

Transparency & End of Life Planning

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Markets and Reliability Committee

May 28, 2020

From the Issue Charge:

- Brought by American Municipal Power (AMP) and Old Dominion Electric Cooperative (ODEC) based on stakeholder efforts in 2019 and earlier regarding end of life transmission planning.
- Intended to develop specific governing document language to establish criteria that will apply to all transmission projects that address end of life drivers on PJM Tariff transmission assets, address planning horizon requirements, and improve overall transparency, consistency, and clarity in the RTEP planning process.

1. Education

- a) Relevant FERC Orders, Operating Agreement, Consolidated Transmission Owners Agreement provisions

2. Consider development of governing language document changes:

- a) Establish requirements for an end of life (EOL) determination process;
- b) Improve transparency in the TO EOL determination process such that stakeholders can confirm that EOL processes were followed (e.g., development or adoption of TO EOL criteria, development of minimum requirements for EOL determinations, etc.);
- c) Establish requirements for EOL replacement planning process in the RTEP plan, including specification of the planning horizon requirements and;
- d) Improve consistency by having PJM review, plan and ultimately approve as part of the RTEP approved by the PJM Board EOL replacement projects.

- Met in December, 2019 and regularly in 2020 to review education and to develop solution packages
- Last met May 15
 - Package B withdrawn. Two packages (A & C) remain for vote today
 - Reviewed supporting document language

Major Component Sections

1. Forward look-ahead process
2. Final determination of EOL process
3. Planning entity process

Additional Components

4. Documentation
5. Supplemental Project Definition
6. EOL Notifications and appropriate EOL Definitions
7. RTEP / Sub-regional RTEP Definition

Upcoming Work plan activities

- June 5 – Drafted Language Review Session
- June 18 – MC Vote

Appendix

Solution Package Summary

Note some elements have been summarized for brevity.

Common status quo for design components in sections 1 through 3 and component 4

Status Quo

Where Transmission Owners 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. Where Transmission Owners include EOL in FERC Form 715 planning criteria, the design component is provided through transmission owner planning criteria filed in FERC Form 715 and needs presented in TEAC/SRRTEP meetings.

Component	A	C
Time Horizon (1a)	TOs to provide notification of its determination of an EOL Condition to PJM and stakeholders a minimum of 6 years from EOL date in order to ensure inclusion in 5 year models and to enable PJM to hold open window competition for EOL Projects.	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 Transmission Owners 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.
Individual TO Criteria/Guidelines (1b)	<p>All TOs must have a program/process for EOL determinations on their PJM Tariffed facilities.</p> <p>If a TO does not already have a program/process, then that TO must develop a program/process and it shall be based on industry averages, manufacturers recommendations and good utility practice</p>	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.

Component	A	C
Program Transparency (1c)	Annually present the details of the methodology of TO EOL program in sufficient detail that stakeholders can understand and to the extent feasible replicate the results for individual facilities determined to be EOL	TO will annually present the details of TO EOL program as part of TEAC meeting.
Asset EOL determination transparency (1d)	Regularly present final TO EOL facilities to stakeholders with specific information for understanding and to allow stakeholders to ensure determination was done consistent with TO program	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 Transmission Owners 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.

Component	A	C
Time Horizon (2a)	All TOs to have a minimum 10 year look-ahead EOL program on all PJM-tariff facilities	Transmission Owners to provide to PJM 5 years EOL retirement/replacement candidate projection list (limited to transmission lines, including associated transmission line support equipment such as tower structures, and transformers).
Individual TO Criteria/Guidelines (2b)	<p>All TOs must have a program/process for 10 year look ahead on their PJM Tariffed facilities.</p> <p>If a TO does not already have a program/process, then that TO must develop a program/process and it shall be based on industry averages, manufacturers recommendations and good utility practice</p>	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.
Program Transparency (2c)	Present each TOs EOL look-ahead program with their criteria/guidelines to stakeholders with at least annual updates presenting changes and justification for such changes	TO will annually present the details of TO EOL program as part of TEAC meeting.

Component	A	C
Transparency for EOL facilities (2d)	Annually present TO EOL look-ahead facilities as part of EOL program to stakeholders with sufficient information for stakeholders to understand how the EOL designations align with and support the TO's overall program	TO will annually present the details of TO EOL program as part of TEAC meeting.

Component	A	C
Notification of final EOL determination (3a)	<p>Required 6 year EOL notification for all PJM-Tariff facilities accompanied by sufficient documentation for stakeholders to be able to understand and replicate TO decision.</p> <p>This notification is the trigger point for PJM regional planning process and all EOL notifications to be included in PJM models used in Proposal Windows.</p>	<p>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 Transmission Owners 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.</p>
EOL replacement/retirement competitive planning process (3b)	<p>EOL notification "needs" solutions are a part of the competitive bidding via existing PJM process.</p>	<p>Status Quo</p>

Component	A	C
EOL replacement/retirement planning analysis (3c)	PJM performs planning processes for all TO EOL replacement/retirement, ensuring current level of reliability and considering impacts to operational performance and market efficiency to ensure solution does not result in the creation of CIP-014 critical facilities.	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 Transmission Owners 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.

Component	Status Quo	A	C
Documentation of determination process and planning process (4)		PJM to create a new process for summary/tracking of look-ahead EOL facilities by zone from the TOs look-ahead presentations	Status Quo
Supplemental Project Definition (6)	Defined in OA Section 1. Definitions.	Supplemental Project definition modified to exclude any EOL notification projects.	Status Quo
EOL Notifications and appropriate EOL definitions (7)	Not currently in Operating Agreement	Added to Operating Agreement as a regionally planned projects and as a distinct category from reliability projects	N/A
RTEP / subregional RTEP Definition (8)	Defined in OA Section 1. Definitions.	Definition modified to include EOL notification projects	Status Quo