PJM EOL Planning Package

Dave Souder, Senior Director – System Planning

Markets and Reliability Committee

April 30, 2020

PJM Package Key Tenets

Adhere to PJM Board Directive

- Enhance transparency
- Honor Transmission Owner (TO) responsibility over asset management decisions
- Use PJM's-expertise and authority to develop the RTEP and, in some circumstances, determine the more cost-effective regional solution to replace a retired facility

Enhance existing planning processes

Ensure PJM Package respects authorities within governing documents

Allow FERC Orders to inform the PJM Package

Reflect stakeholder education and interest identification

EOL Package Comparison

Areas of Alignment

- Both packages require similar TO-specific end-of-life determination program/process.
- Both packages promote transparency:
  - Annual presentation of the details of TO EOL program as part of stakeholder meeting
  - Conceptual 5 years EOL list
- Both packages incorporate a component that includes EOL replacement analysis consistent with RTEP.

Areas of Divergence

- Differences in timing of EOL Notification and Determination
- Recognition of the time horizon in which end-of-life determinations are made
- Honoring existing Competitive Proposal Window Rules
- Differentiation between asset management and planning and resultant subset of EOL facilities that may be part of a broader regional solution
- Fundamental disagreement about PJM's jurisdiction

Design Component Process Flow

End-of-Life Program (1b, 2b)	Program Transparency (1c, 2c, 2d)	Look-Ahead Process (2a)	Determination (1a, 1d, 3a)	Planning Analysis (3c)
Mandatory TO-specific program/process for (i) **asset condition assessments** which may consider frequency of assessments based upon age and (ii) **EOL determination process** which may consider industry averages, manufacturers recommendations and Good Utility Practice.	TO will **annually present** the details of the TO **EOL program** as part of the TEAC meeting.	TOs to provide to PJM a **five years EOL retirement/ replacement candidate projection list** (limited to transmission lines, including associated transmission line support equipment such as tower structures, and transformers).	PJM runs its annual **RTEP analysis** to identify **potential reliability violations,** and identifies other issues which may be included in the review of the RTEP short-term proposal window, e.g. FERC Form 715 violations. If **PJM identifies** any **overlap with a facility(ies) on the EOL retirement/replacement candidate projection list and potential RTEP issues to be included in the short term proposal window,** PJM will note the EOL facility(ies) in the posting of the identified RTEP issues and include both in a competitive proposal window problem statement for the short-term window. Otherwise, where TOs address EOL through Attachment M-3, the design component is provided through Assumptions presented in the Assumptions Meetings and Needs presented in the Needs Meetings.	**PJM performs planning processes for all TO EOL retirement determinations** for facilities identified as under PJM's Markets & Reliability and Reliability BES, ensuring the current level of reliability and considering impacts to operational performance; market efficiency and to ensure the solution does not result in the creation of CIP-014 critical facilities. **PJM runs its annual RTEP analysis to identify potential reliability violations,** and identifies other issues which may be included in the review of the RTEP short-term proposal window, e.g. FERC Form 715 violations. If **PJM identifies** any **overlap with a facility(ies) on the EOL retirement/replacement candidate projection list and potential RTEP issues to be included in the short-term proposal window,** PJM will note the EOL facility(ies) in the posting of the identified RTEP issues and include both in a competitive proposal window problem statement for the short term window. **Otherwise,** where **TOs address EOL through Attachment M-3,** the design component is provided through Assumptions presented in the Assumptions Meetings and Needs presented in the Needs Meetings. Additionally, consistent with current practices (M14B Section 1.4.2.1 & 1.4.2.2), **PJM** will **provide notice** of the potential **interaction** associated with **EOL needs in the M-3 process** or EOL supplemental project(s) submitted for inclusion in the Local Plan **and any identified violation, system condition, economic constraint, or public policy requirement included in the PJM open proposal window.**

PJM Proposed RTEP EOL Process Changes

End-of-Life Program: Mandatory Asset Management programs support system reliability and are consistent with good utility practice, eliminating a “run to failure” approach to asset management.

Program Transparency: Annual presentation of the details of the methodology of TO EOL program promoting transparency and understanding.

Look-ahead Program: Five-year notification of potential EOL candidates coincides with the RTEP cycle.

EOL Determination and Planning Process: Posting EOL candidates that interact with RTEP violations as part of a competitive window allows for potential broader regional solutions, while also allowing asset owner to prolong asset life for the remaining facilities based on EOL Determination programs.

Interest Identification: Jurisdiction/Agreements/Authorities

- The authority for PJM to plan ***all*** proposed EOL facilities through its RTEP process, was not transferred to PJM under the CTOA. Specifically,
  - Regarding planning, the TOs explicitly transferred to PJM per CTOA, Section 4.1.4:
    - The responsibility to prepare an RTEP, which is defined in the Tariff as "the plan prepared by [PJM] pursuant to Operating Agreement, Schedule 6 for the enhancement and expansion of the Transmission System in order to meet the demands for firm transmission service in the PJM Region."
    - The authority to reasonably request from the TOs information need by PJM to prepare the RTEP.

- CTOA, Section 5.2 did not transfer to PJM the decision to retire TOs' transmission facilities. In fact, Section 5.2 specifically stated that "PJM shall not challenge any such sale, disposition, retirement, merger, or other action under this Section 5.2 on the basis that they are a signatory to this Agreement."
- CTOA, Section 5.6 reserves to the TOs rights not specifically transferred by the TOs to PJM under the CTOA. Based on Section 5.2 above, PJM does not have planning authority over the TOs EOL program/process such as requiring that the TOs utilize a 10-year planning horizon.

Precedent Set by FERC Orders

- California Orders are precedential for the clarity set regarding the planning of asset management projects and activities.
  - Clarified the meaning of a transmission owners' "asset management projects and activities":
  - Clarified the relationship between such activities and projects with Order No. 890's coordination and transparency requirements stating:

- Despite arguments by the California parties that FERC was treating PJM's Supplemental Projects different than asset management projects under the California Orders, FERC stated that the PJM February 15 Order regarding Attachment M-3 did not address whether PJM's Supplemental Projects must be subject to the Order No. 890 transmission planning process.
- However, the argument in this stakeholder forum is whether asset management projects and activities, such EOL projects, must be subject to PJM's Order No. 1000 planning process; therefore, Commission precedent regarding asset management projects and activities is relevant to this discussion.

