

Transmission Planning Improvement Task Force (TPITF)

AEP Office, Dallas, TX

February 3/4, 2016

2:30 p.m. – 6:00 p.m. (3rd)

8:00 a.m. – 3:00 p.m. (4th)

• M i n u t e s •

Agenda Item 1: Welcome (Brian Gedrich)

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

- Review Action Items:
 1. SPP Staff: Standardized Scope **(OPEN)**
 - Juliano Freitas: Provide ideas on the ITP10 scope issue.
 - SPP Staff: Review the Working Group/Stakeholder approval processes.
 - SPP Staff: Explore scope boundaries (# of futures, meaningful sensitivities, etc.) and develop an example of a scope.
 - Recommendation for how non-standard scope items will be reviewed and approved.
 2. SPP Staff: Create high-level 18-month schedule including ITPNT and ITP10 milestones. **(OPEN)**
 - John Mills and Juliano Freitas: Look into the affect an 18-month planning process will have on the model build processes. **(COMPLETE)**
 - SPP Staff: Review how economic model data submission may be worked into the MDWG model build schedule.
 3. SPP Staff: Grid of assumptions across the various planning processes to review consistency among processes. **(OPEN)**

This item will be addressed through the posting of a grid as informational material.
 4. 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)**

Discussion over who should be included in the list of those entities that need a POC. It was determined a request will be sent to the MOPC list for a POC. Action will be taken on this item once the process has been approved.

5. 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)**
 6. Bruce Cude: Research potential improvements to the generation waiver process. **(OPEN)**
 7. SPP staff: Review the current process for reviewing/approving Sponsored upgrades. **(OPEN)**
 8. SPP staff: Compare Year 5 reliability needs between the ITPNT and ITP10 assessments to determine the different issues identified between the assessments (models). **(CLOSED)**
 9. Brian Gedrich: Put together a small group to discuss Steve Gaw's issues.
 10. SPP Staff: Contact SPP Compliance regarding the use of the CBA model for the TPL sensitivity case. **(COMPLETE)**
 11. SPP Staff: Draft a transition schedule. **(OPEN)**
- Review/approve 1/11/16 draft meeting minutes:

Brian Gedrich opened the floor for discussion regarding the draft minutes for the 1/11/16 face-to-face meeting. Alan Myers motioned to approve the draft minutes and the motion was seconded by Bruce Cude. The motion passed.
 - Brian apprised the group of a conversation held during the January 29th MOPC Chairs/Secretaries call regarding the April MOPC. Due to a full agenda and the lack of time for an educational session, Carl Monroe suggested moving the educational session/workshop and corresponding recommendations approval to the July MOPC. This move would not eliminate the need to provide detailed recommendations at the April MOPC as planned. Providing the recommendations in April will allow MOPC members time to review the items and provide feedback to the task force in preparation for the educational session.
 - Antoine Lucas informed the group SPP staff is working to prepare the detailed recommendations. He equated the recommendations to white papers in that they will include the detail necessary to clearly describe all the aspects of the changes in the planning process in regards to:
 1. 18-month planning cycle
 2. Combined ITP assessment
 3. Common model development
 4. Standardized scope
 5. Member/Staff accountability
 - Antoine added that along with development of the recommendations, the TPITF will also start coordinating with working groups to inform them of the proposed changes.

- It was mentioned the TWG may have the most concerns to address and the inclusion of Travis Hyde (new TWG Chair) in further TPITF discussions will be very important to aid in the process.

Agenda Item 2: Issues List Review (All)

Antoine led a discussion of the issues recorded during first couple of TPITF meetings. The purpose was to identify which of the recommendations addressed each of the listed issues. The five areas used for identification were: 1) 18-month planning cycle; 2) common planning model; 3) standardized scope; 4) holistic planning process; and 5) staff/stakeholder accountability. The issues that are addressed will be used as justification for the proposed changes to the current planning process. There were also issues listed that were determined to be out of scope for the TPITF and better suited for working groups like the TWG, ESWG, and SSC.

SPP staff took the initial stab at matching issues with the proper recommendation or working group. The TPITF reviewed the pairings and provided input on the issues that staff were unable to match up with a particular recommendation or working group.

