

2019 Long Term Available Transfer Capability (ATC) Update

November 12, 2019



Scenarios in the 2019 ATC Update

- Long Term ATC Base Case
 - Covers the post 13 month time horizon
 - Completed annually to meet BPA's obligation under the Long Term ATC Methodology to perform an annual update
- New off-peak Spring (May) scenario
 - Stress flows in E>W direction
- New flow-based ETC values for West of Hatwai E>W

2019 ATC Update			
Season	Stress	Wind	CER
January	Upper C	On	On
January	Lower C	On	On
January	Lower Snake	On	On
May	Lower C	Off	On
May	Lower Snake	Off	On
May	Lower C	On	On
May	Lower Snake	On	On
August	Upper C	Off	Off
August	Lower C	Off	Off
August	Lower Snake	Off	Off
August	Upper C	On	Off
August	Lower C	On	Off
August	Lower Snake	On	Off
13 Scenarios			



Assumptions in the 2019 ATC Update

- Base cases: 2024 & 2029 January, May, and August
 - Allows for forecasted geographical growth factors
 - Models upcoming coal plant retirements, while accounting for remaining long term firm transmission rights
 - Reflects long term unit outages at Upper Columbia resources
- Peak load cases: reduction in flows to California for scenarios with limited generation
- Off-peak load cases: Merit order dispatch displaces highest cost resources



More Assumptions in the 2019 ATC Update

- No new major generating resource additions
- Slatt-Buckley 500 kV series capacitor in-service 2024 & 2029
- Schultz-Wautoma 500 kV series capacitor in-service 2029
- + 700 MW of new long term transmission commitments made since the 2018 ATC Update
- Regional (Northwest) load growth:
 - ~100 MW peak growth in 5 year cases
 - ~700 MW peak growth in 10 year cases



More Assumptions in the 2019 ATC Update

- Flowgate Commercial TTC Changes

Flowgate Name	Previous TTC	Current TTC
North of John Day N>S	8400	8800
West of McNary E>W	4500	5230
West of Slatt E>W	4200	4670
West of John Day E>W	4300	4530
South of Custer N>S	1850	900



Results & Observations

I-5 N>S Flowgates:

South of Custer, Raver to Paul, Paul to Allston, South of Allston

Resulting in changes in ATC:

- 200 MW of firm service from Grays Harbor generation
- Schultz-Wautoma 500 kV series capacitor
- Longview, WA area load forecast modifications
- Variation in geographical growth factors

ATC decreased for South of Allston, increased for other paths



More Results & Observations

Central Washington N>S Flowgates:

North of Hanford

Resulting in variations in ATC:

- Higher output at Upper Columbia resources
- Load forecasts inform geographical growth factors across 10 year horizon
 - Changed from decrease in ATC over time to an increase

North of John Day

New Spring off-peak scenario resulted in decreased ATC



More Results & Observations

Oregon/Washington E>W Flowgates:

West of McNary, West of Slatt

Resulting in decrease in ATC:

- Slatt-Buckley 500 kV series capacitor modeled in-service

West of John Day

- Load forecasts inform geographical growth factors across 10 year horizon
 - Less ATC in near term, more ATC in long term

West of Lower Monumental

New Spring off-peak scenario resulted in decreased ATC



More Results & Observations

Winter Flowgates:

Cross Cascades North E>W

Resulting in gains in ATC:

- Series capacitors in-service draw flows to the South

Cross Cascades South E>W

Minimal changes in ATC of this path across 10 year horizon

North of Echo Lake S>N

Resulting in gains in ATC:

- Reduction of long term forecast for Canadian Entitlement Return



New Long Term ATC Values

ATC For Posting Following Release of 2019 ATC Update										
Path Name	TTC	2021	2022	2023	2024	2025	2026	2027	2028	2029
South of Allston N>S -- BPA	2,115	253	268	284	298	312	328	344	359	373
Cross Cascades North E>W	10,250	571	547	596	582	582	591	634	643	652
West of Lower Monumental E>W	4,200	175	112	107	0	0	0	0	0	0
Cross Cascades South E>W	7,500	1128	1143	1094	1039	1001	962	939	900	861
North of Hanford N>S	4,450	1549	1589	1617	1643	1669	1698	1726	1752	1778
North of John Day N>S	8,800	1241	1243	1250	1220	1227	1234	1254	1261	1268
Paul-Allston N>S	2,400	1069	1069	1069	1070	1070	1071	1072	1073	1074
Raver-Paul N>S	1,450	355	353	352	340	339	337	345	343	341
West of McNary E>W	5,230	2788	2769	2701	2634	2585	2542	2509	2463	2416
West of Slatt E>W	4,670	1320	1307	1283	1242	1217	1194	1170	1147	1123
West of John Day E>W	4,530	1239	1277	1261	1248	1245	1242	1247	1244	1241
South of Custer N>S	900	31	18	16	13	11	8	6	3	1
North of Echo Lake S>N	2,800	165	131	138	130	123	115	107	100	92



Immediate Next Steps

- 2019 ATC Update results will be released and applied to all pending long term transmission service requests (TSRs)
- ETC encumbrances to reflect NT forecasts will continue to be refined
- Postings on the external site will be updated over the next month:
<https://www.bpa.gov/transmission/Reports/TransmissionAvailability/Pages/default.aspx>
 - ATC, AFC and Conditional Firm Inventory
 - AFC/ATC Less Pending Queued Request Inventory
 - Long Term Pending Queue
 - Long Term PTDF Calculator
 - Long Term Power Transfer Distribution Factors (PTDF) Table

