Transmission Planning Improvement Task Force (TPITF)

AEP Office, Dallas, TX

November 12-13, 2015

• M i n u t e s •

<u>Agenda Item 1: Welcome (Jason Atwood)</u>

Jason Atwood started the meeting with a roll call of participants attending the meeting in-person followed by participants on the conference call. Jason also reviewed the open action items.

- Review Action Items:
  1. Standardized Scope: Template for the January 2016 TWG face-to-face **(OPEN)**
     a. Juliano Freitas: Provide ideas on the ITP10 scope issue.
     b. SPP Staff: Review the Working Group/Stakeholder approval processes.
     c. SPP Staff: Explore scope boundaries (# of futures, meaningful sensitivities, etc.) and develop an example of a scope.
     d. Recommendation for how non-standard scope items will be reviewed and approved.
  2. John Mills and Juliano Freitas: Look into the affect an 18-month planning process will have on the model build processes. **(OPEN)**
     a. SPP Staff: Review how economic model data submission may be worked into the MDWG model build schedule.
     b. SPP Staff: Determine what it will take to facilitate the overlapping schedule.
     c. SPP Staff: Evaluate the impacts of the parallel build of Steady State and Economic models.
     d. John Mills: Look into the MOD tool and its capabilities and report to the group
  3. SPP Staff: Explore pain points associated with the inclusion of TPL assessment with the planning assessment. **(COMPLETE)**

  Complete with the discussion of Agenda item #5.

  4. Antoine Lucas: Look into the tracking of congestions and uplifted costs. **(COMPLETE)**

  Complete with the discussion of Agenda item #3.

  5. SPP Staff: Grid of assumptions across the various planning processes to review consistency among processes. **(OPEN)**

6. All: Create point-of-contact list for member companies. Include back-up. POC for issues with the ability to route issues through the company. Complete by mid-November. **(OPEN)**
7. SPP Staff: Create high-level 18-month schedule including ITPNT and ITP10 milestones. **(OPEN)**
8. SPP staff: Research op guides and TODs and report on the criteria around their use in the planning and the criteria around their removal and the impact on planning and stakeholders. **(OPEN)**
9. Mo Awad: Employ a small group of stakeholders to discuss the building of a base ITP model that will be used across all planning functions as well for TPL assessments. **(COMPLETE)**

   Complete with the discussion of Agenda items #2 & 5.

10. SPP staff: Recommendation for process for reviewing operational issues within planning. **(COMPLETE)**

    Complete with the discussion of Agenda item #6.

11. Bruce Cude: Research potential improvements to the generation waiver process. **(OPEN)**

- Review/approve 10/7/15 draft meeting minutes:

  Jason Atwood opened the floor for discussion regarding the draft minutes for the 10/7/15 meeting. A vote was taken and the minutes were approved without opposition.

A copy of the meeting attendees will be posted along with the meeting minutes.

Agenda Item 2: Economics in the Near Term (All)

Antoine used a revised *Economics in the Near-Term* presentation to help guide the discussion. The presentation will be posted with the draft minutes. Major discussion points are as follows:

Slide 2: Models for 10-Year Planning Horizon

- Reliability, Policy, and Economic needs assessments will be required for all three years. The assessments (6) for years 2 and 5 are new to the process. Antoine emphasized the addition of the needs assessments for years 2 and 5 as a large incremental piece to the process.
- The CBA reliability models will be derived from PROMOD runs. Will pick the study hours and convert to an AC powerflow model.
- Wayman requested the presentation be updated with the model seasons upon its reposting with the minutes.
- The CBA ITPNT model will be replaced by the CBA reliability models.

- Alan asked if the 2-5-10 year models derived from PROMOD or TARA would be a SPP-wide, coincident peak model. Antoine replied yes.
- Alan asked if the scenario models would be used for firm service. Antoine replied yes. Non-coincident peak for year 10 to be used for the TPL assessment if combined with the TPL. Would only need year 2 and 5 models if TPL is not combined.
- Wayman offered the consideration of transmission service without a scenario model may push upgrades from the ITP to the TSS process and would degrade the availability of ARRs over time. He added he thought the use of CBA and scenario models was the best way to proceed.
- TSS/GI models start from the scenario models.
- TPL requires the inclusion of known firm commitments.
- Antoine offered the year 2 and 5 models would be used for more than just staging. Looking at a S0 and a modified version of the current S5 model.
    - Alan shared if a S0 with PROMOD model for years 2, 5, and 10 was built and hours pulled out for reliability, it would be the same as S0 today.
    - Wayman replied the difference is PROMOD is coincident peak while S0 is non-coincident peak.
    - Alan responded it needs to be determined if non-coincident peak is needed with a CBA dispatch.
- Antoine added an economic-derived reliability model cannot be used for TPL since it is coincident-peak and has non-firm resources. Would look to use a scenario model for non-coincident peaks plus all firm resources.
- Mo shared a poll was taken at a recent TWG meeting and eight approved of a modified S5 model with the rest remaining silent.