A couple of issues focused on seams; specifically the lack of a relationship between interregional and intraregional models and a concern the planning models do not reflect needs on the seams.

- Antoine shared seams discussions have been minimal and David Kelley will try to piggyback off what the TPITF decides.
- Brian added that once the ITP planning timeline has been set, it would be a good exercise to see where we can synchronize with MISO's timeline; taking into consideration holidays, BOD meetings, etc.
- Anthony Cook shared MOD 33 will require model data from MISO.
- Brett Hooton added the modeling piece is the important part and SPP should look to coordinate with their modeling timeframe. Brett agreed to look into the MISO modeling schedule.

Action Item: Brett Hooton to provide feedback on the MISO modeling process.

A couple of issues focused on load forecasting. The issues surrounded a need for a consistent methodology for load forecasting and how it is incorporated into the planning models.

- Wayman spoke of the potential benefit of a load forecasting working group that would work to improve the development and submittal of load forecasts.
 - The group will table this as a potential recommendation to the TWG for their consideration.

Discussion also covered model build duration and data review within the planning processes. Some comments below:

- Earlier reviews of issues with the model build. Give some time to review model and address issues early in the model build process. Define criteria on what are considered reasonable fixes.
- Lack of feedback on comments submitted to SPP causes TOs to resubmit comments with the next pass. Carry over comments from pass to pass until SPP replies.

Agenda Item 3: ITP Model Development White Paper (All)

Antoine led discussion regarding the use of the CBA reliability model as the TPL sensitivity case in place of the building of an alternate scenario model. Highlights of the discussion are as follows.

English Cook shared feedback he received from SPP's Compliance department regarding the use of the CBA model. Compliance cited the need for the sensitivity analysis to be based on a case that varies specified conditions by a sufficient amount to stress the system to a point to demonstrate a measurable change in the system. The condition applies to both the steady state and stability analyses. Their opinion was the CBA model, with its market-based dispatch, could potentially be different enough to be used as the sensitivity case. English added a decision by the TPITF was needed to choose the TPL sensitivity case for the white paper which in turn would be discussed by the TWG. Antoine added he thought a market dispatch case should be different enough to stress the system.

Antoine shared the elimination of the alternate scenario model in favor of the CBA model would reduce the number of scenario models to one; the base scenario model. He clarified there would be no S0 or S5 bookend models.

Wayman Smith suggested adding more specifics around the base scenario model to the white paper. Explain what levels the resources like wind and conventional would be modeled. For example, the historic high over a 5-year period, highest 5 years on peak, etc.

- Steve Gaw voiced his agreement with adding additional detail which in turn will help TWG with their review. He added the need to look at testing at high wind and not just on-peak.
- Wayman questioned if peaks should be looked at in aggregate or by facility.
 - Brian suggested a per-facility basis.

After discussing potential scenarios, Brian suggested the modeling of wind at the higher of the facility's accredited capacity or its highest on-peak within the last three years per facility and off-peak and light load at 100% (with firm service).

- Antoine asked how new wind resources with no historical data would be modeled. Jason Davis suggested using the average of peaks within the facility's area.

- Bruce Cude replied he could see issues with low wind at peak hours. Brian suggested looking at a facility's highest on-peak output hour over the months of June, July, and August.
- The group agreed with both modeling assumptions.

Wayman voiced concern over potential issues with using only one scenario model and dropping the bookend models.

- Jason Atwood replied two scenario models could be used but they would need to be closer together in scope than they are today.
- Antoine added no scenario will catch everything and more models are not necessarily the fix. Looking for a model that will address the issues.

Wayman shared a concern of other issues that may have come up over the series of TPITF meetings that may be different from the ones captured initially. English volunteered to review the minutes of the past meetings and list any items of concern that were tabled during those meetings and bring back to the group for discussion.

The group consented to move forward with the recommendation of eliminating the Alternate Scenario case and utilizing the CBA reliability model as the TPL sensitivity case.

Action Item: English Cook to review the minutes of the past meetings and list any items of concern that were tabled during those meetings and bring back to the group for discussion.

Agenda Item 4: 18-Month Planning Timeline (SPP Staff)

Antoine reviewed a presentation outlining the current model build process as well as two ITP model build scenarios. The following are highlights of the discussions.