Legal Focus – FERC Orders

Interest Identification: Jurisdiction/Agreements/Authorities

- The Commission clarified in the California Orders that asset management is not regional planning as defined in Order No. 890. Order No. 890 was intended to address concerns regarding undue discrimination in grid *expansion*; thus, to the extent asset management projects and activities do not expand the grid, they do not fall within the scope of Order No. 890. *See See California Public Utilities Commission, et al. v. Pacific Gas and Electric Co.*, 164 FERC ¶ 61,161 at P 66 (Aug. 31, 2018) ("PGE Order"); *see also, Southern Cal. Edison Co.*, 164 FERC ¶ 61,160 at P 31 (Aug. 31, 2018) ("SoCal Edison Order").

- The asset management project or activity may result in an increase in transmission capacity that is not incidental, for example, where a TO determines that it can address a potential reliability violation by expanding the scope of an asset management project or activity to result in a capacity increase. *See* PGE Order at P 69; see also SoCal Edison Order at P 34.

- Under the PGE Rehearing Order, the Commission found identification of EOL facilities to be "asset management," i.e., replacing equipment that has reached the end of its operation life" and "replacing failed equipment." See California Public Utilities Commission, et al. v. Pacific Gas and Electric Co., 168 FERC ¶ 61,171 P 57 (Sept. 19, 2019) ("PGE Rehearing Order"); see also Southern Cal. Edison Co., 168 FERC ¶ 61,170 at P 57 (Sept. 19, 2019) ("SoCal Edison Order Denying Rehearing").

PJM Package Next Steps

Documentation Impacts
PJM is investigating impact to Governing Document and Manuals

- PJM believes PJM's Package does not substantially impact Governing Documents
  - No impact to CTOA
  - PJM is performing a more detailed review of Operating Agreement
- PJM's Package will result in modifications to Manual 14B

Answer Questions

Solicit Feedback

Evaluate Feedback to Improve PJM Package

PJM EOL Planning Package

Transparency and End of Life Planning
April 17, 2020
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Areas of Alignment

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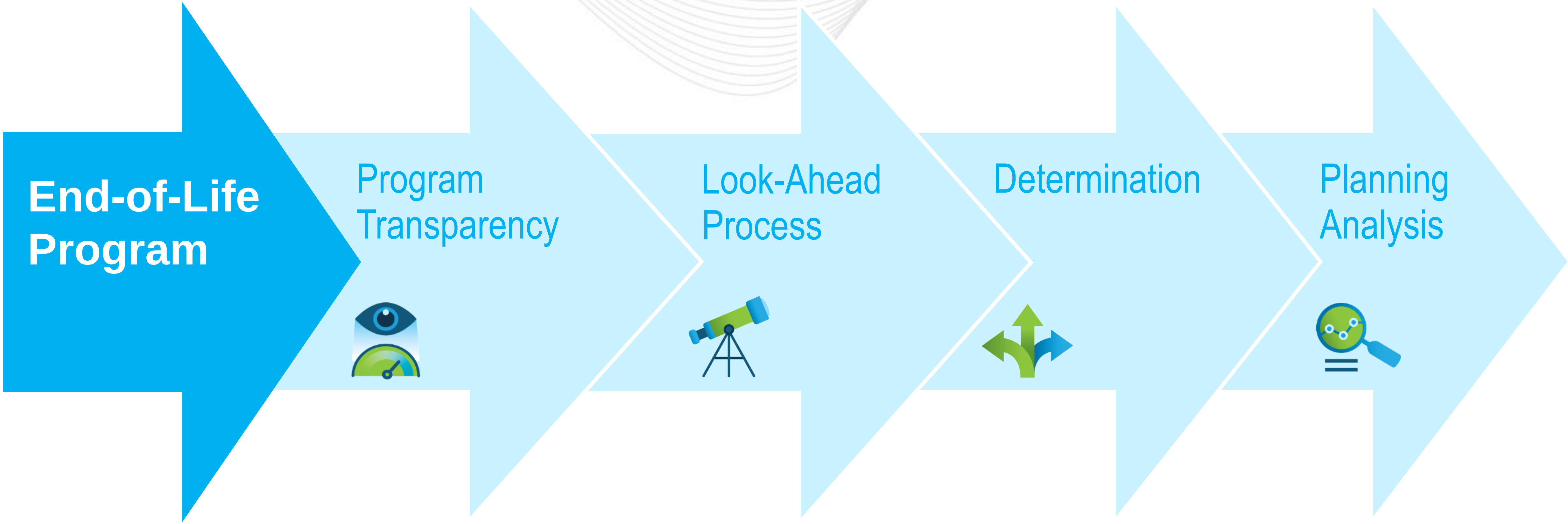
Design Component Process Flow



EOL Program (1b, 2b)

PJM Solution Option:

Mandatory TO-specific program/process for (i) asset condition assessments which may consider frequency of assessments based upon age and (ii) EOL determination process which may consider industry averages, manufacturers recommendations and Good Utility Practice.

Business Rationale:

Asset Management programs support system reliability and are consistent with good utility practice, eliminating a “run to failure” approach to asset management.

Business Thoughts on Stakeholder Packages:

PJM does not see the benefit associated with a 10-year look-ahead program since it does not align with the PJM RTEP process nor does it reflect the time horizon in which EOL decisions are made.

EOL Program (1b, 2b)

Legal Analysis:

Under the PJM governing documents, transmission owners are required to provide criteria, assumptions and methodology used by them to plan Supplemental Projects. OA, Schedule 6, Section 1.5.4(e) and Tariff, Attachment M-3(2). See also Order 890, PP 471, 477 and 478.

- Nothing in the governing documents requires the TOs to have an EOL program using a “10-year” planning horizon.
- Order 890 at P 461 requires that transmission providers (transmission owners) reduce to writing and make available the basic methodology, criteria and processes they use to develop their transmission plans, including how they treat retail native loads, in order to ensure that standards are consistently applied. FERC contemplated that this information should enable customers, other stakeholders or an independent third party to replicate the results of planning studies and thereby reduce the incidence of after-the-fact disputes regarding whether planning has been conducted in an unduly discriminatory fashion.

Legal Thoughts on Stakeholder Packages:

If AMP/ODEC is proposing that TOs submit their specific methodology for the EOL program in sufficient detail to understanding and use the results as input to subsequent planning studies, PJM agrees as this would be consistent with Order 890 and the Commission's February 15 Order relative to Attachment M-3. *See Monongahela Power Co., et al.*, 162 FERC ¶ 61,129 (Feb. 15, 2018) (February 15 Order). However, any proposals seeking to be able to replicate the TOs determination of the solution is beyond what the Commission required under Order 890 or the February 15 Order (at P 73).