<u>Slide 3</u>: Economic and CBA Reliability Models

- Year 2 will have less load growth and proxy generation. Limited value with the economic analysis as compared to year 5.
- Year 2 used to better capture real-time issues. Those that go away in year 5 due to resources can be identified and addressed.

<u>Slide 4</u>: Scenario Reliability Models

- Wayman asked if non-firm resources have must-offer requirements. Richard Ross replied yes in real-time and no in the day-ahead.
- Alan asked why the S0 model was the only model listed for year 10. Antoine replied the TPL assessment is just for one year and one on-peak model. No sensitivity. He just listed the S0 model because it is more of an expected case where he considers the S5 model more of a bookend case.

- Antoine added to either modify the S5 model or modify the scope for the option to not automatically issue NTCs which also meets the minimum requirements of the TPL. The study scope will determine how to issue NTCs; not models.
- Antoine asked how the TPL sensitivity requirement would be covered with one scenario. The S0 model is the best representation of firm service but it still does not include all of it; would eventually run out of load.
- Mo added for TPL, the MOD standard for wind and solar is to model net available capacity in S0 and historic output in the summer for S5.
- Alan suggested using the S5 scenario model through year 10. Can be used for base case and sensitivity case.
  - Wayman responded we need to go beyond checking a box for sensitivities. The CBA is not your designated resources to your load and S5-only does not account for counterflow transactions. He suggested an S0, non-coincident model.
- Mo added his suggestion of a modified S5 as the base and using a future as the TPL sensitivity.
- The group discussed the development of a strawman to present to the TWG for their consideration when taking up the issue of ITP modeling.
  - Determine the sensitivity requirement for TPL. Will that require a new model?
  - 1 or 2 scenario models: which one is best?
  - Coincident verses non-coincident peak loads
  - Building for exports
  - DC tie modeling issues
  - Load level issues
  - Intermittent generation levels
  - Firm service protection

Action Item: SPP staff will develop a draft strawman regarding ITP model development for review by the TFPIT. TPITF participants to provide input into the strawman by 11/25. Email to English Cook. ecook@spp.org. Staff to disseminate draft strawman for TPITF review by 12/4.

<u>Slide 5</u>: Planning Assessments

- Lloyd asked how much proxy generation is skewing voltage issues.
  - Antoine replied this issue is addressed by developing generation outlet facilities (GOF) to simulate the GI process to determine the impact on the system. Local issues pointed back to the generator. Needs are beyond the local generation issues.

- Wayman added this does not address issues that would not be there with the generation.

Agenda Item 3: Effect of Economic Dispatch Model (All)

Rachel Hulet with SPP's Congestion Hedging group gave an overview of TCR markets. Her presentation will be posted with the draft minutes. Major discussion points are as follows:

Slide 3: Process Overview

- Wayman asked if existing PTP and Network service is modeled with new requests layered on top and the reply was yes.
- Steve Purdy shared all confirmed service is included in the ITP model as well as the Aggregate Study model. S0 and S5 models are used in the Aggregate Study process. Typically use all years out to year 10. Rollover rights are modeled in perpetuity unless a known request does not get renewed.
- Wayman commented if certain models are not used for planning therefore not producing NTCs, transmission service studies will pick up the issues and transmission customers will have to pay for upgrades.
  - Richard replied at one point, the transmission customer will pay or the issue will be shown as a base case overload. May or may not be assigned to the customer.
    - Steve Purdy replied only new impacts are customer-assigned from these requests. Base case model issues are regionalized using a 3% or higher TDF.
    - Lloyd added safe-harbor is a buffer as well.
  - Antoine shared timing with the processes is an issue. The S0 and S5 are scenarios of how service will be used. Would be the case of just going through TSS rather than planning.
  - Steve Purdy responded Aggregate Study projects are not competitive and are assigned to the incumbent.

