Description of Meeting:	**NTTG Planning Committee**
Meeting Date:	**August 9, 2017**
Meeting Notes Prepared By:	**Amy Wachsnicht**
Approved for Posting:	**November 8, 2017**

1. **Agenda:**
   a. Approval of the June 14, 2017 NTTG Planning Committee Meeting Notes
   b. NTTG Responses to Stakeholder Comments on 2016-17 Draft Final Regional Transmission Plan
   c. Approval Item:
      i. ***RESOLVED:*** that the NTTG Planning Committee approves the NTTG Response to the 2016-17 DFRTP Stakeholder
   d. Revisions to the Draft Final Regional Transmission Plan incorporating stakeholder comments
   e. Round Table/Other Business
      i. Other Business
      ii. Upcoming Meetings

2. **Discussions & Decisions:**

Decision: Approval of the June 14, 2017 NTTG Planning Committee Meeting Notes

- With a motion by Chelsea Loomis and seconded by Bob Smith, the June 14, 2017 NTTG Planning Committee meeting notes were **unanimously approved** for posting by all three classes.

Discussion: NTTG Responses to Stakeholder Comments on 2016-17 Draft Final Regional Transmission Plan

- Craig Quist requested that as Chelsea Loomis walked through the comments received and NTTG's responses, for note taking purposes, those who have comments to state their name and specify what the nature of their comment is
- Chelsea Loomis indicated that NTTG received a number of stakeholder comments, rather than walking through the comments line by line, she would focus on the key points of the comments and NTTG's responses.
  - The full version of comments and NTTG's responses can be found on the NTTG website.
  - A summary of stakeholder comments received and NTTG responses are below.
- **Deseret Power's Comments:**
  - What metrics were used to determine the "more efficient" transmission plan?
    - Following the reliability analysis the TWG used the FERC approved metrics (capital costs, losses and reserves) to compare change cases.
  - There was confusion regarding the 887 MW and 1100 MW of incremental wind. It was requested to get clarification on how much wind was modeled and what types of resources were added during the Quarter 6 analysis.
    - Wyoming existing resources include 3580 MW of thermal and 1350 MW of wind today. In Quarter 1 PacifiCorp submitted 887 MW of wind which was inadvertently missed in the Quarter 3 & 4 studies. In Quarter 5 PacifiCorp submitted an additional 1100 MW of incremental wind. Text was added to the report along with Footnote 4 for clarity.
  - The report suggests 1100 MW of new wind resources were added during Quarter 6 with no additional transmission, which suggests the transmission additions identified prior to Quarter 6 included 1100 MW more capacity than what was needed. What

non-transmission alternatives were analyzed in the development of the Draft Final Regional Transmission Plan (DFRTP).
    - There were no studies done directly to assess the Wyoming system performance at either the 887 MW or 1100 MW level. The null case was unable to solve above 1800 MW, which is inadequate to accommodate the 887 MW submitted in Quarter 1. Additional studies indicate transmission additions are necessary.
    - With regards to non-transmission alternatives, transmission providers typically include those in their analysis in their Integrated Resource Plans (IRP) and would be included in the roll up of the local transmission providers plans. While the TWG did review lower voltage transmission lines to see if they could replace segments of the Initial Regional Transmission Plan, CC23 was ultimately selected as the preferred configuration.
- Why was the high wind scenario not treated as an extreme event and resource re-dispatching used to mitigate transmission constraints?
    - The condition was not considered an extreme event as over 10% of the year exceeded the 2175 MW study level. Language was added to section IIID for clarification.
- The Idaho export and Wyoming wind exports appear to show an over-build of resources when combining Idaho Power and PacifiCorp's IRPs. How do the studies address the resource over build and did NTTG study a re-optimized capacity expansion plan as an alternative.
    - NTTG assumed the information rolled up from the transmission providers were in load resource balance. NTTG does not re-optimize the resource capacity expansion of its members.
- The high Wyoming case is misleading and appears the scenario should be used for interregional studies because of the high next export from PacifiCorp East.
    - The Idaho-Northwest cutplane was at its maximum export capacity and therefore no energy could be dispatched in that direction. The additional 1100 MW of Wyoming wind in the Fq6 case remained in the NTTG footprint. Additional language was added to section IIID.
- What study was done on the prior Regional Transmission Plan (pRTP) to determine it was not reliable?
    - The pRTP was the second change case in the Change Case Matrix in the report. It was tested in several cases and failed to be reliable.
- What are the units on Figure 1?
    - Levelized Capital related costs
- Are the Resource Additions name plate values?
    - Correct.
- Why is there a 3000 MW difference in the reduced forecast from 2024 to 2026?
    - In the 2014-2015 study cycle, 3000 MW of resource additions were used to analysis of interregional transfers supporting an interregional project and not considered to serve NTTG footprint load. This contributes to the difference between last cycle and this cycle.
- What analysis was preformed and alternatives considered determining the more efficient or costing effective plan?
    - See response to previous comments.
- Clarification was requested on how NTTG adjusted the loads. Were they coincided or diverse. There also appeared to be a difference between how NTTG scales the loads versus how PacifiCorp scales the load.
    - Depending on the areas load peaks in the NTTG footprint resulted each area being adjusted differently.

