

Transmission Planning Improvement Task Force (TPITF)

Dallas, Texas

September 2 & 3, 2015

• 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. Standardized Scope **(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.
 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. Brian Gedrich: Research ERCOT cost estimates for building the NMMS tool. **(OPEN)**
 4. All: Determine what SPP staff enforcement would look like. **(OPEN)**
 5. SPP Staff: Explore pain points associated with the inclusion of TPL assessment with the planning assessment. **(OPEN)**
 6. Antoine Lucas: Look into the tracking of congestions and uplifted costs. **(OPEN)**
 7. SPP Staff: Grid of assumptions across the various planning processes to review consistency among processes. **(OPEN)**

8. SPP Staff: Add detail to the working groups list describing responsibilities for review and approvals. **(COMPLETE)**
9. All: Create point-of-contact list for member companies. Include back-up. POC for issues with the ability to route issues through the company. **(OPEN)**
10. TWG (Mo): **(COMPLETE)**
 - a. ITPNT scope to be standardized into the ITP manual/ Planning Protocol: one combined scope with ITP10.
 - b. Discussion on S0 and why S5 is still needed? Should ITP be performed on CBA only? If yes, develop criteria for which scenario model to keep or which scenario to use in what season? Consider changing summer dispatch for wind (ex: highest wind output in the last five years during peak)?
 - c. NERC assessment on CBA – why not?
 - d. TPL steady state scope, stability scope, short circuit to be standardized in the manual. What will it take to combine with the ITP study?
 - e. TWG/ESWG: system topology on generation addition in ITPNT and ITP10.
 - f. ITPNT/ITP10: scope differences with Market Structure and System Topology. Need to settle on the scope for these items for a 10-year ITP study.
11. SPP Staff: Determine if S0 and S5 models are a requirement (Tariff/NERC/etc). **(COMPLETE)**
12. SPP Staff: Create high-level 18-month schedule including ITPNT and ITP10 milestones.
13. Antoine Lucas: Speak to Carl about his thoughts on sending out a “hot topics” list prior to the MOPC materials posting.
 - Review/approve 8/6/15 and 8/21/15 draft meeting minutes:

Brian Gedrich opened the floor for discussion regarding the draft minutes for the 8/6/15 face-to-face and 8/21/15 conference call meetings. There was no discussion or proposed revisions. Mo Awad motioned to approve the draft minutes as posted and the motion was seconded by Lloyd Kolb. The motion passed.

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

Agenda Item 2: ITP Study Structure Discussion (SPP Staff) – presentation posted with draft minutes

Antoine Lucas used a presentation developed by SPP staff to guide the group over the current considerations made by the Task Force and over the actions that are needed to firm up the recommendations as we looked toward the October MOPC and SPC meetings. He emphasized the need for more detailed discussion around the recommendations in order to guide SPP staff as they look to incorporate the recommendations into an actionable plan. Antoine gave the example of reviewing the various models produced by the Modeling group for the various planning processes. Reduction or an increase in the number of models required will have a direct impact on staffing and budget needs.

- Brian Gedrich asked if the decision on models should come from the Task Force or from working groups. Antoine responded the final decision will be up to the working groups but the TPITF can give guidance on how to make it work. He continued direction from the Task Force to the working groups is very important.

Slide 2 (TPITF Planning Considerations): Antoine reviewed Slide 2 that gave a visual representation of the 18-month planning cycle and listed the current TPITF considerations: 1) 18-month planning cycle; 2) Planning model; 3) Holistic planning process; 4) Standardized scope; and 5) Overlapping cycles with an annual report.

Slide 3 (18-Month Planning Cycle): Antoine continued with Slide 3 discussing the *What* and *Why* of an 18-month planning cycle. It was suggested a *Why* could include an increase in the quality of the work due to the decrease in the time lapse between studies which will allow the process to incorporate changes quicker.