Slide 5: Allocation Nomination Process

- LTCR/ARR: Both granted as candidates. LTCR can renew annually. ARR for a specific period of time; not renewable.
- Amount of transmission built does not impact the amount of TCRs. No direct tie between usage and transmission built.
- Amount of capacity depends on the transmission that is built.
- TSS builds for service. Planning looks at different levels of usage (S0 & S5).

- Charles Cates spoke on capacity planning and ARRs. He shared there is a loose connection between processes and you may not get what you think you are getting. The value of the instrument is higher if congestion is higher.
  - Steve Gaw commented there is a disconnect between planning (Agg) and congestion rights. Fundamental issue linked to non-hedged instruments instead of firm service. Not a similar hedge than with firm service.
- Lloyd asked if the planning process moves from preserving firm transmission to an economic build out, will current hedges be too disrupted.
  - Richard replied we are there in some respects. In planning, historically, counterflows offset. With the market, what is picked is up to the customer. Counterflows are disappearing. If you have a hedge for congestion, you will not see it and will pay for it if counterflow is not nominated. Way to get in line is to sponsor an upgrade or own service. Some assurance if system is built out.
  - Wayman commented for planning, should we care about building a reliable network economically; should we build a network based on a market.
  - Antoine responded we should separate physical from financial. For physical, Aggregate Studies will build the system to grant service and the ITP process will use scenario models to build upgrades to serve network load with firm, committed resources. For financial, economic studies can see future congestion. Forecast to the extent where APC benefits are less than the ARR to fix the problem. Better to hold the TCR than construct. If the APC benefit is greater than the ARR, build the system. Rent verses buy type of decision. The impact on APC will or will not justify building.
- Richard shared because of counterflow rights that are not bid (nominated), the hedge is gone. Cannot get generation to load due to congestion.
  - Steve Gaw commented a fix may be to plan with TCRs in mind. Current process by build transmission that may not be needed.
  - Antoine responded in the planning process, service reservations are evaluated in some form or fashion with the scenario models. Additional capacity in the TCR market may help with acquiring TCRs, but they may not be as valuable.
- Mo commented SPP is the only RTO that grants ARR/TCR base on transmission service. May need to change how ARR/TCR are granted.
- Charles Cates added funding and hedge percent are not the same. Most people are fully hedged and just because they have service does not mean you automatically get your ARR. It does give higher awardability.

Agenda Item 4: ITP Model (All)

Antoine presented a spreadsheet comparing the current ITP model/study process with the current MDWG model/TPL study process. He discussed these comparisons in regard to TPL model requirements, TPL Steady State study requirements, and near-term/long-term model requirements. The spreadsheet will be posted with the draft minutes. Major discussion points are as follows:

- Line 7: Projects with financial commitments are put into the model per the TO (sponsored or zonal) even though they do not have to or want to get an NTC.
    - Reene Miranda added the MOD modeling matrix allows for TO-planned projects to be included in the models.
    - Antoine commented sponsored projects should be studied by SPP. Richard replied this happens and cited the AQ process as an example.
- Lloyd asked if generator owners are required to announce retirements to SPP. Antoine replied that is not required by the tariff.
    - Mo commented it would be beneficial to develop a process for the confidential notification of generator retirements.
    - Richard added there is something (business practice? Criteria?) that requires owners to give SPP a notice within 30 days after making a decision to retire a unit.
    - Jody shared not everything within SPP is not under their control. He suggested a possible review of the Membership Agreement and/or Attachment O by the RTWG or TWG.
- Line 10: In regards to only modeling resources with IAs or firm transmission service for the ITP, Wayman commented there may not be enough resources to cover load in the near-term. Generation may be an issue with economics in year 2.
- Antoine commented there is not as much flexibility with the ITP model without including proxy generation and load to address compliance issues.
- Katy added consideration needs to be given to the time associated with getting a waiver.
- Line 12: Antoine suggested criteria may be needed for needs above P0 and P1.
- Mo suggested the addition of non-coincident load shed contingencies and Agg/GI contingencies to the ITP contingencies list.

Action Item: SPP staff review the current process for reviewing/approving Sponsored upgrades.

Action Item: SPP staff evaluate the addition of non-coincident load shed contingencies and Agg/GI contingencies to the ITP contingencies list and using the same contingency list for all studies.

Southwest Power Pool

Agenda Item 5: Incorporate Compliance Assessments into the ITP Process (SPP Staff)

Discussion regarding the TPL assessment took place during the review of models during the discussion of Agenda Item #2. Those discussions are captured under this Agenda Item in order to organize the talking points.

