RTEP Process Enhancement - Discussion of Various Supplemental and Baseline Overlapping Scenarios

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The following slides represent general guidelines for how discussions may be needed and decisions might made when there are projects driven by the Operating Agreement, Schedule 6 (Baseline Projects) and Attachment M-3 (Supplemental Projects) processes, which require changes / upgrades be made to the same transmission facilities on the system.

These examples may not anticipate all circumstances and PJM must then determine viable path forward, ensuring the stakeholders are provided an opportunity to supply input.
• PJM Goal – Develop and Integrate both Baseline and Supplemental Projects for the overall good of the RTEP
• System elements are not reserved to have either Baseline or Supplemental Projects constructed – both must be accommodated
  – Baseline requirements do not cover all system needs, only those associated with criteria identified in Schedule 6
  – Supplemental Projects must be constructed to cover needs outside of baseline process
• TPL-001-4 indicates PJM must update models for the planning assessment
  – [Following portions excerpted from NERC TPL-001-4]
    • “R1. Each Transmission Planner and Planning Coordinator shall maintain System models within its respective area for performing the studies needed to complete its Planning Assessment… This establishes Category P0 as the normal System condition…”
      – 1.1. System models shall represent:
        » 1.1.1. Existing Facilities…”
        » 1.1.3. New planned Facilities and changes to existing Facilities…”
• PJM must model expected conditions of the system to meet compliance requirements
• Operating Agreement requires identification of reliability violation, operational performance, economic benefit or public policy needs (Baseline Need)

• Develop reinforcements – Following steps as applicable:
  • Post needs
  • Hold project proposal windows
  • Review projects
  • Select project and entity to construct

• Construct project
• Need identified from five categories
  • Equipment Material Condition, Performance, and Risk
  • Operational Flexibility and Efficiency
  • Infrastructure Resilience
  • Customer Service
  • Other Drivers
• Solution selected
• Project constructed

Note: This is not intended to depict or represent the entire set of requirements for the M-3 process and is only for discussion purposes in the context of comparing against the baseline process in this presentation
Baseline And Supplemental Projects Needs

- Baseline upgrades required to be built for reliability, market efficiency, operational performance, or public policy needs
- Supplemental Projects required to meet various needs of service required of the Transmission Owners
- Processes must be integrated to ensure all system needs are met
Scenario 1: Baseline Need Ahead of Supplemental Need

- Baseline solution developed with or without window as appropriate
- Supplemental solution may need to consider the baseline solution during development
- Are baseline and supplemental solutions compatible or overlapping?
  - Compatible – May build both
  - Overlap – Construct as needed to ensure reliability
  - Incompatible – Review solutions to determine path forward – redesign?
Scenario 2: Baseline Solution before Supplemental Need

- Baseline solution developed with or without window as appropriate
- Can baseline be delayed in order to review supplemental solution? (sufficient time to construct/operational flexibility, etc.)
  - Yes – Wait for supplemental solution to determine if overlap of solutions will occur
  - No – Commence baseline construction
- If baseline construction started and supplemental solution is not known, supplemental project must be designed to accommodate the baseline
Scenario 3: Baseline construction Commenced Prior to Supplemental Need

- Baseline solution is constructed
  - Supplemental solution must accommodate baseline solution
- Baseline solution construction underway
  - Can supplemental need be accommodated?
  - Should baseline solution be modified to accommodate the supplemental need?
Scenario 4: Supplemental Need Prior to Baseline Need

• Are baseline and supplemental solutions compatible or overlapping?
  • Compatible – May build both
  • Overlap – Construct as needed to ensure reliability
  • Incompatible – Review solutions to determine path forward
    • Redesign supplemental?
Scenario 5: Supplemental Solution Prior to Baseline Need

- Can supplemental project construction be delayed?
  - No – continue supplemental construction and baseline solution must take into consideration supplemental design
  - Yes – Can the baseline requirement be met by the supplemental solution?
    - No – examine supplemental design to see if it can be altered
    - Yes – Determine if another, more efficient or cost effective, solution is available other than the supplemental project. If no more efficient or cost effective project available then build supplemental solution. If more efficient or cost effective project developed, determine if supplemental need can be satisfied by new project
Scenario 6: Supplemental Construction Commenced Prior to Baseline Need

- Similar to Supplemental Solution Prior to Baseline Need
Next Steps

• Develop other scenarios as required
• Review various scenarios and address potential changes to Manual 14B in order to address those scenarios

• Upcoming Meetings:
  – May 1, 2019  9AM – 12PM
  – May 29, 2019  9AM – 12PM