Slide 4 (Holistic Planning Process): Antoine continued with Slide 4 discussing the *What* and *Why* of a holistic approach to planning. He discussed the combining of the ITP (ITPNT/ITP10) and TPL processes as a way to incorporate reliability, economics, policy, and compliance assessments into a 10-year study. Items that need further discussion are how TPL issues will be mitigated within the planning process and the definition of economics in the near-term which could mean different things to different people.

- Steve Gaw added part of the reason is to streamline the process to the correct the consistency in the models used in the different planning processes. He added a *Why* could also include the inclusion of data from the market and operations. Lloyd Kolb echoed the inclusion of operations data as an important *Why*.
 - Antoine responded the expansion of economics over the full 10-year horizon will help capture market considerations and the inclusion of operations data should help identify reliability issues that are not captured in the LT models. He added approaches need to be developed for capturing operational issues not included in the LT models and calling out compliance issues within the planning process. Need to be able to support the results without a bunch of tweaks.

- Brian added he has seen issues captured in other studies through uplifted costs.
- Wayman Smith replied he estimated modeling only captures 15-30% of congestion due to the lack of capturing outages. He was not sure, outside of probabilistic models, if congestion could be modeled at 70%. He added we may just have to look at issues that consistently arise.

Slide 5 (Planning Model): Antoine continued with Slide 5 discussing the *What* and *Why* of a common model for planning. He discussed the group's decision to move to a common (CBA) model and the possible elimination of Scenario models. The common model would not necessarily be a single model but would minimize the model differences between the planning processes. While the processes may need to be different, a common model can help streamline the model build/review process.

- Wayman brought up a concern with op guides being submitted with DPPs as non-transmission solutions. He anticipates more DPPs that may include op guides with a compressed timeline. He added the use of Rate C for ??? limits would eliminate a lot of DPPs. Brian replied there is an issue with making minor changes to a good project in order to meet all of the possibilities which substantially increases the number of DPP submissions. He thought this would be an ongoing issue regardless of a process change.
 - Jason Atwood added op guides are very difficult to model and are not compatible with PROMOD. Antoine replied most op guides are not that complicated but still have to be included in the models.
 - Adam McKinnie asked how many op guides are currently in the model and how many have recently been removed. Antoine replied he was not sure of the exact amount in the models but it would be in the hundreds. Antoine was not aware of any op guides that have been removed recently.
 - Mo Awad shared before 2006-07, there was no incentive to build and op guides were used to address issues. Afterwards, op guides were grandfathered and kept as issue fixes going forward. They are kept until they fail.
 - Additional discussion focused on tariff or criteria language regarding the use and removal of op guides. Follow up on this discussion is included in the action item below.
 - Jody Holland brought up the topic of TODs and their use in the planning process. Considerable discussion covered the use of op guides and TODs and the criteria around their use and removal. SPP staff was asked to research op guides and TODs and report on the criteria around their use in the planning models and the criteria around their removal and the impact on

planning and stakeholders. Main points of the discussion are listed below:

- TODs are more for planning while op guides are more for real-time.
- TODs are listed and posted. Historically fewer in number than op guides.
- Used TODs as fixes for needs in last year's ITPNT study.
- A formal process for submitting and approving TODs.
- Confusion over the use of TOGs and TODs in the DPP submittal process.
- Section 3.4.4 of the Tariff covers TODs.

Action Item: SPP staff research op guides and TODs and report on the criteria around their use in the planning models and the criteria around their removal and the impact on planning and stakeholders.

Slide 6 (Standardized Scope): Antoine continued with Slide 6 discussing the *What* and *Why* of a standardized scope for an ITP study. He emphasized the scope, once standardized, will help set a framework around the ITP study that will assist management in budgeting for the appropriate staffing needs.

The ITP Manual would be used to house the scope and the RR process will be used to manage and track changes to the study scope. This will allow for more control and transparency for process changes.

