

Outage-based Adjustments to Short-Term TTC

01/17/2020 Webinar

Agenda

- TTC Update Proposal
- Useful Links

Background

- At the December 12th ST ATC workshop, customers stated that it would be useful to have outage-informed TTC values ahead of BPA's typical two-week ahead outage study cycle
- BPA considered this input and how BPA might improve providing this information in advance of the current study cycle

TTC Update Proposal

- BPA is proposing to conduct a test case and release outage-informed estimated TTC values to OASIS approximately 45 days prior to the outage month where the outage(s) are anticipated to have significant impacts on TTC for North of Echo Lake S>N (NOEL) and South of Custer N>S (SOC)

TTC Update Proposal Benefits and Timing


- Customers will have advanced warning (approximately 45 days in advance) of significant TTC reductions to the NOEL and SOC constraints
 - Updated TTC values will be available in OASIS
- BPA expects to implement this change in mid-February for planned outages starting in April
 - March did not show a need for any updates

USEFUL LINKS

BPA Transmission Availability on bpa.gov

- <https://www.bpa.gov/transmission/Reports/TransmissionAvailability/Pages/default.aspx>

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Transmission Availability

Transmission Services provides information to assist customers as they reserve and schedule transmission.

System Information

[Interties and External Interconnections in OASIS](#)
[Proposed Outages](#)
[Reservation to E-Tag Point Relationships](#)
[Transmission System Constraints](#)

Long-Term Availability Transfer Capability

[ATC, AFC and Conditional Firm Inventory](#)
[AFC/ATC Less Pending Queued Request Inventory](#)
[Contract Points List](#)
[Long-Term Pending Queue](#)
[Long-Term Original PTFD Calculator](#)
[Long-Term Redirect PTFD Calculator](#)
[Long-Term Power Transfer Distribution Factors \(PTDF\) Table](#)
[Transmission Reservation & Available Transfer Capability \(ATC\) Analysis Request](#)

Short-Term Availability Transfer Capability

[Balancing Reserves](#)
[Short Term Original Transmission Service Request Calculator](#)
[Short Term Redirect Transmission Service Request Calculator](#)
[Short-Term PTFD Table](#)

Outage & Interruption Information:

[Hourly TTC Path Limits](#)
[Outage Summary](#)
[JOTS Automated Capacity Change Notification](#)

Notice: Nomograms are now available in the BPA Customer Portal. If you do not currently have Customer Portal access, please contact the BPA Customer Portal Support team at customerportal@bpa.gov and/or 503-230-4226 or your Transmission Account Executive for more information about getting access to the BPA Customer Portal.

Outage Summary on OASIS

BPAT Outage Summary Path:

N_ECOL_S>N Outages (Last Updated, 2020-01-10 14:37:23 PS)

Outage ID	Start	Stop	MW Limit	Priority	Last Updated	Reason for Path Reduction	Event ID
241257	2015-11-01 00:00 PD	2025-01-01 00:00 PS	2800	Path Rating	2019-09-19 14:25:25 PD	SCSTER & N_ECOL Long-term limit	BPAT44295
	2025-01-01 00:00 PS	2026-01-01 00:00 PS	2800				
	2026-01-01 00:00 PS	2028-01-01 00:00 PS	2800				
304740	2019-11-01 00:00 PD	2020-06-01 00:00 PD	2103	Short-Term Seasonal Default	2019-10-18 08:32:40 PD	NOEL-Winter Seasonal Limit for 2020	BPAT75804
312923	2020-06-01 00:00 PD	2020-11-01 00:00 PD	2067	Short-Term Seasonal Default	2019-10-18 08:35:30 PD	NOEL-Summer Seasonal Limit for 2020	BPAT79612
318180	2020-11-01 00:00 PD	2021-06-01 00:00 PD	2103	Short-Term Seasonal Default	2019-10-18 09:36:15 PD	NOEL - WINTER 2021 SEASONAL LIMIT	BPAT82017
321338	2019-12-05 16:00 PS	2019-12-30 00:00 PS	2245	Studied	2019-12-20 13:37:48 PS	BPA - VARIOUS EQUIPMENT OUTAGES (SLIM 631 R5)	BPAT83363
	2019-12-30 00:00 PS	2020-01-14 00:00 PS	2245				
322328	2020-01-14 00:00 PS	2020-03-01 00:00 PS	2248	Studied	2020-01-09 12:08:14 PS	BPA - VARIOUS OUTAGES (SLIM 634 R1)	BPAT83723

