

Canada > US Subgroup Meeting #2 Agenda, Notes, and Action Items List (And notes from Meeting #1)

Portland, Oregon
NWPP Offices
July 19th, 20th 2009

1. Welcome and Agenda Changes - Waples
 2. Subgroup Chair Rotation - Waples
 3. Check – in on “Who is in What Phase” - Kohne
 - a. Status (as of 07/16/2009):
 - i. MATL: Phase III
 - ii. Northern Lights: Phase II
 - iii. CNC N>S: Phase II
 - iv. CNC S>N: Phase I
 - v. Devils Gap: Phase II (will be once data submittal is verified)
 - vi. JDF 1: Phase II
 - vii. JDF 2: Phase I Regional Report to be reissued
 - viii. West Coast Cable: Phase I Regional Report to be reissued
 - ix. Triton Projects: Regional Planning
 - b. Identify projects for Kyle to check for activity and progress – All
 - c. Representation of all necessary projects (are all of these necessary?): - All
 - i. MATL: 300 MW bidirectional - In
 - ii. Northern Lights: 2000 MW bidirectional - In
 - iii. CNC: 3000 MW bidirectional - In
 - iv. Devils Gap: 500 MW bidirectional - In
 - v. JDF 1: 550 MM bidirectional - In
 - vi. JDF 2: 1100 MW - Out for now
 - vii. West Coast Cable: 1600 MW bidirectional: Out for now
 - viii. Triton Projects: 1600 MW bidirectional: Out for now
 - ix. MSTI: 1500 MW - In
 - x. Others?
 1. SWIP: In
 2. Rerate of Path 3: In
 3. Southern Crossing: Once it is in Phase II
- Note that not all of projects in Phase II will be stressed in the cases – only those which impact the Canada / US interface.

There was consensus on unified topology between subgroups. There was not consensus on status “on or off”.

4. WECC Project Review Group Status for Phase II:
 - a. Northern Lights: Not formed yet
 - b. CNC: Group is formed
 - c. Devils Gap: Will not be formed until Phase II verified
 - d. JDF 1: Phase II group formed, but no activity for 24 months in WECC logs
 - e. JDF 2: Not yet in Phase II, so not formed
 - f. West Coast Cable: Not in Phase II, so not formed

This is where we will begin Meeting #2.

Action items from the July meeting are:

Scott has agreed to chair the group for the August meeting.

By August 1st:

- Each Project Sponsor was to have provided a list of resource increments and decrements to the group. **Notes: BCTC has done this and Northwestern Energy provided comments. We still need this from the Devils Gap project (this needs coordination with the CNC Project) and Jun de Fucha. The decrements in California can be found on the TCWG website.**
- The group will have examined the Impacted Paths list (Item 6 below) and will have provided comments to the group. **This will be discussed below.**
- The project sponsors will have provided a list of proposed base cases (including a definition of Heavy Summer, Heavy Winter, etc. as well as study years such as HW15) to the group. **This will be discussed below.**

5. Base Case / Load and Resource issues - All
 - a. Case List Development – Sponsors requirement in the WECC Review Group Process: **CNC project is using the HS2015 for North to South and 2017 HW for South to North. Cliff will find out what cases Northern Lights can share with the group (Cliff believes that NL also used the HS2015 case). Devils Gap will also use the HS2015 and the HW2017 cases for its work. Avista will also check to ascertain what levels of West of Hatwai are in the HS2015 case. The JDF Review group used the 2010 HS and the HW2010-11.**
 - b. Potential Resource Increment and Decrement Overlap? - Sponsors
 - i. Northern Lights and others? Should be no incremental source overlap, may be overlap of decrement in NW or California. **Notes: The three projects that will be under consideration will be CNC, Northern Lights and JDF1. No others are in Phase II. Northern Lights will decrease**

