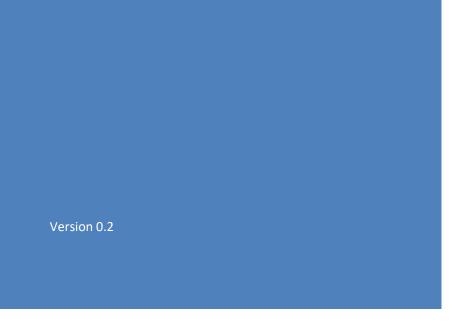
August 15, 2022

PJM TRANSMISSION OWNERS ATTACHMENT M-3 PROCESS GUIDELINES



CONTENTS

1	Intro	oduction	2
	1.1	About This Document	2
	1.2	Intended Audience	3
2	atta	chment m-3 Project Planning Overview	3
	2.1	Purpose	3
	2.2	Attachment M-3 Project Definition and Drivers	5
	2.2.1	Definition	5
	2.2.2	Drivers	7
	2.3	Roles and Responsibilities	11
	2.3.1	Transmission Owners	11
	2.3.2	PJM Stakeholders	11
	2.3.3	PJM	12
3	Atta	chment M-3 Project Planning Process	12
	3.1	Overview of Exchange of Information During the M-3 Process	12
	3.2	Steps in the M-3 Process	13
	3.2.1	Review of Assumptions and Methodology	13
	3.2.2	Review of System Needs	15
	3.2.3	Review of Potential Solutions	16
	3.2.4	Submittal of Attachment M-3 Projects for Inclusion in Local Plan and Integration into RTEP	17
	3.2.5	Additional Procedures for Identification and Planning of EOL Needs	19
Αı	opendic	res	20

Version	Adopted by Transmission Owners			
0.1	October 4, 2019			
0.2	August 15, 2022			

1 INTRODUCTION

In this introductory section, you will find information about this guide, the purpose of this document, and the intended audience.

1.1 About This Document

This document provides general guidelines to implement the FERC-approved framework for planning Attachment M-3 Projects, defined below, under PJM Open Access Transmission Tariff (OATT), Attachment M-3 (the "M-3 Process").

These guidelines have been developed and adopted by the PJM Transmission Owners that plan Attachment M-3 Projects through the M-3 Process and that are listed in Appendix 1 ("Transmission Owners"). These guidelines are subject to change from time to time and the Transmission Owners plan to review them periodically. Additional PJM Transmission Owners that plan Attachment M-3 Projects may also adopt these guidelines.

The uniform approach presented in these PJM Transmission Owners Attachment M-3 Process Guidelines ("Guidelines") provides all stakeholders with an understanding of the step-by-step interactive information exchange process under the M-3 Process, including how they can best provide input at various stages of the process. However, nothing in this document modifies Attachment M-3 in any respect or imposes obligations or confers any rights or privileges on PJM, Transmission Owners, or PJM stakeholders. Accordingly, this document should be interpreted to be consistent with the provisions of Attachment M-3 and if anything in this document appears to be inconsistent with anything in Attachment M-3, the provisions of Attachment M-3 govern. In addition, nothing in this document should be interpreted to preclude any Transmission Owner from holding additional meetings or communications with stakeholders regarding the planning of Attachment M-3 Projects.

1.2 Intended Audience

The intended audience for these Guidelines includes the following:

- Transmission Owners' planning, legal, and regulatory staff
- Transmission customers and their representatives
- Federal, state, and local government and regulatory personnel
- PJM staff and leadership
- PJM members and other interested PJM stakeholders

2 ATTACHMENT M-3 PROJECT PLANNING OVERVIEW

2.1 Purpose

The process followed by the Transmission Owners to plan Attachment M-3 Projects with PJM and the PJM stakeholders is laid out in Attachment M-3. Attachment M-3 outlines how the TEAC and Subregional Regional Transmission Expansion Plan ("RTEP") Committees, assigned responsibility for review of Attachment M-3 Projects, review assumptions and methodology, system needs, and potential solutions to meet those system needs and how stakeholders can provide comments before and after each of these meetings, including on the Attachment M-3 Projects the Transmission Owners select for submittal to PJM for inclusion in the Local Plan. This document provides further information about the process laid out in Attachment M-3.

FERC originally accepted Attachment M-3 as just and reasonable in Docket No. ER17-179-000, as compliant with FERC Order No. 890.¹

 $^{^1}$ Monongahela Power Co., 162 FERC ¶ 61,129, on reh'g and compliance, 164 FERC ¶ 61,217 (2018). Preventing Undue Discrimination and Preference in Transmission System Service, Order No. 890, FERC Stats. & Regs. ¶ 31,241 ("Order No. 890"), order on reh'g, Order No. 890-A, FERC Stats. & Regs. ¶ 31,261 (2007), order on reh'g, Order No. 890-B, 123 FERC ¶ 61,299 (2008), order on reh'g, Order No. 890-C, 126 FERC ¶ 61,228, order on clarification, Order No. 890-D, 129 FERC ¶ 61,126 (2009).

