



Description of Meeting:	NTTG Planning Committee
Meeting Date:	April 12, 2017
Meeting Notes Prepared By:	Amy Wachsnicht
Approved for Posting:	May 10, 2017

1. Agenda:

- a. Welcome and Agenda Review
- b. Approval of March 12, 2017 NTTG Planning Committee Meeting Notes
- c. Technical Workgroup Update
 - i. Public Policy Consideration Study
 - ii. Q5 Updated Data Submittals
- d. Round Table/Other Business
 - i. Upcoming Meetings

2. Discussions & Decisions:

Decision: Approval of March 12, 2017 NTTG Planning Committee Meeting Notes

- Following roll call, it was noted quorum requirements were met in both Class 2 and Class 3, but not met in Class 1. With quorum not met in Class 1, it was proposed to move the approval of the past meeting notes to the end of the agenda.
 - After the update on the Quarter 5 Data submittals, Craig Quist announced that quorum requirements in Class 1 were now satisfied and the approval of the past meeting notes could move forward.
- With a motion by Chelsea Loomis, seconded by Don Johnson and abstentions from UAMPS (Class 2) and UT PSC (Class 3), the March 8th NTTG Planning Committee meeting notes were **approved** for posting.

Discussion: Technical Workgroup Update – Public Policy Consideration Study

- The purpose of the request was to understand the implications of replacing approx. 1,500MW of coal with Wind. A particular concern were the west-bound flows from Montana to the Northwest on Path 8.
- When the request was received, the presumption was all 4 Colstrip units would be online. Subsequent to receiving the request, there was an announcement that Units 1 and 2 would be shut down by approx. 2022, which is within NTTG's 10 year study period. All studies for the request had Units 1 and 2 shut off in the base cases.
 - The Public Policy Consideration (PPC) Study added the addition of retiring Unit 3.
- The Technical Workgroup (TWG) did not model a collector system due to the fact that they would need to know the exact locations and distance between the turbines. Since this study is not a formal interconnection that information was not known.
 - Chelsea Loomis explained that if a project were to come in at the Broadview 500 kV bus, it would need to meet certain requirements at the POI. For this study, the TWG assumed this project met those voltage requirements.
- Given the fact that wind is variable, the TWG dispatched the new wind at Broadview at 0%, 35% and 100%.
- Once the 3 cases were developed, the TWG ran steady-stat analysis on each case and found no violations, therefore they did not model a synchronous condenser. The TWG also ran dynamics analysis on the appropriate cases.
- The TWG reduced the wind from 1,494 MW to 1,244 MW and added in a 250 MW gas generation plant in Billings. The Alkali Creek 230 kV bus was chosen, given its strong connection to the system. The TWG did not take into consideration the gas proponents.

- A question asked what was assumed for the output of the gas plan on each of the output levels of the wind.
 - Chelsea Loomis indicated that the TWG assumed the gas was on 100% of the time, and that the TWG did not do any dispatch levels.
- The 250 gas plant was dispatched at full and the wind dispatched at 0%, 35% and 100%. Dynamics analysis were run on the new case.
- The TWG then chose the best case to run production cost model analysis on. The best case was chosen as the case that had the few violations and highest exports on Path 8.
- The TWG started with the Montana Maximum Path 8 base case then turned off Colstrip Unit 3 and modeled in 1,494 MW of wind on the Broadview 500 kV bus.
- Chelsea Loomis explained that last cycle the TWG did a similar study and one of the conclusions from the last study was the TWG needed to run dynamics. When preparing the studies this cycle, the TWG were able to successfully apply the DYD file from the Summer Peak case to the PPC case with the new wind at Broadview.
- Chelsea Loomis again explained that when the original proposal came in, all 4 Colstrip Units would be online, which would be easy to achieve the 2,200 MW rating for Path 8.
 - Given the fact that not all 4 units would not be online for this study following the announcement of Units 1 and 2 being closed, the TWG needed to take the PCM case and re-dispatch the resources to achieve close to the 2,200 MW.
- Chelsea Loomis reviewed the [results](#) of each case as well as the [dynamics analysis](#). Given all the cases, the TWG believes it is possible the substitution for wind or a combination of the wind and gas is a plausible replacement for coal.
- PCM was ran on a case with the gas and wind as well as one with only wind. No congestion was observed as a result of the change in generation.
- The analysis was done at a high level and considerations for this study work included:
 - The analysis does not constitute a GIA/TSR/Path Rating study, and does not guarantee future studies will yield different results.
 - The new wind at Broadview assumed to meet all voltage requirements of the interconnection, but there may be equipment needed to meet those requirements in a request.
 - A subsynchronous resonance (SSR) was not considered.
 - While the remedial action scheme for new wind at Broadview was confirmed to be necessary, the timing, communications, interplay with the ATR would need to be fully analyzed in a GIA study.
 - While the PCM results suggest replacing coal with wind or wind and gas, those results are based on the assumptions that went into the PCM run. It does not account for capital or other non-operational costs.
- Questions and discussion from Planning Committee members and stakeholders followed regarding the fact that this analysis was a transient stability analysis and the TWG did not do a full inertia study. This implies additional analysis needs to be done for an inertia study.
- Another question asked if the TWG would be looking at taking Colstrip Unit 4 offline or if it needed to be a separate request.
 - Chelsea Loomis explained that would be a separate request which would be submitted during NTTG's Quarter 1 data submittal as a new PPC study request. She also indicated that NorthWestern Energy did an independent study of all 4 Units offline a few years ago given the EPA 111d consideration and the results are posted on their OASIS site.
- Fred Heutte thanked NTTG and the TWG for their work on the study and was pleased with the results. He was also pleased this study was demonstrating the round trip analysis as well stability analysis.
- Cameron Yourkowski also thanked NTTG and the TWG for their work.
- Sharon Helms indicated that following the meeting, the draft PPC Study Report (which is posted as material for this meeting) would be posted broader for stakeholder comment. A



