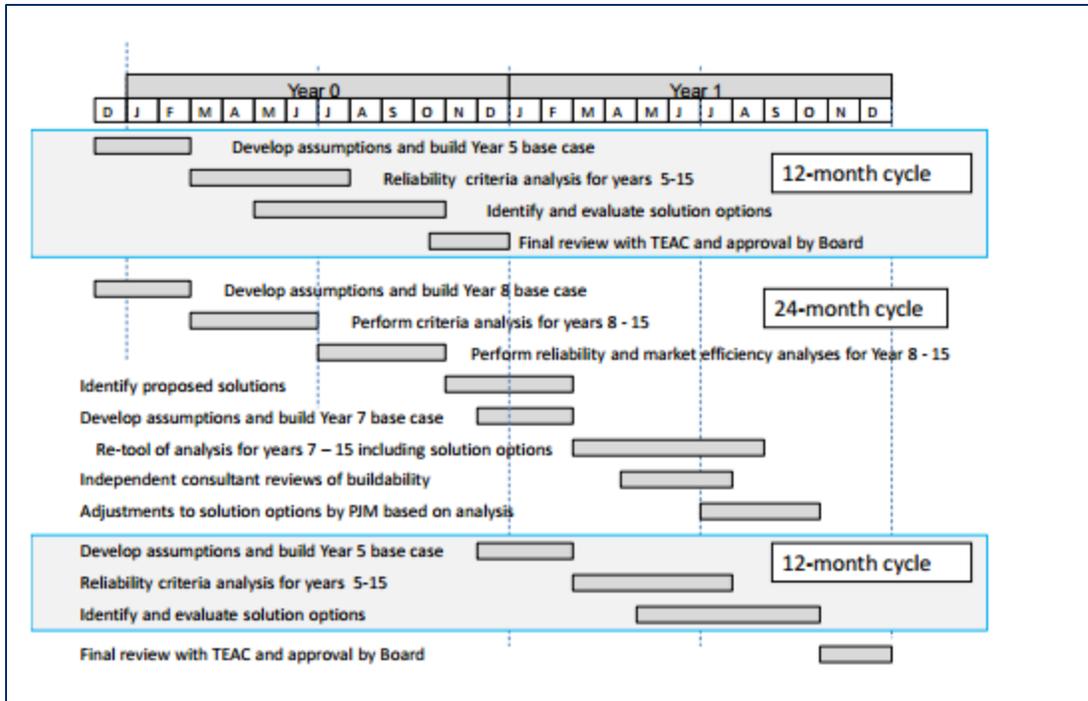


Exhibit 1: 24-Month Reliability Planning Cycle

Section 2: Pre-Qualification

2.1 Pre-Qualification Process

Parties that want to participate in the competitive planning process and become the Designated Entity for a transmission project that they propose must be pre-qualified, per the PJM Operating Agreement Schedule 6, Section 1.5.8(a). Parties are evaluated on their ability to engineer, develop, construct, operate and maintain a generic transmission facility within PJM. If the party does not have experience in a specific area, PJM requires that it provide a detailed plan for leveraging the experience of affiliates and contractors. PJM reserves the right to request any additional information deemed necessary.

To be granted pre-qualification for Designated Entity status, a pre-qualification package must be submitted to PJM during the annual 30 day pre-qualification window that opens on September 1 of each year. A party may submit a pre-qualification package outside of the annual pre-qualification window for good cause shown as determined by PJM. PJM will employ reasonable efforts in its evaluation and notify the party as soon as practicable.

2.2 Pre-Qualification Package

The PJM Operating Agreement Schedule 6, Section 1.5.8(a) details pre-qualification package requirements. The list below summarizes the required items:

- (1) Name and address of the entity including a point of contact
- (2) Technical and engineering qualifications of the entity or its affiliate, partner, or parent company
- (3) Demonstrated experience of the entity or its affiliate, partner, or parent company to develop, construct, maintain, and operate transmission facilities. Including a list or other evidence of transmission facilities previously developed regarding construction, maintenance, or operation of transmission facilities both inside and outside of the PJM region
- (4) Previous record of the entity or its affiliate, partner, or parent company to adhere to standardized construction, maintenance and operating practices
- (5) Capability of the entity or its affiliate, partner, or parent company to adhere to standardized construction, maintenance and operating practices
- (6) Financial statements of the entity or its affiliate, partner, or parent company for the most recent fiscal quarter, as well as the most recent three fiscal years, or the period of the entity's existence if shorter, or such other evidence demonstrating an entity's or its affiliate's, partner's or parent company's current and expected financial capability acceptable to PJM
- (7) Commitment by the entity to execute the Consolidated Transmission Owners Agreement, if the entity becomes a Designated Entity

