

West of McNary Phase I Energization

February 2, 2012



Agenda

- Base Case 101
- What has already taken place
 - McNary – John Day #2 500kV line incorporated into studies for the NERC time horizon (0 to 13 months)
- Next steps (effective March 1, 2012)
 - Release McNary – John Day #2 500 kV line in the Planning time horizon (beyond 13 months)
 - Move to full case Power Transfer Distribution Factors (PTDFs) in the Planning time horizon (beyond 13 months)
 - Release the West of John Day flowgate (all time horizons)
- Other updates
 - Precedent Transmission Service Agreement (PTSA) offers
 - Web site postings
 - ATC Methodology documents



Base Case Inputs

- System Topology
 - Assumes “normal operating conditions” or “all lines in service”
 - WECC base case is used and updated to reflect relevant system topology for the time period studied
- Generation
 - Federal: FCRPS generation pattern is scaled to load forecast
 - Non-federal: Contract rights inform the modeling of generation in the base case
 - BPA’s adjacent BAs: uses 2002 agreed to generation values
- Loads
 - Load forecasts (1-in-2 non-coincidental seasonal peak) come from the WECC base case
 - BPA supplies load forecasts to WECC for BPA customers only



Base Case Outputs

- Existing Transmission Commitments (ETCs)
 - Expected flows on network flowgates based on existing contract rights
- PTDFs
 - Contract ETC calculation
 - Interim sales
 - Request evaluation



What has already taken place

- McNary – John Day #2 500kV line was energized on November 2, 2011
- Transmission Services incorporated the new system topology effective November 4, 2011, for the NERC time horizon only (0 to 13 months)
- Updates were made to:
 - ETCs
 - PTDFs
 - Total Flowgate Capability (TFC) for West of McNary flowgate
- These changes impacted our Available Flowgate Capabilities (AFCs) across all the network flowgates
 - AFCs for the NERC time horizon are available in BPA's OASIS
- Updates for the Planning time horizon could not take place until the rest of upgrades associated with this build were completed
 - Updates will be finalized by March 1, 2012



Next Steps

(effective March 1, 2012)



2012 Planning Base Case Release

(beyond 13 months)

- Modified 90th federal generation pattern updated to reflect more recent operational conditions
 - Generation data from 2006 – 2009 replaces data from 1997 – 2002
 - Shift in federal generation from lower river to upper river
 - Largest shift seen in the August case
- Updated system topology
 - McNary – John Day #2 500kV energized
 - West of John Day flowgate added
- For the Northwest, load decrease of 1127mw for the August base case and increase of 173mw for the January base case
- Incorporation of new long-term sales



2012 Planning Base Case Release

(beyond 13 months)

- TFC changes for the Planning time horizon
 - Cross Cascades South decreases from 7,500mw to 7,200mw
 - North of Hanford increases from 4,100mw to 4,400mw
 - West of John Day will have a TFC of 2,600mw
- BPA is finalizing TFC changes for the Planning time horizon for the Cross Cascades North and West of McNary flowgates
 - Details will be provided at the February 9th Customer Forum
- TFCs for the NERC time horizon (0 to 13 months) are based on Operational studies and available on BPA's OASIS



ETC Comparison

2011 and 2012 Planning Base Cases

Flowgate	Jan 2011 Planning ETC	Jan 2012 Planning ETC	Diff in ETC	May 2011 Planning ETC	May 2012 Planning ETC	Diff in ETC	June 2011 Planning ETC	June 2012 Planning ETC	Diff in ETC	Aug 2011 Planning ETC	Aug 2012 Planning ETC	Diff in ETC
Monroe-Echo Lake	0	0	0	1,082	1,027	(55)	1,075	1,009	(66)	1,162	1,143	(19)
Raver-Paul	510	506	(5)	655	616	(39)	645	564	(82)	938	845	(93)
Paul-Allston	412	398	(15)	1,238	1,301	63	1,259	1,265	6	1,616	1,624	8
South of Allston -- BPA	420	416	(5)	1,704	1,806	102	1,778	1,794	17	2,030	2,067	37
North of Hanford	0	0	0	1,276	1,223	(53)	1,408	1,265	(144)	2,182	2,285	103
North of John Day	2,971	2,978	6	4,965	4,899	(66)	5,032	4,837	(195)	5,866	5,746	(120)
West of McNary	1,990	2,459	469	2,223	2,647	424	2,155	2,564	409	2,219	2,548	329
West of Slatt	2,817	2,397	(420)	3,546	2,980	(566)	3,524	2,955	(568)	3,679	3,092	(587)
Cascades North	8,572	8,778	206	5,158	4,807	(351)	5,075	4,730	(344)	5,216	4,974	(242)
Cascades South	6,409	6,327	(82)	4,423	4,418	(5)	4,276	4,209	(67)	4,791	4,607	(184)
West of John Day		1,085			1,380			1,356			1,375	