For questions or comments, please contact [TBL Path Capacity](#), BPA Transmission Services Capacity Desk, (360) 418-8496. For questions regarding the current day, contact Real-Time Scheduling at (360) 418-2878.

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BPA Outage Coordination on bpa.gov

- <https://www.bpa.gov/transmission/Reports/Pages/Proposed-Outages.aspx>

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Historical Flow Data

Performance Metrics

Redispatch Costs Report

Transmission Service Request Studies

Transmission Study Metrics

Proposed Outages

Transmission Availability

TTSL

BPA Outage Coordination

BPA Outage Coordination Policy

BPA has an Outage Coordination Policy that requires specific equipment to be coordinated within certain timelines. BPA needs planned outage information to support Operational Planning studies and will be requesting equipment and facility outage information from other utilities. This meets the RC West Outage Coordination Process for Balancing Authorities and Transmission Operators.

[BPA Outage Policy](#)

Appendix 2 (the Equipment List) and Appendix 5 of the Policy are located on the RC West secure website at the following link:
<https://rc.caiso.com/libraries/procedures/ba-top-operating-procedures>

File Type (.mpp)

Outage plans are posted as Microsoft Project files (.mpp), to allow sorting of data and the display of Gantt charts.

BPA has changed the supported encryption protocols. For more information, see [TLS 1.0 and 1.1 is Being Turned Off for bpa.gov](#). If you have an issue opening the .mpp files, you can right-click on the file and save it to your system, and then open it or use a browser with the supported encryption protocols.

Long-Range Significant Outage Plans and Mid-Range Outage Plans Page

This page provides links to Outage Plans for the Long-Range Significant Outages and Mid-Range Outage Planning Processes. [Schedule for Mid-Range Outage Coordination Process](#) - (Posted 05/23/2019)

Immediate to Near Term Changes to Outage Plans

Mid-Range Outage Plan

MARCH 2020

[March 2020 Final Outage Plan \(01/10/2020\)](#)

[March 2020 Initial Outage Plan \(01/03/2020\)](#)

FEBRUARY 2020

[February 2020 Final Outage Plan \(12/11/2019\)](#)

[February 2020 Initial Outage Plan \(12/04/2019\)](#)