In its September 26, 2018 rehearing order in that docket, with respect to Supplemental Projects, FERC explained,

The Supplemental Projects planning process established in Attachment M-3, with the revisions directed in the February 15 Order, provides for separate meetings for stakeholders to review and discuss the assumptions that the PJM Transmission Owners use to plan and identify Supplemental Projects, the identified criteria and system needs that may drive the need for Supplemental Projects, and potential solutions and alternatives to meeting those needs. The process further prescribes time periods for stakeholders to review materials and provide comments which . . . we find to be sufficient to comply with Order No. 890. We confirm that this process ensures that the Supplemental Projects planning process in PJM complies with Order No. 890, including by providing sufficient transparency to stakeholders regarding the basic criteria, assumptions, and data that underlie their transmission system plans and ensuring appropriate lines of communication between stakeholders and the PJM Transmission Owners.²

FERC recognized that its orders do not require all transmission planning within an RTO such as PJM to be conducted by the RTO, saying, "When transmission owners participate in an RTO, the Commission did not require them to allow the RTO to do all planning for local or Supplemental Projects. Rather, the Commission recognized 'RTO planning processes may focus principally on regional problems and solutions, not local planning issues that may be addressed by individual transmission owners."³

On August 11, 2020, FERC accepted amendments to Attachment M-3 as just and reasonable in Docket No. ER20-2046-000.⁴ The amendments expanded the scope of the Attachment M-3

² 164 FERC ¶ 61,217 at P 30, citing Order No. 890, FERC Stats. & Regs. ¶ 31,241 at PP 454, 461, 471.

³ 164 FERC ¶ 61,217 at P 13, quoting Order No. 890, FERC Stats. & Regs. ¶ 31,241 at PP 440.

⁴ PJM Interconnection, L.L.C., 172 FERC \P 61,136 (2020), modified and the result sustained, 173 FERC \P 61,225 (2020). As of the date of these guidelines, FERC's orders are pending on appeal at the United States Court of Appeals for the District of Columbia Circuit.

from solely prescribing procedures governing the planning of Supplemental Projects to prescribe procedures governing the planning of Attachment M-3 Projects. Namely, the amendments revised Attachment M-3 to (1) encompass certain PJM Transmission Owner asset management activities and projects despite the fact that they are not subject to the transmission planning requirements of Order No. 890, and (2) improve coordination between the Transmission Owners' planning for certain asset management projects to replace Transmission Facilities nearing the end of their useful lives ("EOL Need") with PJM's development of the RTEP when a single solution would address both the EOL Need and the need to plan for a Required Transmission Enhancement under the RTEP process.

Attachment M-3 describes the open and transparent process through which the Transmission Owners conduct planning for Attachment M-3 Projects to complement and coordinate with PJM's preparation of the RTEP.

2.2 Attachment M-3 Project Definition and Drivers

2.2.1 Definition

An Attachment M-3 Project is: (i) an Asset Management Project, as defined in Attachment M-3, that affects the connectivity of Transmission Facilities that are included in the Transmission System, affects Transmission Facility ratings or significantly changes the impedance of Transmission Facilities; (ii) a Supplemental Project, as defined in the PJM Operating Agreement; or (iii) any other expansion or enhancement of Transmission Facilities that is not otherwise excluded from Attachment M-3.⁵

⁵ Attachment M-3, section (b)(2). The "other exclusions" category consists of expansions and enhancements that are not planned by PJM to address (1) NERC reliability criteria; (2) individual TO FERC Form 715 criteria; (3) certain economic constraints as set forth in the PJM Operating Agreement; (4) projects developed under PJM's State Agreement Approach; and (5) expansions or enhancements planned through the PJM RTEP in accordance with the EOL/PJM Planning Criteria coordination procedures set forth in Attachment M-3.

An Asset Management Project is any modification or replacement of a Transmission Owner's Transmission Facilities that results in no more than an Incidental Increase (defined below) in transmission capacity undertaken to perform maintenance, repair, and replacement work, to address an EOL Need, or to effect infrastructure security, system reliability, and automation projects the Transmission Owner undertakes to maintain its existing electric transmission system and meet regulatory compliance requirements.

An Incidental Increase in transmission capacity is defined in Attachment M-3 as an increase in transmission capacity achieved by advancements in technology and/or replacements consistent with current Transmission Owner design standards, industry standards, codes, laws or regulations, which is not reasonably severable from an Asset Management Project.

A Supplemental Project is defined in the PJM Operating Agreement as a transmission expansion or enhancement that is not required for compliance with the following PJM criteria: system reliability, operational performance or economic criteria, pursuant to a determination by the Office of the Interconnection and is not a state public policy project.

Supplemental Projects are critical to the transmission system. They are transmission expansions or enhancements that enable the continued reliable operation of the transmission system by meeting customer service needs, enhancing grid resilience and security, promoting operational flexibility, addressing transmission asset health, and ensuring public safety, among other things. Supplemental Projects may also address reliability issues for transmission facilities that are not considered under NERC requirements or other PJM planning criteria. Maintenance work and emergency work (e.g., work that is unplanned, including necessary work resulting from an unanticipated customer request, to repair equipment or facilities damaged by storms or other causes, or to replace failing or failed equipment) do not constitute Supplemental Projects.

