Estimating Interconnection Costs

IPSTF
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Solution Options – Goals

- Timely completion of studies
- Move projects to an ISA more quickly
- Reduce number of re-tools
- Provide greater certainty in results
- Manage changes associated with projects
- Manage process workload

Issue – Feasibility Study Scope

- Stakeholders have suggested that additional information should be provided in the feasibility studies.

- Under the current process, thermal analysis done as part of the feasibility studies includes all single contingencies and selected “Common Mode” (Double Circuit Tower Line (DCTL)) outage contingencies.

- More extensive common mode testing is done as part of the impact studies.

- The common mode testing done as part of the impact studies can identify new problems that were not noted in the feasibility studies.

- For a typical queue PJM identified 2,222 violations with the existing process (i.e. all single contingencies and some common mode contingencies)

- For the same queue running all single contingencies and all common mode contingencies, over 3,800 violations were identified

- 70% increase in the number of violations that would be identified at the feasibility study stage

Issue – Feasibility Study Scope

- Identifying the additional violations earlier in the process would provide useful information to the developer

- Concern - Identifying upgrades and developing cost estimates for the additional violations would require more time and will impact the timeliness of the reports

- Possible Solutions
  - Provide estimates for existing scope and list violations for the common mode contingencies
  - Provide estimates for existing scope and list violations along with limiting element in the report
  - Use standard per unit estimates for upgrades
  - Others?

- Timeliness of the studies
  - Scope of the facility study can be significant if the project is complex and there are multiple upgrades that need to be addressed
  - This issue is compounded by multiple generators interconnecting in the same area
- Including Contingency / Risk in the estimates
- Others?

- Some have suggested using third party engineering firms to perform facility study
  - What are the processes that transmission owners use today for facility studies?
  - Do transmission owners use third party engineering firms to perform facility studies? Why?

Issue – Impact Studies

- Impact Study upgrade estimating practices vary from transmission owner to transmission owner

- How do transmission owners estimate upgrade costs for impact studies?
  - What is the scope and level of detail that gets included in the impact study upgrade estimates?