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- (8) Evidence demonstrating the ability of the entity or its affiliate, partner, or parent company to address and timely remedy failure of facilities
 - (9) Description of the experience of the entity or its affiliate, partner, or parent company in acquiring rights of way

Entities must submit pre-qualification packages and any updated information to PJM at the following email address: PreQualInfo@pjm.com.

2.3 Processing Pre-Qualification Packages

Upon receiving a new pre-qualification package, PJM assigns a unique identifier and acknowledges receipt to the submitting party. PJM will evaluate the package or updated information and notify the entity no later than October 31 of its findings. If PJM finds that a package is deficient, PJM will include its basis for that determination in its notification to the party.

The submitting party may then respond by supplying additional or updated information to PJM. If the party supplies the additional or updated information by November 30, PJM will make its re-evaluation and notify the party no later than December 15 of its determination. PJM will use reasonable efforts to re-evaluate any additional or updated information submitted after November 30 and notify the entity via email with a letter of its determination as soon as practicable.

If PJM determines that the party is not, or no longer will continue to be, pre-qualified as eligible to be a Designated Entity, the party may continue to supply additional or updated information and PJM will use reasonable efforts in its evaluation and notify the entity of its determination as soon as practicable.

2.4 Changes to Pre-Qualification Information

Once a party is pre-qualified as a Designated Entity, it is required to submit any subsequent changes to the information on which pre-qualification was based. If the change is with respect to the upcoming year, the entity should submit the updated information to PJM during the annual pre-qualification window. If the change is with respect to the current year, the entity should provide the updated information to PJM when the change occurs and PJM will utilize reasonable efforts in its evaluation and notify the entity of its determination as soon as practicable. Entities submitting updated information to PJM are required to provide their original pre-qualification identification number.

Parties should submit all pre-qualification packages to PJM at the following email address: ProposalWindow-Admin@pjm.com.

Section 3: Registration Requirements

3.1 General Registration

PJM's competitive planning process requires registration for short term and long term proposal windows. For short term windows, individuals are instructed to submit registration annually, including a CEII request as described in Section 4.2. Registration for long term proposal windows, also includes the additional requirements described in Section 4.4.

3.2 Critical Energy Infrastructure Information (CEII) Registration

Attachment 1 describes PJM CEII registration and how CEII is incorporated into PJM's competitive planning process. Annual registration covers all reliability windows for that particular calendar year. Market Efficiency Window registration is discussed separately in Section xxx.xxx.

PJM Members – Each member must verify that it has a signed CEII NDA on file with PJM by completing and submitting a CEII Request Form that includes the exact wording, “20XX RTEP Proposal Windows” where 20XX is the year in which the applicable windows will open.

- <http://www.pjm.com/library/request-access.aspx>
- <http://www.pjm.com/library/request-access/form-ceii-nda.aspx>
- Setup a My PJM login account, which will be used to identify and authorize users - <http://www.pjm.com/Login.aspx>

PJM Non-Members – Each non-member must also verify or obtain CEII status with FERC and provide PJM with proof of the same in order for PJM to process the request further. Once received, the non-member must then follow the same registration requirements listed above for PJM members. For more information, including specific CEII categories, please see the following:

- <http://www.ferc.gov/legal/ceii-foia/ceii.asp>
- <http://www.pjm.com/library/request-access/form-ceii-nda.aspx>

Once a non-member receives FERC approval it must submit a CEII request as described in Section 4.2

3.3 Secure File Transfer

Each party must submit its proposals and related files via PJM's secure file transfer tool. To do so, PJM requires a one-time registration but limits accounts to one primary user and one alternate user per party. To set up a new account, please email ProposalWindow-Admin@pjm.com with the subject “Secure File Transfer Registration”. If you have an account, but cannot login, please axwayadmin@pjm.com

3.4 Market Efficiency Requirements

In addition to the general registration/proposal window requirements above, market efficiency windows also require the following:

- (1) **PJM CEII Data Access:** If a party is already registered for 20XX RTEP Proposal Window Access, it will also need to request 20XX/20YY Market Efficiency Access to obtain related window information and data. Additional information can be found on-line: <http://www.pjm.com/planning/rtep-development/market-efficiency.aspx>
- (2) **Production Cost Software License:** The files PJM provides for analytical evaluation of Market Efficiency Windows contain production cost and nodal simulation data for which a software license is required.