2.2.2 Drivers

The table below reflects the five primary drivers of Attachment M-3 Projects. Each Transmission Owner explains the assumptions and methodologies it uses to identify needs implicating one or more of these drivers at the annual Assumptions Meeting provided under the M-3 Process. Each Transmission Owner also presents the needs it has identified applying these assumptions and methodologies at the Needs Meeting. Each Transmission Owner further presents the potential solutions it has identified for addressing those needs at the Solutions Meeting. FERC has recognized that this process provides "additional transparency [that] will help mitigate concerns that Supplemental Projects may be structured to avoid or replace regional transmission projects that would otherwise be subject to competitive transmission development under Order No. 1000."

⁶ 162 FERC ¶ 61,129 at P 108.

Customer Service

• Service to new and existing customers. Interconnect new customer load. Address distribution load growth, customer outage exposure, equipment loading.

Equipment Material Condition, Performance and Risk

 Degraded equipment performance, material condition, obsolescence, including at the end of the useful life of equipment or a facility, equipment failure, employee and public safety and environmental impact.

Operational Flexibility and Efficiency

 Optimizing system configuration, equipment duty cycles and restoration capability, minimize outages.

Infrastructure Resilience

• Improve system ability to anticipate, absorb, adapt to, and/or rapidly recover from a potentially disruptive event, including severe weather, geo-magnetic disturbances.

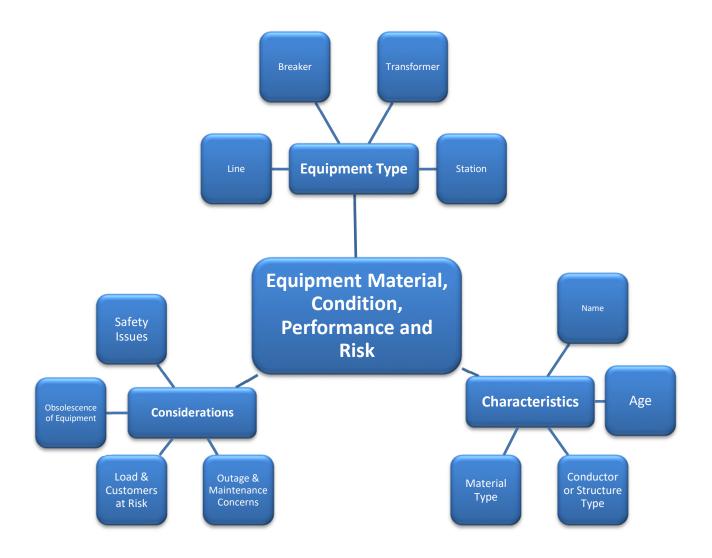
Other

• Meet objectives not included in other definitions such as, but not limited to, technological pilots, industry recommendations, environmental and saftey impacts, etc.

Transmission expansions or enhancements that replace facilities that are near or at the end of their useful lives are also the focus of the Equipment Material Condition, Performance and Risk driver and may be considered Supplemental Projects or Asset Management Projects. To maintain the safety and reliability of the grid, the need to replace or retire a facility nearing or at the end of its useful life is determined by the Transmission Owner on a case by case basis or through a programmatic approach, based on good utility practice and the assumptions the Transmission Owner has identified. Such activities may take place through the M-3 Process.

By way of reference, with respect to certain expansions or enhancements, programmatic replacement can reflect a Transmission Owner's approach of replacing a particular asset class, design or vintage throughout its system as a result of, but not limited to, reliability concerns,

maintenance concerns, known defects, engineering recommendations and general system or asset risk. A Transmission Owner may also determine to replace an individual asset near or at the end of its useful life based on an engineering recommendation driven by factors such as an asset failure or presenting undue risk of failure, uneconomical maintenance, and outdated or obsolete technology and equipment. Those factors for a particular asset that is near or at the end of its useful life are evaluated based upon the facility's health and condition, which can be determined by performance history, maintenance history, equipment criticality, age, and other considerations for a specific facility. While each Transmission Owner develops and applies its own factors and considerations for addressing facilities at or near the end of its useful life, the diagram below generally illustrates some of the parameters that may be considered in the evaluation.



2.3 Roles and Responsibilities

2.3.1 Transmission Owners

Under Attachment M-3, each Transmission Owner that plans Attachment M-3 Projects is responsible for:

- Attachment M-3 Project planning activities in accordance with that Transmission
 Owner's assumptions and methodologies.
- Finalizing for submittal to PJM Attachment M-3 Projects for inclusion in the Local Plan in accordance with section 1.3 of Schedule 6 of the Operating Agreement and the schedule established by PJM.
- Timely providing PJM with materials related to assumptions, needs, potential solutions, and the Attachment M-3 Projects it is submitting for inclusion in the Local Plan so that stakeholders are informed and PJM can perform its obligations under Schedule 6 of the Operating Agreement.
- Determining how to respond to stakeholder comments or questions throughout the Attachment M-3 planning process.

2.3.2 PJM Stakeholders

Participating PJM stakeholders are responsible for:

Articulate and provide materials regarding their needs and potential solutions so that
the Transmission Owner can appropriately consider and evaluate stakeholder input
when developing its solutions and finalizing its submittal to PJM of Attachment M-3
Projects for inclusion in the Local Plan.