Considerable discussion covered the critical nature of the timely submittal of accurate load data to the building of an accurate model within the scheduled timeframe.

- Brian asked for reasons why SPP does not create the load forecasts for the footprint.
 - Alan Myers commented MISO, ERCOT, and PJM are responsible for load forecasting and we (SPP) may be heading in that direction.
 - Jake Langthorn added that due to individual state plans, there tends to be conflict between load forecasts. An SPP-wide forecast may be easier than looking at each individual state/member footprint.
 - Anthony responded member feedback has consistently been to leave it to them.
 - Brian offered the TPITF may need to consider a recommendation if load forecasts are bogging down the model build process.
 - Travis Hyde commented individual companies will perform distribution planning as well as transmission planning for their load forecasts. It would

be tough for SPP to forecast on individual buses. He added we may be getting the best data, just not necessarily at the right time.

- Travis added utilities need to have time to get their data, review, and provide to SPP.
 - Antoine asked how much load would vary year-to-year for a 50/50 forecast submission if the old forecast is used as mitigation.
 - Travis replied on load data, it does not have to be that sensitive and would probably be okay. Issues are with big changes in load. Anything that would affect flows.
- Antoine revisited Wayman's earlier comment regarding a working group for load forecasting and added with the amount of important place on the forecasts; a group overseeing the process may be beneficial.
 - Travis offered the MDWG may be best informed to discuss load.
- Antoine mentioned the AQ process attempts to capture new loads.
 - Travis responded consideration needs to be given to the AQ process and how it might fit with the ITP process.
 - Bruce replied rolling AQ in may be hard since it is an outside process.
- Alan shared load concerns may need to be addressed by MOPC and the BOD.
- John Krajewski added the potential to remove load forecasting from members if they are unable to submit timely data may be a good incentive for compliance.

Antoine stated the overlapping model build may allow for the opportunity to update the new (next) model with fixes for issues found during the need assessments.

- Jake added a plan to move forward knowing there will be some errors is needed that will incorporate a process to address issues. This will allow the model build process to move forward.
- Travis agreed there needs to be a point where the line is drawn and the process moves forward. He added data submittal is an old problem.

Anthony imparted load forecasts are not the only issues that cause delays in the model build schedule. Topology changes are another big reason for delays. He shared the modeling group has been emphasizing the ability of members to enter MOD changes throughout the year; not just during the model build portion of the process. With the new MDWG schedule, the timeframe between builds (off-season) has been highlighted as a time for the submission of topology changes. He added he can build models during the off-season for members to review after the submission of topology changes.

- Travis added there are NERC standards around the submission of data.

Anthony explained a major difference between the MDWG and ITP models is with proxy transactions and generation. Proxy transactions and generation are added to the MDWG to alleviate all base case overloads. They are removed from the ITP model.

- Travis added each individual company's resources are represented in the MDWG model while an ITP model steps out and looks at the market. People are cautious about being audited on things they cannot control.
- Katy Onnen responded SPP as the PC should use the model that best reflects its footprint. Utilities can use their own models to run their own studies.
- Kelsey Allen shared for the ITP10, load and generation reviews are performed and the powerflow model is adjusted accordingly. He suggested they could just look at NTCs issued while still incorporating topology updates in order to simplify the process.

Mo Awad commented there may be an issue with the TPL standard piece regarding the modeling of accredited capacity. Possible MOD issue.

- Jason Terhune replied Planning can mitigate P0 events on the front-end to reduce the results sets. May need to steer away and develop criteria like the ITPNT. Possibly take base case violations and add a 3% criteria to determine P0 impacts on issues.
- Antoine asked if this step was just to confirm P0 and P1 issues were resolved. Jason Terhune replied yes.

Antoine asked if members would be comfortable with the issuance of NTCs based on results of a TPL stability issue where the study considers proxy facilities and the violations may be on proxy facilities.

- Alan replied SPP staff has discretion over issuing NTCs.
- Travis added there were four issues from the current TPL stability study dealing with relaying, load, and conversions. Most will never be competitive.
- Brian voiced his support to keep the TPL stability study separate with consideration given to a mechanism for a project that may be competitive. Brian suggested developing plans for the TPL stability study, using the ITP model, as ITP-included and non ITP-included in order to compare and determine which avenue would be best.