Section 4: PJM Problem Statement and Requirements

4.1 Public Information

4.1.1 Purpose of a Proposal Window

PJM uses RTEP Windows to seek technical solution proposals to solve identified reliability criteria violations, market congestion, or Reliability Pricing Model (RPM) limits in accordance with all applicable planning criteria mandated by PJM, NERC, SERC, RFC, and Local Transmission Owners. Specific PJM reliability criteria tests include, but are not limited to:

- Baseline Thermal and Voltage N-1 Contingency Analysis
- Generator Deliverability and Common Mode Thermal Analysis
- Load Deliverability Thermal and Voltage Analysis
- N-1-1 Thermal and Voltage Analysis
- Transmission Owner Criteria
- Congestion Analysis
- RPM Analysis

4.1.2 Terminology

PJM will post an Excel workbook of potential violations. The following column headings are generally representative of the data fields that will be used to identify the specific facility and other information. (Not all column headings will appear in every sheet within the workbook.) Additional information deemed necessary by PJM will be provided on a separate attachment together with a results file.

Typical thermal analysis Excel workbook contents:

Column Headings	Title	Description
FG #	Flowgate Number	A sequential numbering of the identified potential violations
Fr Bus	From Bus Number	PSSE model Bus number corresponding to one end of line identified as a potential violation
Fr Name	From Bus Name	PSSE model Bus name corresponding to one end of line identified as a potential violation
To Bus	To Bus Number	PSSE model Bus number corresponding to other end of line identified as a potential violation

Column Headings	Title	Description
To Name	To Bus Name	PSSE model Bus name corresponding to other end of line identified as a potential violation
Monitored Facility	Monitored Facility	The circuit on which a potential violation is occurring
Base Rate (MVA)	Base Rate (MVA)	Normal Facility Rating (Rate A)
% Overload	Percentage Overload	Percentage above base rate
CKT	Circuit	Circuit number of identified potential violation
KVs	Kilovolt level (A/B)	Kilovolt level of both sides of potential violation, if A does not equal B, potential violation is a transformer
Areas	Area Numbers (A/B)	Area numbers of both ends of potential violation (A=From Bus Area Number, B=To Bus Area Number) If A does not equal B, potential violation is a tie line
Rating	Line Rating	Applicable Thermal rating (MVA) of line
DC Ld(%)	Direct Current Loading percentage	Percentage above 'Line Rating' determined from DC testing
AC Ld(%)	Alternating Current Loading percentage	Percentage above 'Line Rating' determined from AC testing
Cont Type	Contingency Type	Contingency Categorization (potential options include: Single, Bus, Line_FB, Tower)
Cont Name	Contingency Name	Contingency Name as identified in associated contingency file or embedded in the spreadsheet
Contingency	Contingency	Contingency Description
Violation Date	Violation Date	Date on which violation is expected to occur
Analysis Case	Analysis Case	Case title to use in replicating analysis

Typical voltage analysis Excel file contents:

Column Headings	Title	Description
FG #	Flowgate Number	A sequential numbering of the identified potential violations
Bus #	Bus Number	PSSE model Bus number corresponding to bus identified as a potential violation
Name	Bus Name	PSSE model Bus name corresponding to bus identified as a potential violation
KV	Kilovolt level	Kilovolt level of bus identified as potential violation
Area	Area Number	Area number of bus identified as potential violation
ContVolt	Contingency Voltage (P.U.)	Per Unit Voltage at identified bus after contingency is applied
BaseVolt	Basecase Voltage (P.U.)	Per Unit Voltage at identified bus before contingency is applied
Low Limit	Low Voltage Limit(P.U.)	Threshold of Per Unit Low voltage, if ContVolt is under this limit, a potential violation is identified
Upper Limit	High Voltage Limit(P.U.)	Threshold of Per Unit High voltage, if ContVolt is over this limit, a potential violation is identified
Cont Type	Contingency Type	Contingency Categorization (potential options include: Single, Bus, Line_FB, Tower)
Vdrop(%)	Voltage drop	The Percentage that the voltage has dropped as a result of the contingency
Contingency	Contingency Name	Contingency Name as identified in associated contingency file
Contingency 1	First Contingency	N-1 (First) Contingency identified
Contingency 2	Second Contingency	N-1-1 (Second) contingency identified in N-1-1 analysis
Violation Date	Violation Date	Date on which violation is expected to occur
Analysis Case	Analysis Case	Case title to use in replicating analysis