EOL Program Transparency (1c, 2c, 2d)

PJM Solution Option:

TO will annually present the details of the TO EOL program as part of the TEAC meeting.

Business Rationale:

Annual presentation of the details of the methodology of TO EOL program promotes transparency and understanding.

Business Thoughts on Stakeholder Packages:

- PJM has concerns with requirements to “replicate the results for individual facilities determined to be EOL”
- PJM has defined “models” within M14B to powerflow, short circuit and stability models and not TO asset management or EOL determination models.
- Stakeholder and TOs should work constructively to continue to improve the existing Attachment M-3 process.

EOL Program Transparency (1c, 2c, 2d)

Legal Analysis:	**Legal Thoughts on Stakeholder Packages:**
In terms of annually updating the details of their EOL programs, OA, Schedule 6, Sections 1.5.4(a) and (e) require that the PJM TOs provide to PJM on an annual or periodic basis all criteria, assumptions and models used by the TOs to develop Supplemental Projects.	Agree with requiring TOs to annually or periodically communicate updates their EOL programs.

Look-ahead Process (2a)

PJM Solution Option:

TOs to provide to PJM a five years EOL retirement/ replacement candidate projection list (limited to transmission lines, including associated transmission line support equipment such as tower structures, and transformers).

Business Rationale:

- Five-year notification for potential for EOL candidates coincides with the identification of RTEP needs
- Providing PJM the EOL retirement/replacement candidate list (limited to transmission lines and transformers) and PJM posting “candidate EOL facilities” that interact with RTEP violations provides the appropriate level of actionable transparency, recognizes the difference between asset management and planning, and addresses the TO liability risk if list made public

Business Thoughts on Stakeholder Packages:

PJM does not see the benefit associated with a 10-year look-ahead program since it does not align with the PJM RTEP process nor does it reflect the time horizon in which EOL decisions are made.

Look-ahead Process (2a)

Legal Analysis:

With regard to the requirement that TOs provide a five-year candidate list for potential EOL facilities:

- No prohibition to requiring TOs to provide information within a specific timeframe regarding potential EOL facilities based on its EOL Program. *See* CTOA, Section 4.1.4 requiring TOs "to provide information reasonably requested by PJM to prepare the RTEP and shall otherwise cooperate with PJM in such preparation."
- CTOA, Section 6.3.4 requires PJM to conduct its planning for the expansion and enhancement of transmission facilities based on a planning horizon of at least 10 years, or such longer period as may be required by the PJM Tariff or Operating Agreement, including the Regional Transmission Expansion Planning Protocol.
  - This obligation is specific to PJM, not the TOs.
  - This obligation is specific to "expansions and enhancements" of facilities, not asset management (replacement-in-kind or not more than incidental increases to the capability of the transmission system).
  - Identification of EOL facilities is not an activity under PJM's authority. Under the California Rehearing Orders, the Commission found identification of EOL facilities to be "asset management," i.e., replacing equipment that has reached the end of its operation life" and "replacing failed equipment." See e.g., California Public Utilities Commission, et al. v. Pacific Gas and Electric Co., 168 FERC ¶ 61,171 P 57 (Sept. 19, 2019) ("PGE Rehearing Order").

Look-ahead Process (2a)

Legal Analysis:

Manual 14B, Section 2.1 provides that PJM uses a 15-year planning horizon for consideration of expansion or enhancements projects.

Manual 14B, Attachment B.2 states PJM prepares an RTEP which consolidates the region’s transmission needs into a single plan that includes:

- A five-year plan (“near-term plan”) to address needs for which a commitment to expand or enhance the transmission system must be made in the near term in order to meet scheduled in-service dates.
- A 15-year plan (“long-term plan”) to address new transmission construction and right-of-way acquisition. System evaluations will be performed to address on 200 kV above transmission system.

Legal Thoughts on Stakeholder Packages:

PJM agrees that TOs should be required to comply with a look-ahead process for notification of potential EOL facilities. Stakeholders are proposing a ten-year look ahead. PJM proposes a five-year look ahead based on PJM’s current planning process

EOL Determination (1a, 1d, 3a)

PJM Solution Option:	PJM runs its annual RTEP analysis to identify potential reliability violations, and identifies other issues which may be included in the review of the RTEP short-term proposal window, e.g. FERC Form 715 violations. If PJM identifies any overlap with a facility(ies) on the EOL retirement/replacement candidate projection list and potential RTEP issues to be included in the short term proposal window, PJM will note the EOL facility(ies) in the posting of the identified RTEP issues and include both in a competitive proposal window problem statement for the short-term window. Otherwise, where TOs address EOL through Attachment M-3, the design component is provided through Assumptions presented in the Assumptions Meetings and Needs presented in the Needs Meetings.

EOL Determination (1a, 1d, 3a)

Business Rationale:

- Five-year notification for potential for EOL candidates that coincide with the identification of RTEP needs
- Providing to PJM a confidential EOL candidate list (limited to transmission lines and transformers) and then PJM posts publicly the EOL candidates that interact with RTEP violations, providing the appropriate level of actionable transparency, recognizing the difference between asset management and planning, while addressing the TO liability risk if the list was made public.
- Allows for potential broader regional solutions when EOL Supplemental Projects and RTEP violations overlap

Business Thoughts on Stakeholder Packages:

- Mandating a six- to eight-year final EOL determination for all facilities would result in the forced replacement of facilities that are not at their end-of-life.
- Requiring TO to make early EOL determinations would be dictating their asset management practices and is outside of PJM's and stakeholders' authority.

Legal Analysis: See, e.g., Manual 14B, Section 1.1 which provides that:	As part of the review of Supplemental Projects PJM will also apprise the relevant TO if a baseline upgrade might alleviate or partially mitigate the need for a Supplemental Project. In addition, PJM will determine if a Supplemental Project might impact a baseline need identified through the RTEP process, which might be in progress. A discussion of guidelines associated with potential for overlapping needs is included in this Manual below in Section 1.4.2.

Legal Analysis: See, e.g., Manual 14B, Section 1.4.2 provides in part:	During a review of the RTEP analysis, it may become apparent that a supplemental need identified in the Attachment M-3 Process may interact with an identified violation, system condition, economic constraint, or public policy requirement posted on the PJM website. In this case, PJM will provide notice of the potential interaction associated with the posted system condition by posting the newly available information to the PJM website and provide notification to stakeholders.