- Mo shared futures can sub for the TPL sensitivity requirement.
  - Alan replied it would depend on SPP's comfort level with using this for their TPL compliance.
  - Antoine added firm service is a catch. We must show reliability with firm service reflected.
- Sensitivity in the TPL is a full blown analysis. Will this require a new model or will a scenario model be sufficient?
- TPL does not require a corrective action plan for each sensitivity. Must run at least one sensitivity. Can run more than one but the common issues need a corrective action plan.
- Additional contingencies would be needed for the ITP if combined.
- Steve Sanders asked if the sensitivity was for information only and was answered with a yes. He added in the north, with a winter coincident peak, issues are masked in the model and only a sensitivity would show the problems. His thoughts were to use the sensitivity data to adjust the model.
- Antoine offered two approaches to the TPL assessment:

  1) Utilize the ITP models
     - ITP models require firm resources (through GI)
     - Future transmission upgrades with NTCs
     - P0 and P1

  2) Keep the same MDWG models
     - Planning uses two different sets of models
     - Accelerate the assessment and parallel it with the ITP
     - Submit TPL needs for DPPs

  - Katy commented there are no efficiencies with paralleling processes.
  - Mo added combining makes it easier on everyone and suggested two reports; one that lists contingencies for TOs that allow load shed and one for those that do not.
  - Alan commented this could impact the competitive process. He did not foresee a large increase in the number of needs with the common model (ITP).

- Antoine mentioned some potential risks to resources with the possibly of additional needs/solutions with combining the processes as well as effort required to manage 1600+ solutions that have to be accounted for and any questions related to them.
- Jody cautioned against having a TPL mitigation submission window and DPP submission window open at the same time. May be over-burdensome on TOs.
- John Krajewski commented on the annual nature of TPL compliance and possible difficulties with scheduling both the TPL and ITP assessments to produce results within a particular timeframe.

Agenda Item 6: Incorporate Operational Issues into Planning Process (SPP Staff)

Will Tootle with SPP's Operational Planning group presented. His presentation will be posted with the draft minutes. Major discussion points are as follows:

- Jody commented he would like to fix reactive issues, new and in the future, with this process. He mentioned the possibility of using this data for a TPL sensitivity.
- Issues identified during N-1-1 analysis would require vetting before adding to the needs list. May require new criteria for inclusion.
- Challenges with using real-time data were noted as recreating an event in planning and demonstrating why the identified issue should be fixed with a project. If approaches for each of the challenges could be developed, projects may be able to be justified from the process.

Agenda Item 7: Interregional Planning Coordination (SPP Staff)

English Cook shared feedback from the 10/8 Seams Steering Committee meeting. During their lessons learned discussion on the CSP, some stakeholders commented that with SPP reorganizing our regional planning process we should consider what it would take if we were to line up schedules with MISO's. MISO's process is also an 18-month cycle with 6 months overlapping. They suggested that this at least be mentioned at the TPITF. Short discussion on the topic with no action taken. Consideration to be given once the details of the process have been settled upon.

Agenda Item 8: Compare Assumptions Across Planning Processes (SPP Staff)

This agenda item will be carried over to a future meeting.

Agenda Item 9: Issues Review (Antoine Lucas)

This agenda item will be carried over to a future meeting.

Agenda Item 10: Review Action Items (English Cook)

1. SPP staff: Develop a draft strawman regarding ITP model development for review by the TFPIT. TPITF participants to provide input into the strawman by 11/25. Email to English Cook. ecook@spp.org. Staff to disseminate draft strawman for TPITF review by 12/4.

2. SPP staff: Review the current process for reviewing/approving Sponsored upgrades.
3. SPP staff: Evaluate the addition of non-coincident load shed contingencies and Agg/GI contingencies to the ITP contingencies list and using the same contingency list for all studies.

Proposed agenda topics:

- Incorporation of TPL Short Circuit and Stability Assessments into the ITP process
- Preserving generation service
- CMTF Deliverability Study proposal
- Consideration of economic projects that solve reliability issues; and reliability projects that have positive or negative economic benefit

Agenda Item 11: Future Meeting Dates and Locations (Brian Gedrich)

- December 18 (F). WebEx. 1pm -3pm.
- January 11 (M). Face-to-face before the MOPC meeting. 1pm – 5pm. Sheraton Oklahoma City.
- February 4 (Th). WebEx. 9am – 11am.
- February 17 (W). Face-to-face in conjunction with the TWG/ESWG meetings. Location TBD. Tentative.

Agenda Item 12: Adjourn (Brian Gedrich)

Jason Atwood adjourned the meeting at 11:30 pm.