- Figures in the report show flows from LADWP to PACE. It was asked if an assumption was made regarding LADWP to begin operating the DC line in a South to North configuration.
  - This interchange between LADWP and PAC is an AC interchange and does not represent the flow on the IPP DC which is internal to the LADWP system.
- Figure 10 is missing flow information.
  - This was a PDF conversion issue and will be corrected.
- The loads between case F and Fq6 were the same. It was asked what resources were decreased and why given the increase of Wyoming wind.
  - There were principal adjustments to the Fq6 case. Additional language was added to the report to address this.
- Why is transmission being justified to maximize the value of some resources over others?
  - All incremental resources were studied on a firm transmission capacity basis and evaluated similarly.
- The high wind case appeared to be an unrealistic possibility requested explanation on a combination of 9 case modifications for determining reliable needs for NTTG load and transmission service within the NTTG footprint.
  - NTTG did not study the 9 combinations outlined in the comment. The high wind case was selected as a possible dispatch. The studied wind capacity could exceed 10% of the time during the year.

- **UT Office of Consumer Services Comments:**
  - While it is understood NTTG does not determine local cost allocation, the value of the DFRTP would be to provide adequate information for local policy and regulatory decision makers to fully understand the plan.
    - The DFRTP is the result of the assumptions outlined in the report. While it may suggest something is good, it does not cover all of the scenarios for the local transmission providers.
  - The way the report is written, the conclusion indicates that Boardman to Hemmingway, Gateway West, Gateway South and the Antelope projects are must haves. However there could be the possibility of other combinations of transmission projects that are more efficient or cost effective in an additional 10 years.
    - The future is uncertain that there are risks, but it is somewhat mitigated by reevaluating updated loads and resources assumptions each planning cycle.
  - Additional concerns are with the reliability of the conclusions which appear to be based on highly unlikely or realistic scenarios.
    - This can occur. This purpose of the null case is to test if the existing transmission system can accommodate future transmission requirements. The TWG discussed and came up with likely scenarios for the NTTG footprint.
  - PacifiCorp's IRP shows little load growth and it was felt that the large investment and increased level of resources studied outlined in the DFRTP were not needed.
    - NTTG studied the commitments and obligations submitted by the transmission providers and stakeholders.
  - It was requested that the DFRTP be clear on when flows are interregional and when they are local to better inform local policy and regulatory decision makers. Reason is that it appeared the reliability issues identified in the DFRTP occurred when masses amounts of energy flow across the NTTG system.
    - The performance of the Boardman to Hemmingway case, using the existing wind capacity, indicated the transmission would be incapable of reliably transferring the incremental RPS resources to Oregon.
  - Regarding the Wyoming wind case, it was requested that the plan is clear to explain what load it would be serving or if it was a highly unrealistic scenario.