$$AFC = TFC - ETC$$



Move from Cut Case to Full Case PTDFs

(beyond 13 months)

- Difference between full case and cut case PTDFs
 - Full case PTDFs consider flows on both BPA and adjacent systems (WECC wide)
 - Cut case PTDFs consider flows on NW system only (Oregon, Washington and northern Idaho)
- Full case PTDFs are already being used in the NERC time horizon
 - Necessary for NERC MOD compliance for calculation of impacts resulting from reservations on adjacent Transmission Service Provider systems
 - Effective March 1, 2012, full case PTDFs will be implemented in the Planning time horizon for consistency
- Full case PTDFs are a better representation of power flows
 - Correspond with how BPA performs curtailments



West of John Day Flowgate

(all time horizons)

- McNary – John Day #2 500kV line and new generation interconnections have shifted system constraints
 - These constraints cannot be managed with BPA's current flowgates
- BPA is implementing the West of John Day flowgate to manage these constraints
 - Anticipated effective date for flowgate is March 1, 2012 at 9:00 a.m. Pacific Time
 - BPA will begin using PTDFs and AFCs for West of John Day flowgate at this time for sales in all time horizons
 - When these updates occur in OASIS, all products except Hourly will be deactivated
 - BPA anticipates this date will be February 15th (watch for Tech Forum exploder)



West of John Day Flowgate

(all time horizons)

- Flowgate definition
 - John Day – Big Eddy #1 500kV
 - John Day – Big Eddy #2 500kV
- AMM in the Planning time horizon only
 - No AMM in the NERC time horizon
 - If the Contract Accounting ETC is greater than the Planning ETC, the AMM will be 25% of the Delta between the two
 - Otherwise, AMM will be zero



Other Updates



PTSA Offers

- 16 PTSAs will be provided Firm service as a result of the completion of the McNary-John Day build
 - 11 of the 16 PTSAs will be converted from Conditional Firm service to Firm service
- All 16 offers have been made



Updates to Web Site Postings

- Updated postings already available on BPA's website:
 - ATC and AFC Methodology documents for the Planning Time Period for beyond 13 months *redlines only*
- Postings that will be updated by March 1, 2012
 - Final 10 Year Minimum Comparison
 - 2012 Planning Base Case Assumptions
 - Short-term Firm PTDF Calculator
 - Long-term Firm PTDF Calculator
 - Long-term ATC, AFC, and Conditional Firm Inventory
 - ATC and AFC Methodology documents for the Planning Time Period for beyond 13 months *finalized*
 - Power Transfer Distribution Factors (PTDF) Table
 - ATC Implementation Document for 0 to 13 months



Updates to ATC Implementation Document

- West of John Day flowgate will be added to the ATC Implementation Document
- Definition of line is as follows:
 - John Day – Big Eddy #1 500 kV
 - John Day – Big Eddy #2 500 kV
- Flowgate map in ATC Implementation Document will also be updated



Updates to ATC and AFC Methodology Documents for the Planning Time Period

- *ATC Methodology Margin (AMM) for the Planning Time Period, V. 15*
 - Incorporates AMM on West of John Day flowgate
 - Deleted Section 3, AMM Postings
 - AMM is no longer being posted on OASIS
- *Contract Accounting Methodology for the Planning Time Period, V. 7*
 - Reflects move from cut case to full case PTDFs in Planning time horizon



Updates to ATC and AFC Methodology Documents for the Planning Time Period

- *Power Flow Base Case for the Planning Time Period, V. 7*
 - Updates the generation data used in the Modified 90th federal generation pattern from 1997 – 2002 to 2006 – 2009
 - Update went through a customer comment period
 - No comments received
 - Will be implemented upon the release of the 2012 Planning base case