Legal Thoughts on Stakeholder Packages:

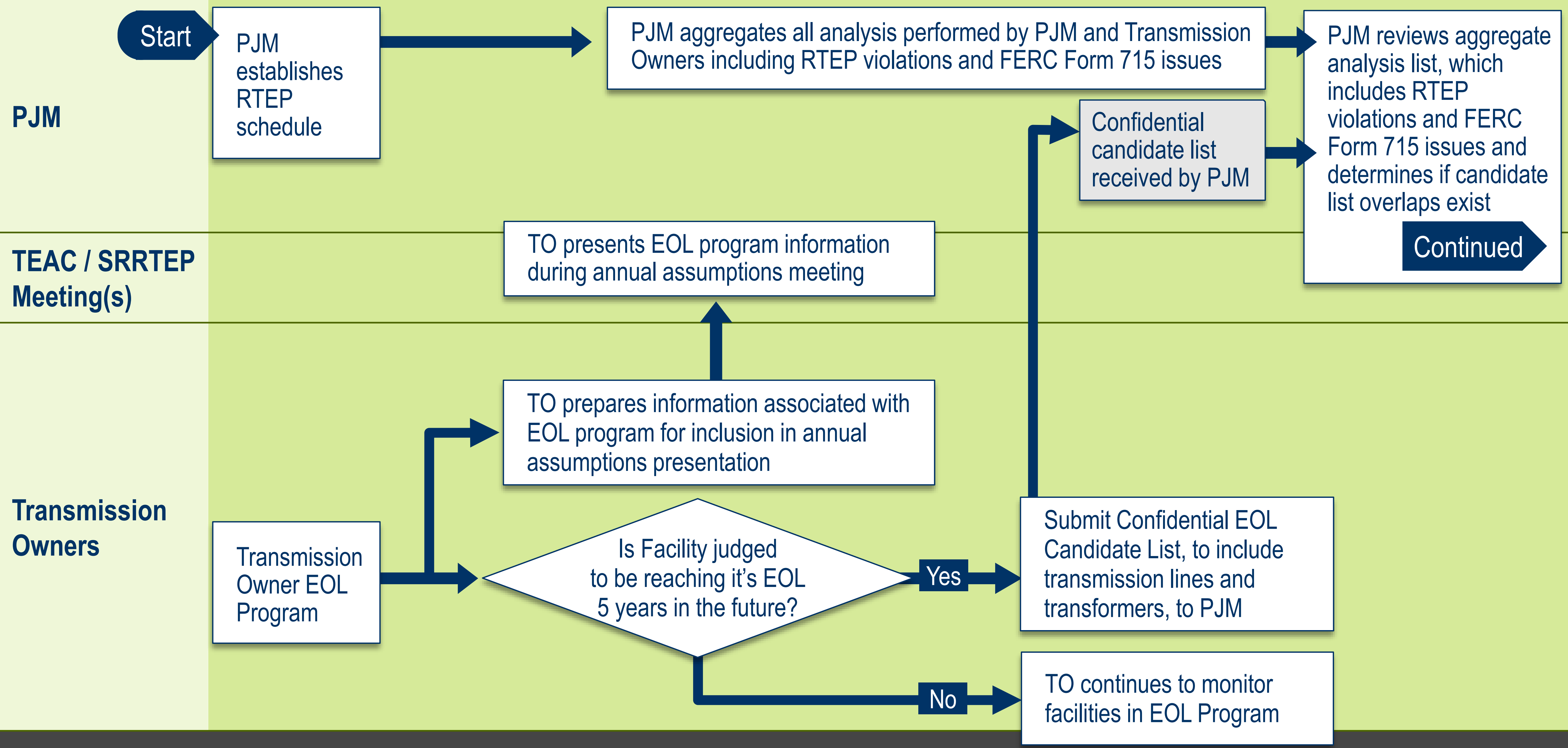
It is unclear what stakeholders mean by “information for understanding?” or “allow stakeholders to ensure determination was done consistent with TO program.” Under Attachment M-3, phases one, two and three, including comment periods, are intended to provide the information up front and allow the opportunity for comment so that stakeholders can see the rationale for a TO’s project selection to address EOL facilities. Without being more precise as to what AMP/ODEC are inferring is not provided for under Attachment M-3, it is unclear whether this proposal intends to revise the Tariff, Attachment M-3 process approved by FERC.

EOL Planning Analysis (3c)