Typical market efficiency Excel file contents:

Column Headings	Title	Description
Facility Name	Facility Name	The circuit on which market congestion is occurring
Area	Area	The Transmission zone in which the congestion occurs
Type	Type	The Type of Facility (i.e. Interface, Line)
Frequency	Frequency	The number of hours the Facility was constrained for the year.
Market Congestion	Market Congestion	The total Market Congestion for the facility for the year.
Notes	Notes	Information, if applicable, about the facility and congestion. (i.e. potential RTEP upgrades, Reason for congestion)

4.1.3 Proposal Development by Submitting Parties

Submittals must include the analyses completed by the party to identify its proposed solutions, consistent with the same RTEP procedures PJM uses, as detailed in Manual 14B:

<http://pjm.com/~media/documents/manuals/m14b.ashx>

Additionally, all proposal solutions must meet the performance requirements outlined in the applicable PJM Transmission Owner Criteria:

<http://www.pjm.com/planning/planning-criteria/to-planning-criteria.aspx>

4.1.4 Data and Information Provided by PJM

PJM provides the following data and related information:

Modeling Data

Please note these files are Critical Energy Infrastructure Information (CEII) and should be handled in accordance with the steps described in Section **xxx.xxx**:

- (1) Base Power Flow Case: The data in the Excel spreadsheet notes which case(s) correspond to each identified reliability criteria violation.
- (2) Contingency List: all contingency types including Single, Bus, Tower, Line w/ stuck breaker).
- (3) Subsystem File: identifies all subsystem zones to be considered in analysis.
- (4) Monitor File: identifies specific ranges of facilities by area and kV level to be considered in analysis.
- (5) Applicable Ratings (if different from that in power flow cases)

- (6) Excel Workbook containing detailed power flow results and any additional technical comments.
- (7) Market Efficiency production cost supporting files.

4.2 Secure Information

PJM posts an on-line public version of the “Problem Statement and Requirements” documentation and associated analytical files, some of which require CEII authorization as discussed in Section XX. These files include:

- Flowgates identified in RTEP analyses
- Detailed flowgate tabs for generator deliverability results
- Power flow cases
- Associated contingency, subsystem and monitor files
- Production cost cases
- Associated production cost event, outage library and load forecast files

These files can only be provided to a registered party that has required CEII/NDA and all other registration documentation and may not be shared with other parties.

Section 5: Proposal Requirements

5.1 Proposal Requirements

The following must be provided no later than the date on which the window closes. Proposing entities must use the PJM-provided templates to describe the high level proposal details including the specific violations/constraints it addresses. Proposing entities must also provide separate documentation for every proposal that includes, but is not limited to, upgrade/greenfield templates as well as redacted and unredacted versions of each proposal.

PJM will not accept a proposal with multiple options. Each proposal with a unique set of electrical characteristics and/or routing characteristics must be submitted separately. A proposing entity may include additional narrative in the proposal report (Word/PDF document) to address other specific details. These may include, but are not limited to the following items:

- (1) Description of the proposed solution and corresponding violation(s) it solves including whether the project should be considered only in its entirety or if one or more elements should be considered independently as well.
- (2) Detailed analysis report for a proposed solution, including:
 - a) Breaker one-line diagrams to illustrate system topology
 - b) Spreadsheets showing results of analysis
 - c) High level estimate of:
 - i. Time to construct the proposed solutions and the overall expected in-service date
 - ii. Estimates for the following: itemized costs for each major component (e.g. substation work, transformer cost, transmission line cost), base cost, risk and contingency cost and total cost, together with a description of assumptions (e.g. base cost, risk and contingency (R&C) costs, and total cost)
 - iii. Right-of-way availability
- (3) Non-incumbent transmission owner scope-of-work:
 - a) If a non-incumbent proposal assumes that a portion of the work will be completed by an incumbent transmission owner, the high level scope and itemized cost for that work must also be provided.
- (4) Equipment parameters and assumptions
 - a) Transmission line and transformer ratings, impedances and mileage (as appropriate), etc.
 - b) Reactive device settings and expected output
 - c) MW and MVAR output assumptions for synchronous machines