In addition, participating PJM stakeholders are encouraged to:

 Review Transmission Owner provided materials presented for the Assumptions, Needs, and Solutions Meetings.

Articulate relevant questions and concerns at the appropriate stages of the Attachment
 M-3 Project planning process.

2.3.3 PJM

PJM, in its role as a facilitator in the M-3 Process, is responsible for:

- Providing necessary facilitation and logistical support so that Attachment M-3 Project
 planning meetings can be conducted as outlined in OATT Attachment M-3
- Providing the applicable Transmission Owners with modeling information so that the Transmission Owners can determine if a stakeholder proposed project can address an Attachment M-3 Project need
- Performing Do No Harm analysis to ensure that an Attachment M-3 Project a
 Transmission Owner selects for inclusion in the Local Plan does not cause additional reliability violations.

3 ATTACHMENT M-3 PROJECT PLANNING PROCESS

3.1 Overview of Exchange of Information During the M-3 Process

Through the M-3 Process, the Transmission Owners provide information and receive input from stakeholders about (1) the assumptions and methodologies they use to develop Attachment M-3 Projects; (2) the system needs they identify based on those assumptions and methodologies, (3) the potential solutions they develop to address those needs; and (4) the Attachment M-3 Projects that each Transmission Owner selects for inclusion in the Local Plan. Each of those steps is described in Attachment M-3 and in these Guidelines. The standard elements of presentations used to convey this information, as well as applicable timelines and process elements are described graphically in Appendices 2 through 5 to these Guidelines.

Stakeholders can also use the M-3 Process to identify needs on a Transmission Owner's system that may be satisfied by an Attachment M-3 Project and/or potential solutions to the needs identified by a Transmission Owner or stakeholder. Stakeholders may also provide comments or questions during each stage of the M-3 Process. The primary vehicle for stakeholders to provide questions and comments under the M-3 Process is through the PJM Planning Community. At each stage of the M-3 Process, stakeholder questions and comments should be directed to the matters under consideration at that stage (i.e., stakeholder questions and comments at the needs identification stage should be directed to the needs identified by the Transmission Owners and stakeholders).

Responses to stakeholder questions or comments may be accomplished through updates to the slides used in the presentation from which the comments were received, or through responses posted in the Planning Community. If the information to be provided does not fall within the boundaries of information which can be accommodated on slides, then the response should be provided through the Planning Community unless the response requires access to confidential or CEII information. If confidential or CEII information is required to provide a response to the comment from a stakeholder, then the appropriate protections for the information must be secured prior to providing the information to the stakeholder(s) requesting the information, and PJM will provide the information through a secure transport mechanism to the stakeholder(s) requesting the information.

3.2 Steps in the M-3 Process

The M-3 Process comprises the steps described below.

3.2.1 Review of Assumptions and Methodology

Each TEAC and Subregional RTEP Committee, as appropriate, shall schedule and facilitate a minimum of one stakeholder meeting to review the assumptions and

methodologies that each Transmission Owner proposes to use to plan and identify Attachment M-3 Projects. These criteria may be qualitative, rather than quantitative or other bright-line tests, as a Transmission Owner may identify needs for Attachment M-3 Projects based on the qualitative consideration of a number of factors. The models used in the M-3 Process are the load flow, short circuit, and/or stability models required to review the impacts of potential solutions under the M-3 Process. They incorporate the current topology of the systems necessary for modeling any needs which are already evident at the time of the Assumptions Meetings. The discussions of the assumptions and methodologies may be combined with discussions required for other processes, such as baseline analysis, and conducted at a single meeting for the relevant Transmission Owner to cover both the TEAC and Subregional RTEP Committee meeting requirements.

Each Transmission Owner shall target to provide the assumptions and methodologies to PJM 25 days prior to the scheduled Assumptions Meeting to allow PJM to post the materials at least 20 days in advance of the Assumptions Meeting.

Stakeholders may provide comments on the assumptions and methodologies at the Assumptions Meeting or through the Planning Community. For stakeholder comments submitted through the Planning Community, PJM will provide this information to the Transmission Owner for consideration either prior to or following the Assumptions Meeting. The Transmission Owner shall review and consider comments that are received no more than 10 days following the Assumptions Meeting and may respond or provide feedback as appropriate.

During the review of a need or solution under the M-3 Process, it may become evident that a model that had not been previously provided to the stakeholders will be required to review the need or potential solutions. In the event a new model is required, the

Transmission Owner shall provide the model required with the information for the relevant phase of the M-3 Process so that the needs or solutions information and the appropriate model can be made available to stakeholders. If the required modeling information is not available, the slides associated with the model which is unavailable will not be posted for review in the relevant M-3 Process stage until the model is made available for the stakeholders.

The Transmission Owner shall delineate and present its Attachment M-3 EOL Planning Criteria and/or Form 715 EOL Planning Criteria, as applicable and as those terms are defined under Attachment M-3, at least once annually as specified in Attachment M-3.

3.2.2 Review of System Needs

No fewer than 25 days after the Assumptions Meeting, each TEAC and Subregional RTEP Committee shall schedule and facilitate a minimum of one meeting per planning cycle to review the system needs, if any, that may drive the need for an Attachment M-3 Project.