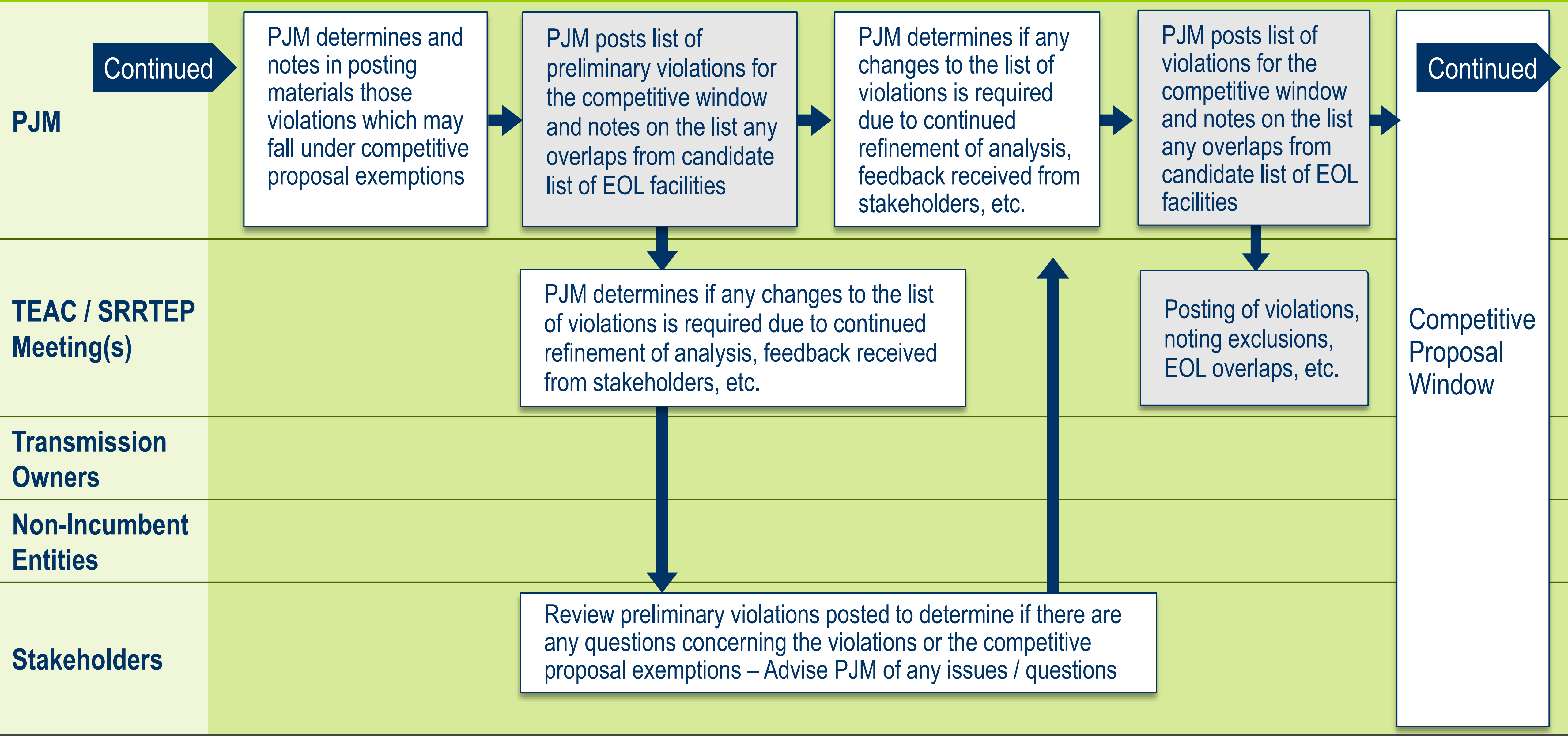
PJM Solution Option:

PJM performs planning processes for all TO EOL retirement determinations for facilities identified as under PJM's Markets & Reliability and Reliability BES, ensuring the current level of reliability and considering impacts to operational performance; market efficiency and to ensure the solution does not result in the creation of CIP-014 critical facilities. PJM runs its annual RTEP analysis to identify potential reliability violations, and identifies other issues which may be included in the review of the RTEP short-term proposal window, e.g. FERC Form 715 violations. If PJM identifies any overlap with a facility(ies) on the EOL retirement/replacement candidate projection list and potential RTEP issues to be included in the short-term proposal window, PJM will note the EOL facility(ies) in the posting of the identified RTEP issues and include both in a competitive proposal window problem statement for the short term window. Otherwise, where TOs address EOL through Attachment M-3, the design component is provided through Assumptions presented in the Assumptions Meetings and Needs presented in the Needs Meetings. Additionally, consistent with current practices (M14B Section 1.4.2.1 & 1.4.2.2), PJM will provide notice of the potential interaction associated with EOL needs in the M-3 process or EOL supplemental project(s) submitted for inclusion in the Local Plan and any identified violation, system condition, economic constraint, or public policy requirement included in the PJM open proposal window.

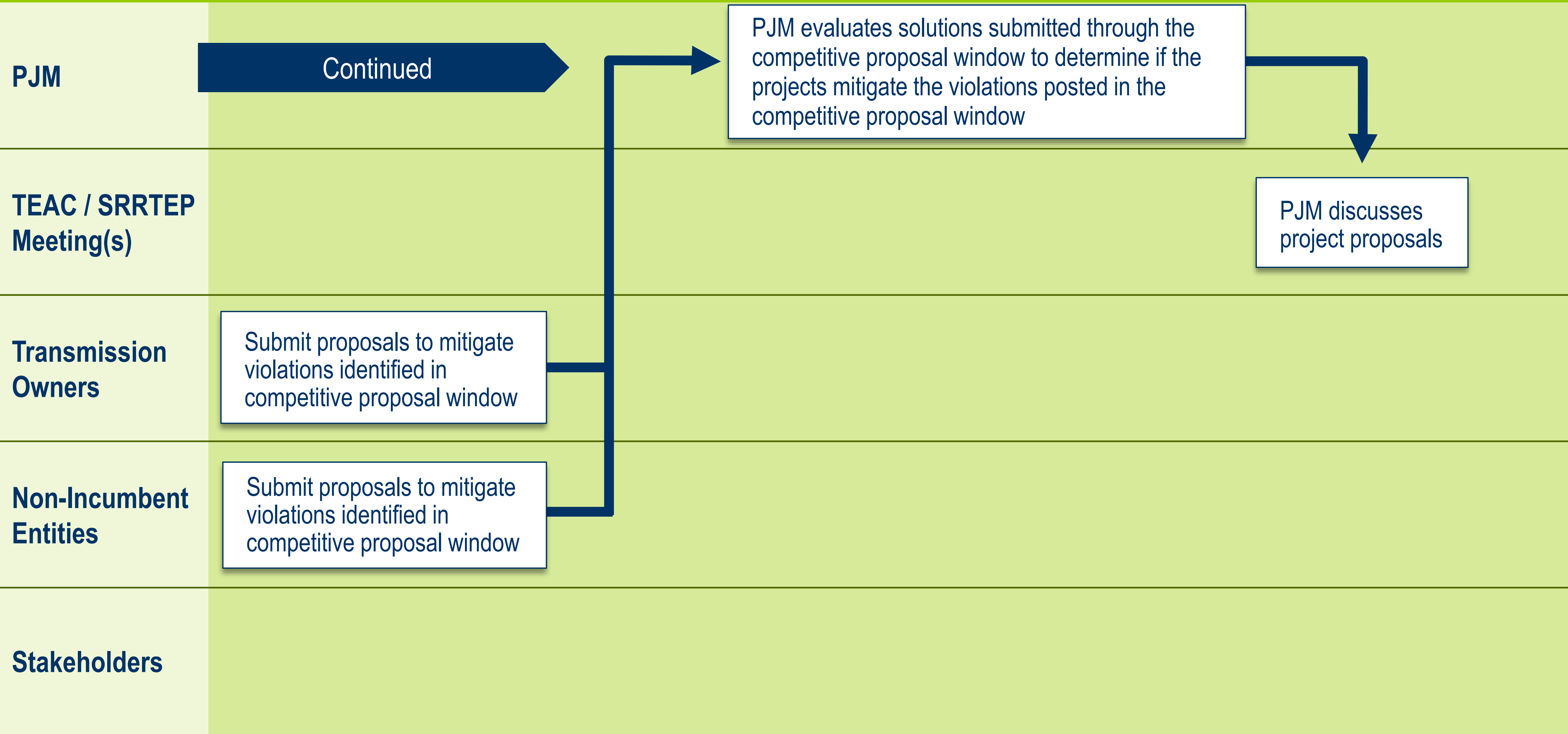
EOL Process Integration Into the Annual RTEP Cycle (Part 1)