Antoine continued an assumptions-type document can be developed that will complement the standardized scope. This document will be used for study scope items that will require review and approval by a working group(s).

Bruce Cude suggested the inclusion of a standard scope item of a *business-as-expected* future. Studies typically have a reference case and this could act as the reference case going forward. Spelled out in a high-level fashion to allow for the case to change based on current industry conditions but still reflect business-as-expected.

Slide 7 (How?): Slide 7 of the presentation moved from an overview discussion to a list of action-required items SPP staff determined were necessary to implement the proposals of the TPITF. The slide reflected items for an 18-month planning cycle, a planning model, a combined ITP study, and a standardized scope. Main discussion points for each item are noted below.

18-month planning cycle: Discussion involved the need to determine what can be eliminated or shifted around or made more efficient with the current ITPNT and ITP10 scopes to allow for the successful combination of the studies. No actions were taken with this item. Future discussion will be needed either at the Task Force or working group level.

Planning model: Main discussion points are noted below.

- The use of coincident (8760) versus non-coincident (1-hour) peaks.
 - Non-c is a more conservative approach. Modeling more hours may capture more issues because different areas may be at more risk at different times that aren't their peak hour.
 - CMTF looking at the differences between coincident and non-c peaks. Juliano Freitas shared the 2019 Summer peak (non-c) used in the last ITP10 study was 54.6GW and the 2020 Summer peak (coincident) used in the last ITPNT was 58.5GW. A difference of nearly 4GW between coincident and non-c peak loads.
 - A few participants took issue with the load difference and the potential for building unnecessary transmission projects.

Action Item: SPP staff research data on coincident/non-coincident peaks.

- Alan Myers added the growing geography of SPP complicates the load question further with different loads having different peaks. Summer versus winter. He does not think we have to model exact peaks for each zone, but issues can be missed by not doing so.
- Tier 1 (SPP/PJM/MISO/SERC) versus SPP only.
- Use one model for TPL and ITP assessments.
 - Generation siting differences between the TPL and ITP models are a concern.
 - Jody shared that since TOs are their own TPs and do their own studies for NERC, why not let them use the MDWG model for their assessments and let SPP as the PC use the model of their choice for their TPL assessment. This would help avoid additional models for the TPL powerflow study. He added this would reduce the process with an ITP model. Could pull the TPL in if SPP as the PC used this one model set. It would not reduce the total number of models built but would reduce the number of models used by SPP staff.
 - Brian asked if there would be much pushback from TOs if they have to create their own TPL model. Bruce replied he thought it would be an issue while Mo did not see it being a big deal.
 - Antoine asked if the MDWG model could be eliminated if this was the case. John Mills replied the MDWG models are a NERC requirement and he shared he thought Jody's idea had merit.

- Antoine commented if John has to build the MDWG, the group may need to look at other models to reduce.
- Alan replied there is some latitude around how to build MDWG models. Maybe they can be built to where NERC can build their system model.
- Jason commented it may be too big of an issue to combine the ITP and TPL assessments. Mo added a sensitivity may be able to be used on coincident and non-peaks (old CBA peak) to comply with the standard.
 - Mo shared it may be easier to make a tariff change to allow NTCs for compliance needs and keep the ITP and TPL assessment separate. Wayman commented this would go against the desire to reduce the duplication of effort which along with issuing NTCS was a primary driver for combing the studies.
- Need to find a way to collapse the number of models built and meet the needs without causing unintended consequences. The TWG would have to be comfortable with this before agreeing to a new model. The TWG would be more comfortable with using one model across planning rather than one model for the ITP study and a different model for the other planning processes like GI, ATSS, and TPL.
 - Antoine commented that from an SPP perspective, they should perform regional planning using a regional peak but zones want zonal peaks for planning.
 - Bruce asked how close are the zonal and regional peaks. Staff took an action item for this request.

Action Item: SPP staff research data on zonal/regional peaks.