Action Item: Develop comparison scenarios for 1) inclusion of the TPL stability study within the ITP process and 2) performing the TPL stability study as a one-off with a mechanism to include competitive projects in the ITP process.

A short discussion was held over the Assessment piece of the 18-month planning cycle. A high-level schedule was presented to support the discussion. SPP staff will firm up the proposed schedule and bring its recommendations to the group during the March 2/3 meeting. Staff asked TPITF participants to consider the high-level assessment schedule and forward staff any concerns or proposals. Staff pointed to the uncertainty

the impact of the number of DPPs that arise from a combined ITP study may have on the process; specifically addressing the unknowns of the potential number of needs/DPP submittals that may come out of the combined processes and their impact on the size of the DPP window needed and the amount of time that may be needed to process solutions for the submitted projects. The staff also shared the need to give consideration to the inclusion of NTCs in the model build; when and how to incorporate the projects (pre-approval vs post-approval).

Agenda Item 5: Working Group Coordination (All)

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

Agenda Item 6: Incorporate Compliance Assessments (TPL) into the ITP Process (All)

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

Agenda Item 7: Proposed Process Implementation Discussion (All)

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

Agenda Item 8: Miscellaneous Planning Considerations (All)

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

Agenda Item 9: Review Action Items (Antoine Lucas)

The following action items were taken during the call:

1. Brett Hooton: provide feedback on the MISO modeling process suggested putting together a small group to discuss Steve's issues.
2. Develop comparison scenarios for 1) inclusion of the TPL stability study within the ITP process and 2) perform the TPL stability study as a one-off with a mechanism to include competitive projects in the ITP process.
3. English Cook to review the minutes of the past meetings and list any items of concern that were tabled during those meetings and bring back to the group for discussion.

Agenda Item 10: Future Meeting Dates and Locations (Brian Gedrich)

- March 2 & 3. Doubletree Hotel. Dallas.
- March 30 & 31. Doubletree Hotel. Dallas.
- April MOPC

Agenda Item 11: Adjourn (Brian Gedrich)

Brian Gedrich adjourned the meeting at 2:30 pm.

| First Name | Last Name | Company |
|-------------------|------------------|--|
| Alan | Myers | ITC Holdings, Inc |
| Antoine | Lucas | Southwest Power Pool |
| Brian | Gedrich | NextEra Energy Transmission LLC |
| Bruce | Cude | Xcel Energy / SPS |
| English | Cook | Southwest Power Pool |
| Jake | Langthorn | Oklahoma Gas and Electric Co. |
| Jason | Davis | SPP |
| Jason | Atwood | Northeast Texas Electric Cooperative |
| Jeremy | Severson | Basin Electric Power Cooperative |
| Jody | Holland | South Central MCN, LLC |
| John | Krajewski | Nebraska Power Review Board |
| Katy | Onnen | Kansas City Power & Light |
| Kirk | Hall | Southwest Power Pool |
| Lloyd | Kolb | Golden Spread Electric Cooperative, Inc. |
| Matthew | Stoltz | Basin Electric Power Cooperative |
| Michael | Wegner | ITC Holdings |
| Mo | Awad | Westar Energy |
| Pat | McCool | Kansas City Power & Light |
| Ryan | Yokley | Sunflower Electric |
| Sam | Loudenslager | Southwest Power Pool |
| Shawnee | Claiborn-Pinto | Public Utility Commission of Texas |
| Steve | Gaw | Wind Coalition |
| Steve | Sanders | Western Area Power Administration - UGPR |
| Wayman | Smith | American Electric Power |
| Aravind | Chellappa | SPS |
| Brian | Rounds | AESL |
| Chris | Giles | |
| Jason | Terhune | SPP |
| Steve | Hardebeck | OG&E |
| Travis | Hyde | OG&E |
| Aaron | Pupa | LS Power |
| Joe | Fultz | |
| Moses | Rotich | SPP |
| Brett | Hooton | SPP |
| Adam | McKinnie | MO PSC |
| Anthony | Cook | SPP |
| Scott | Jordan | SPP |