notice will be sent to stakeholders with information regarding the comment period which is scheduled for April 14th through 28th. At the May 10th NTTG Planning Committee meeting, members will review any comments received and NTTG’s draft responses. The report will then be put into NTTG’s larger Draft Regional Transmission Plan and discussed during the June NTTG Stakeholder meeting.

Discussion: Technical Workgroup Update – Q5 Updated Data Submittals

- The Quarter 5 updated data submittal window provides an opportunity for the transmission providers and stakeholders to inform NTTG of any material changes to data submitted in Quarter 1 that may have an impact on the Draft Regional Transmission Plan.
- Quarter 5 also opens the window for any Economic Study Requests.
 - None were submitted.
- NTTG received updated data submittals from NorthWestern, Portland General, Idaho Power and PacifiCorp. Ron Schellberg gave a [high-level summary of the submittals](#).
- Ron Schellberg indicated that the data submittal changes are significant enough to go back through the studies and see what the impacts are. The TWG will review the submittals and come up with a strategy for performing updates to the Quarter 6 technical studies.
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Discussion: Round Table/Other Business

- Upcoming Meetings:
 - April 19th – NTTG Quarter 5 Stakeholder meeting being held at the Sheraton Portland Airport in Portland, Oregon
 - April 20th – NTTG Steering Committee meeting being held at UAMPS offices in Salt Lake City, UT

3. Assignments:

Item #	Assignment	Owner	Target Date	Status
1.				
2.				
3.				
4.				

Next Meeting: The next Northern Tier Planning Committee Meeting is scheduled for May 10th at 1PM Pacific.

- Dial: **(626) 425-3121**
- Access Code: **432-608-245**



Attendees:

NTTG Planning Committee Member Representatives

Membership Class 1		
Jared Ellsworth, Idaho Power	Chelsea Loomis, NorthWestern	Scott Waples, Avista Corp
Bill Hosie, TransCanada	Craig Quist, Chair, PacifiCorp	Curt Winterfeld, Citizens Energy
Don Johnson, Portland General	Ravi Varanasi, TransCanyon	

Membership Class 2		
Marshall Empey, UAMPS	Rhett Hurless, Absaroka Energy	

Membership Class 3		
Robin Arnold, MT PSC (Proxy)	Jennie Jonsson, UT PSC	Matt Wiggs, ID OER (Proxy)
Morgan Fish, WY PSC		

Other NTTG Members & Guests

Justin Bieber, UAE	John Leland, NTTG	Ron Schellberg, NTTG
Kathleen Fraser, Energy Strategies	Mike Michaud, Ecoplexus	Chuck Stigers, USE
Sharon Helms, NTTG	Bill Pascoe, Pascoe Energies	Amy Wachsnicht, NTTG
Fred Heutte, NW Energy Coalition	Kishore Patel, PacifiCorp	Cameron Yourkowski, Renewable NW