EOL Process Integration Into the Annual RTEP Cycle (Part 2)



EOL Process Integration into the Annual RTEP Cycle (Part 3)



EOL Planning Analysis (3c)

Business Rationale:

- PJM performs planning processes for all TO EOL retirement determinations for facilities identified as under PJM's Markets & Reliability and Reliability BES, ensuring the current level of reliability and considering impacts to operational performance; market efficiency and to ensure the solution does not result in the creation of CIP-014 critical facilities.
- PJM's five-year notification for potential EOL candidates links to RTEP needs identification.
- Posting a subset of EOL retirement/replacement candidate list that interact with RTEP violations provides the appropriate level of actionable transparency allowing for potential broader regional solutions when EOL and RTEP violations overlap.
- A five year candidate list permits broader regional solution when RTEP violations overlap while allowing asset owner to prolong asset life based on EOL Determination program

Business Thoughts on Stakeholder Packages:

- The stakeholder package introduces a dichotomy by requiring EOL determination 6–8 years in advance while also verifying asset management determinations, which typically occur within a 1–3 year timeframe.
- The stakeholder package does not honor the difference between asset management and system planning.

EOL Planning Analysis (3c)

Legal Analysis:

See, e.g., Manual 14B, Section 1.1 which provides that:

As part of the review of Supplemental Projects PJM will also apprise the relevant TO if a baseline upgrade might alleviate or partially mitigate the need for a Supplemental Project. In addition, PJM will determine if a Supplemental Project might impact a baseline need identified through the RTEP process, which might be in progress. A discussion of guidelines associated with potential for overlapping needs is detailed in Manual 14B, in Section 1.4.2.

EOL Planning Analysis (3c)

Legal Analysis:

Manual 14B, Section 1.4.2 provides in part:

During a review of the RTEP analysis, it may become apparent that a supplemental need identified in the Attachment M-3 Process may interact with an identified violation, system condition, economic constraint, or public policy requirement posted on the PJM website. In this case, PJM will provide notice of the potential interaction associated with the posted system condition by posting the newly available information to the PJM website and provide notification to stakeholders.

EOL Planning Analysis (3c)

Legal Thoughts on Stakeholder Package:

- To the extent the stakeholder proposal is proposing to require that ***all*** proposed EOL facilities are planned for by PJM through its RTEP process, such authority was not transferred to PJM under the CTOA. Specifically,
  - Regarding planning, the TOs explicitly transferred to PJM per CTOA, Section 4.1.4:
    - The responsibility to prepare an RTEP, which is defined in the Tariff as “the plan prepared by [PJM] pursuant to Operating Agreement, Schedule 6 for the enhancement and expansion of the Transmission System in order to meet the demands for firm transmission service in the PJM Region.”
    - The authority to reasonably request from the TOs information need by PJM to prepare the RTEP.

- CTOA, Section 5.2 did not transfer to PJM the decision to retire TOs’ transmission facilities. In fact, Section 5.2 specifically stated that “PJM shall not challenge any such sale, disposition, retirement, merger, or other action under this Section 5.2 on the basis that they are a signatory to this Agreement.”
- CTOA, Section 5.6 reserves to the TOs rights not specifically transferred by the TOs to PJM under the CTOA. Based on Section 5.2 above, PJM does not have planning authority over the TOs EOL program/process such as requiring that the TOs utilize a 10-year planning horizon.

Status Quo (3b, 4, 6, 8)

PJM Solution Option:

No change to Competition, Documentation (Summarizing EOL Look-Ahead by zone), Supplemental and RTEP definition Design Components.

Business Rationale:

- The PJM solution separates asset management from system planning.
- The PJM solution leverages existing committee processes, which are continuously modified in an effort to strive for continuous improvement.

Legal Analysis:

- To the extent the stakeholder proposal is proposing to require that ***all*** proposed EOL facilities are planned for by PJM through its RTEP process, such authority was not transferred to PJM under the CTOA. Specifically,
  - Regarding planning, the TOs explicitly transferred to PJM per CTOA, Section 4.1.4:
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- CTOA, Section 5.2 did not transfer to PJM the decision to retire TOs' transmission facilities. In fact, Section 5.2 specifically stated that "PJM shall not challenge any such sale, disposition, retirement, merger, or other action under this Section 5.2 on the basis that they are a signatory to this Agreement."
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Legal Thoughts on Stakeholder Package:

Based on PJM's review of the governing documents, the PJM TOs did not transfer to PJM the authority to plan for enhancements or expansions not needed to address PJM planning criteria set forth in the OA, Schedule 6 or a TO's asset management activity or projects; and, therefore, the stakeholders cannot accord to PJM through revisions to the OA authority not specifically transferred to PJM under the CTOA. *See* CTOA, Section 5.6.

PJM Package Next Steps

Documentation Impacts

PJM is investigating impact to Governing Document and Manuals

- PJM believes PJM's Package does not substantially impact Governing Documents
  - No impact to CTOA
  - PJM is performing a more detailed review of Operating Agreement
- PJM's Package will result in modifications to Manual 14B

Answer Questions

Solicit Feedback

Evaluate Feedback to Improve PJM Package

Overlapping Issues in the RTEP

Aaron Berner, Manager – Transmission Planning

Intersection of Baseline and EOL Needs

OVERLAP IDENTIFIED FOR BASELINE AND EOL CANDIDATES

Baseline and EOL candidates are identified that have potential for overlap of solutions

