

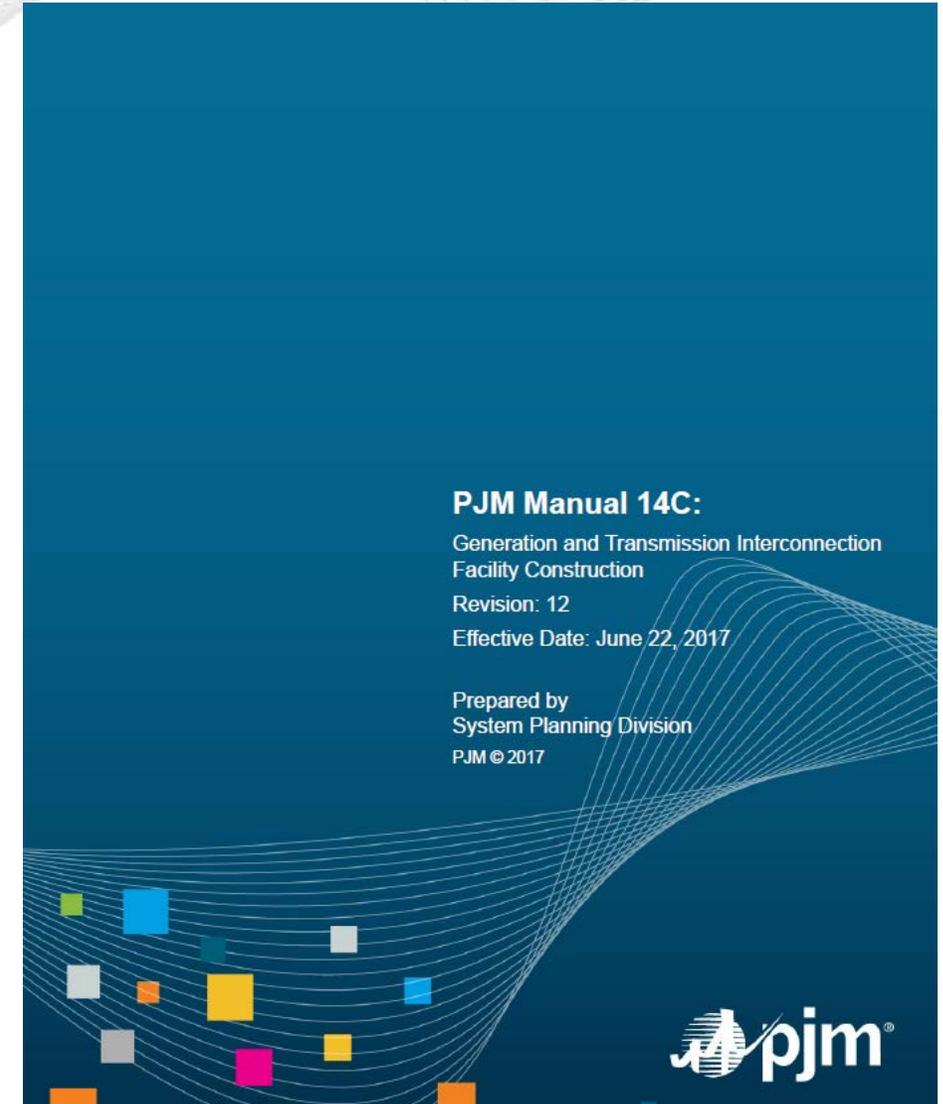


Tracking Transmission Projects Implementation

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PJM Interconnection

March 16, 2018,
Special PC - Consideration of Cost
Commitment for Evaluation of
Competitive Transmission Proposals

- Baseline upgrade projects
 - Following PJM Board approval
 - Designated Entity Agreement (DEAs, PJM Tariff Attachment KK) and associated Interconnection Coordination Agreements (ICAs, PJM Tariff Attachment LL)
 - Construction Responsibility Letters
 - Notification of Designated Entity (PJM OA Section 1.5.8 (i))
- Supplemental upgrade projects





Project Tracking through Implementation Phase

- TOs provide quarterly updates on baseline and supplemental projects through implementation phases
 - General status of engineering and construction
 - Percentage complete and current/actual in-service target
 - Cost updates
 - Other tasks: outage tracking and site visits
- Feedback to TO and PJM Planning on scope/schedule/cost updates if applicable
 - due to new findings through site survey, engineering, etc.