- Mo shared the focus should be on a process to create the ideal model rather than focusing on what is currently being built. Past experience has shown we can build the Scenario, CBA, TPL, and powerflow models in a year. Need to determine what MDWG needs to build and when it is needed.
- A short discussion on the appropriate model years. Antoine pointed out three data points (years) are necessary for APC benefit calculation and Alan added the ESWG would not agree with results without three data points. Several years were discussed: 3, 5, 7, 10, 15, and 20.
 - Antoine stated the study will need a farther out model even if the other 2 data points are moved in. The model could be built with less effort if extrapolation is easier. A 10-year model would take

more time to create. He added a resource will have to be created for year 5 regardless for load growth.

- Juliano shared the last ITP10 used models for years 10, 15, and 20.
- Antoine asked the group to opine on what they want in a 10-year model. Comments were as follows:
 - CBA model with modified dispatch for renewables.
 - Create something more reflective of reality. Use historical data for wind farms. Not a scenario with summer peak and high wind.
 - Doubt Scenario 5 model was built on what would happen. Built to protect service.
 - Develop a strong approach to protect service due to roll over rights and wind that would allow for the dropping of the Scenario models. Create a profile for wind and then economically dispatch other resources around it to serve the residual service/load. Alan added the interruption of firm service is a NERC violation.
 - A model that is also applicable to GI and ATSS.
 - Maybe a combination of a CBA model and Scenario model with block dispatch and non-c peak to protect service and model wind.
 - Model wind farms with firm service to be more reflective of actual output.
 - Steve Purdy shared with the group for a single request of a wind unit to a sink, ATSS will ramp the wind unit to 100% of the request and decrease the sink by the same amount of generation. They do not mess with any other units in both S0 and S5 models.
 - Need to reduce the number of models for the same time period. For example, 5 model sets for Year 5.

Action Item: Mo put together 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. Determine what models (if any) can be eliminated. Include MDWG and MISO. May also consider a tool like ERCOT presented.

Combined ITP Study: Discussion centered around how the group would define economics in the near-term and how the TPL assessment can be merged into the regional planning process. Main discussion points are noted below.

Economics in the near-term

- Using a more cost-effective project to fix an issue. Look at bringing in bigger projects to address near-term and long-term issues.
- Use the Avoided/Delayed Reliability Benefit metric used in RCAR. Look at economic projects that can defer a reliability project and determine if reliability projects have an APC benefit. Could be a large amount of projects to review but would be a significant benefit if it could be done.
- Thinking timeframe: build an economic model for a period between year 1 and 6.
- Need to consider a near-term future.
- Need to consider issues that grow over time and issues that go away in the future.
- Run reliability analysis and identify projects for reliability needs in year 3. Layer in flowgates and see if there is an economic project.
- Build economic model and perform needs assessment for a near-term year; 2 or 3. Full needs assessment with DPP window (combined with long-term portion for just one DPP window). A benefit would be less proxy generation and the layering of more flowgates/congestion in the near-term.
- Consider smaller scope for near-term year like 400 hours instead of 8760.
- Brian suggested Antoine pick years 2 and 5 and then determine which year is best. Jody added NERC may require a year 2 model for reliability purposes.
 - Antoine agreed to look into a reliability model for years 2 and 3 and an economic model in years 5 and 10. Will make assumptions on firm and non-firm service and when/how it will be analyzed. Will make additional study assumptions and document what is change and bring back to the group for review and discussion.

Action Item: SPP staff to develop process for including economics into the near-term.

Merge the TPL assessment into the regional planning process

- NTCs for violations would be a benefit.
- Would see efficiency from not replicating work.
- Additional generation in outer years may cover up potential violations.
- Would prefer to use the same model as the ITP study. This would take a lot of discretion away from TOs in regards to siting generation.
- TPL assessment requires more contingencies than the ITP study
 - May be able to use the same base model but perform different analysis for the ITP and TPL. Post processing for additional TPL requirements.
 - May need to increase the ITP assessment beyond N-1 which would have to be a directive from the BOD.