Final Outage Plan

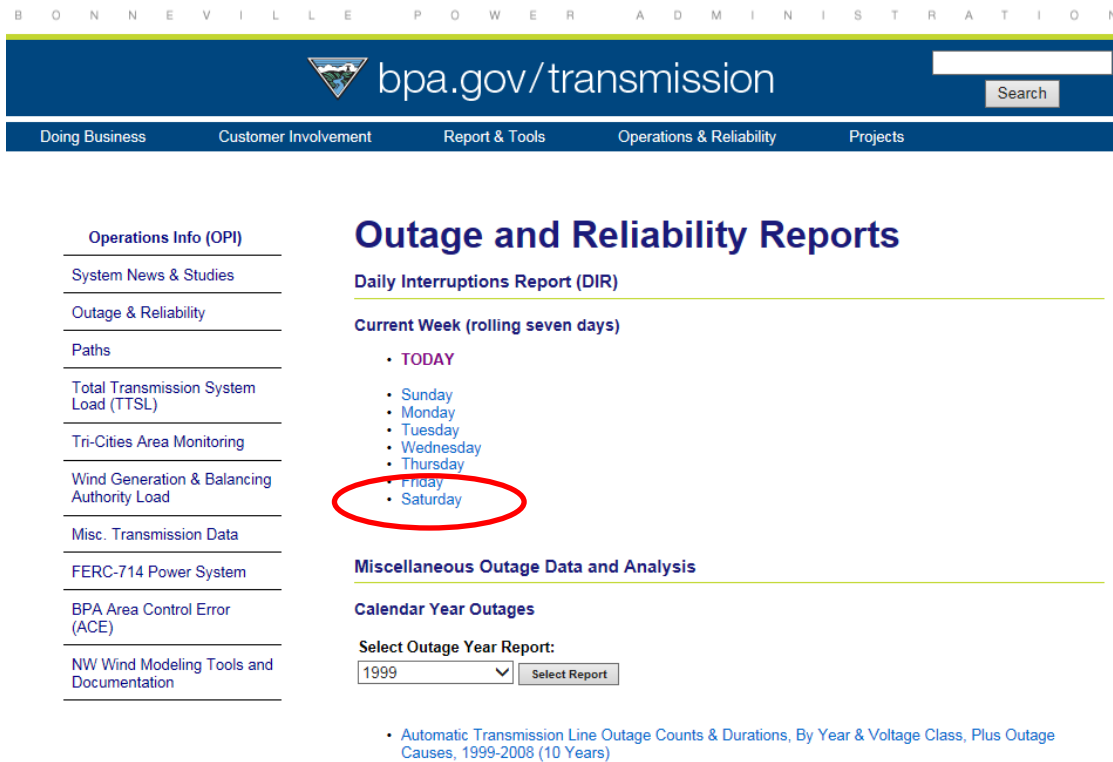
- Sample of March 2020 Final Outage Plan

Id	Start Time	Stop Time	Description	Paths	Foreign IDs
1357154	Thu 10/31/2019 05:17:00 PPT	Sun 05/31/2020 12:00:00 PPT	RAVER: PCBS 4792 AND 4789 (BAY 10 - OLD ECHO LAKE BAY)	NOEL,RP,SOC	To COS ID: 1-00688740 To RC West ID: 7943012
1366516	Mon 02/24/2020 12:00:00 PPT	Thu 05/21/2020 16:00:00 PPT	RAVER: 500KV REACTOR 4 INCLUDING PCB 4842 AND MOD 4841	NOEL,RP,SOC	To RC West ID: 8161094
1360208	Fri 02/28/2020 06:00:00 PPT	Sun 03/01/2020 20:00:00 PPT	MAPLE VALLEY - SCL DUWAMISH 230KV LINE SCL DUWAMISH - SCL CRESTON 230KV LINE	SOC,NOEL	From COS ID: 1-00693704
1341570	Mon 03/02/2020 07:00:00 PPT	Tue 03/03/2020 16:00:00 PPT	RAVER: PCB 4314	NOEL,SOC	To COS ID: 1-00665399 To RC West ID: 7850890
1350790	Mon 03/02/2020 08:00:00 PPT	Sun 03/15/2020 18:00:00 PPT	SCL - LAKE YOUNGS - FAIRWOOD 115KV LINE	SOC,NOEL	From COS ID: 1-00677236
1364330	Mon 03/02/2020 08:00:00 PPT	Mon 05/11/2020 17:30:00 PPT	MCC - KEELER: 230KV SVC INCLUDING 230/20KV XFMR NO. 4	COI,NJD,PDCI,WOCS	