PJM determines that baseline and EOL candidates intersect

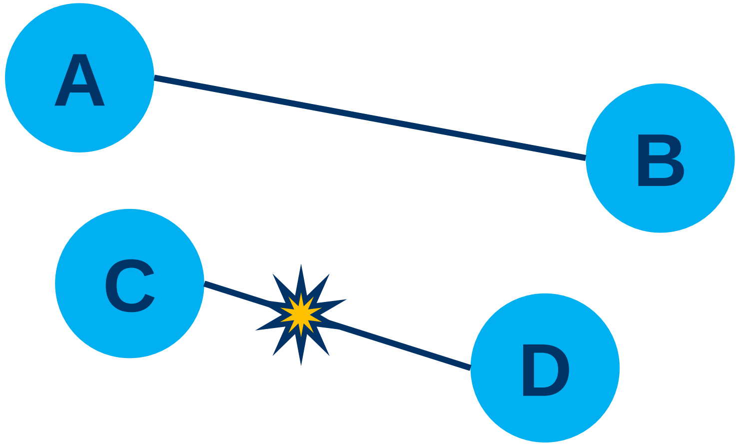
→ Review circumstances associated with all needs

Determine path forward for RTEP

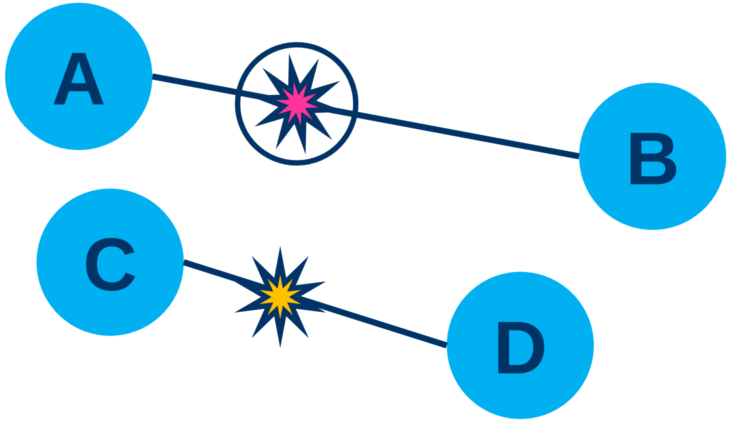
One solution does not solve both needs (baseline upgrade does not eliminate the need for an EOL project)

→ RTEP Baseline proceeds and TO determines next step for EOL candidate project

Example 1



A thermal violation on circuit **C-D**



An EOL candidate is identified on circuit **A-B**

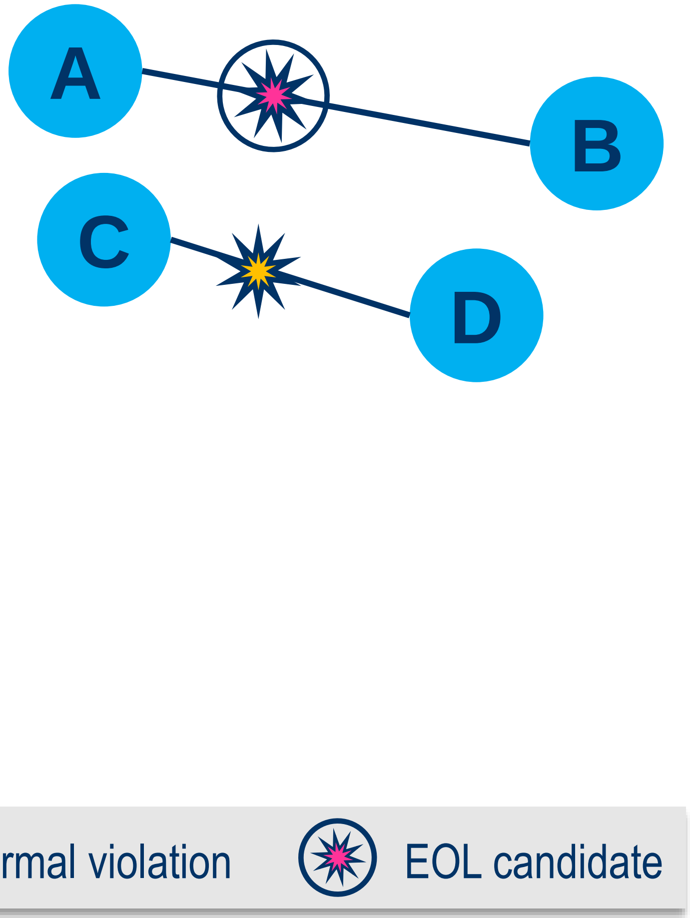
Thermal violation EOL candidate

Violation and EOL on Different Circuits

Example 1

- The project that upgrades A-B may or may not be able to address the issues identified on circuit C-D, and vice versa. If A-B has load tapped from the circuit or the network for A-B and C-D beyond the endpoints of this diagram for each circuit shown diverges, then upgrades made to circuit C-D are not guaranteed to eliminate the issues with EOL on A-B

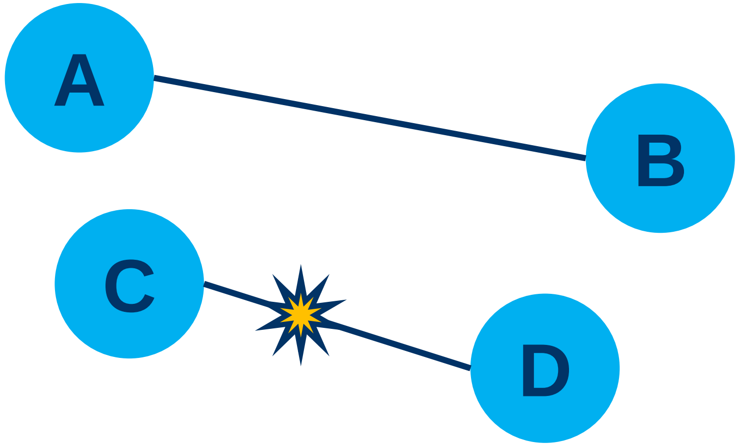
- If A-B and C-D do not share common facilities then it may be unlikely that a baseline upgrade to C-D eliminates the EOL issue on A-B



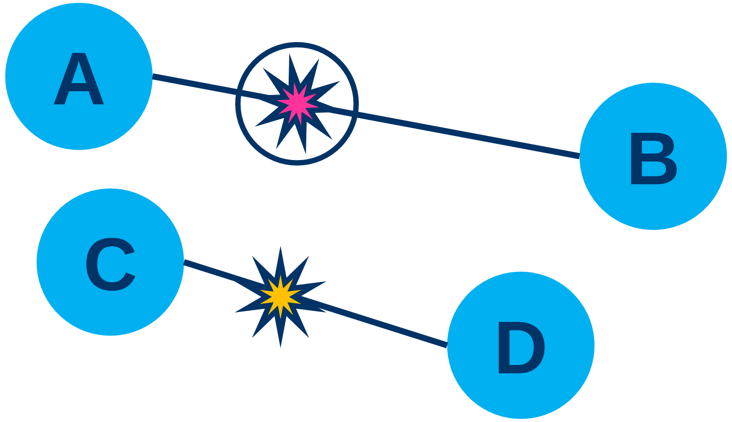
If PJM determines no overlap, no note of EOL candidate in posting for competitive window