Each Transmission Owner or stakeholder that has identified one or more needs will review the identified system needs and the drivers of those needs, based on the application of the Transmission Owner's assumptions and methodologies that has been previously presented. Any references to contingencies in the presentation of needs shall reference the PJM RTEP contingency unless the contingency is not a PJM RTEP contingency. If the contingency is not a PJM RTEP contingency, the Transmission Owner or stakeholder shall provide the full contingency description in the needs presented to the stakeholders. PJM will not post materials associated with any needs for which the required case and necessary file information is not provided (subsystem, monitoring, contingency).

In the event PJM notifies a Transmission Owner that PJM has determined that a baseline project PJM has identified in the RTEP process may eliminate the need the Transmission Owner had identified for an Attachment M-3 Project, and for which the Transmission Owner has not yet begun development of a solution, the Transmission Owner may elect to present its analysis of the need again, taking into account the baseline project, at a Needs Meeting. In that event, the documentation the Transmission Owner provides to support its identification of the need must satisfy the requirements of Attachment M-3. If the Transmission Owner determines that the system need still exists and it has already identified a solution to the need through the M-3 Process, the Transmission Owner is not required to present the solution again at a Solutions Meeting and may submit an Attachment M-3 Project to PJM for inclusion in the Local Plan to satisfy that need.

The Transmission Owners and stakeholders shall target to provide the identified needs to PJM 15 days prior to the scheduled Needs Meeting to allow PJM to post the materials at least 10 days in advance of the Needs Meeting.

Stakeholders may provide comments concerning the needs presented at the Needs Meeting or through the Planning Community. For stakeholder comments submitted through the Planning Community, PJM will provide this information to the Transmission Owner for consideration prior to, at, or following the Needs Meeting. The Transmission Owner shall review and consider comments that are received no later than 10 days following the Needs Meeting and may respond or provide feedback as appropriate.

3.2.3 Review of Potential Solutions

No fewer than 25 days after the Needs Meeting, each TEAC and Subregional RTEP Committee shall schedule and facilitate a minimum of one meeting per planning cycle to review potential solutions for the identified needs.

The Transmission Owners and stakeholders shall target to provide the potential solutions to PJM 15 days prior to the scheduled Solutions Meeting to allow PJM to post the materials at least 10 days in advance of the Solutions Meeting. Included in these submissions of the solutions shall be the modeling and contingency file changes which can be used to model the potential solution. In the event the modeling required to represent the relevant solution(s) is not provided, the solutions will not be presented to the relevant committee until the modeling is available for stakeholder review.

Stakeholders may provide comments on the potential solutions at the Solutions Meeting or through the Planning Community. For stakeholder comments submitted through the Planning Community, PJM will provide this information to the Transmission Owner for consideration either prior to or following the Solutions Meeting. The Transmission Owner shall review and consider comments that are received no later than 10 days following the Solutions Meeting and may respond or provide feedback as appropriate.

3.2.4 Submittal of Attachment M-3 Projects for Inclusion in Local Plan and Integration into RTEP

a. Submittal of Attachment M-3 Projects for Inclusion in the Local Plan Each Transmission Owner will finalize the Attachment M-3 Projects it selects as solutions to the identified needs and provide to PJM those Attachment M-3 Projects for inclusion in the Local Plan. Included in this submission shall be a slide providing information describing the Attachment M-3 Project and reference the original indicated need for each Attachment M-3 Project. Note that multiple needs may be satisfied by a single Attachment M-3 Project. PJM shall complete the required Do No Harm studies prior to posting the selected solution which has been designated as the Attachment M-3 Project. In the event that an Attachment M-3 Project must be modified in order to mitigate any identified issues, PJM shall recommend to the Transmission Owner

whether the modified solution should be reposted as a revised solution in a new Solutions Meeting.

The slides showing the Attachment M-3 Project(s) to be included in the Local Plan will be posted for stakeholder review on the relevant TEAC or Subregional RTEP Committee web page(s). PJM shall notify the relevant committees regarding the posting of these Attachment M-3 Projects through the applicable email list through PJM.com for those committees. All stakeholders must be subscribed to the appropriate committee email list to receive these notifications.

Stakeholders may provide comments on the selected Attachment M-3 Projects through the Planning Community. PJM will provide this information to the Transmission Owner for its consideration. Stakeholders shall have at least 10 days to comment on the Transmission Owner's submission of a solution for inclusion in the Local Plan. The Transmission Owner shall review and consider comments that are received no later than 10 days after the Attachment M-3 Project(s) selection has been indicated through the posting of the selected project(s) on the relevant committee page.

b. Submittal of Attachment M-3 Projects for Integration into RTEP

The Transmission Owner shall target to submit the Attachment M-3 Project(s) for inclusion in the Local Plan, and subsequently, integration into the RTEP, no later than July 31 of each year in order to facilitate the subsequent year RTEP case building activities. The Transmission Owner may submit Attachment M-3 Project(s) for inclusion in the Local Plan at any point which is no less than 10 days after the Attachment M-3 Project(s) are posted under step 4(a) above. The Transmission Owners may also identify system needs and/or Attachment M-3 Projects and request that PJM include additional Attachment M-3 Projects in the Local Plan after July 31 of each year so that they might also be included in the subsequent year RTEP case if the submission of those projects

will not disrupt the case building activities or analysis underway which is using that RTEP case. After the Attachment M-3 Project(s) have been included in the Local Plan, that Local Plan will be submitted for integration into the RTEP, thus completing the M-3 Process for those Attachment M-3 Project(s).

