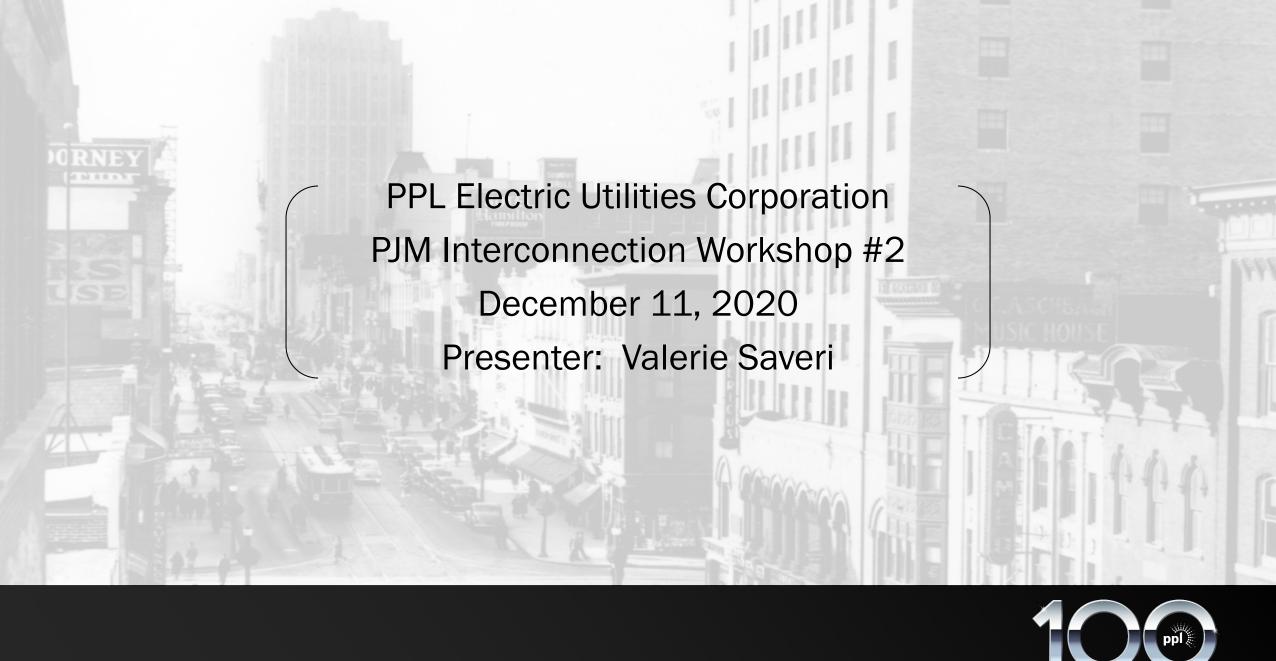




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Vision – Meeting Needs of Developers, PJM and TOs

- Queue process has been significantly strained by recent increase in the number of requests
- PPL EU values this opportunity to revisit and modernize the process to current needs

PPL EU Vision of Opportunities

- Increase Quality and Transparency of Information
- Establish new & review existing study milestones and parameters



Interconnection Process Improvement Opportunities

- Base case for the analysis is outdated
- Difficult for customers to identify transmission system information
- Steady state re-tools lack transparency and become the critical path for study completion
- Study MFO consistently pursuant to established processes
- Volume of requests at the end of the queue window overwhelms available resources
- Facility Studies process lacks transparency and accountability



Opportunity - Better Quality Information & Analysis

Current State: Base Case used for Queue Analysis is nearly 2 years out of date at start of queue.

- PJM Interconnection Analysis uses the 5-year out RTEP base case developed two years prior
- Case is not updated with the latest approved projects

Proposed Solution:

Use a more recently developed 3-year-out RTEP case, To the extent possible, incorporate any recent changes to supplemental or baseline projects that may impact the IC request.

- Increased study accuracy
- Minimize changes, rework and confusion during the analysis



Opportunity - Better Quality Information & Analysis

Current State: Difficult for Developers to correctly identify POI

PJM System Map is difficult to use

Proposed Solution:

 Explore opportunities to improve transparency of transmission facility data and improve the online PJM System Map

- Reduces back and forth between IC and TO on POI data
- Allows IC to identify an accurate POI prior to Feasibility Scoping Meeting



Opportunity - Better Quality Information & Analysis

Current State: Analysis re-tools are unpredictable, lack transparency, and often delay Facilities Studies

- Re-tools are triggered only on an 'as needed' basis
- Lack of communication around when a re-tool is being performed or when one will be complete

Solution:

Establish a formal re-tool cycle/process, including at least one scheduled re-tool during the Facilities
 Study stage

- Decrease the backlog of Facilities Studies due to analysis re-tools
- Increased transparency in Facilities Study progress
- PJM & TOs can better plan and align resources to meet the re-tool analysis needs



Opportunity - Study MFO consistently per established processes

Current State: Inconsistency in modeling and studying plant MFO in the IPP and RTEP Planning cases. Energy portion not consistently carried over into base cases when generation goes in-service

Solution: PJM to consistently model and study Capacity and Energy portions for inservice PJM generation fleet per established processes.

- Prevent unseen reliability issues
- Reduce impact on real-time operations



Opportunity – Establish New & Review Existing Study Milestones

Current State: Volume of requests at the end of the queue window overwhelms available resources

Solution: Revise the study timeline by shifting the queue window by one month to allow 2 months for deficiency review, scoping meetings, and model build.

| Activity | Current Schedule | Proposed Schedule |
|---|------------------------------|--|
| Queue Window Open | Apr thru Sept / Oct thru Mar | Mar thru Aug / Sept thru Feb |
| Deficiency Review, Scoping Meeting, & Model Build | October / April (1 month) | Sept & Oct / Mar & Apr (2 months) |
| Feasibility Study | | November thru January / May thru July |

- Provides an additional month for Feasibility data to be verified
- Adds an extra month between queue close and Impact and Facilities Study start dates (spreads out resource needs during these periods)



Opportunity – Establish New & Review Existing Study Milestones

Current State: Facility Studies process lacks transparency and does not facilitate resource planning in preparation for implementation

- Facilities Studies being kicked off by PJM 2+ months after FSA signature
- Lack of communication and milestone dates around Facilities Study process

Solutions:

- Require Facilities Study kickoff date within 30 days after FSA signature
- Establish and communicate predictable and transparent schedules for Facilities Study Milestone
- Publish more granular publicly available metrics to measure the performance of PJM and Transmission Owners

- Improve transparency and accountability among all parties in the Facilities Study process
- Predictable and accurate timeline will assist all parties with planning for resource allocation



In Summary

Vision:

- Increase quality and transparency of Information
- Establish new & revise existing study milestones

Proposed Solutions:

- Update procedure to use the more recent RTEP 3-year out case as the Base Case
- Update the System Map to align with RTEP case
- Establish a formal re-tool process and schedule, including trackable milestones
- Study MFO consistently pursuant to established processes
- Shift 6-month queue windows to facilitate more deficiency review and model build time
- Require Facilities Study kick off within 30 days of signing the Facility Study agreement
- Establish predictable and transparent schedules and performance metrics for Facilities
 Study Milestones to improve communication and accountability



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