Upper Columbia by 1276 MW, mid Columbia by 358 MW and Lower Columbia by 350 MW. Cliff sent a list to Phil who will compile this with the other resource assumptions. BPA will check to see if this is acceptable to them. For JDF1 the decrements will be spread over BPA's units (550 MW). John will send that to the TCWG. Again, BPA must check to assure that this is acceptable. The increments will be discussed with BCTC during the August 31st PRG meeting. BCTC has suggested that only the 3000 MW from the CNC initial study work can be used. Based on resources there will be a nomogram between JDF1 and the CNC project. BCTC suggested that a signed interconnection agreement will be required before resources above 3000 MW will be considered. Action item: BCTC will review a potential timeline for incremental resources above 3000 MW. JDF may also use some additional cases based on their Project Review Group Meeting. The goal is that project sponsors will discuss with the owners of resources what unit /plant increments and decrements they will make!

- ii. Path 3, CNC, JDF 1 & 2, West Coast Cable?
- iii. Others?

- c. Total Canada > NW Transfer: (Is this an issue?) – All See discussion above- there will be a nomogram based on resources.
 - i. Path 3 – North to south combined rating of 3150 MW
 - ii. MATL is at 300 MW
 - iii. Northern Lights – 2000 MW
 - iv. CNC – 3000 MW
 - v. JDF 1 – 550 MW
 - vi. JDF 2 – 1100 MW
 - vii. West Coast Cable – 1600 MW Note: this project will not go across the cut plane that we have defined and so will not be considered in this Subgroup.
 - viii. Total: 10,100 MW total interest (not including West Coast Cable) of Canada to the US. Incremental is 6950 MW, but a nomogram (or nomograms) will be required due to resource limits. Ben suggested that additional resources be added to determine if there are transmission nomograms in addition to the resource nomogram limits and John agreed. This will be a “second tier” type of study.
 - ix. Note that decrements required by the Northern Lights project may be offset by increments on the same units

required to load up the COI. People need to think about this and we will have this item on the agenda for the next meeting. A discussion ensued on the benchmark case using a level of 4800 MW for the COI. This will be discussed and fleshed out in the COI and NEO subgroups. We hope to be able to create a single benchmark case to use for all of these studies!

6. Impacted Paths Draft Listing – All **The items below will be used to populate a matrix to monitor potential impacts (we will take Ben’s matrix and modify it). The direction of the flow will also be considered:**
 - a. Path 3 **Will be Included**
 - b. West of Hatwai **Will be Included**
 - c. Path 1 (Alberta > BC) **Will be Included**
 - d. Montana > Northwest **This will be varied to maximize West of Hatwai**
 - e. West of Cascades N **This will be monitored, will concentrate on Winter case stress**
 - f. West of Cascades S / Cascade Crossing **Will be addressed in the NEO Subgroup**
 - g. North of John Day **Will be addressed in the COI Subgroup.**
 - h. Idaho > Northwest **This will be addressed in the NEO Subgroup**
 - i. Others **No others were identified, but everyone needs to think about this and bring comments to the matrix discussion next meeting.**
 - j. Loop flow on Qualified Paths **A suggestion was made that only Qualified paths be addressed. We need to think about how to handle this (it may be operations and would be addressed once the projects were in service / Phase III).**
 - k. **As an action item, the populated Matrix will be discussed at the next meeting (Ben has agreed to shepherd this work).**

7. Phase II Study Process: All
 - a. General Assumptions **As described above**
 - b. Base Case(s) Description – **To be defined and developed within the individual Project Review Groups (PRGs)**
 - c. Study Methodology **See discussion on Study Plan Template**
 - d. Powerflow Contingency List(s) **To be defined and developed within the individual PRGs**
 - e. Transient Stability Contingency List(s) **To be defined and developed within the individual PRGs**
 - f. Post Transient voltage Stability Analysis **To be defined and developed within the individual PRGs**
 - g. Mitigation Options **To be defined and developed within the individual PRGs and Subgroups**