- John Krajewski pondered if there is a contingency requirement for NERC, why is the near-term reliability model different.
- Mo responded it would be a hard sale to the TWG to increase the number of contingencies.
- Mo shared SPP staff will run the TPL assessment this year with the new standard and will compare needs between the old and new standards to see what changes.
- English Cook asked the group if the TPL discussions included all assessments or just the steady state assessment. Mo suggested the stability and short circuit assessment be performed separately but within the same timeframe and results included in the annual ITP report.
 - Wayman added if the group moves toward a coincident peak model, it could be used to build the dynamics and short circuit models in place of the MDWG model.
 - Brian asked if there would be an impact of the results. Mo replied he did not see much impact on stability with the proposed changes.
- Brian recommended SPP include all contingencies in the ITP and issue mitigation lists to TOs. As an out clause, TOs can use the results to satisfy TPL requirements. TOs can also use their own mitigations. Use a coincident peak model which will be a change from the current process.
 - For ITP, expand contingencies list to the NERC list. Needs will include all but those that include load shed and send to the TOs.
- Bruce commented the topic of paying for projects will be heavily discussed by other groups. He added the biggest issue between the MDWG and CBA models will be with siting generation.
 - Alan responded an ITP model would include resource planning processes like it does not including the waiver process.
 - Steve and Alan both commented on the possible ability of TOs to manipulate the process. Alan added the process is pretty good for the ITPNT and the ITP10 process is not far from it. He does not see that as a high hurdle.
 - Wayman added there is also a continued issue with the retirement of units.

Action Item: Bruce Cude to look at potential improvements to the generation waiver process.

Standardized Scope

Antoine began the discussion by stating in order to expedite the scope approval process, parts of the scope need to be locked down and the review process for

assumption items like futures needs to be firmed up. He added consolidation methodology should be a standardized item regardless of the futures.

- Alan commented a methodology for consolidation that can agreed upon needs to be developed.
- Alan suggested the scope be built to a normal cycle unlike this year with the CPP.
- Brian suggested SPP provide the initial recommendation for futures etc. that will need review and approval and revise according to member feedback.
- Jody added incremental changes to the scope can incorporate needed changes identified from the previous study after a standard has been settled upon.

Action Item: SPP staff to consider the review and approval on assumption items not standardized in the scope.

Agenda Item 3: Economics in the Reliability Assessment (SPP Staff)

Discussion of this agenda captured above under the discussion for Slide 7>Economics in the near-term.

Agenda Item 4: Incorporate Seams Issues and Operations into Planning Process (SPP Staff)

Antoine started the conversation regarding seams by stating some issues will be addressed with a market (economic) dispatch in the near-term. He added he still hears issues are captured in the models and asked what can be put into place to capture those issues with the potential to produce a project.

Jerry Bradshaw discussed an issue he has and is currently experiencing in the Springfield area where he has facilities overloading in real-time but not showing up as an issue in the planning model. He sees large flows across the seams based on how the system is operation. They have developed an op guide to mitigate the issues. He also noted the issue of outages on the system that do not show up as problems in the planning models, but are issues in real-time. Jerry asked how we determine if an op guide is the proper fix for these types of issues.

- After discussion on the issue, Antoine agreed to coordinate with SPP operations to develop a recommendation for a process for reviewing operational issues within planning.

Action Item: SPP staff develop a recommendation for a process for reviewing operational issues within planning.