1355604	Mon 03/02/2020 16:30:00 PPT	Mon 05/11/2020 12:00:00 PPT	KEELER: 230KV SVC INCLUDING 230/20KV XFMR NO. 4	COI,NJD,PDCI,WOCS	To COS ID: 1-00687342 To RC West ID: 7880861
1359928	Tue 03/03/2020 08:00:00 PPT	Wed 03/04/2020 15:00:00 PPT	MALIN: PCB 4182 INCLUDING 500KV CAP GROUP 3	COI,NWACI,PDCI	To RC West ID: 8043338
1361998	Wed 03/04/2020 07:30:00 PPT	Thu 03/05/2020 15:30:00 PPT	TACOMA: 230KV CAP GROUP 3 INCLUDING PCB A-1072, A-1072 REACTIVE SIDE DISC, LBD A-1078 AND LBD A-1079	NOEL,RP,SOC,WOCN	To RC West ID: 8043359
1363386	Thu 03/05/2020 06:00:00 PPT	Sun 03/08/2020 22:00:00 PPT	SCL - MAPLE VALLEY - SCL DUWAMISH 230KV LINE, COVINGTON - SCL DUWAMISH 230KV LINE	SOC,NOEL	From RC West ID: 7854176
1359080	Thu 03/05/2020 08:00:00 PPT	Thu 03/05/2020 11:00:00 PPT	BETTAS ROAD: PCB A-3040	SOC,NOEL	To COS ID: 1-00692423 To RC West ID: 7969838
1359088	Thu 03/05/2020 11:00:00 PPT	Thu 03/05/2020 15:00:00 PPT	BETTAS ROAD: PCB A-3043	SOC,NOEL	To COS ID: 1-00692427 To RC West ID: 7969953
1350110	Tue 03/10/2020 07:00:00 PPT	Tue 03/10/2020 16:00:00 PPT	CUSTER: PCB 4496, PCB 4496 BREAKER FAILURE RELAY	BCHT,BCHW,NOEL,SOC	To COS ID: 1-00680389 To RC West ID: 7845811