- h. Project / Path Study Matrix **See above. Consensus between all members to use this matrix process.**
8. Schedule of Study Work – Sponsors
9. Next Meeting – All
10. Adjourn

Action Items from Meeting #2

By September 4th close of business:

- **Each Project Sponsor will provide a list of resource increments and decrements to Phil if not already done.**
- **CNC project will submit an updated impedance model to the group.**
- **Matrix will be populated and distributed. Ben will take the first cut at this.**
- **Folks will check inc and dec assumptions and report at the next meeting. This will include potential incs and decs at the same units at the same time.**
- **BCTC to review timelines for inclusion of resources above 3000 MW.**
- **If there are any other base cases other than those discussed at this meeting, please bring this forward as an agenda item for the next meeting.**

**Transmission Coordination Work Group Meeting –CUSA Sub-group
August 19, 2009 – Portland, OR**

Attendance List

	Name	Company	Phone Number	Email
1	Scott A. Waples	Aurista	509-495-4462	Scott.Waples@auristacorp.com
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6	Dana Reedy	NWPP Corp	503-445-1082	dana@nwpp.org
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8	Marina Kantor	PG&E	415-973-9514	MJKO@Pge.com
9	Jeff Newby	PGE	503-464-7400	jeff.newby@pge.com
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13	Ben Morris	PG&E Consulting	925-408-5437	BEN.Morris@astound.net
14	REBELLA BERDULI	BPA PS	503.230.4502	rberdulil@bpa.gov
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Table A2-3: Generation Re-Dispatch in N-S Project Case Compared to No-Project Case

Generator Bus	Unit ID	Status	MW Change	Area	Fuel Type
56358 EMPRESS 34.5	1	1	+450	Alberta	Wind
56476 GOOSELUM 34.5	1	1	+650	Alberta	Wind
56478 PEIGANLU 34.5	1	1	+650	Alberta	Wind
56480 TABERLUM 34.5	1	1	+400	Alberta	Wind
TOTAL ALBERTA GENERATION CHANGE¹:			+2150 MW		
44147 CHJ 1314 13.8	14	0	-77	Northwest	Upper Columbia Hydro
44148 CHJ 1516 13.8	15	0	-77	Northwest	Upper Columbia Hydro
44154 CHJ 2627 13.8	26	0	-96	Northwest	Upper Columbia Hydro
44154 CHJ 2627 13.8	27	0	-96	Northwest	Upper Columbia Hydro
41730 COULEE10 13.8	A	0	-110	Northwest	Upper Columbia Hydro
41732 COULEE12 13.8	C	0	-110	Northwest	Upper Columbia Hydro
41734 COULEE14 13.8	E	0	-110	Northwest	Upper Columbia Hydro
40295 COULEE21 15.0	1	0	-600	Northwest	Upper Columbia Hydro
Total Upper Columbia Generation Change:			-1276 MW		
47097 WELLS 14.4	A	0	-80	Northwest	Mid-Columbia Hydro
46179 PRIEST10 13.8	A	0	-85	Northwest	Mid-Columbia Hydro
46188 WANAPM09 13.8	9	0	-93	Northwest	Mid-Columbia Hydro
46848 ROCKYR08 15.0	C8	0	-100	Northwest	Mid-Columbia Hydro
Total Mid-Columbia Generation Change:			-358 MW		
44110 MCN 10 13.8	10	0	-72	Northwest	Lower Columbia Hydro
44076 JDA 1112 13.8	12	0	-139	Northwest	Lower Columbia Hydro
44077 JDA 1314 13.8	13	0	-139	Northwest	Lower Columbia Hydro
Total Lower Columbia Generation Change:			-350 MW		
TOTAL NORTHWEST GENERATION CHANGE¹:			-1984 MW		
¹ Generation MW change totals do <i>not</i> account for area swing generation changes for difference between generation change value and net change in scheduled area power and for changes in losses.					