Agenda Item 5: Model Build Process (SPP Staff)

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

Agenda Item 6: Congestion/Uplifted Costs Tracking (SPP Staff)

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

Agenda Item 7: Assumptions Across Planning Processes (SPP Staff)

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

Agenda Item 8: Review Action Items (Antoine Lucas)

The following action items were taken during the call:

1. SPP staff: Research op guides and TODs and report on the criteria around their use in the planning models and the criteria around their removal and the impact on planning and stakeholders
2. SPP staff: Data on zonal/regional peaks and coincident/non-coincident load comparison by TO.
3. Mo Awad: Employ a small group of stakeholders to discuss the building as a base ITP model that will be used across all planning functions as well for TPL assessments. Determine what models (if any) can be eliminated.
4. SPP staff: Develop process for including economics into the near-term.
 - Brian suggested Antoine pick years 2 and 5 and then determine which year is best. Jody added NERC may require a year 2 model for reliability purposes.
 - Antoine agreed to look into a reliability model for years 2 and 3 and an economic model in years 5 and 10. Will make assumptions on firm and non-firm service and when/how it will be analyzed. Will make additional study assumptions and document what is change and bring back to the group for review and discussion
5. SPP staff: Recommendation for process for reviewing operational issues within planning.
6. Bruce Cude: Research potential improvements to the generation waiver process.
7. SPP staff: Recommendation for how non-standard scope items will be reviewed and approved.

Agenda Item 9: Future Meeting Dates and Locations (Brian Gedrich)

- A conference call will be scheduled for 10/1/15. 9am – 11 am.
- Face-to-face meetings in Dallas have been scheduled for:
 - October 7. 7:30am – 2pm. AEP office.
 - November 12 and 13. 1pm – 5pm (Th) and 8am – 2 pm (Fri). AEP office.

Agenda Item 10: Adjourn (Brian Gedrich)

Brian Gedrich adjourned the meeting at 2:55 pm.

Company	Last Name	First Name
LS Power	Pupa	Aaron
Missouri Public Service Commission	McKinnie	Adam
ITC Great Plains, LLC	Myers	Alan
Southwest Power Pool	Lucas	Antoine
South Central MCN, LLC	Warren	Bary
NextEra Energy Transmission, LLC	Gedrich	Brian
Southwestern Public Service Company	Cude	Bruce
	Dixon	Carrie
Southwest Power Pool	Hendrix	Charles
Nebraska Public Power District	Betz	Dustin
Quanta	Pfeiffer	Ed
Southwest Power Pool	Cook	English
Northeast Texas Electric Cooperative, Inc.	Atwood	Jason
Basin Electric Power Cooperative	Severson	Jeremy
City Utilities of Springfield	Bradshaw	Jerry
Kansas City Power & Light Company	Flucke	Jim
South Central MCN, LLC	Holland	Jody
	Bell	John
Nebraska Power Review Board	Krajewski	John
Southwest Power Pool	Mills	John
	Schmick	Jordan
Omaha Public Power District	Verzal	Josh
Southwest Power Pool	Freitas	Juliano
Kansas City Power & Light Company	Onnen	Katy
	Allen	Kelsey
SPRM	Foflygen	Kevin
Southwest Power Pool	Hall	Kirk
University of Central Oklahoma	Haynes	Leisa
Golden Spread Electric Cooperative, Inc.	Kolb	Lloyd
ITC Great Plains, LLC	Wegner	Michael
Westar Energy, Inc.	Awad	Mohammad
Southwest Power Pool	Rotich	Moses
Kansas City Power & Light Company	McCool	Pat
Ameren Services Company	Hayes	Patrick
Southwest Power Pool	DeLassus	Patrick
Customized Energy Solutions, LTD	Safuto	Robert
Southwest Power Pool	Loudenslager	Sam
	Gaw	Steve
Western Area Power Administration - Upper Great Plains Region	Sanders	Steve
Southwest Power Pool	Purdy	Steve
Nebraska Public Power District	Owens	Tim

	Kleckner	Tom
Southwest Power Pool	Green	Tony
American Electric Power	Smith	Wayman