3.2.5 Additional Procedures for Identification and Planning of EOL Needs

Annually and subject to change as necessary, the Transmission Owner will provide to PJM a Candidate EOL Needs List comprising its non-public, confidential, non-binding projection of up to 5 years of EOL Needs. This Candidate EOL Needs List shall remain confidential within PJM, except as otherwise provided in Attachment M-3.

PJM and the Transmission Owner shall coordinate the Transmission Owner EOL Needs planning with PJM Planning Criteria needs, as specified in Attachment M-3.

APPENDICES

APPENDIX 1 - Guideline Applicable TOs

The PJM Transmission Owners listed below and the PJM Transmission Owners affiliated with the service companies and holding companies listed below employ these Guidelines in their implementation of PJM OATT Attachment M-3.

American Electric Power Service Corporation

The Dayton Power and Light Company d/b/a AES Ohio

Duke Energy Ohio, Inc., and Duke Energy Kentucky, Inc.

Virginia Electric and Power Company d/b/a Dominion Energy Virginia

Duquesne Light Company

East Kentucky Power Cooperative, Inc.

Exelon Corporation

FirstEnergy Service Company

PPL Electric Utilities Corporation

Public Service Electric and Gas Company

Rockland Electric Company

Appendix 2 - M-3 Process Standard Slide Elements

#	Requirement	Notes	Needs Meeting	Solutions Meeting	Local Plan Submittal	Who
1	Need Number	Assigned by TO – E.g., PL (PPL-2018-0001) Co. abbreviation, calendar year, sequential number for that year	X	X	Х	то
2	Process Stage and Date	Identify the stage of the process; Needs, Solution or Local Plan and the date of the associated review or plan submittal	X	Х	Х	то
3	Process Chronology (Previous Presentations)	Additive, includes all review history - previous dates for Needs meeting(s), Solutions meeting (s), Local Plan submittal(s) occurred	X	X	X	то
4	Footer Note (as required)	Slides may be updated with information in response to relevant questions	X	Х	Х	то
5	Project Driver(s)	Descriptions from one or more drivers	Х	Х	Х	то
6	Specific Assumption References	Information that ties back to information from assumptions meeting	Х	Х	Х	ТО
7	Model	Model required to represent the current topology of the systems which might be necessary for modeling the needs. Model updated at the Solutions meeting if necessary to model the needs and solution.	X	X	X	то
8	Problem Statement or Specific Need Detail	Describe the facilities and associated problems and relevant supporting information	Х	Х	Х	то

Appendix 2 - M-3 Process Standard Slide Elements

#	Requirement	Notes	Needs Meeting	Solutions Meeting	Local Plan Submittal	Who
9	Geographic Locating Map	Locate the geographic location of the transmission facilities (Transmission Owner to supply map if identified system elements are not available in PJM map system)	х	x	Х	ТО/РЈМ
10	Potential Solution (May include a primary and multiple alternate solutions)	 Name of project (station name, endpoints of line, etc.) Circuit MVA rating before and after 		X		ТО
11	Estimated Project Cost	Project cost estimate for proposed or selected solution		х	Х	то
12	Projected IS Date	Expected/projected in-service date of the proposed solution		Х	X	то
13	Connection Diagram	Provide system diagram to visualize solution on the system		Х	Х	то
14	Alternatives Considered	Description of each solution considered by the TO including cost information, if relevant		Х		то
15	Selected Solution	Description of the Selected Solution: as originally presented, or subsequently modified			X	то
16	Project Status	Current Status of Project (Conceptual, Engineering, Construction, In service, other)		Х	Х	ТО

Appendix 2 - M-3 Process Standard Slide Elements

#	Requirement	Notes	Needs	Solutions	Local Plan	Who
			Meeting	Meeting	Submittal	
17	Project ID	Assigned by PJM upon receipt of the selected solution from the TO, after the Solutions Meeting and 10-day comment period, Do No Harm testing is completed, and before the Local Plan is posted			Х	РЈМ
18	Ancillary Benefits	Description of system benefits provided by the solution which exceed requirements of the stated needs		X	X	ТО

Appendix 3 - M-3 Process Flow Charts - Assumptions

	Activity	Timing	Who	How
1	Posting of Annual Assumptions Meeting date (others may occur throughout the year as needed)	November 1	РЈМ	Web posting on SRRTEP web pages
2	Submittal of materials for Assumptions Meeting	5 days before of posting date25 days beforeAssumptions Meeting	ТО	E-mail to PJM
3	Posting of TO Assumptions meeting information	20 days before Assumptions Meeting	PJM	Web posting of meeting materials
4	Assumptions Meeting	-	All	-
5	Stakeholder comments	10 days after Assumptions Meeting	Stakeholders	Planning Community
6	TOs review and consider stakeholder comments	10 days after comments received	TOs	Based upon comments, TO may add information in revised slides sent to PJM and PJM re-posts

