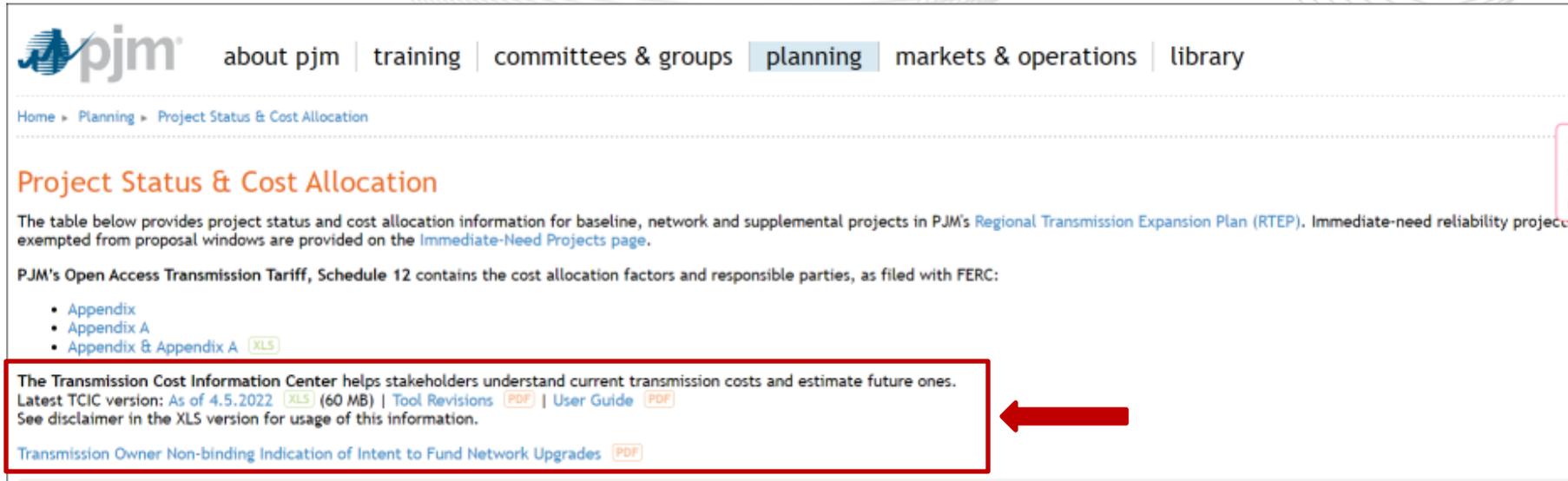




TCIC Automation

Grace Niu
Transmission Expansion Advisory
Committee
July 12, 2022

- What is TCIC?
- Why need TCIC automation?
- What could be achieved?
- Where we are with ongoing efforts?
- What are the next steps?



The screenshot shows the PJM website navigation menu with 'planning' selected. The breadcrumb trail is 'Home > Planning > Project Status & Cost Allocation'. The page title is 'Project Status & Cost Allocation'. Below the title, there is a paragraph explaining that the table provides project status and cost allocation information for baseline, network, and supplemental projects in PJM's Regional Transmission Expansion Plan (RTEP). It also mentions that immediate-need reliability projects are exempted from proposal windows. Below this, it states that PJM's Open Access Transmission Tariff, Schedule 12 contains cost allocation factors and responsible parties, as filed with FERC. A list of links includes 'Appendix', 'Appendix A', and 'Appendix & Appendix A' (with an XLS icon). A red box highlights the following text: 'The Transmission Cost Information Center helps stakeholders understand current transmission costs and estimate future ones. Latest TCIC version: As of 4.5.2022 (XLS) (60 MB) | Tool Revisions (PDF) | User Guide (PDF). See disclaimer in the XLS version for usage of this information.' A red arrow points to this highlighted text. Below the box, there is a link for 'Transmission Owner Non-binding Indication of Intent to Fund Network Upgrades (PDF)'. A 'Feedback' button is visible on the right side of the page.

- User-interactive Transmission Cost Information Center (TCIC)
 - PJM Planning Database
 - PJM Tariff
 - Transmission Owner Rate Filings
 - PJM Settlements Data
 - Estimate future revenue requirement for each PJM Transmission Owner (user-defined date)
 - Estimate future transmission charges by customer zone (user-defined date)
- A large Excel workbook located on the Project & Construction webpage

- Manually intensive update
 - Update twice per year: January and June
- 15 Tabs with thousands of formulas and data entries
 - Upgrade Information
 - Cost allocation
 - PJM Settlements data: NSPLs, TEC
 - TO rate filing
 - Formulas in the workbook as needed
- Huge excel workbook (60MB)

- Reduce manual processes
- Avoid human errors
- Streamline internal and external data exchange
- Enhance posting/data alignment
- Improve user experience
- Utilize available technology enhancements

- Started internal cross divisional coordination
 - Transmission Planning & Market Settlement & IT
 - Reviewed current process
 - Designing process automation
- Initiated external collaboration with TOs:
 - Discussion automation enhancements from March 2022
- Conducted TCIC user interviews
 - Completed interview for power users
 - Designing TCIC external User Interface (UI)

Jan. 2022 – June 2022

- Internal review and automation discussion
- External collaboration with TOs
- User interviews and UI design

Dec. 2022 – Mar. 2023

- External data automation design
- Communicate with TOs



July 2022 – Aug. 2022

- User interviews for GUI feedbacks
- Present UI to TEAC

Sep. 2022 – Mar. 2023

- Finalize UI design
- Tool development: phase I
- External data automation discussion with TOs

Apr. 2023 – Dec. 2023

- Finalize external data automation design
- Tool development: phase II

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TCIC Automation



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- V1 – 7/8/2022 – Original slides posted

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malicious
phishing emails.

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