pjm Planning Upgrade Report - PPL
Run Date: 12/15/2017 4:11:33 PM

TOID	Upgrade ID	Description	Driver	Deactivation Study	PJM Required In Service Date	PJM Revised In Service Date	TO Projected In Service Date	Actual In Service Date	Status Code
B9927	80937.1	Location: Query Task: Upgrade Equipment: Substation Desc: Upgrade the Query 230/69 kV Substation Voltage: 230/69	Equipment Material Condition, Performance and Risk				10/16/2017	10/16/2017	IS
	80948.3	Location: Hummelstown - South Hershey Task: Rebuild Equipment: Transmission Line Desc: Rebuild Hummelstown - South Hershey 69 kV line (4, 7 mi) Voltage: 69	Customer Service Equipment Material Condition, Performance and Risk				10/19/2017	10/19/2017	IS
B6034	b1898	Location: Richfield - Dalmata Task: Install Equipment: Transmission Line Desc: Install a 69 kV Tie Line between Richfield and Dalmata substations Voltage: 69	TO Criteria Violation		11/30/2012	5/3/2015	10/27/2017	10/27/2017	IS
	80974.3	Location: Summit Task: Build Equipment: Substation Desc: Build Summit 230/69kV Substation Voltage: 230/69							IS
B10929	80969.3	Location: Sunbury - Columbia Task: Rebuild Equipment: Transmission Line Desc: Rebuild the Sunbury - Columbia 69 kV Line (24.5 mi) Voltage: 69							IS
B19934	80967.2	Location: Williams Tap Task: Build Equipment: Substation Desc: Build a new Williams 69 kV Tap (1.8 mi) by tapping the Columbia - Scott 69 kV line Voltage: 69							IS
	b2406.6	Location: Providence Task: Rebuild Equipment: Substation							IS

Transmission Construction Status
Upgrades to the transmission system are part of PJM's Regional Transmission Expansion Planning (RTEP) process. An outcome of the RTEP process are these transmission system upgrades:

- Baseline upgrades are those that resolve a system reliability criteria violation. This can be planning criteria from PJM, North American Reliability Corporation, ReliabilityFirst or transmission owners.
- Network upgrades are new or upgraded facilities required primarily to eliminate reliability criteria violations caused by proposed generation, merchant transmission or long term firm transmission service requests, but can also include certain direct connection facilities required to interconnect proposed generation projects.
- Supplemental projects are transmission expansions or enhancements that are not required for compliance with PJM criteria and are not state public policy projects according to the PJM Operating Agreement. These projects are used as inputs to RTEP models, but are not required for reliability, economic efficiency or operational performance criteria, as determined by PJM.

Expected (normal / emergency) Rating: expected normal continuous rating and long term four hour emergency rating based on summer 95° F temperature basis.

Percent complete - The percentages should be correlated to the following milestones:

- Engineering and Planning (EP) status:
 - 0% - 25% - includes engineering, detailed design, material procurement, resource planning
- Under Construction (UC) status:
 - 26-90% - construction activities
 - 91-100% - testing and inspection

Updates can also be found on the [Transmission Expansion Advisory Committee](#) page.