Appendix 3 - M-3 Process Flow Charts - Needs

	Activity	Timing	Who	How
1	Send Needs Meeting slides to PJM	15 days before Needs Meeting	TO / Stakeholders	E-mail to PJM
2	Posts Needs Meeting slides	10 days before Needs Meeting	РЈМ	Web posting of meeting materials
3	Needs Meeting	-	All	-
4	Stakeholder comments	10 days after Needs Meeting	Stakeholders	Planning Community
5	Review and consider stakeholder comments	10 days after comments received	TOs	Based upon comments, TO may add information in revised slides sent to PJM and PJM re-posts

Appendix 3 - M-3 Process Flow Charts - Solutions

	Activity	Timing	Who	How
1	Send Solutions Meeting slides and, for proposed solution, modeling information (contingency files, IDEV, etc.) to PJM	15 days before Solutions Meeting	TOs and Stakeholders	E-mail to PJM
2	Finalize Solutions Meeting slides (i.e., ads diagrams, etc.) as required	Upon receipt of slides, prior to posting date	РЈМ	Revises supplied slides
3	Post Solutions Meeting slides	10 days before Solutions Meeting	РЈМ	Web posting of meeting materials
4	Solutions Meeting	-	All	-
5	Stakeholder comments	10 days after Solutions Meeting	Stakeholders	Planning Community
6	Review and consider stakeholder comments	10 days after comments received	TOs	Based upon comments, TO may add information in revised slides sent to PJM and PJM re-posts
7	Perform Do No Harm analysis for proposed solution	After comments received for Solutions Meeting	РЈМ	Web posting indicating status on Solutions Meeting slide

Appendix 3 - M-3 Process Flow Charts - Submittal of Project(s) for Inclusion in Local Plan

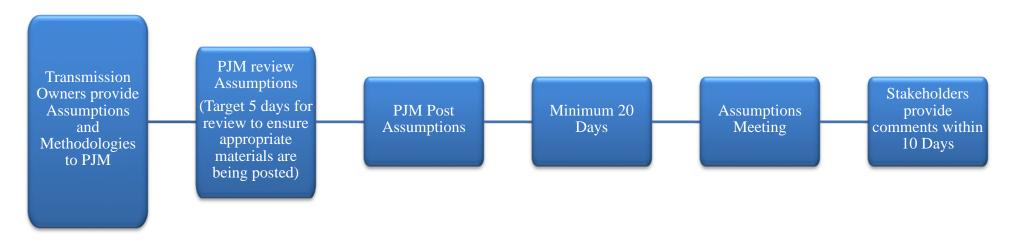
	Activity	Timing	Day	Who	How
1	Send Local Plan slides (including Comment Deadline) with selected solutions and updated modeling information (if necessary) to PJM	TO discretion		TOs	E-mail to PJM
2	Finalize Local Plan slides if necessary (i.e., updated maps, etc.)	Upon receipt of slides, prior to posting		PJM	
3	Local Plan submission posted	5 days after receipt of slides		PJM	Web posting
4	Stakeholder comments	At least 10 days after Local Plan submission posted and at least 10 days before Local Plan submittal	-10	Stakeholders	Planning Community
5	Review and consider stakeholder comments	Until Local Plan submittal	<-10	TOs	Based upon comments, TO may add information in revised slides sent to PJM and PJM re-posts

Appendix 3 - M-3 Process Flow Charts - Submittal of Local Plan for Integration into RTEP

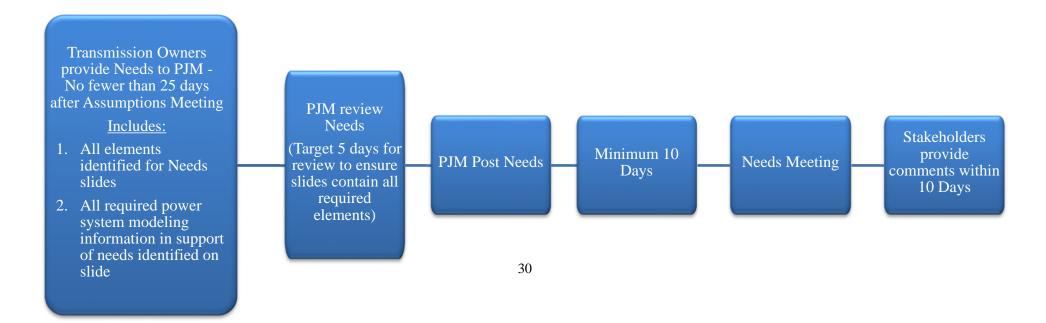
	Activity	Timing	Day	Who	How
1	Local Plan submitted for integration into the RTEP	10 days after Comment Deadline	0	TOs	E-mail final Local Plan slides to PJM
2	Post final Local Plan slides	5 days after receipt of slides	+5	PJM	Web posting