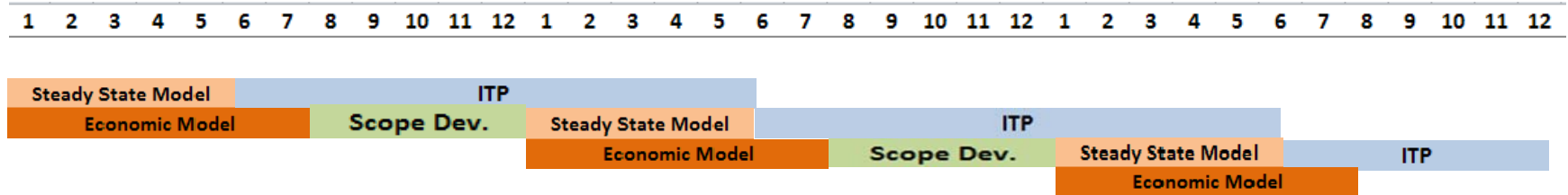
SPP Planning

TPITF

September 2-3, 2015

Dallas, TX

TPITF Planning Considerations



- 18-month planning cycle
- Planning model
- Holistic planning process
- Standardized scope
- Overlapping cycles with annual report

18-Month Planning Cycle

- What?
 - Reduce ITP planning cycle from 36 to 18 months
 - Perform ITP20 study separate from planning cycle
 - Overlap to produce an annual ITP report
- Why?
 - BOD requests:
 - Shorter timeframe on study
 - Broader scope with more futures
 - Better alignment with other planning processes
 - Produce a long-term ITP study more often
 - Increase quality of study results with the decrease in the time lapse between studies which will allow the process to incorporate changes quicker

Holistic Planning Process

- What?
 - Combine the ITPNT and ITP10 processes into one 10-year study
 - Reliability, economic, and policy assessments
 - Incorporate TPL assessments
- Why?
 - Economic considerations for the full planning horizon
 - Create consistency with planning models and eliminate redundancy of effort
 - Further incorporate system needs found in compliance assessments with regional planning needs for project identification
 - Inclusion of market and operations data

Planning Model

- What?
 - Region-wide economic commitment and dispatch that more appropriately accounts for renewables and firm transmission rights
 - Leverage MDWG model build process for data submission
 - Use common model with all planning processes
- Why?
 - Consistency between models for all planning processes
 - Modeling data and assumptions control
 - Reduce model data submission and review burden
 - Move from current block dispatch to market dispatch model

Standardized Scope

- What?
 - Standardize traditional scope items
 - Leverage ITP Manual
 - Combine with Assumptions document for approval items
- Why?
 - Reduce the impact/burden of reviewing scope items that do not change from study to study
 - Use the RR process for ITP Manual/process changes to review and track changes
 - Budget for appropriate SPP staffing levels to execute the study scope
 - Set the framework around an ITP study

How?

- 18-month planning cycle
 - Eliminate duplicative study efforts or identify staffing needs
- Planning model
 - Develop a region-wide economic commitment and dispatch that more appropriately accounts for renewables and firm transmission rights
 - Appropriate for all planning processes
 - Streamline data collection process through the MDWG
- Combined ITP study
 - Define economics in the near-term
 - Merge the TPL timelines and assessments into the regional planning process
- Standardized scope
 - Create scope template
 - Expedite Working group review of scope
 - Consolidate/define items that differ between study assessments
 - Revise the ITP Manual

	Y1				Y2				Y3			Y5			Y10		Y15	
CBA					S	W						S	W	LL				
Scenario 0					S	W						S	W	LL				
Scenario 5					S	W						S	W	LL				
Economic F1												A			A		A	
Economic F2												A			A		A	
Economic F3												A			A		A	
DC/AC F1												S	LL		S	LL		
DC/AC F2												S	LL		S	LL		
DC/AC F3												S	LL		S	LL		
TPL/PF	Sp	S	F	W	LL	Sp	S	F	W	Sp	S	W	S	LL	W	S	W	
Short Circuit	S											S						
Dynamics					S	LL	W		S			S	LL	W	S	LL		
Total	5				14				4			25			13		3	64