Legend

Export: XLS XAML

Showing 1 - 50 of 659

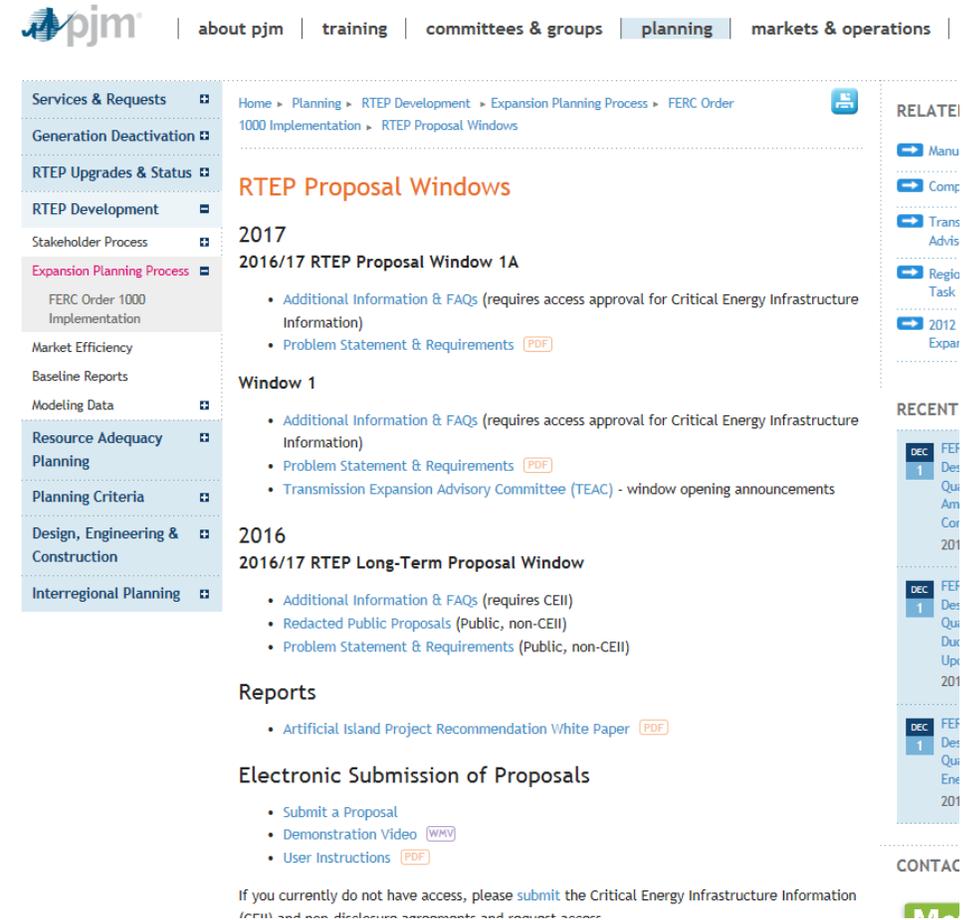
Upgrade ID	PJM Required Date	To Projected Date	Description	Trans Owner	Driver	Status	St	Cpte %	Cost estimate (million)
80711	11.30.2023	12.1.2022	Location:Wes Shore - Cumberland - Whitehill Task:Install Equipment:Transmission Line Desc:New 158.69 kV Single Circuit Line from Wes Shore-Cumberland #1 69 kV Line to Whitehill Substation: 1.7 Miles 1 Voltage: 158.69 Expected Rating(N/E): Last Updated:11/06/2017	PPL	Study Year: Baseline Report:2008 Driver:Baseline Load Growth D eliverability & Reliability Intal TEAC Desc:09/17/2008 Last TEAC Date:	PA	5	2.58	

- Designated Entities submit quarterly status reports
 - Engineering and construction status
 - Overall percentage complete and DEA milestone completion
 - Current in-service target
 - Outage coordination
 - Cost updates
- Project Coordination Meetings
 - Engineering and construction updates
 - Other topics



<http://www.pjm.com/planning/rtep-development/expansion-plan-process/ferc-order-1000/rtep-proposal-windows.aspx>

- Schedule C, Development Schedule
 - Execute ICA(s)
 - Complete a feasibility study
 - Demonstrate adequate project financing
 - Submit applications for all necessary federal, state, county and local site permits
 - Acquisition of all necessary federal, state, county and local site permit
 - Substantial site work completed
 - Delivery of major electrical equipment
 - Demonstrate required ratings
 - Required project in-service date



The screenshot shows the PJM website navigation menu at the top with options: about pj, training, committees & groups, **planning**, and markets & operations. The main content area is titled "RTEP Proposal Windows" and is organized by year:

- 2017**
 - 2016/17 RTEP Proposal Window 1A
 - Additional Information & FAQs (requires access approval for Critical Energy Infrastructure Information)
 - Problem Statement & Requirements (PDF)
 - Window 1
 - Additional Information & FAQs (requires access approval for Critical Energy Infrastructure Information)
 - Problem Statement & Requirements (PDF)
 - Transmission Expansion Advisory Committee (TEAC) - window opening announcements
- 2016**
 - 2016/17 RTEP Long-Term Proposal Window
 - Additional Information & FAQs (requires CEII)
 - Redacted Public Proposals (Public, non-CEII)
 - Problem Statement & Requirements (Public, non-CEII)

Below the year sections are sections for "Reports" (Artificial Island Project Recommendation White Paper PDF) and "Electronic Submission of Proposals" (Submit a Proposal, Demonstration Video WMV, User Instructions PDF). A footer note states: "If you currently do not have access, please submit the Critical Energy Infrastructure Information (CEII) and non-disclosure agreements and request access."

<http://www.pjm.com/planning/rtep-development/expansion-plan-process/ferc-order-1000/rtep-proposal-windows.aspx>