Appendix 4 - M-3 Process Flow Charts

Assumptions Meeting



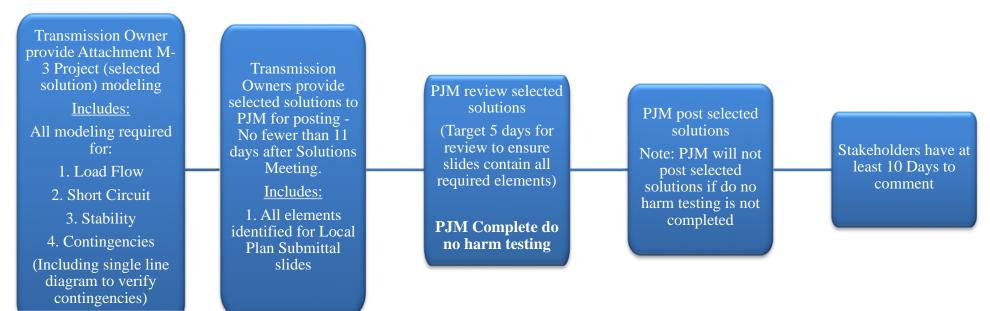
Needs Meeting



Appendix 4 - M-3 Process Flow Charts

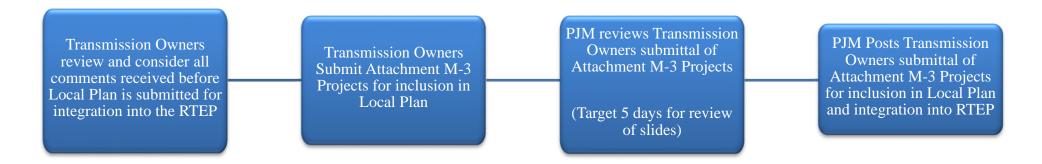
Solutions Meeting Transmission Owners provide Solutions to PJM - No fewer PJM review than 25 days after Needs Solutions Meeting. Stakeholders (Target 5 days PJM Post Minimum 10 Solutions provide for review to Includes: **Solutions** Meeting comments within Days ensure slides 1. All elements 10 Days contain all identified for required Solutions slides elements) 2. All required modeling to represent solution (s)

Submittal of Attachment M-3 Projects for Inclusion in Local Plan



Appendix 4 - M-3 Process Flow Charts

Submittal of Attachment M-3 Projects for Integration into RTEP



Appendix 5 - M-3 Process Presentation Slide Templates

<Committee> Committee <TO> Attachment M-3 Projects

<Month Day, Year>

Appendix 5 - M-3 Process Presentation Slide Templates

Needs Stakeholders must submit any comments within 10 days of this meeting in order to provide time necessary to consider these comments prior to the next phase of the M-3 process

Appendix 5 - M-3 Process Presentation Slide Templates

<TO> Transmission Zone M-3 Process <locale> Need Number: >need ID> Process Stage: Need Meeting <date> **Project Drive:** <drive> Geographic Map: **Specific Assumption Reference:** Include all facilities mentioned on slide, small locator <assumption> map and a legend. **Problem Statement:** <description>

Appendix 5 - M-3 Process Presentation Slide Templates

Solutions Stakeholders must submit any comments within 10 days of this meeting in order to provide time necessary to consider these comments prior to the next phase of the M-3 process

Appendix 5 - M-3 Process Presentation Slide Templates

<TO> Transmission Zone M-3 Process oject name> Need Number: >need ID> **Process Stage:** Solutions Meeting <date> **Previously Presented:** <stage> <date> Geographic Map: **Project Driver:** Include all facilities mentioned on slide, small locator <driver> map and a legend. **Specific Assumption Reference:** <reference> **Problem Statement:** <description>

Appendix 5 - M-3 Process Presentation Slide Templates

<TO> Transmission Zone M-3 Process oject name> Need Number: >need ID> Process Stage: Solution Meeting <date> **Potential Solution:** <description> <cost> [Ancillary Benefits: <Ancillary Benefits> - as needed] **Bubble Diagram Alternatives Considered:** 1. <description> <cost> 2. <description> <cost> Projected In-Service: <IS-Date> Project Status: <Status> Model: <mode>

Appendix 5 - M-3 Process Presentation Slide Templates

Submission of Attachment M-3 Projects for Inclusion in the Local Plan

Appendix 5 - M-3 Process Presentation Slide Templates

<TO> Transmission Zone M-3 Process <

Need Number: >need ID>

Process Stage: Submission of Attachment M-3 Project for inclusion in Local Plan <date>

Previously Presented:

<stage> <date> <stage> <date> Project Driver: <driver>

Specific Assumption Reference:

<reference>

Problem Statement:

<description>

Geographic Map: Include all facilities mentioned on slide, small locator map and a legend.

Appendix 5 - M-3 Process Presentation Slide Templates

<TO> Transmission Zone M-3 Process oject name> Need Number: <need ID> **Process Stage:** Submission of Attachment M-3 Project for inclusion in the Local Plan <date> **Selected Solution:** <description> **Bubble Diagram** [Ancillary Benefits: <Ancillary Benefits>-as needed] Estimated Cost: <cost> Projected In-Service: <IS-Date> Project ID: <sxxxx> Project Status: < Status> Model: < model>