Violation and EOL on Different Circuits

Example 2



A thermal violation on circuit **C-D**



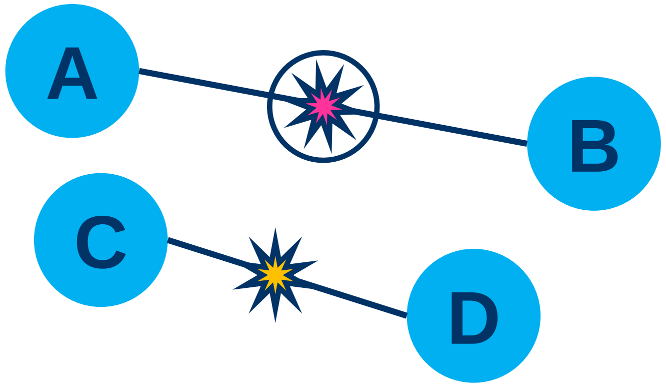
An EOL candidate is identified on circuit **A-B** (Circuits C-D and A-B are on same structures)

Thermal violation EOL candidate

Violation and EOL on Different Circuits

Example 2

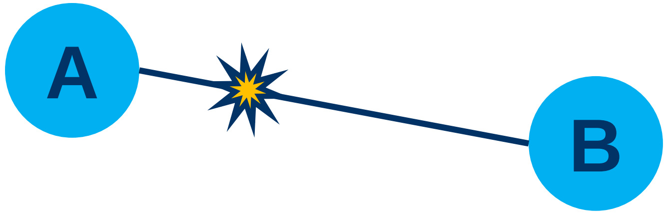
The project that upgrades A-B may or may not be able to address the issues identified on circuit C-D. If A-B and C-D share common facilities, and the upgrade to C-D appears to require a rebuild of C-D then it is likely that A-B should be replaced at the same time work is completed for the C-D circuit (rebuild requirement will be based on magnitude of overload and conductor rating information)



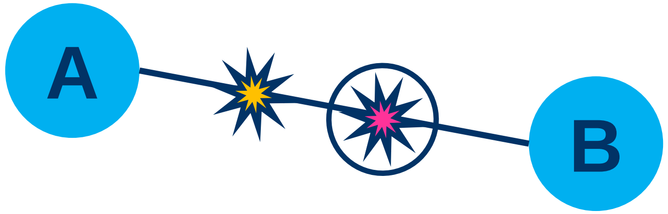
PJM notes in posting for the competitive process that the EOL issue is identified along with a violation that PJM believes may overlap the EOL issue

Thermal violation   EOL candidate

Example 3



A thermal violation on circuit **A-B** is identified which requires mitigation

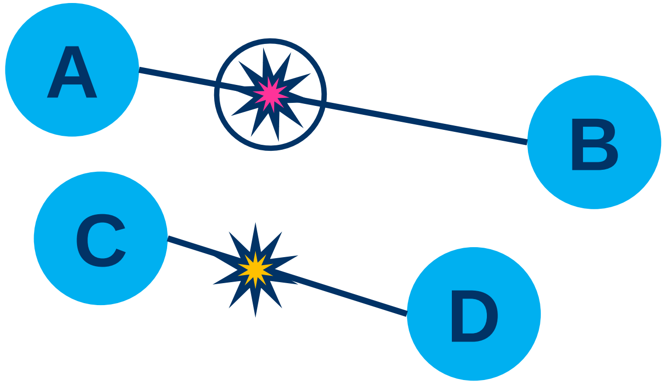


Circuit **A-B** is identified as an EOL candidate

PJM notes in posting for the competitive process that the EOL issue is identified along with a violation that PJM believes may overlap the EOL issue

Thermal violation   EOL candidate

Example 4



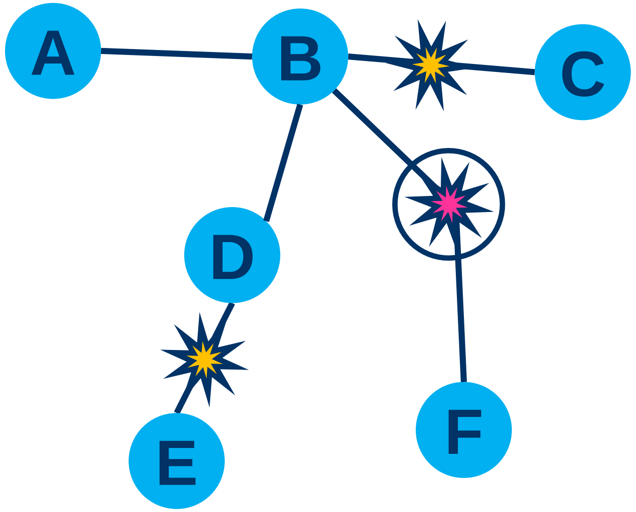
An EOL candidate is identified on circuit **A-B**

A thermal violation on circuit **C-D** at < 200 kV with no other violations

In this example, the single violation on the < 200 kV facility does not meet the requirement to list the facility as available for competition in accordance with the Operating Agreement Schedule 6, Section 1.5.8(n)(i) & (ii). This determination does not change if the facility A-B and C-D are the same facility (both violations on a single facility)

The EOL facility from the EOL Candidate List would not be noted on the posting of the violation. A note would indicate the facility would not be available for competition due to the exemption for the facility being < 200 kV

Example 5



An EOL candidate is identified on circuit **B-F**

Thermal violations are identified on circuits **B-C** and **D-E** at < 200 kV

In this example, the multiple violations on the < 200kV facilities meets the requirement to list the facility as available for competition in accordance with the Operating Agreement Schedule 6, Section 1.5.8(n)(i) & (ii). This determination does not change if the EOL candidate directly overlaps any of the thermal violations

A note would be placed in the posting indicating the exception to the < 200 kV exemption from competition, and the EOL facility from the EOL Candidate List would be listed as well.