- (5) Complete set of power flow and dynamic cases modeling the proposed solution. Each case must be solvable – i.e., does not contain any convergence issues -- and must conform to industry standards. A single PSS/E IDEV file must be provided so that the proposal may be modeled easily applied in other analyses. Any new busses created must not be labeled with previously used bus numbers. Critical contingency files to reproduce results driving proposed solution must also be provided. All cases and data files for dynamic simulations must be in the current PSS/E version format.
- (6) Any other supporting documentation specified by PJM, and not otherwise explicitly stated in this document, that is required to perform verification review
- (7) Submission of Deliverables
 - a) Preferred – [Via secure file transfer tool portal](#) – See Section 4.3 for transfer tool portal registration
 - b) Alternative - Via electronic mail to ProposalWindow-Admin@pjm.com
 - c) Alternative (e.g.: DVD or flash/thumb drive) - Via FedEx to Manager, Transmission Planning, PJM Interconnection, 2750 Monroe Boulevard, Audubon, PA 19403

Upgrade Information

PJM requires all proposal solutions -- both upgrades to existing facilities and new greenfield projects -- to complete the 20XX RTEP Proposal Window Template, included in the files available via PJM's downloadable package of files provided to all registered participants. An example of how to fill out the template can be found online: [2016 RTEP Proposal Template – Example](#)

Greenfiled Information

If the proposal is a Greenfield solution, then the '20XX Greenfield Project Proposal Template', included within the files available via PJM's downloadable package of files provided to all registered participants, must also be included in the project proposal package. The Greenfield template can be found on-line: [Greenfield Project Proposal Template](#).

Interregional solution proposals must follow the documentation procedures discussed in Section 7.1.

5.2 Proposal Timelines

5.2.1 Short Term Windows

Items due at close of 30 day window:

- RTEP Proposal Template (Excel Spreadsheet) with initial planning level cost estimates. The initial cost estimate is preliminary and is to be used by PJM to support the creation of an initial analytical work plan.
- All analytical files needed for technical analysis & simulation

- Include All results from simulations conducted by the proposing entity, e.g. all PSS/E files, contingency files, one line diagrams, etc.
- Detailed substation (showing all breaker and transmission topology) and route diagrams
- Pre-qualification documentation

Items due 15 days after a window closes (*45 days* after window opening):

- RTEP Proposal Template (Excel Spreadsheet) updated to include both overall project cost and detailed cost of each component. This cost estimate may differ from the 30 day preliminary cost estimate.
- Any cost cap or cost containment mechanisms should include enough detail for PJM to understand the implementation and impact of the cost mechanism under theoretical scenarios.
- Describe in detail every aspect of the proposed cost where the cost mechanism does and alternatively does not apply.
- If supplemental examples of how the cost mechanism would behave under varying scenarios would benefit PJM's understanding of the cost mechanism, include them as part of project documentation.
- The greenfield RTEP Proposal document (detailed word/PDF report, redacted and un-redacted documentation requirements) can be found via the link in Section xxx.xxx.

NOTE: PJM will maintain confidentiality of individual proposals for the duration of the window, including the additional 15 days.

NOTE: Entities cannot modify intrinsic details of the proposal or make new proposals after the initial 30 day submission.

NOTE: Any proposals received after close of the proposal will not be accepted.

5.2.2 Long Term Windows

Items due by close of the window (120 days after opening):

- RTEP Proposal Template (Excel Spreadsheet) updated to include both preliminary overall project cost and detailed cost of each component. This cost should be calculated for the in-service date of the project.
- As the cost is paramount for Market Efficiency selection, PJM will use this cost as submitted during the selection process in addition to any independent cost review as required by the Operating Agreement or as PJM deems appropriate for the project's scope.