        - The Wyoming wind case is described in section IIID and high wind production in Wyoming is not a highly unrealistic scenario.
    - The plan should indicate who the beneficiaries of the new transmission would be.
        - NTTG is focused on determining the more efficient or cost effective plan using the FERC approved metrics, which does not include a beneficiary analysis.
    - PacifiCorp's IRP only included one segment of the Gateway Project. There is concern that the DFRTP does not provide enough detail for stakeholders to reconcile the assumptions and modeling between PacifiCorp's IRP and NTTG's DFRTP.
        - NTTG can only assess the information provided.
    - The head maps do not help in understanding what the contingencies are, where they are occurring and what the options are to mitigate them.
        - Given the fact that the TWG preformed over 100 reliability studies with over 400 contingencies, it is difficult to present the results and maintain CEII confidentiality. The heat maps were scaled so that the performance issues that can be easily mitigated are downplayed, while the more significant over loads are identified.
    - There was a concern with the BA loads being adjusted to get the peak load conditions.
        - This is similar to a previous comment, and indicated to see a previous response.
- **Utah Associate of Energy Users & Wyoming Industrial Energy Consumers Comments:**
    - Confirmation was requested regarding the projects selected in Chance Case 23 and selected as the more efficient or cost effective plan.
    - There are concerns regarding the results of and conclusions of the DFRTP indicating the Energy Gateway projects are needed. It is understood that the plan does not address cost allocation for Energy Gateway as it was not requested; however, the results of the plan may impact assumptions for potential and regional cost allocation.
        - Similar comments had been responded to, and the response indicated to see the previous responses to those comments.
    - A concern regarding the change cases selected is that they do not provide for robust testing of reliability driven transmission projects. The TWG used its best judgement and requested stakeholder feedback. There were also concerns regarding the change cases that included the segments of Gateway and the Antelope project and the lack of granularity of the results.
        - The change cases were focused on understanding the reliability impacts of adding or not adding non-committee projects and relied on the technical expertise of the TWG to make the change case selections. The change case matrix was presented a number of times. Studies with or without the Antelope Projects was considered, however not including the projects would not have me the requirement of certain network customers.
            - Justin Bieber indicated that the response regarding the Antelope Project misinterpreted the comment. The thought was that any change case that does not have the Antelope project would fail which meant there could have been a more efficient or cost effective project, but that is not known since most were tested without the Antelope project. All of the interregional projects were tested without the Antelope projects so it is unclear if any of them would have met the reliability of the system had the Antelope Project been included.
                - Ron Schellberg indicated that the conclusions of the interregional change cases would not have changed regardless if the Antelope project was included or not.
    - The totals in Table 1 did not add up correctly.
        - This will be corrected.

- The updated resource forecast shows and increase of new 550 MW of Montana wind and 1100 MW of incremental Wyoming wind. There is a discrepancy between the total incremental resources in Table 2 compared to the incremental resources shown in Figure 2.
  - Un-designated network purchases by Idaho Power and one of PacifiCorp's network customers were excluded from the table. Footnote 14 was added to help explain the difference.
- There was a request for more detail in the final report around the reliability drivers that justified the selection of Energy Gateway South and West in the final plan. As well as additional detail about the conditions that caused the need for specific transmission projects. NTTG should also consider separate but ongoing planning proceedings that relate to its transmission plan.
  - The resource mix change submitted by the transmission providers showed retirements of coal units and replacing the energy with lower capacity factor renewables were the principle reliability drivers.
  - NTTG relies on its transmission providers to inform NTTG during the Quarter 1 and 5 data submittal windows. NTTG's scope does not include all the information nor jurisdiction necessary to critique an IRP analysis.
- Overall it is felt that the DFRTP lacks the justification for the inclusion of the Energy Gateway Projects.

