New Service Request Study Process Education

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Feasibility Study

- High level, initial evaluation of project
- Customer can select a primary and secondary Point of Interconnection (POI)
- Estimates are desk-side level estimates (no field evaluation)
- Customers have 30 days to evaluate results and sign a System Impact Study Agreement (SISA)

System Impact Study

- Refinement of Feasibility Study results
- Customer must select a single POI (if two were evaluated in the Feasibility Study)
- Analysis incorporates any changes that occurred since the Feasibility Study analysis was performed
- Estimates are still desk-side
- Customers have 30 days to evaluate results and sign a Facility Study Agreement (FSA)

Facility Study

- Transmission Owner has majority of work
- PJM analysis required only if work is deferred from the System Impact Study phase
- Field review may be performed if required by Transmission Owner

Initial Study
(Transmission Service Studies)

- High level, initial evaluation of project
- Customers receive indications of impacts to the system
  - No reinforcements, costs, or time to construct
- Customers have 30 days to evaluate results and sign a System Impact Study Agreement (SISA)

Upgrade Request studies

- Types of projects
  1. Customer provides MW quantity with source-sink
     - Determine impacted flow gates through analysis of markets based case
     - Determine impacted facilities by comparing markets based case results to queue case
  2. Customer requests to increase the capability of a system element
  3. Customer requests to advance construction of a reinforcement in the Regional Transmission Expansion Plan
- Work with transmission owners to provide system impact study
  - Much less time to review impacts and design reinforcements without feasibility study

Require Same Studies To Be Performed?

- Transmission Service Requests
  - Add Feasibility Study after initial study (may require discussion with other external forums)
- Upgrade Requests
  - Add Feasibility Study
  - Does not preclude PJM's ability to advance studies in the process if no other interactions with other New Service Requests exist

Alternate Queue

- Developed as a means to remove small project analysis interactions with larger project analysis
- PJM makes determination of Alternate Queue during Feasibility Study load flow analysis
- Alternate Queue projects will not be studied by PJM beyond the initial screening
- Transmission Owners will complete remaining studies required for the project to be consistent with Feasibility, Impact, and Facility Study analysis

- Criteria
  - project cannot be connected to a PJM monitored transmission facility as defined in PJM Manual M-03
  - project cannot be an uprate or addition to an existing facility
  - project distribution factor for any PJM monitored transmission facility may not exceed 5 percent and the MW impact of the project cannot be greater than 1 percent of the element rating
  - project may not connect to the same Point of Interconnection as any other project
  - aggregate impact of all projects connecting on any individual radial connection to a PJM monitored transmission facility shall not exceed 1 percent of line rating

Alternate Queue

- Options?
  - Remove process
  - Modify process
    - Maintain 6 month queue, but evaluate projects every three months?

<$5 Million Cost Allocation

- Reinforcement costs <$5 million allocated to all in a queue which add load to the violation defining the need for the reinforcement
  - Projects which do not overload the element, but add load prior to a project overloading the element, have cost allocation
  - See below for example of cost allocation for <$5 million upgrades

Project	Loading added to element	Final element load	Cost Allocation?
A	Yes	95%	Yes
B	No	95%	No
C	Yes	102%	Yes
D	Yes	115%	Yes
E	No	115%	No

<$5 Million Cost Allocation

- PJM must wait to have queue close to determine total impacts
- Method was requested by small generation customers to reduce impacts of reinforcement costs
- Now being seen as holding up projects which do not cause an overload
- Options
  - Remove rule
  - Redefine rule

Next Steps

Continue discussion in PC sub-group to review issues identified and determine path forward with any changes

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