- Any cost cap or cost containment mechanisms should include enough detail for PJM to understand the implementation and impact of the cost mechanism under various scenarios.
- Describe in detail every aspect of the proposed cost where the cost mechanism does and alternatively does not apply.
- If supplemental examples of how the cost mechanism would behave under varying scenarios would benefit PJM's understanding of the cost mechanism, include them with the project documentation.
- All analytical files needed for technical analysis and simulation:
 - Include all results from power flow and production cost simulations including overloads, congestion savings, net load payments and adjusted production cost savings.
 - All PSS/E files to model the project, contingency files, one line diagrams, etc.
 - List of contingencies and list of monitored flowgates modeled to capture project impact.
 - (optional) All production cost modeling files corresponding to the analytical files mentioned above
- Event files and XML modeling files

5.3 Redaction Requirements

Each proposal must include a redacted version for public posting. The purpose of submitting redacted and unredacted versions is to enable PJM and transmission asset owners to protect Critical Electrical Infrastructure Information (CEII) from disclosure as defined earlier in Attachment 1.

The un-redacted version must highlight all sections that have been redacted from the public version. And, all "Confidential" and "CEII" markings must be removed from the redacted version. All Confidential and CEII materials may be submitted as an attachment to the unredacted version of a proposal, then removing those attachments in the public version. PJM reserves the right to review the proposing entity's proposed redactions to ensure the appropriate level of transparency while protecting CEII, confidential and proprietary information.

- Items that should not be redacted:
 - Description and scope of project including substation and line detail, and general breaker configuration: e.g. ring bus, breaker-and-a-half etc.)
 - Violations/issues solved by the proposal

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- General route of project
 - High level cost and timeframe
 - Technical specifications and parameters (ratings, impedances etc.)
 - High level cost cap information
 - General assumptions needed to evaluate projects
 - General plans for operations and maintenance
 - Environmental, land, and permitting information (except specific routes and landmarks)
 - Any construction responsibilities by other entities

Items that can be redacted from proposals:

- Detailed breaker descriptions (i.e.: failure of this breaker will result of loss of...)
- One-line diagrams that include breakers
- Geographic maps that identify specific location of project
- Descriptions of specific landmarks in the area (names of rivers, trails, highways, etc.)
- Proprietary information (such as detailed estimates, commercially sensitive practices, agreements with vendors/suppliers and intellectual property)

The above are suggested guidelines for proposing entities to use as they submit their proposals. PJM reserves the right to require additional redactions to protect CEII or to require the disclosure of redacted information as necessary to ensure as much transparency as possible.

5.6 Using Proposal Submittal Tool

See Attachment 2

5.7 Proposal Fee Structure

See Attachment 3

5.8 Proposal Window Communications

All RTEP proposal window announcements will be communicated through the Transmission Expansion Advisory Committee (TEAC) (<http://pjm.com/committees-and-groups/committees/teac.aspx>). Interested parties should register for the TEAC email list to receive the most up-to-date information.

PJM also employs user email lists for each calendar year to announce the posting of files and provide the password to access these files. See 'Window Registration Process' in Section xxx.xxx for additional details.

Contacting PJM with questions Regarding RTEP Proposal Windows

PJM Planning has three email addresses to respond to RTEP proposal window related questions:

- ProposalWindow-Admin@pjm.com
- Question regarding window access
- Password Issues
- Secure submittal tool registration
- ProposalWindow-PreQual@pjm.com
- Prequalification submittals
- Changes to existing prequalification documentation
- ProposalWindow-Tech@pjm.com
- Technical and analytical questions

5.9 Market Efficiency Proposal Requirements

In addition to the proposal requirements discussed in Section .1, proposing entities are encouraged to submit any supporting data or material that may benefit PJM's of a specific market efficiency proposals. Such information may include, but is not limited to the following:

- (1) Description of the congestion driver(s), regional or local, the proposal relieves
- (2) Spreadsheets that provide additional detail on congestion relief provided by the proposed solution, output of production cost analysis showing congestion savings, net load payments and adjusted production costs decreases)
- (3) Production cost cases to model the project topology including list of changes to base event files
- (4) Estimation of the benefit-to-cost (B/C) ratio for the proposed solution

5.10 Interregional Proposal Requirements

Interregional proposals must be entered into both the PJM's RTEP window process -- in accordance with manual -- as well as the process of the applicable region adjacent to PJM.. PJM currently envisions limited circumstances under which relatively small, lower cost but highly beneficial projects may be identified and approved through a single joint planning process and avoid the normally required separate process for both PJM and the adjacent regions. These exceptions, if any, will be described in the applicable Tariff, Operating Agreement and joint agreement provisions referenced in this Manual.