Regional Planning Group Meeting Notes January 19, 2016

Misc. Updates

ERCOT will present on the results of the solar study at the February RPG meeting.

ERCOT's consultant on the Panhandle Detailed Study will present their findings at the February ROS meeting.

Q: When will the Panhandle studies be released?

A: Prior to ROS meeting. As for report, within a week after ROS meeting.

Chad Thompson updated on Panhandle constraints

- Operations has the numbers from the Planning studies, and has conducted some assessments of our own. Once the data is collected and we can update our Generic Transmission Constraint (GTC) Methodology documentation and situational awareness tools, we will be able to consider the WSCR limitations from the Planning studies in our real-time assessments
- The "bolt-on" WSCR tool is still under development. Estimated timeframe is Q2. *Update after talking to Chad's staff: Q3 is more likely.
- Regardless of the WSCR limit, because the Planning study was performed with a higher level of
 wind capacity than is currently operational, the voltage stability limit is expected to be more
 limiting for the time being. B. Bojorquez asked for clarification that the voltage stability limit that
 we currently have tends to only show up during outage conditions which was communicated to the
 group.
- Because the Planning and Ops Planning studies were done on different wind capacity values, we as ERCOT Operations will have to circle back and re-run the operational assessments for WSCR every few months until the bolt-on is deployed so that we're using up to date capacity numbers—and to also ensure that we're prepared when the WSCR limit becomes more binding under normal operations.

Oncor West Texas Update

Ken Donohoo gave an update on Oncor's West Texas Plan

Q: If trends continue (oil production falls, prices fall) what are you looking at for criteria going forward past 2018?

A: Right now, what we've got in the presentation is needed.

Comment: Concern is the forecasting that's done by Oncor, Centerpoint, and others that's rolled into ERCOT's forecast. In this example, it's really important that the planning group and others participate and understand these forecasts going forward. I'd like to see a lot more discussions on the forecast.

DC Tie Presentation

Jeff Billo presented the MISO-ERCOT DC Tie Study scope comments.

Q: What's the general timeline for when the study will be complete?

A: We're hoping to have study results completed in the fall timeframe. So right now, our timeframe is to put the model together in the first quarter and then work on the studies in the second and third quarters. Hopefully we'll have results from the base analysis in the fall.

Lubbock Power and Light Integration

Ben Richardson presented the study scope comments on the LP&L Integration Study

Q: Under the first bullet, the actual Sharyland option will be considered?

A: We will take into account what Sharyland has included in their study.

Q: When you said you'll look at switchable units, you mean whether or not any Golden Spread units would be switched from MISO into ERCOT as part of this?

A: No. We are assuming that the Golden Spread units are available as they've communicated to us.

Q: Lubbock: The few modifications or additions that you are going to study from the comments, do not affect the timeline? Such as inclusion of the Sharyland study?

A: It should not affect the timeline, but so far we have focused on getting the models ready. As for our timeline, we are a little behind, but this should not affect our overall timeline. We received additional comments from E.ON.

Brad Bell: Asking for sensitivity study including more generators than those that have met Planning Guide Section 6.9 requirements. We don't feel that in the Panhandle only those generators should be looked at as the best metric. Having a sensitivity showing more generation could be useful. Reason: Generators going into Panhandle are having bays built into substations or new substations built to connect into existing lines. The timeframe to have them built is about 18 months. There would be no reason for a generator to give NTP more than 18 months in advance and would therefore not be included in study.

RTP Update

Sun Wook Kang gave an update on the 2016 RTP

Q: Walter Reid: Is there a separate analysis going on looking at taking lines out for maintenance?

A: Jeff: No separate study looking at taking lines out for maintenance; however the RTP looks at N-1-1 analyses that would identify if there are any lines that you can't take out because it would cause overloads.

Q: Clayton: looking at slide 9, what is the maximum wind dispatch for the outside study weather zone?

A: That's shown in the last column in the table: 55% (coastal) and 12% (non-coastal).

Q: Will that change year after year since it's an average?

A: Yes, it's an average.

Q: Brad Bell: question about the number of cases

A: There are four cases, one for North-NC case, Coast-East case, South-South Central case and West-Far West case. All the wind would be reduced to the max. capacity factors defined in the middle column of the table (slide 9).

Q: Where you deviate from the scope, could you post a redline of the RTP scope so that we can keep track?

A: The updated scope posted in the RPG calendar website is the redline version.

Hidalgo-Starr IR Update

Ping Yan presented on the Independent Review results of the Hidalgo-Starr RPG project

Q: Brad Bell: Can you give more detail on wind assumptions for summer peak case and spring case?

A: Wind for summer case used same assumptions as RTP. For spring case, we used the same assumptions as summer peak case.

Q: That assumption is 10%?

A: Correct

Q: High wind condition? If you have units that haven't met Planning Guide Section 6.9, where you assess when you have high wind conditions, low load conditions, what kind of reliability issues would you see? A: Jeff: This analysis is primarily about serving load in the western part of the Valley; however at same time, we are doing a Valley import RPG review and are looking at an export constraint for the wind in the valley as part of that review, so we are analyzing the export constraint. This is primarily a load-serving project.

Q: Your wind dispatch is at 10%, so what are the reactive power support options for wind?

A: They will be providing reactive support. We did look at historic data and concluded that the wind farms are capable of providing the reactive support.

A: Jeff: Based on analysis of Valley import, we've looked at reactive capability of plants in the Valley and looked historical data; even with wind dispatch at 10% or lower they have the capability of providing voltage support.

Q: Slide 4, first bullet, 3rd sub bullet: distributed generators are not price responsive to LMP, is this accurate?

A: Jeff: looked at the distributed generation that is in the Valley and we looked at their behavior and when we have seen Valley import issues, they have not responded.

Q: What's the reason behind allowing 300 MW on the DC Tie under this condition and not the others? A: We allow 300 MW export on the DC tie for N-1 analysis but assume zero DC tie output for other analysis (G-1+N-1, X-1+N-1 and N-1-1).

Planning Review

Jeff Billo gave a presentation on historical trends

Q: Slide 6: is the non-fossil fuel predominately wind?

A: Yes

Q: Net negative generation growth?

A: Gets back to reserve margins, not at 25% reserve margins anymore.

Q: Did you look at any economic criteria that might have had an impact?

A: No.