- **UAMPS Comments:**
  - PacifiCorp's Energy Supply Management (ESM) is proposing to increase their Wyoming wind resources significantly, which ended up needing to add a number of Gateway West segments that were not included in the prior Regional Transmission Plan. It was unclear why a transmission project that was not submitted for cost allocation would be selected into the plan, such as the Energy Gateway projects. New resources are variable and my not be replaced MW for MW, however it is felt that the transmission additions should be for serving load within NTTG's footprint and not to facilitate exports.
    - The Fq6 case modeled the resource retirements and wind resources that were submitted in Quarter 1 and updated in Quarter 5. It was understood that these resources were submitted to meet local load on a firm transmission basis.

Decision: Approval Item

- ***RESOLVED:*** that the NTTG Planning Committee approves the NTTG Response to the 2016-17 DFRTP Stakeholder Comments
  - Craig Quist made a motion to the resolution above and asked for comments.
    - Given the stakeholder comments submitted, it was suggested the voting be taken by class and by entities so it is properly documented in the notes.
  - Chelsea Loomis seconded the motion put forth by Craig Quist.
  - The resolution as state above was **approved** by the majority of Class 1 & Class 2 members present.
- The results of the votes by entity are as follows:

Class 1 Member Representatives		
Approved	**Opposed**	**Abstained**
• Idaho Power • NorthWestern • PacifiCorp • Portland General	• Deseret	• TransCanada
Class 2 Member Representative		
Approved	**Opposed**	**Abstained**
• Absaroka Energy • UAMPS		
Class 3 Member Representative		
Approved	**Opposed**	**Abstained**
• MT PSC • UT PSC		• ID Gov. OEMR • ID PUC • WY PSC

- Nathan Powell requested it be noted that Deseret expresses appreciation to the TWG who, spent a lot of time addressing the comments and has come a long ways in making improvements to the report.
- Jennie Jonsson with the UT PSC, requested it be noted that although she voted to approve, she does not represent the UT Office of Consumer Services.

Discussion: Revisions to the Draft Final Regional Transmission Plan incorporating stakeholder comments

- Chelsea Loomis walked through the changes made to the DFRTP as a result of the stakeholder comments. These changes largely included adding language to the report in order to address the various stakeholder comment requests to add clarification, much of which was around the Wyoming wind production.
- Other changes included:
  - A sentence added to the Executive Summary stating: "*This report is the result of the assumptions outlined in the report. The consumers of the report must recognize this and factor it into their deliberations".*
  - Throughout the DFRTP the phrase "more efficient and cost effective" was corrected to "more efficient or cost effective".
  - The totals values in Table 1 were updated to the correct values.
  - Footnote 14 was added to clarify that within Table 2 of the forecasted resource additions, 525 MW of un-designated future market purchase by Idaho Power and PacifiCorp customers could not be identified.

Discussion: Round Table/Other Business

- The next NTTG public stakeholder meeting will be held on September 19th in Bozeman, Montana at the Homewood Suites.
  - A limited block of room are available at a discounted rate until August 20th or when the rooms are sold out, whichever comes first.
- With regards to next steps, the stakeholder comment document with the approved NTTG responses will be posted on the NTTG website. The DFRTP will be given to the technical writer to make the necessary edits for readability. A version will be available for a final round of stakeholder comment later in September. Following that, Planning Committee members will be asked to approve the recommendation to send the Plan to the Steering Committee for their final approval in December.

NORTHERN TIER TRANSMISSION GROUP

3. Assignments:

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

Next Meeting: The next Northern Tier Planning Committee Meeting is scheduled for September 13th 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	Bob Smith, TransCanyon
Bill Hosie, TransCanada	Nathan Powell, Deseret	
Don Johnson, Portland General	Craig Quist, Chair, PacifiCorp	

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

Membership Class 3		
Bob Decker, MT PSC	Steven Goodson, ID PUC	Matt Wiggs, ID OEMR
Morgan Fish, WY PSC	Jennie Jonsson, UT PSC	

Other NTTG Members & Guests		
Justin Bieber, UAE	Fred Heutte, NW Energy Coalition	Ron Schellberg, NTTG
Kathleen Fraser, Energy Strategies	Regina McCormack, Invenergy, LLC	Amy Wachsnicht, NTTG
Sharon Helms, NTTG	Kishore Patel, PacifiCorp	