Outage and Reliability Reports on bpa.gov

- <https://transmission.bpa.gov/Business/Operations/Outages/default.aspx>

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Doing Business Customer Involvement Report & Tools Operations & Reliability Projects

Operations Info (OPI)

System News & Studies

Outage & Reliability

Paths

Total Transmission System Load (TTSL)

Tri-Cities Area Monitoring

Wind Generation & Balancing Authority Load

Misc. Transmission Data

FERC-714 Power System

BPA Area Control Error (ACE)

NW Wind Modeling Tools and Documentation

Outage and Reliability Reports

Daily Interruptions Report (DIR)

Current Week (rolling seven days)

- TODAY
- Sunday
- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday

Miscellaneous Outage Data and Analysis

Calendar Year Outages

Select Outage Year Report:

1999

- Automatic Transmission Line Outage Counts & Durations, By Year & Voltage Class, Plus Outage Causes, 1999-2008 (10 Years)

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Daily Interruptions Report (DIR) (sample)

Daily Interruptions Report
 Jan 10 2020 05:00 through Jan 11 2020 04:59

Data sorted by descending out datetime. [Click here for spreadsheet](#)

Customer Service Interruptions (37 outage(s))

Out Datetime	In Datetime	Name	Voltage (kV)	Duration (minutes)	Outage Type	Cause Dispatch	Responsible System Dispatch	MW Intrpt	O&M District	Outage ID
01/11/2020 04:36	01/11/2020 04:36	Clayton: Inland P+L 115kV Feeder 1	115.0	0	Auto	Unknown	BPA	Unknown	SPK	213272
01/11/2020 04:36	01/11/2020 04:36	Colbert: Avista Corp 115kV Feeder 1	115.0	0	Auto	Unknown	BPA	Unknown	SPK	213273
01/11/2020 04:36	01/11/2020 04:36	Deer Park: Avista Corp 115kV Feeder 1	115.0	0	Auto	Unknown	BPA	Unknown	SPK	213274
01/11/2020 04:36	01/11/2020 04:36	Half Moon: Inland P+L 115kV Feeder 1	115.0	0	Auto	Unknown	BPA	Unknown	SPK	213275
01/11/2020 04:36	01/11/2020 04:36	Loon Lake: Avista Corp 115kV Feeder 1	115.0	0	Auto	Unknown	BPA	Unknown	SPK	213276
01/11/2020 04:36	01/11/2020 04:36	Mead: Avista Corp 115kV Feeder 1	115.0	0	Auto	Unknown	BPA	Unknown	SPK	213277
01/11/2020 04:36	01/11/2020 04:36	Milan: Avista Corp 115kV Feeder 1	115.0	0	Auto	Unknown	BPA	Unknown	SPK	213278
01/11/2020 04:36	01/11/2020 04:36	Milan: Inland P+L 13.8kV Feeder 1 by Avista Corp	13.8	0	Auto	Unknown	BPA	Unknown	SPK	213279
01/11/2020 04:03	01/11/2020 04:04	Clayton: Inland P+L 115kV Feeder 1	115.0	1	Auto	Unknown	BPA	Unknown	SPK	213259
01/11/2020 04:03	01/11/2020 04:04	Colbert: Avista Corp 115kV Feeder 1	115.0	1	Auto	Unknown	BPA	Unknown	SPK	213260
01/11/2020 04:03	01/11/2020 04:04	Deer Park: Avista Corp 115kV Feeder 1	115.0	1	Auto	Unknown	BPA	Unknown	SPK	213261
01/11/2020 04:03	01/11/2020 04:04	Deer Park: Inland P+L 115kV Feeder 1	115.0	1	Auto	Unknown	BPA	Unknown	SPK	213262
01/11/2020 04:03	01/11/2020 04:04	Half Moon: Inland P+L 115kV Feeder 1	115.0	1	Auto	Unknown	BPA	Unknown	SPK	213263

Transmission Line Interruptions (38 outage(s))

Out Datetime	In Datetime	Name	Voltage (kV)	Duration (minutes)	Outage Type	Cause Dispatch	Responsible System Dispatch	O&M District(s)	Transmission Owner NERC TADS	Outage ID
01/11/2020 04:36	01/11/2020 04:36	Bell-Addy No 1 115kV line	115.0	0	Auto	Unknown	BPA	SPK	BPAT	213271
01/11/2020 04:30		Chief Joseph-Monroe No 1 500kV line	500.0	still out	Auto	Unknown	BPA	WEN SNO	BPAT	213270
01/11/2020 04:03	01/11/2020 04:04	Clayton tap to Bell-Addy No 1 115kV line	115.0	1	Auto	Unknown	BPA	SPK	BPAT	213269
01/11/2020 04:03	01/11/2020 04:04	Clayton-Loon Lake section of Bell-Addy No 1 115kV line	115.0	1	Auto	Unknown	BPA	SPK	BPAT	213269
01/11/2020 04:03	01/11/2020 04:04	Colbert tap to Bell-Addy No 1 115kV line	115.0	1	Auto	Unknown	BPA	SPK	BPAT	213269
01/11/2020 04:03	01/11/2020 04:04	Colbert-Half Moon section of Bell-Addy No 1 115kV line	115.0	1	Auto	Unknown	BPA	SPK	BPAT	213269
01/11/2020 04:03	01/11/2020 04:04	Deer Park tap to Bell-Addy No 1 115kV line	115.0	1	Auto	Unknown	BPA	SPK	BPAT	213269
01/11/2020 04:03	01/11/2020 04:04	Half Moon-Tum Tum section of Bell-Addy No 1 115kV line	115.0	1	Auto	Unknown	BPA	SPK	BPAT	213269
01/11/2020 04:03	01/11/2020 04:04	Half Moon tap to Bell-Addy No 1 115kV line	115.0	1	Auto	Unknown	BPA	SPK	BPAT	213269
01/11/2020 04:03	01/11/2020 04:04	Loon Lake tap to Bell-Addy No 1 115kV line	115.0	1	Auto	Unknown	BPA	SPK	BPAT	213269
01/11/2020 04:03	01/11/2020 04:06	Loon Lake-Addy section of Bell-Addy No 1 115kV line	115.0	3	Auto	Unknown	BPA	SPK	BPAT	213269

Further Questions or Comments

- Send emails to TechForum@bpa.gov